



## **The impact of governance modes on sustainable transport - the case of bus transport in Greater Manchester, UK.**

**Sørensen, Claus Hedegaard; Gudmundsson, Henrik**

*Published in:*  
World Review of Intermodal Transportation Research

*Link to article, DOI:*  
[10.1504/WRITR.2010.031577](https://doi.org/10.1504/WRITR.2010.031577)

*Publication date:*  
2010

[Link back to DTU Orbit](#)

*Citation (APA):*  
Sørensen, C. H., & Gudmundsson, H. (2010). The impact of governance modes on sustainable transport - the case of bus transport in Greater Manchester, UK. *World Review of Intermodal Transportation Research*, 3(1/2), 8-25. DOI: 10.1504/WRITR.2010.031577

## **DTU Library** Technical Information Center of Denmark

---

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

---

## **The impact of governance modes on sustainable transport – the case of bus transport in Greater Manchester, UK**

---

Claus Hedegaard Sørensen\* and  
Henrik Gudmundsson

Department of Transport,  
Technical University of Denmark,  
Bygningstorvet 116 Vest, DK-2800 Kgs. Lyngby, Denmark  
E-mail: chs@transport.dtu.dk  
E-mail: hgu@transport.dtu.dk  
\*Corresponding author

**Abstract:** ‘Sustainable transport’ has become a priority for transport planning and policy making around the world. Sustainable transport plans often promote efforts to shift passengers from private cars to other modes such as public transport. However, the actual success of such efforts is likely to depend on how the transport sector is organised and governed. In this paper, we study the impacts of new public management (NPM) reforms in the British local transport sector on the attraction of passengers to buses. Britain is an interesting example since high level sustainable transport policies have been pursued in a deregulated context. We focus on bus transport in Greater Manchester as the case in point. First, we study the effects of the NPM reforms on modal shift. We find that the reforms generally have contributed to a decline in bus passengers, while some reform elements have made positive contributions. Second, we apply theoretical notions of ‘governance modes’, to examine whether the strengths and failures of ‘market’, ‘hierarchy’ and ‘network’ governance respectively can help to explain the results we observe. We find that these concepts are particularly useful to clarify the conditions under which public transport can attract travellers.

**Keywords:** sustainable transport; organisation; governance modes; modal shift; Britain; Greater Manchester; local transport plans; LTP; intermodal transportation; NPM reforms; bus transport.

**Reference** to this paper should be made as follows: Sørensen, C.H. and Gudmundsson, H. (xxxx) ‘The impact of governance modes on sustainable transport – the case of bus transport in Greater Manchester, UK’, *World Review of Intermodal Transportation Research*, Vol. X, No. Y, pp.000–000.

**Biographical notes:** Claus Hedegaard Sørensen is a Senior Researcher at the Department of Transport at the Technical University of Denmark (DTU Transport). His main fields of research are policy making, implementation, institutional conditions and organisational reforms within transport. In particular, he has been studying the effects of new public management (NPM) reforms and organisational aspects of environmental policy integration in transport.

Henrik Gudmundsson is a Senior Researcher in Sustainable Transport and Mobility from the Department of Transport at the Technical University of Denmark (DTU Transport). His main areas of research include sustainable transport strategies and policies, sustainable transport monitoring and indicators, and sustainable transport scenarios and outlooks.

---

## 1 Introduction

‘Sustainable transport’ has become a headline goal for transport planning and policy making around the world. While there are many different definitions of what sustainable transport means, it commonly includes efforts to improve the environmental performance of transport systems, and to promote alternative modes of transport to private cars, such as public transport. Public transport can be important for reducing environmental pressures in several ways. In this paper, we focus only on the potential of bus transport services in cities for attracting travellers from cars. Among the measures important to secure a modal shift are fare levels, coherence of bus routes and bus quality.

The basic assumption behind this paper is that the ability of public bus transport to attract travellers from cars depends on how the bus sector is organised. By organisation, we adopt an institutional point of view and consider basic modes of governance. Basic modes of governance include the forms ‘market’, ‘hierarchy’ and ‘network’ (Powell, 1990). So-called new public management (NPM) reforms have changed the modes of governance of bus transport in several countries. Our focus is on how NPM reforms have changed the mix of governance modes and thus established new configurations of modes. In this way, the reforms may have influenced the ability of urban bus transport to attract travellers from cars.

We focus on a particular case: public bus transport in Britain, exemplified by Greater Manchester. Overall objectives for shifting travellers towards public transport were originally defined in the labour government’s so-called ‘Transport Ten Year Plan 2000’ (DETR, 2000). Britain represents a situation where – compared to continental Europe – the NPM reforms have been particularly radical. In no other European country have the market forces achieved a role as dominant as in Britain (outside London). We therefore, assume that it is relevant to investigate the influence of the NPM reforms in this case, in order to discuss how the change in governance modes more generally enables or constrains the delivery of more sustainable transport patterns.

NPM reforms (Hood, 1991) in the transport sector have included some of the following principal elements: splitting up of previously integrated passenger transport executives (PTEs) with in-house production, corporatisation and privatisation of operators, commercialisation and tendering of services, and introduction of management by objectives and results (Longva et al., 2005; Marsden et al., 2008). In general, it involves a shift towards more ‘market’-like governance modes at the expense of ‘hierarchy’ in the provision of public services. In this paper, we understand NPM for urban transport as containing reforms in two directions: A horizontal and a vertical one. The horizontal dimension regards the framework for governance of public transport at the local level (e.g., between bus operators and regulators). The vertical dimension regards the framework of the central government to govern local transport planning (between central and local government). We believe that both dimensions are important for

understanding the role of the organisational reforms to shift travellers between modes (van Dijk, 2009).

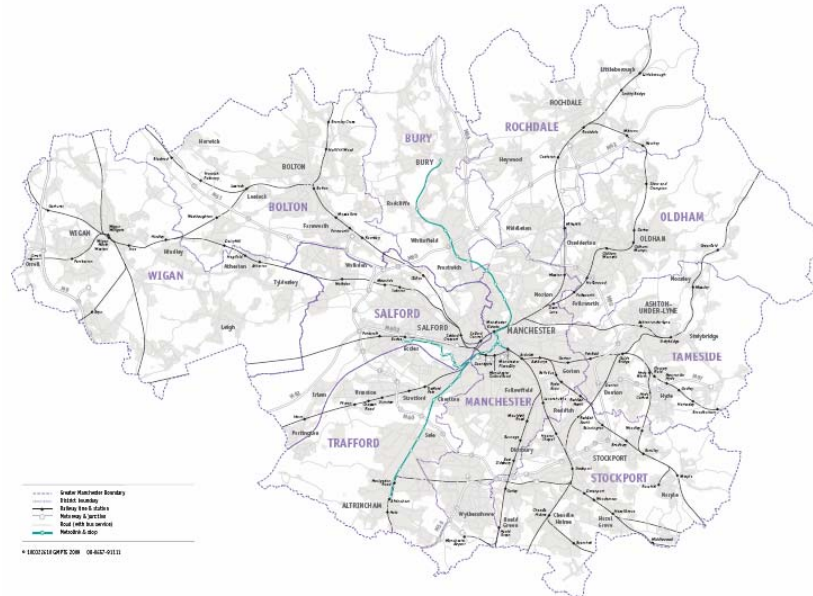
In the case of Britain and Greater Manchester, the horizontal reform dimension involves first and foremost the deregulation and privatisation reforms introduced by the Conservative Government from 1986 onwards. But it also includes partnership arrangements and other instruments facilitated by the labour government in the Transport Act 2000.

The vertical dimension regards the introduction by labour of new methods for the central government to govern transport performance at the local level, via management by objectives, and economic incentives, embodied in the so-called local transport plan regime.

The first objective of the paper is to analyse which conditions the horizontal and vertical reform dimensions in Britain and Greater Manchester create for a modal shift from cars to bus transport.

The second objective of the paper is thus to examine if the specific configuration of market, hierarchy and network elements in Greater Manchester public bus transport can help explain the performance as regards modal shift in favour of bus. In other words, we use the case to explore and discuss generally the usefulness of institutional governance mode concepts for analysing changes towards sustainable mobility.

**Figure 1** Map of Greater Manchester (see online version for colours)



The empirical background consists of general literature about UK transport reforms, policy documents from UK governments and the Greater Manchester authorities, as well as 13 semi-structured research interviews. The interviews were carried out in autumn 2007, and involved eight representatives from management and staff of the Greater Manchester Passenger Transport Executive (GMPTE), one officer and one politician

from Greater Manchester Passenger Transport Authority (GMPTA), as well as three representatives from operators and Greater Manchester Bus Operators Association (GMBOA). All interviewees were involved professionally in public bus transport in Greater Manchester, and all were experienced. The interviews were taped and central sections were transcribed. In late November 2007, two draft papers were presented and discussed at a workshop in Manchester with stakeholders, including several of the interviewees. The feedback from the workshop was also taped and transcribed, and used to revise the draft papers. All quotations in the present paper were approved by the interviewees.

## **2 Market, hierarchy and network**

### *2.1 The ideal types*

‘Market’, ‘hierarchy’ and ‘network’ signify distinctive and to some extent opposite ideal type governance modes. We talk about governance modes because the ideal types each – and in combination – represents a way of organising, coordinating and governing an activity or sector. Each of them has specific characteristics, strength and failure potential.

The market is a spontaneous coordination mechanism that assigns rationality and consistency to self-interested actions. Well-defined property rights and competition form the basis of a well-functioning market. Prices determine production and exchange, and no one relies on anyone else for direction; the exchange is ideally voluntary. Coordination is achieved through ‘the invisible hand’. Some strengths of well-functioning markets are fast, simple communication; easy allocation of resources, and economic efficiency, while some potential market failures include monopoly, externalities, and free rider problems in public goods provision (Bohm, 1987; Powell, 1990).

Hierarchy is characterised by the visible hand of management instead of the invisible hand of the market. The basis of hierarchy is clear and dependent relationships between superior and subordinate, such as in an employment relationship. Coordination is achieved through an authoritative system of order and commands. For instance, hierarchy has strengths in terms of accountability and power, while some potential hierarchy failures are information deficits and vague or inconsistent objectives (OECD, 1992; Powell, 1990). In this context, we understand ‘hierarchy’ as decisions and regulation undertaken by local and national governmental authorities.

In networks, transactions occur neither through the price mechanism nor through dependent and authoritative relations. Network transactions are characterised by reciprocal, preferential and mutually supportive actions. The basis of networks are complementary strengths, hence, each network participant contributes with something the other participants need. Coordination is achieved through mutual trust. Some strengths of networks are information intensive exchange, complex interaction, flexibility and learning, while network failures for instance include limitation on the number of participants, ‘contested collaboration’ (= too little trust among participants) and lack of accountability (Powell, 1990; Schrank and Whitford, 2007).

**Table 1** Characteristics of governance modes

<i>Governance modes characteristics</i>	<i>Market</i>	<i>Hierarchy</i>	<i>Network</i>
Normative basis	Property rights	Employment like relationship	Complementary strengths
Means of communication	Prices and contracts	Administrative fiat, supervision, procedures/routines	Norms of reciprocity
Key to coordination	The invisible hand	Commands	Mutual trust, reputational concern
Tone/climate	Precision and/or suspicion	Formal/bureaucratic	Open-ended, mutual benefits
Key preconditions	Determination of prices through supply and demand	Dependent and authoritative relationships	Mutual strengths, benefits
Strengths	Fast, simple communication	Coordination of mass production and distribution	Effectiveness for information intensive exchange
	Easy allocation of resources	Accountability	Complex interaction
Failures	Economic efficiency		
	Monopoly	Information deficits	Problem of numbers
	Externalities	Vague and inconsistent objectives	Contested collaboration
	Free rider problems		Lack of accountability

As ideal types, one governance mode does not include the others. Hence, e.g., the market ideal type does not include dimensions of hierarchy or network. But in practice, governance mechanisms are mixed, and one mechanism may emerge or be introduced to compensate for failures of others. Scharpf (1994) stresses that networks existing in a hierarchical environment sometimes work ‘in the shadow’ of hierarchy which can increase their coordination capacity. The idea is that networks built upon hierarchical structures encourage the network participants to enter into negotiations and find solutions, because if they do not, decisions will be made through the hierarchy to their potential disadvantage. Hence, coordination capacity of networks can increase ‘by virtue of the fact that they are embedded in the hierarchical structure’ [Scharpf, (1994), p.40].

## 2.2 Market, hierarchy, and network in the bus transport sector

How are the governance modes reflected in the literature on urban public bus transport (the horizontal dimension) and urban transport planning (the vertical dimension)?

For the most part, the literature on public transportation organisation applies a distinction between ‘public’ and ‘private’ forms, with a range of combinations, ‘hybrids’ or ‘light touch regulation’ forms in between, such as contract or tendering regimes (Estache and Gómez-Lobo, 2005; Hensher, 2007; van de Velde, 1999). We can understand the public/private distinction as parallel but not identical to our

hierarchy/market modes. Organisation of public transport provision is usually configured as ‘mixes’ of hierarchy and market governance elements. The real mixes observed today are largely the result of deliberate interventions and reforms, some of which have been inspired from academic study of ideal governance modes (see e.g., Gwilliam et al., 1985; Inno-V et al., 2008; Mackie et al., 1995; van de Velde, 1999). Inno-V et al. (2008) distinguish between *four* main configurations of public transport organisation that are typical in Europe, on a continuum between market and hierarchy:

- 1 free market initiative with additional contracting
- 2 network contracting
- 3 route contracting
- 4 in-house operations.

What we miss in the modes of Inno-V et al. (2008) is the network mode of governance. There are some examples of network governance reflected in the public transport organisational literature. For example, Estache and Gómez-Lobo (2005) describe how private bus companies in many developing countries tend to be family-based, to control the risk of opportunistic behaviour from fare collecting bus drivers. More significant for our work is the emerging focus on ‘partnerships’ in urban transport. Partnerships may be seen as one manifestation of a network mode of organisation. Hensher (2007), e.g., highlights bus quality partnerships in UK cities as a form of trust-based collaboration. However, none of these sources link the discussion of partnership performance directly to theoretical expositions of network governance.

If we now turn to the vertical dimension of urban bus transport policy, pure market notions are much less prominent than in the horizontal one, albeit parts of the governance literature advocate the introduction of more ‘market-like’ principles also in the allocations of resources from the centre (Hood, 1995; Hooghe and Marks, 2003). The main distinction is therefore between a hierarchical notion, where the national government directly controls or instructs the local level to perform certain transport planning or operation tasks (e.g., operate a bus service, provide a subsidy, install a bus priority and enforce a law), versus a ‘network’ mode, where the two (or more) levels engage in a process with the aim to reach mutually desired objectives by pooling their resources and capacities. Countries generally differ with regard to the degree of government centralisation, where England is usually considered as quite centralised, with local government largely as an ‘implementation agent’ for central policies (Greenwood et al., 2002). However, such relations are changing, and there is an extensive literature adopting a ‘network’ perspective, which emphasises a more open, flexible and negotiating approach to modern public governance. Still, it is highly disputed if such network relations are in fact allowing more discretion to the local level in the vertical relation, or if central rule prevails and network governance is conducted ‘in the shadow of hierarchy’ (Whitehead, 2003; Scharpf, 1994, see also Sharpe, 1985). Also for the vertical dimension one is likely to find a mix where some elements will always be determined by central government, while others will not, or less so.

Summing up, the concept of network governance seems not to be explicitly applied in the literature on urban public bus transport. There is not a general ‘theory’ for how the three notions are to be configured to allow public transport systems to perform ‘optimally

(see e.g., Veeneman, 2002), and the link between governance modes and modal shift seems not to be found in the literature. We will examine such a link with this paper.

### **3 The transport reforms**

In this section, we will briefly describe and analyse the transport reform trajectory in Great Britain outside London, and how it has materialised in the planning and organisation of public bus transport in Greater Manchester. The reforms are analysed by use of the governance mode concepts.

#### *3.1 The reforms of the conservative party*

With the 1985 Transport Act, the conservative government introduced a radical new deregulated framework for the British bus sector. Prior to these changes, buses in cities mostly implied public ownership. In the major cities, operations were undertaken by public PTEs, while the political responsibility was by the Passenger Transport Authority (PTA). With the 1985 Transport Act, operations were split from the PTEs and later sold to private operators, as were the bus companies owned by central government. It was made possible for everyone to operate bus services wherever they wanted, only with a requirement to obtain an operator's licence, and to ensure compliance with basic safety and road traffic provisions. Local authorities were only allowed to subsidise 'socially necessary' bus services, using competitive tendering. In Greater Manchester, commercial service today counts for 82% of bus mileage, while tendered service counts for 18%. One element of regulation was that The Office of Fair Trade was charged with overseeing 'anti-competitive behaviour' by bus operators.

Compared to continental Europe the British reforms were very radical. Market-like reforms have also taken place in many other European countries involving splitting up of previously integrated passenger executives and corporatisation and privatisation of operators. However, usually the competence to decide on routes, service level and fares is kept by the public PTA. Hence, while Great Britain outside London experienced a free market initiative with additional contracting, the other types of regimes, which Inno-V et al. (2008) suggest leaving the public authorities with more power have been common in continental Europe.

When it comes to the vertical dimension, the British system of transport governance was and remained quite centralised, also compared to other European countries. The local authorities depend fully on the centre for capital investments, etc. and previously they had to prepare annual bidding documents to attract funding for individual items (Greenwood et al., 2002). Resources were tightly ring-fenced to particular areas of expenditure. The conservative government more or less kept this existing system, but abolished the metropolitan county councils that were responsible for coordinating the transport policies and other functions in the major cities. However, some functions were kept at the metropolitan level. In Manchester, for instance, the Greater Manchester PTA and PTE were retained, albeit with much more limited powers (as described above).

Hence, the conservatives introduced the market as a prime governance mode in the horizontal dimension, while hierarchy remained the most important governance mode in the vertical dimension.



### 3.2 *The reforms of the new labour party*

When coming into power in 1997, the labour government “unexpectedly perpetuated the conservative’s policy of deregulation” [Knowles and White, (2003), p.141]. Bus ownership and operation remained in the private sector. However, in the Transport Act 2000 the new government installed a range of tools which local authorities could use to improve the integration or coordination of public transport to compensate for observed shortcomings in the pure ‘market’ based model. Prior to the new legislation, local authorities such as Greater Manchester PTA had already entered into various voluntary partnership arrangements with operators to improve bus service quality in certain areas or corridors (Longva et al., 2005; Wall and McDonald, 2007). The new legislation endorsed the notion of partnerships and offered more formal frameworks for them such as the so-called ‘statutory bus partnerships’ and ‘quality contracts’, the latter resembling the tendering system in London<sup>1</sup>. Other European countries have also introduced a partnership approach in the bus transport sector, e.g., some cities and regions in Sweden (Longva et al., 2005). However, in no other European country is the partnership approach as widely applied in the bus sector as in Great Britain. The new legislation also provided the local authorities with instruments to set up inter-operator ticketing schemes and improve bus information through partnership arrangements. Those instruments also have been used in Greater Manchester.

As regards, the vertical dimension, more significant changes were introduced by labour. The Transport Act 2000 charged the British cities with a new system of planning and management by objectives and results. The local authorities, under the supervision of the PTAs, must now draw up five-year local transport plans (LTP) (compared to previously annual schemes) that form the basis for implementing local transport policies as well as bids for national transport capital funding. The allocation of funds partly depends on the quality and ambition of the plans with regard to transport performance, and the results must be documented with performance indicators. The local authorities partly define their own targets and indicators, but they must consider certain national priorities in setting them up, such as the improvement of public transport services. An LTP must cover all transport modes in an integrated way, and must also contain a so-called ‘bus strategy’. The British system of planning and management by objectives as a core feature in the vertical relation can hardly be found as thoroughly implemented in the transport sector in other European countries.

The labour government did reinstate a regional body in London, but not in the rest of England.

Hence, after the labour reforms, the market continues to dominate as a governance mode in the horizontal dimension of urban bus transport provision, and hierarchy is very important in the vertical dimension.

It seems, however, that in both dimensions a network mode of governance has emerged or been more explicitly installed to supplement the other two modes. Hence, in relation to bus quality partnerships, in the interviews conducted people talked about ‘informal understanding’, evolving of a ‘mature relationship’ and the authorities not having ‘power’ but offering ‘opportunities’. In the vertical dimension, the scheme of management by objectives and results leaves the local authorities with more discretionary power than before, and the central government partly dependent on their performance with regard to national targets. This underlines the complementary and mutual strengths

that central and local governments, respectively, dispose of, and thereby incorporates a network mode of governance, even if the basic hierarchy is retained.

**Table 2** Dominant governance modes within each epoch and dimension

<i>Periods</i>			
<i>Dimensions</i>	<i>Initial structure</i>	<i>Conservative reforms</i>	<i>Labour reforms</i>
Horizontal dimension	Hierarchy	Market (and Hierarchy)	Market, (hierarchy and network)
Vertical dimension	Hierarchy	Hierarchy	Hierarchy (and network)

Our analyses of transport reforms in Greater Manchester were terminated by the end of 2007. While we studied the case, the local authorities made a bid for the national transport innovation fund (TIF) including a congestion charging scheme for Greater Manchester. The scheme would provide for a change in modal shift from the private car to public transport. However, in December 2008, by a referendum in Greater Manchester the congestion charging scheme was rejected by an overwhelming majority of the population. Since these events took place after our termination of the analyses and since the TIF bid and the congestion charging scheme only to a minor extent deal with the organisation of the bus sector, we do not analyse these topics in the paper.

In Sections 4 and 5, we analyse the horizontal and vertical dimensions more closely with regard to their effects on bus transport attractiveness vis-à-vis cars, and then in Section 6, we apply the governance mode concepts to interpret the results.

#### 4 Horizontal dimension

Several conditions influence the possibilities for attracting travellers and obtaining modal shift (Norheim, 2006)<sup>2</sup>. We will only deal with some important aspects of the quality of public transport service: fare levels; coherence of bus routes; and the physical standard (buses, bus lanes and shelters).

Since the implementation of the Transport Act 1985, fare levels have increased. In all of England bus fares on average have grown by 36% in real terms from 1984 and 20 years ahead. From 1994/5 to 2004/5 real fares in metropolitan counties increased by 20%. In Greater Manchester, the fare levels between 1984/1985 and 2004/2005 were fluctuating for some years, but since 2001/2002 they have been increasing<sup>3</sup> [Commission for Integrated Transport, (2004), pp.16–17; NERA, (2006), pp.4–5, pp.60–61]. A reason for the increased fares after deregulation is the fact that public bus transport prior to the reforms was heavily subsidised, while after deregulation the level of subsidies has been reduced significantly. So although, production costs per vehicle km have also been reduced, increased productivity has not outweighed the reduction in subsidy [Mackie et al., (1995), p.240]. Also, lack of competition may have contributed to fare level increases. It has been estimated that due to the concentration of companies in particular areas, only 4% of the commercial bus services are subject to direct competition [DfT, (2006), p.25].

Coherence and integration of the bus routes and services is important to provide an attractive alternative to the car. The vast majority of bus services in Greater Manchester are commercial. As a matter of course, the commercial services seek profitable routes

with many passengers and have limited incentives to care for the coherence of the bus system. As a representative from one of the private bus operators in Manchester stresses, “Co-ordination of networks is not necessarily a company priority. If it is a socially necessary gap GMPTE can procure it”. Coordination of timetables is another feature of coherence and integration. However, to disallow formation of cartels, fair trade legislation prohibits direct coordination of timetables among bus operators. The market logic generally works against coordination of the whole system level (Mackie et al., 1995).

The quality of bus services also depends on the reliability and technical standard of buses, bus lanes and shelters. In the metropolitan areas of England, efforts in this area have often been developed through voluntary partnerships, in Greater Manchester concentrating on certain so-called bus quality corridors with bus priority, renewing of shelters and modernisation of buses. Some positive results have been obtained in the Greater Manchester corridors, as we will return to in Section 5. However, the overall impact tends to be limited. A general problem with the voluntary bus quality partnerships is that the operators can leave the corridors anytime if they are not sufficiently profitable. Another problem is that there is no safeguard against other operators using the corridors. From the quality point of view, it seems that the partnerships have not based the selection of routes on passenger needs, but rather on commercial considerations for the operators and political considerations for the local authorities (NERA, 2006). This was confirmed by several interviewees in Greater Manchester, as when a representative from one of the large operators said: “A lot of money has been spent on quality bus corridors, but it is hard to say if they have been decisive for change. They may not have been comprehensive enough along each of the corridors”.

All in all the reforms within the sector have not managed to change the continued decline in bus passengers experienced since before the Transport Act 1985. Over the last 20 years, the number of bus passengers in the metropolitan counties in England has declined by 50%. In the ten-year period 1994/1995 – 2004/2005, the reduction has on average been 20% and in Greater Manchester 10%. Rather, the reforms might have contributed to the decline in passengers through increase in fares, limitations to the coherence of bus route systems, and inadequate efforts to raise the quality of bus services via bus quality partnerships.

## **5 Vertical dimension**

The deregulation reforms reduced the direct government control over the provision of urban public transport services. To pursue sustainable urban transport aims under such circumstances can be seen as a challenge. Nevertheless both central UK government (DETR, 2000) and the authorities in the Greater Manchester area (AGMA and GMPTA, 2000) have pledged to do just that – enhancing and improving public transport to shift passengers to public transport.

The overall objectives for shifting travellers towards public transport in the UK were originally defined in the government’s ‘Transport Ten Year Plan’, with later modifications (DETR, 2000). These objectives were then fed into more specified sets of targets and indicators in the central guidelines for LTPs and associated assessment criteria. The system has been revised several times, but public transport promotion aims have remained throughout.

Greater Manchester has produced two LTPs. We will focus on LTP1 (AGMA and GMPTA, 2000). The plan instated 13 general transport objectives, including two of direct relevance for public transport and modal split, namely, 'to provide a high quality integrated public transport network to increase the attractiveness of travel by non-car modes' and 'to manage the demand for car travel'.

To advance these objectives, Greater Manchester applied for funding for a range of projects, and several were granted. An extensive transport monitoring reporting scheme was set up to follow up on the implementation. The scheme included 17 so-called 'headline targets' with associated indicators. The purpose of the system was to be able to document the effects of the plan and not least to satisfy the reporting requirements of the central government. According to interviews with Greater Manchester officials, these requirements were taken very seriously since they were used for regular (annual) assessment of performance and subsequent adjustment of the government grants. An interviewee states: "Because the funding comes attached to it you tend to listen to whoever is paying the money. [...] It has been very much focused on delivering national outcomes." For example, if central government would assess the delivery of an LTP as 'excellent', it could mean up to 25% of added funding compared to what was requested, whereas a 'fair' result scoring could lead to deductions.

For the public transport objectives, the Delivery Report for LPT 1 states so-called 'fair progress' (grade 2 out of max 4). In the reports, some positive results are noted in terms of "[b]roadly stabilising bus patronage against a background of rising car ownership and use"; "a recorded increase of around 12%–14% in bus patronage on some quality bus corridors"; and "[l]imiting traffic growth on main roads to less than 1% from 2000" [AGMA and GMPTA, (2006a), p.10; AGMA and GMPTA, (2006b), p.53]. All in all the results suggests some, if limited, positive results in terms of attracting passengers to public transport in Greater Manchester.

The management regime appears to have a relatively strong focus on improving public transport, and efforts in Greater Manchester seem to be in good general correspondence with the national concerns. However, the central objectives or follow-up requirements did not specify targets for *shifting* car drivers to public transport, but only for *increasing* the travel or patronage in each of the public transport systems. Subsequently, the performance was assessed with regard to travel/patronage figures for each mode, and not mode shift. Obviously, increased patronage does not necessarily imply reduced car driving. Moreover, the central goals and targets have changed with downplaying of ambitions in the public transport area (Knowles, 2007). It is not possible to say exactly how the regime of management by objectives and results has influenced the (limited) tendency to attract passengers in specific corridors in Greater Manchester. On the one side, it has clearly contributed to operationalise the focus on public transport performance in the planning system. On the other hand, it has not been used with full potential to zoom in directly on measures to move people out of cars and into buses. Probably the conditions established with the horizontal reform (deregulation) have been more decisive for the transport outcomes than the vertical management regime.

## **6 The significance of governance modes**

Can the governance mode concepts contribute to illuminate the not-so-positive performance in Greater Manchester as regards modal shift? Is the market, the hierarchy or the networks failing, or is it ‘the mix that matters’ (Rhodes, 1997)?

Beginning with the horizontal dimension, the market has been promoted as the dominant mode of bus governance. The individual operators are the key players. They provide the services that potential customers (including car drivers) are supposed to choose. However, for the operators, modal shift does not stand out as an aim in itself. The operators obviously want to attract travellers to the company’s services, but winning patronage from the competitors, or the metro, or otherwise is equal and probably less demanding than attempting to lure car drivers. Some interviewees suggest that operators have shown limited innovation, when it comes to modal shift. An interviewee from one of the major operators agreed that the company had not specifically targeted modal shift in areas of high car ownership. In short, the provision of integrated and coherent bus routes and services are not seen as a market objective for the operators. Operators claim that they do seek integration, but mostly internally with their own routes and services. They also seek service improvements, but only for profitable segments, or only if they do not have to bear the full risk themselves (e.g., sharing via partnerships). Thus, the self-interest of the market logic of action seems not to contribute much to a modal shift, by way of providing a more integrated system at the metropolitan level.

Competition is a key to the success of markets. However, competition is very limited in the situation of Greater Manchester. Contestability formally exists, and has materialised, occasionally, but overall very little challenge takes place. We do not know if the 4% noted as contested at the national level by DfT (2006) apply to Manchester, but several interviewees talked about a carved up market for historical and geographical reasons. The logic of the market can apparently not really overcome such structural factors, even 20 years after deregulation.

Among the strengths of the market is economic efficiency, and measured by this parameter, the market seems to work in Greater Manchester. A bus vehicle kilometre is significantly cheaper to produce today than before the deregulation. In all of England, the production cost per vehicle kilometre was reduced by 41% between 1985 and 2003 [Longva et al., (2005), pp.2–3]. The reduced subsidies have not been returned to the operation of buses, however [Commission for Integrated Transport, (2004), p.15]. Hence, potential customers may not have benefited much. That, however, would be the responsibility (or failure) of hierarchy, not the market. So we now turn to the role of hierarchy.

One peculiar function of government hierarchy in the British bus sector context is the obligation of the Office of Fair Trading to obstruct any operator coordination in terms of integration of services. The fair trade legislation has served as a strong deterrent to any coordinating behaviour, according to interviewees from both the private and public sector. This may be a hierarchy failure at its peak, in terms of internal inconsistency of objectives: We want people to shift from car to bus, but we also want market rules to be applied strictly within this sector, in the interest of lowering costs.

One of the strengths of hierarchy is accountability. Because tasks and authority relations are clear, different parts of a hierarchy can be expected to be accountable for the decisions made. Formally, the GMPTA is responsible for making bus services available in Greater Manchester, as part of their LTP. They even have to deliver a ‘bus strategy’

and set targets for its performance. The hierarchical relation from central legislation to the local authorities seems fairly clear. However, genuine accountability towards the objective of attracting passengers is missing, because the hierarchy is 'hollowed out'. On the one hand, the GMPTA does not run or control bus operations outside the limited tendered services, due to the deregulations. On the other hand the body does not own any part of the road infrastructure where the cars and buses are running which namely belong to individual districts. In this respect, hierarchical accountability in the vertical dimension, installed by the 1997 legislation, to some extent is trumped by the past (market) reforms in the horizontal mode of governance. One can see the limited success for modal shift as a combination of market and hierarchy failures, where the strengths of the one are not able to compensate for the failures of the other.

However, the situation is more nuanced. First of all the market and the hierarchy are not alone in the horizontal dimension. Over time more and more elements of the bus provision has been channelled into arrangements with network-like characteristics. One example is the voluntary bus partnerships that with some success have been able to provide attractive bus services on selected links where market and hierarchy failed to do so by themselves. The network mode has demonstrated its strengths in terms of providing a space for mutual trust to emerge and detailed information and competence to be exploited, leading to a turnaround in passenger decline. However, the networks are also marked by free rider problems and lack of accountability, and hence the bus quality corridors, for example remains limited and scattered. The local authority representatives have not been completely effective in ensuring bus priority across local districts, and the operators can anytime leave a quality corridor if it is not profitable.

Nevertheless, extending and reinforcing the network mode of governance seems to be decisive if the aim is a modal shift in favour of public transport, since all the conditions impacting on modal shift have to be taken into consideration, which involves many stakeholders with complementary strengths. That implies complex interaction and information intensive exchange, which are strengths of the network mode of governance.

Shifting to the vertical relation between central and local government, we observe another interesting mix of modes with elements of network blending into the hierarchy. In the present transport planning system the centre still sets the rules and provides the general objectives, and also continues to administer significant parts of the funding for local capital spending, as it did during the conservative rule. However, the centre cannot instruct the local level which measures to implement or freely choose which ones to allow. Through the management by objectives and results regime, the local level authorities have some latitude and freedoms, in terms of which targets and indicators of success to define and which projects to submit as part of their integrated package. To the extent that central government assumes responsibility for a sustainable transport policy it is dependent on the (albeit limited) powers of the local authorities, since the centre does not command all the information required for installing such a plan through hierarchy. Hence, elements of network governance as well as hierarchy are present. While the hierarchy can contribute with accountability, the network mode of governance makes it possible to exchange context specific information that is necessary to design and implement a local transport scheme. What we experience is 'network in the shadow of hierarchy' (Scharpf, 1994), which seems to be an improvement over the former more purely hierarchical system.

Though hierarchy and network complement each other, they can also threaten each other by eroding the logic of action of the other mode (Rhodes, 2000). Therefore, the network relations based on trust is in contradiction with a prescriptive and top down approach. One interviewee from GMPTE emphasises exactly that by saying that “the government first set out guidance that was very prescriptive”, and he underlines that “the whole process [of LTP 1] has been a very top-down approach and it is more about delivering the central government objectives rather than local government objectives”. In LTP 2 however, the reporting requirements were loosened, and the process points towards more network-like governance.

Hence, e.g., the ambition of control and command in the hierarchical mode may erode the trust inherent in the network mode of governance, as also illustrated by a representative from an operator, when he asked: “If you go for control. Where is the partnership?” Also the market mode of governance seems to challenge the network mode in the horizontal dimension when free rider problems are experienced.

The application of the governance mode concepts could be useful in analyses of bus transport organisation in other cities than Greater Manchester. The basic characteristics, strengths and failures of market, hierarchy and network would be the same, but the empirical observations of other cities would differ since configurations of market, hierarchy and network differ across countries and cities (Inno-V et al., 2008). A comparison has been made between Greater Manchester and the Swedish capital, Stockholm, where the market and network modes of governance are less significant in the horizontal dimension. The study concludes that the institutional conditions for shifting passengers from the private car to public transport is more favourable in Stockholm than in Manchester, although modal shift would benefit from a strengthening of the network mode (Sørensen et al., 2008).

We believe the discussion of the Greater Manchester case using the governance mode concepts provides a useful perspective on the challenges involved in shifting travellers from car to bus. The difficulties involved cannot, as we see it, be resolved by choosing either market or hierarchy ‘logic’ as the vantage point for evaluation. The weaknesses of each governance mode are as important to consider as their strengths. Also, the present fascination with ‘partnerships’ can be enlightened by recognising the narrow set of conditions under which networks really can operate productively and effectively.

## **7 Conclusions**

We will draw three conclusions from the analysis.

First, for the case of Greater Manchester we can see that only meagre results of transport planning have been harvested with regard to shifting passengers from private cars to buses, despite long standing commitments to induce such changes both from the central and the local level of government. We see this as being attributable to multiple governance failures, which are not necessarily unique for Greater Manchester, but potentially quite pronounced for this and other British metropolitan areas that have experienced radical market reforms (and associated failures) in the bus sector, as also noted by others (e.g., Mackie et al., 1995). The main contribution we make is to examine the situation from both a horizontal and a vertical perspective, where we can observe that the extensive ‘LTP’ planning and management system installed in the vertical relation, despite its merits, fails to compensate for the fragmentation installed in the horizontal

level by the bus deregulations. Operators are the main stakeholders to attract travellers, but they are not accountable to central (or local) government and the system of managing by objectives. Hence, objectives put forward in the vertical dimension seem almost impossible to implement due to the organisation of the horizontal dimension. The massivity of planning and monitoring efforts required from the centre seem almost out of proportion to the powers allowed the metropolitan area. The quality of bus services in Greater Manchester have improved to some extent in so-called quality bus corridors. This is an area where 'partnerships' working across the 'fragments' have been allowed to emerge, and where the objectives and results can feed directly into the vertical planning and management system. This arrangement, however, also has clear limitations as indicated by the suboptimal selection of routes in the horizontal dimension, and the failure to specify targets and instruments for actual shift of car drivers in the vertical one.

Second, we note that the discussion of the Greater Manchester case using the governance mode concepts provides a useful perspective on the challenges involved in shifting travellers from car to bus. The weaknesses of each governance mode are as important to consider as their strengths. While the literature has discussed 'private' provision in the light of notions of market strengths and failures, it might also benefit from closer consideration of 'public' provision in the light of failures of the hierarchy. In particular, the present fascination with 'partnerships' could be enlightened by recognising the narrow set of conditions under which networks really can operate productively and effectively. We have used the governance mode concepts solely for retrospective analysis of a particular case. A related analysis of Stockholm has been reported elsewhere (Sørensen et al., 2008). We envisage that similar studies could lead towards a typology of governance mode mixes that would be useful for comparative analysis, and eventually for proactive advice. The clue will in any case not be to simply choose between market, hierarchy or network provision, but to seek a mix or configuration of the three modes that is suitable to particular conditions, in terms of geography, history and general institutional background, while taking into account both the horizontal and the vertical level of coordination.

Third and final, we emphasise in particular the relevance of the network mode of governance, which has so far not been considered much in the literature. In Greater Manchester, the network mode of governance is the one, which has most clearly contributed to strengthen the attractiveness of public bus transport. The network mode of governance has thus allowed all horizontal stakeholders to engage in a common cause of improving quality at a sub-system level. However, the networks we observed seemed limited in scope, weak in the face of free rider problems, and lacking implementation agents who are accountable to the objective of achieving a modal shift; this points towards a stronger role for the hierarchical mode of governance to complement and reinforce the networks, but at the risk of eroding the necessary trust. When it comes to the vertical dimension, the network mode elements embodied in the LTP regime seem to be a conducive supplement to the hierarchical mode, while also here a balance must be struck between control and flexibility.

To obtain modal shift in a situation where responsibilities for operating the various parts of an urban transport system is dispersed, extensive cooperation between large numbers of stakeholders in the horizontal as well as the vertical dimension is necessary, and that amounts to extensive use of a network mode of governance. A re-configuration of governance modes where the market and network modes of governance play important



parts – however operating in the shadow of – or perhaps the light of – hierarchy might constitute a way forward, if complex objectives like sustainable transport are to be pursued.

### Acknowledgements

The authors wish to extend their sincere thanks to Tom Sansom, GMPTE, who provided invaluable help to organise the interviews, and also to host a workshop in Manchester to discuss preliminary findings. We are also very grateful to the interviewees from private and public organisations in Greater Manchester. We thank Tomas Bergström and Bengt Holmberg, Lund University, as well as Lena Smidfeld Rosqvist, Trivector, for helpful comments to earlier versions. Tomas also took part in conducting the interviews in Manchester. Further thanks to two anonymous reviewers for valuable comments, and to language consultant Ulla Steen Salado-Jimena from the Technical University of Denmark. The paper has been produced within the programme TransportMistra with generous support from the Swedish MISTRA foundation.

### References

- AGMA and GMPTA (2000) *Greater Manchester Local Transport Plan 2001/02–2005/06*, Association of Greater Manchester Authorities and Greater Manchester Passenger Transport Authority, Manchester.
- AGMA and GMPTA (2006a) *Greater Manchester Local Transport Plan 1: Delivery Report Summary. 2001/02 – 2005/06*, Association of Greater Manchester Authorities and Greater Manchester Passenger Transport Authority, Manchester.
- AGMA and GMPTA (2006b) *LTP1 Delivery Report Greater Manchester Local Transport Plan*, Association of Greater Manchester Authorities and Greater Manchester Passenger Transport Authority, Manchester.
- Bohm, P. (1987) *Social Efficiency – A Concise Introduction to Welfare Economics*, Macmillan, Basingtoke.
- Commission for Integrated Transport (2004) *The Bus Industry: Encouraging Local Delivery*, Commission for Integrated Transport, London.
- DETR (2000) *Transport Ten Year Plan 2000*, Department for the Environment, Transport and the Regions, London.
- DfT (2006) *Putting Passengers First: The Government's Proposals for a Modernised National Framework for Bus Services*, Department for Transport, London.
- Estache, A. and Gómez-Lobo, A. (2005) 'Limits to competition in urban bus services in developing countries', *Transport Reviews*, March, Vol. 25, No. 2, pp.139–158.
- Greenwood, J., Pyper, R. and Wilson, D. (2002) *New Public Administration in Britain*, Routledge, London.
- Gwilliam, K.M., Nash, C.A. and Machie, P.J. (1985) 'Deregulating the bus industry in Britain – (B) the case against', *Transport Reviews*, Vol. 5, No. 2, pp.105–132.
- Hensher, D.A. (2007) 'Bus transport: economics, policy and planning research', *Research in Transportation Economics*, Vol. 18, pp.1–507.
- Hood, C. (1991) 'A public management for all seasons?', *Public Administration*, Vol. 69, pp.3–19.
- Hood, C. (1995) 'The 'new public management' in the 1980s: variations on a theme', *Accounting, Organizations and Society*, Vol. 20, Nos. 2/3, pp.93–109.

- Hooghe, L. and Marks, G. (2003) 'Unravelling the central state, but how? Types of multi-level governance', *American Political Science Review*, Vol. 97, No. 2.
- Inno-V, KCW, RebelGroup, NEA, TØI, SDG and TIS (2008) 'Contracting in urban public transport', European Commission – DG TREN, Brussels, available at [http://ec.europa.eu/transport/urban/studies/doc/2008\\_contracting\\_urban\\_public\\_transport\\_annex.pdf](http://ec.europa.eu/transport/urban/studies/doc/2008_contracting_urban_public_transport_annex.pdf).
- Knowles, R.D (2007) 'What future for light rail in the UK after ten year transport plan targets are scrapped?', *Transport Policy*, Vol. 14, pp.81–93.
- Knowles, R.D. and White, P. (2003) 'Light rail and the London underground', in Docherty, I. and Shaw, J. (Eds): *A New Deal for Transport? The UK's Struggle with the Sustainable Transport Agenda*, Blackwell Publishing Ltd., Malden, Oxford, Carlton.
- Ling, D. and Howcroft, K. (2007) 'The cost & consequences of free local public transport for older & disabled people in Greater Manchester', paper presented at *11th International Conference on Mobility and Transport for Elderly and Disabled Persons*, 18–22 June 2007, Montreal, Canada.
- Longva, F., Osland, O., Lian, J.I., Sørensen, C.H. and van de Velde, D. (2005) 'Målrettet bruk av konkurranseutsetting av persontransporttjenester innen lokal kollektivtransport, jernbane og luftfart', *Synteserapport*, TØI report no. 787/2005, Institute of Transport Economics, Oslo, (in Norwegian).
- Mackie, P., Preston, J. and Nash, C. (1995) 'Bus deregulation: ten years on', *Transport Reviews*, Vol. 15, No. 3, pp.229–251.
- Marsden, G., Kelly, C. and Nellthorp, J. (2008) 'The likely impacts of target setting and performance rewards in local transport', paper for *UTSG Conference*, January 2008, Southampton.
- NERA (2006) 'The decline in bus services in English PTE areas: the quest for a solution', *NERA Economic Consulting*, London.
- Norheim, B. (2006) *Kollektivtransport i Nordiske Byer – Markedspotensial og Utfordringer Framover*, Report no. 2/2006, Urbanet analyse, Oslo, (in Norwegian).
- OECD (1992) *Market and Government Failures in Environmental Management: The Case of Transport*, OECD, Paris.
- Powell, W.W. (1990) 'Neither market nor hierarchy: network forms of organizations', *Research in Organizational Behavior*, Vol. 12, pp.295–336.
- Rhodes, R.A.W. (1997) 'From marketization to diplomacy: it's the mix that matters', *Public Policy and Administration*, Vol. 12, No. 2, pp.31–50.
- Rhodes, R.A.W. (2000) 'The governance narrative: key findings and lessons from the ESCR's Whitehall programme', *Public Administration*, Vol. 78, No. 2, pp.345–363.
- Scharpf, F.W. (1994) 'Games real actors could play: positive and negative coordination in embedded negotiations', *Journal of Theoretical Politics*, Vol. 6, No. 2, pp.27–53.
- Schrank, A. and Whitford, J. (2007) 'Varieties of network failure', paper presented at the *Annual Meeting of the American Sociological Association*, TBA, 11 August 2007, New York, New York City, available at [http://www.allacademic.com/meta/p185038\\_index.html](http://www.allacademic.com/meta/p185038_index.html).
- Sharpe, L.J. (1985) 'Central coordination and the policy network', *Political Studies*, Vol. 33, pp.361–381.
- Sørensen, C.H., Bergström, T., Khan, J. and Gudmundsson, H. (2008) 'New public management og hållbar transport i den kollektive bustrafik', *PLAN – Tidskrift för Samhällsplanering*, No. 5, pp.14–19, (in Swedish).
- van de Velde, D.M. (1999) 'Organisational forms and entrepreneurship in public transport: part 1: classifying organisational forms', *Transport Policy*, Vol. 6, pp.147–157.
- van Dijk, J. (2009) 'ICTs, citizens and governance: after the hype!', in Meijer, J., Boersma, K. and Wagenaar, P. (Eds.): *Innovation and the Public Sector*, IOS Press, Amsterdam.

- Veeneman, W. (2002) 'Mind the gap: bridging theories and practice for the organisation of metropolitan public transport', PROEFSCHRIFT, TRAIL Thesis Series No. T2002/4, The Netherlands TRAIL Research School, Delft University Press, Delft.
- Wall, G. and McDonald, M. (2007) 'Improving bus service quality and information in Winchester', *Transport Policy*, Vol. 14, pp.165–179.
- Whitehead, M. (2003) 'In the shadow of hierarchy: meta-governance, policy reforms and urban regeneration in the West Midlands', *Area*, Vol. 35, No. 1, pp.6–14.

### Notes

- 1 However, these new legal forms have in fact been little used. So far only one statutory bus quality partnership and none quality contracts are experienced in England (NERA, 2006; Wall and McDonald, 2007).
- 2 Hence, Norheim mentions four overall conditions: economic framework conditions; urban structure; framework conditions for use of car; and the quality of public transport service (Norheim, 2006).
- 3 By 1st of April 2006 the authorities introduced a more favourable concessionary fare scheme (including free travel most of the day), which has increased the number of disabled and elderly in public bus transport (Ling and Howcroft, 2007).