

MULTI JOURNEY AND MULTI OPERATOR / MULTIMODAL TICKETING

EXECUTIVE DIGEST

1. Multimodal tickets (MMTs) enable passengers to make journeys using more than one mode of transport. These may coincidentally be multi operator &/or multi trip journeys, as well as comprising area wide travel. MMTs may have various periods of availability.
2. UK Competition law seriously inhibits attempts by operators &/or local transport authorities to establish MMT schemes. However, local transport authorities do have powers under the Transport Act 2000 to determine bus only ticketing schemes onto which other modes may be added voluntarily. They can compel operators to participate, but none in the NW have yet done so.
3. The North West Public Transport Users Forum has looked at a multiplicity of MMTs in the NW and beyond and identified a number of exemplars of best practice, as well as where serious shortcomings exist. These are tabulated at Appendix 1.
4. The report recognizes that the introduction of free bus travel for senior citizens in March 2006 will have significant impacts on the sale of MMTs. Concessionary fares legislation is examined and the possible anticipated effects such as migration of rail passengers to bus and possible threats to the viability of MMTs.
5. Because the statutory reimbursement mechanisms for MMTs and Concessionary fares differ, integration of the two schemes could prove extremely difficult if not impossible. The introduction of smartcard ticketing can accurately establish any revenue foregone and so offers an opportunity to overcome such difficulties, as well as being a much more convenient method for passengers to pay fares.
6. Important conclusions and recommendations arising from the report are summarised below. It is hoped these will alert authorities such as PTEs, County and Unitary Authorities, the Traffic Commissioner, the OFT, Tourist Authorities and Operators to some examples of best practice which they might consider as well as the difficulties which promoters of MMTs face.

<ul style="list-style-type: none">• A pilot Local Transport Authority's compulsory bus ticket scheme should be considered (paragraph 2.2.4).
<ul style="list-style-type: none">• The PTEs' expertise in developing MMTs could be made available to Shire and Unitary Transport Authorities (para 3.2).
<ul style="list-style-type: none">• More effort should be put into marketing multi modal tickets and also into educating passengers so that they are aware of what is available, how the ticket can be purchases and what conditions apply to its use (para3.2).
<ul style="list-style-type: none">• PlusBus and other "rail based" multi modal tickets should be better marketed. They should also be made less confusing (para 4.3.6).

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<ul style="list-style-type: none"> • NRES users should be reminded of the existence of PlusBus “add ons”(para 4.3.6).
<ul style="list-style-type: none"> • Bus and rail tickets valid between the same places should be interavailable (para 4.3.8).
<ul style="list-style-type: none"> • Metrolink and GMPTE should investigate the possibility of passengers being able to buy tickets valid from Metrolink stations to destinations outside the GMPTE area (para 4.3.9).
<ul style="list-style-type: none"> • Further consideration should be given by operators and transport authorities to the provision of multi modal ticketing including taxis (para 4.3.13)
<ul style="list-style-type: none"> • Further research is needed into the comparative efficacy of operator devised and delivered and Local Transport Authority determined multi modal ticketing schemes (para 4.4.2)
<ul style="list-style-type: none"> • Operators, local transport authorities and PTEs should recognise a latent demand for carnets (para 4.4.3).
<ul style="list-style-type: none"> • Operators and local transport authorities should consider marketing transferable multi journey tickets (para 4.4.3).
<ul style="list-style-type: none"> • A pilot smartcard scheme should be introduced in the NW (para 4.4.7)
<ul style="list-style-type: none"> • Making existing multi journey tickets useable for some cross boundary travel, perhaps making them valid (using reciprocal / bi-lateral agreements) within some or all of adjacent travel areas should be considered (para 4.4.7).
<ul style="list-style-type: none"> • Operators and local transport authorities should consider providing or procuring and marketing group travel opportunities (paras 4.4.8 & 4.4.9).
<ul style="list-style-type: none"> • Local Transport Authorities should consider discussing with TOCs the possibility of “piggybacking” free concessionary bus/rail onto their statutory minimum bus only concessionary fares schemes to avoid the danger of causing migration from rail to bus (para 5.2.4).
<ul style="list-style-type: none"> • Local Transport Authorities should attempt to retain, or run in parallel, their own concessionary fares schemes if these are better than the statutory free off peak travel (para 5.2.5).
<ul style="list-style-type: none"> • To facilitate cross boundary journeys Local Transport Authorities should consider at least making bilateral agreements with neighbouring authorities (paras 4.4.7, 5.2.3 & 5.2.5).
<ul style="list-style-type: none"> • Local Transport Authorities should consider adopting the multi modal ticketing principles employed in Continental Europe, wherever practicable (para 6.4).

7. Finally the report contains Appendices listing the MMT schemes examined and examining best practice in continental Europe where there are many excellent schemes, not least the widespread use of Carnets, which but for the restraints of competition law and bus deregulation UK authorities and operators could be encouraged to emulate.

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1. INTRODUCTION

1.1 The North West Public Transport Users' Forum considered the two issues of Multi modal ticketing and Concessionary fares at its meeting on 18th June 2005, and determined to procure further research into these two related topics with a view to identifying and illustrating best practice in the NW and wider afield, as well as drawing attention to any shortcomings and lost opportunities.

1.2 This paper also

- draws some clear and perhaps less obvious conclusions and
- makes a number of recommendations and
- suggests what improvements it might be possible to make.

What is meant by Multi Modal Ticketing?

1.3 The term "multi modal ticketing" has been adopted for this paper. It can include tickets useable in all or some of the following situations

- on journeys comprising more than one leg (or trip)
- on a succession of independent journeys
- on more than one vehicle
- provided by more than one operator
- by more than one mode

but it is the (underlined) last of these situations which is the essential defining *sine qua non* criterion

1.4 The concept of one ticket or pass having wider validity than just a single journey is not new. Operators may sell

- return tickets,
- carnets entitling the making of a fixed number of journeys at a discount fare,
- season tickets
- area wide travel cards and "rover" tickets and
- cheap day tickets.

They may agree to accept each others' tickets. The journey entitlements may be by the same or different modes, but, as stated above, this paper confines itself to the latter situation.

2. LEGAL ISSUES

2.1 Competition law

2.1.1 Before bus deregulation (Transport Act 1985) and rail privatisation (Railways Act 1993), inter operator agreements were not subject to competition law. Post

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deregulation, local transport authorities until quite recently¹ continued to consider themselves free to broker area wide ticketing schemes. In some areas operator associations have formed to take forward area ticketing schemes which avoid the involvement of their local authorities.

2.1.2 The Transport Act 1985 brought bus services within competition law and the Railways Act 1993 made the Rail Regulator together with the Director General of Fair trading (DGOFT) the competition authorities.

2.1.3 Competition law today (Competition Act 1998, Enterprise Act 2002) prohibits not only “anti competitive agreements” (the so called Chapter One (EU Competition Directive) Prohibition) but also “monopoly abuses” (the so called Chapter Two (EU Competition Directive) Prohibition). Any agreement between operators which either restricts their freedom to fix their own fares or excludes other operators may be considered anti competitive.

2.1.4 There is some easement in this situation in the Transport Act 2000 (ss 152 -3 and Schedule 10). Read together these provide a “competition test” which can permit multi operator ticketing schemes and allow the Office of Fair Trading to make “Block Exemption Orders” to cover these. The block exemption also applies to bus Quality Partnership Schemes and Service Tendering agreements as these sometimes go hand in hand with ticketing schemes.

2.1.5 This is sensible as statutory bus Quality Partnerships may exclude operators not meeting the local transport authorities criteria, as may some invitations to tender for service subsidies.

2.1.6 The Office of Fair Trading (OFT) have identified three types of ticketing schemes

- **area wide travel cards** (multi operator and may also be multi modal)
- **multi journey tickets** (may be through ticketing between different operators with connecting but non competing services or may be multi operator where tickets can be interavailable on any operators’ parallel services. They may also be monomodal or multimodal.)
- **“Add ons”** (Journey Solutions’ “PlusBus” is the best known example, but not all “add ons” need necessarily be multimodal).

2.1.7 The block exemptions specify what is allowable in a scheme to meet the competition test. One area of contention with operators is that the orders insist on revenue disbursement being on the basis of passenger miles. This is at odds with the statutory disbursement scheme under the concessionary fares rules which is based on “revenue foregone”. The OFT is currently consulting on replacing this disbursement requirement with something less prescriptive². In any case that may become necessary if authorities want to align their concessionary fares and area ticketing schemes.

¹ The Bettercare case in the Northern Ireland Courts effectively removed this freedom in 2002 by considering authorities (in this case NHS NI) to be “undertakings” (as service procurers!).

² “Local Transport Today” 15/4/05

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2.2 Compulsory Participation in integrated ticketing systems

2.2.1 The Transport Act 2000 (s.135) allows Local Transport Authorities (LTAs) alone or jointly, provided they are satisfied that to do so is in the public interest and would help to implement their bus strategy, to set up schemes whereby operators of local bus services are required to agree to accept each other's tickets or participate in an integrated ticketing system as defined and specified in the scheme.

2.2.2 Schemes are bus ticketing schemes and exclude rail although 'add on' rail and tram travel can be negotiated voluntarily and the government have indicated that the provision could be extended by further legislation or more likely by incorporation into rail franchises or tramway concessions.

2.2.3 There is currently no compulsion for operators to participate in existing voluntary schemes, some of which extend beyond bus travel to rail, light rapid transit and ferries. Thus there can today be no compulsory participation in multi modal area wide travel card schemes although a number of quite successful such schemes do exist (but only by agreement between participating operators), and these are mainly in Passenger Transport Authorities' areas. However, the London Travel Card scheme does have statutory protection.

2.2.4 Because of the impact of competition law (see above) the legislation wisely stipulates that with the exception of the special case of London, the bus ticketing schemes within which bus operators might be compelled to participate will need to be determined by the LTAs and not the operators. There are as yet no compulsory schemes in the NW.

3. RESEARCH

3.1 The NWPTUF has researched the multiplicity of relevant tickets in the NW. This reveals what is generally understood but rarely spelt out, that almost all multimodal tickets have a rail component.

3.2 The researcher looking at relevant tickets in the NW and beyond was quickly able to make the following general observations

- PTE areas are relatively better served by Multi Modal Ticket schemes
- Most day tickets promoted in tourist areas are mainly only valid at weekends and bank holidays
- Very few MMTs are valid on rail or metro in the morning peak hours³
- Many MMTs are poorly promoted, especially on the internet (which is fast becoming the major source of tourist information)
- PlusBus is mainly advertised at destinations when it is too late for it to be bought
- It is generally not possible to buy MMTs on buses⁴ yet modern Electronic Ticket Machines (ETMs such as the Avantix machine) can cope at speed with fare look up and issue.
- There is low awareness of MMTs by staff.

³ The Merseytravel Saveaway is not valid on buses in the peak hours

⁴ GMTL bus/rail tickets can be bought on buses.

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3.3 One obvious comparison which the research, together with the presentations made to the NWPTUF at Preston in June 2005, has highlighted is the contrasts between those areas where an area wide ticketing scheme is made by a consortium of operators and those areas where it is made by the PTE or Local Transport Authority. In the latter case schemes as presented to the Forum appeared to be more comprehensive and better value for money. Further research could indicate best practice in relation to both models.

3.4 Recent research⁵ (not commissioned by the NWPTUF but highly relevant) has shown there to be a correlation between the complexity of operators' fare scales in an area and the extent to which multi operator ticketing is practical and has developed. Operators with very sophisticated fare scales, perhaps based on "yield management" software (such as sits behind, for example, Virgin Value and Megabus ticket sales) may well find it too difficult to voluntarily participate in Multi Journey and Multi Modal Ticket schemes.

4. EXEMPLARS

4.1 The framework adopted has been to divide the exemplars identified into

- pure rail "add ons" and
- area wide tickets (*see Appendix 1*)

4.2 The various illustrations chosen are generally able to be made available to passengers by employing a variety of different systems or by making use of a combination of systems, viz by

- *the conventional issue of a ticket (usually nowadays employing sophisticated ETMs)*
- *using Smartcards*
- *using Carnets*
- *employing some proof of Identity and entitlement to privileged, discounted or free travel, (such as a season ticket, a railcard or a pensioner's free or cheap fare travel pass).*

4.3 Rail "Add ons"

4.3.1 **PlusBus**, the bus fare "add on" to rail tickets is a special case of multimodal ticket. Because it is an "add on" its sales should not be affected by the complexity or otherwise of the rail ticket. It is promoted through Journey Solutions, a consortium of the Association of Train Operating Companies (ATOC) and the Confederation of Passenger Transport (CPT) representing bus and rail operating companies. The consortium's web site⁶ claims that PlusBus "gives passengers unlimited travel by bus at either or both ends of their journey".

⁵ Local Transport Today 21/7/05

⁶ www.journeysolutions.com

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4.3.2 Journey Solutions' criteria for PlusBus is that the ticket should be

- Easy to sell
- Easy to understand and
- Attractive for the passenger to buy.

4.3.3 A major weakness of the ticket is that although it can be purchased in advance of travel it cannot be bought on the bus to the departure station. Nor can it be purchased when buying a rail ticket "on line". These limitations do nothing to alleviate pressure on station car parking and only partially meet Journey Solutions' above criteria,

4.3.4 If a rail ticket with "add on" could be sold on the journey to the departure station this might be one way to overcome that particular disadvantage. Modern Electronic Ticketing Machines (ETMs) can cope at speed and can be programmed to hold vast amounts of fare data in their memories.

4.3.5 If, however, the ticket is pre-purchased the PlusBus "add ons" can be made for both the departure and arrival stations (and vice versa on the return half of the rail ticket provided a return date is nominated).

4.3.6 Marketing of PlusBus is obviously difficult. There is little point in station posters declaring that "This is a PlusBus Station" if they are to be read at their destination by passengers who have not had the opportunity to purchase the valuable "add on" brought to their attention when they bought their rail ticket. Journey Solutions are currently addressing⁷ the training need of staffs of Train Operating Companies (TOCs), National Rail Enquiries Service (NRES) and Traveline. A visit to the NRES web site in September 2005 however provided no links to PlusBus.

4.3.7 The **Shirebrook** ticket (for bus journeys linking with Shirebrook station, Derbyshire), where the fare paid for the bus journey can be used as a deposit towards the bus/rail ticket may point the way to overcoming the obvious disadvantage of PlusBus in that it is only available at rail sales outlets. So too might the **Thameslink Saver** which can be purchased outright on Brighton and Hove buses.

4.3.8 **Virgin Trains** Preston – Southport, Carlisle – Galashiels and Penrith – Keswick - Workington "add ons" (examples in the NW of Rail Link⁸ services) facilitate the prepurchase of the bus legs of journeys from the rail network to these destinations. There is no interavailability between bus and rail tickets to and from Workington, so that an arrival by bus cannot be followed later by a departure by train (via Carlisle). By contrast **Matlock – Derby** bus and rail tickets are completely interavailable on either mode.

4.3.9 It is possible to buy tickets from stations outside Greater Manchester to **Metrolink** stations, but the reverse process is impossible.

⁷ Journey Solutions Marketing Update April 2005

⁸ ATOC Trade Mark

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4.3.10 There is an example in the NW where possession of a rail ticket gives an entitlement to free onward bus travel - from **Chester** General to Chester City Centre and Bus Station. Although not in this category, being free to all users, the free Centreline Links in **Manchester** afford rail travellers free access into the city centre and they have recently been extended to give a more comprehensive coverage of the central area. It is also worth noting that possession of a valid rail ticket for journeys within the GMPTE area allows free onward travel by Metrolink within the City Zone only.

4.3.11 The **Warrington** PlusBus “add on” allows similar connections to the Central – Bank Quay Stations Bus.

4.3.12 A number of leisure attractions in the NW like **Chester Zoo** and the **Ravenglass and Eskdale Railway** have negotiated rail “add on” fares with operator.

4.3.13 **Taxis** are also public transport⁹. Whilst there are a few examples in the NW of prebookable taxi/train connections¹⁰ none of these incorporate any multimodal ticketing, the separate fares have to be paid to the taxi operator by the passengers. Virgin Trains, early in their franchise experimented¹¹ with a First Class “Executive” ticket with various “add ons”, including London Tube fares and a taxi to pick up passengers in the morning and return them home at night, but this was discontinued when the main “add on” (restaurant car meals) was included in the price of first class tickets!

4.4 Area Wide Multi Modal Tickets

4.4.1 Both PTEs in the NW promote area wide daily, weekly, monthly and annual multi modal “season tickets”, but these differ in that sales of the GMPTE ticket and revenue disbursement is controlled by Greater Manchester Ticketing, an operator consortium, whilst in the Merseytravel area they are controlled by the PTE.

4.4.2 Further research as already suggested might point to the comparative efficacy of operator devised and delivered and Local Transport Authority determined multi-modal ticketing schemes.

Carnets

4.4.3 There are few examples of multi journey tickets which allow the holders to make a pre purchased number of journeys at their discretion. The true concept of a Carnet is that of a discount for making a bulk purchase of travel. Carnet translates as a “book” of tickets with a number of journey entitlements which can be used up consecutively and not within any predetermined time frame. A “clippercard” or a Smartcard (see below) can both essentially perform the same function. Such tickets would for example be suitable for employees who increasingly are working part time or work from home only on certain days of the week and so do not need to travel

⁹ as defined in the Transport Act 1985 s 63(10)

¹⁰ GMPTE’s Saddleworth Villages connection can be prebooked and used by rail passengers at a flat fare of £1

¹¹ at Preston

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every day. They are also very suitable for tourists visiting an area for a specific length of time. Whilst most tickets are sold as being “not transferable”¹², Carnets obviously will be useable by whoever presents them! Carnets are a well accepted concept of continental travel (see below) and it is hard to see why UK operators have not also embraced them. The West Yorkshire PTE’s Saverstrip was an excellent exemplar which unfortunately did not survive bus de-regulation.

4.4.4 The closest equivalent to a Carnet in the NW is the **Wayfarer ticket**, a “scratchcard” allowing an unspecified (at the time of purchase) full day of travel. The holders only have to scratch the surface of the card to validate travel on their chosen day. The Wayfarer, sponsored by Greater Manchester PTE is valid for rail, bus and tram within Greater Manchester and significant surrounding areas including the Peak District. Of course more than one scratchcard such as Wayfarer can be pre-purchased to create a “DIY carnet”, and indeed wallets were once supplied for such “gift purchases”.

4.4.5 **Smartcards** with stored values either of cash or of journey entitlements are effectively an electronic purse which can be topped up by the holder or, in the case of smartcards permitting free concessionary travel, the Local Transport Authority granting the concession. They can thus replace carnets, clippercards, season tickets and other proofs of entitlement such as free or discounted travel passes.

4.4.6 The best known Smartcard is probably the London Transport Oystercard which also doubles as a Transport for London (TfL) pensioners’ bus pass. This enables operators to capture precise details of concessionary travel.

4.4.7 Unfortunately Oystercard is not compliant with ITSO’s (Integrated Transport Smartcard Organisation) standards. PTEs and other local transport authorities considering their own smartcard schemes¹³ and TOCs with short franchises are faced with the dilemma of choosing either the delays and additional costs of trying to comply with a system which is promised to become interoperable or introducing their own non compliant card. But it is entirely practical for them to “piggyback” on existing proven systems such as Oystercard, even to the extent of plugging their hardware into a common “back office”. The ITSO standard was intended to prevent the emergence of a monopoly smartcard supplier, yet that could still happen by default¹⁴. The Chester/Flintshire Smartcard spanning the Welsh border is a successful, if small scale, NW initiative. (Most existing multi modal tickets are of little use for cross boundary travel)

Group Travel

4.4.8 When two or more people travel together there are rarely any discounts for bulk purchase of tickets (although the **Wayfarer** has a Group (up to 2 Adults and 2 children) version). In Belgium at weekends more than one passenger can use a Carnet, and in West Yorkshire before the privatisation of the PTE’s buses more than one person could travel on the same clippercard by canceling it the requisite number

¹² There is now no rationale for this since the Road traffic Act 1972 s. 145 imposes absolute liability on operators!

¹³ E.g. the Lancs and Cumbria NOW card

¹⁴ Roger Ford, Modern Railways August 2005

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of times. MPTE and some TOCs sell “DUO” tickets as special promotions for use by couples travelling together in prescribed circumstances.

4.4.9 Nottingham and Nottinghamshire have recently introduced a relatively new Flexisaver Robin Hood line Carnet Ticket which can be used by more than one passenger where a group travels together. This is the kind of exemplar which local transport authorities could well try to emulate.

5. CONCESSIONARY FARES

5.1 Background

5.1.1 Travel concessions, (e.g. “workmens’ childrens’ and pensioners’ fares) have been available since the Transport Act 1947 nationalised the transport industry. The Travel Concessions Acts 1955 and 1964 mainly concerned eligibility criteria and reimbursement mechanisms.

5.1.2 With the deregulation and privatisation of the bus industry by the Transport Act 1985 local transport authorities were given powers (but not duties) to establish concessionary fares schemes for eligible persons (men over 65, women over 60, children and disabled passengers)

5.1.3 The Transport Act 2000 required local transport authorities to establish, in England and Wales¹⁵, a statutory half fare concession for persons over 60 on local bus travel within their areas. This had to operate from 6/3/03 at “the relevant times of 0930 - 2300 Mon – Fri. and all day at weekends and on bank holidays. The Scottish Executive was given powers to make its own schemes¹⁶.

5.2 Connections between Concessionary fares and Multi Modal Tickets

5.2.1 The links between

- Multi modal ticketing and
- Concessionary fares

may not be immediately obvious until it is realised that both have the potential to distort not just the overall market for public transport but also that each can distort the market for the other. Discounted fares, of whatever description, or free travel, may lead to overcrowding and create a demand for more services. The Greater Manchester CountyCard, for example, could result in overcrowding between Bolton, Manchester and Stockport and so distort demand for express rail travel beyond those stations.

5.2.2 A generous concession can have the effect of depleting the revenue pool created by a multi operator ticket scheme.

¹⁵ The National Assembly for Wales has determined its own Countrywide scheme

¹⁶ Transport (Scotland) Act 2001 s 68.

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5.2.3 It is timely to be reviewing these issues in the light of the announcement of free pensioners' and disabled passengers' bus travel from April 2006¹⁷. In extremis this could have the potential to so erode the revenue from multi modal ticketing schemes subscribed to by operators as to cause their demise. However there is as yet no evidence that this is happening in Wales which gives countrywide (as opposed to the proposed Authority wide schemes in England and Scotland) free bus travel to their senior citizens.

5.2.4 Another as yet unknown is whether free travel by bus will cause migration from parallel rail services, making these less viable and at risk of closure¹⁸

5.2.5 It has been pointed out¹⁹ that although the concession does not apply to trams and trains "the present PTE concessionary schemes all apply to all three modes. So if the PTEs don't want to see an exodus of passengers from trams and local rail they will have to stump up the extra money themselves"

6. MULTI JOURNEY TICKETING IN EUROPE.

6.1 The NWPTUF has also looked at **European best practice (Appendix 2)**

6.2 A variety of multi journey tickets can be purchased in most EU states, some covering whole countries, others regions such as cities or tourist areas. Most are **multi modal** although they may exclude some premium²⁰ or peak hour services. Some multi modal tickets are actually available **across frontiers**.

6.3 There is no obvious correlation between the degree to which a country has privatised its transport and the extent of multimodal ticketing. Several countries have established "tariff unions" within their main conurbations, similar to PTEs. In general the passenger perception is of **a single unified transport network** providing seamless journey opportunities.

6.4 The research includes a resume of best practice in six EU States and in Switzerland. Switzerland is cited as an example *par excellence* of a workable **transport public-private partnership**, with initiatives such as issuing guests in city centre hotels with day tickets for travel on the city's public transport. The Dutch **strippenkarten** is cited as an example of a nationally popular countrywide multi journey and multimodal ticket.

6.5 In general the more passengers travel the greater the savings they make. **Transferability** of many tickets also acts as an incentive to make use of public transport, either travelling alone or in a party.

¹⁷ In his 2005 budget speech the Chancellor announced that the current half fare concession would be converted to a free bus travel entitlement for pensioners from April 2006

¹⁸ The LTP2 guidance suggests that PTEs prepared to replace rail services by bus might be allowed to create Quality Contracts (bus re-regulation on the London Model)

¹⁹ Peter Fox, Editor, "Entrain" in September 2005

²⁰ e.g. the ICE network

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 The conclusions (below) of this research in most cases suggest sensible recommendations for addressing the relevant issues. **Recommendations are shown in bold.**

- No Local Transport Authority or PTE in the NW uses its powers to make an area wide bus ticketing scheme and compel bus operators to comply so it is unlikely that an authority would take the next non statutory step of negotiating a voluntary agreement with rail operators to make a scheme multi modal. **(para 2.2.4). A pilot Local Transport Authority's compulsory bus ticket scheme should be considered, as should negotiated extension of this to rail, and, if appropriate, tram.**
- Most examples of multi modal ticketing are to be found in PTE areas **(3.2). The PTEs' expertise should be made available to Shire and Unitary Transport Authorities.**
- Marketing of area wide tickets in the NW is poor **(3.2). More effort should be put into marketing multi modal tickets, ensuring passengers are aware of what is available, how the ticket can be purchased and what conditions apply to its use.**
- PlusBus and other "rail based" multi modal tickets could **be more thoroughly marketed**, perhaps by linking them to discounts at popular destinations **(4.3.6). They should also be made less confusing.**
- There are no links between NRES and PlusBus on their respective websites. **(4.3.6). Links should be established so that passengers are offered a PlusBus add on when booking to a PlusBus station.**
- **Bus and rail tickets valid between the same origins and destinations should be interavailable (4.3.8).** (Especially in areas²¹ where bus and rail are operated by the same national operator)
- It is possible to buy tickets from stations outside Greater Manchester to Metrolink stations, but the reverse process is impossible **(4.3.9). Metrolink and GMPTE should investigate the possibility of passengers being able to buy tickets valid from Metrolink stations to destinations outside the GMPTE area**
- There are no examples in the NW of multimodal ticketing including taxis. **Further consideration should be given by operators and transport authorities to the provision of multi modal ticketing including taxis (4.3.13).**
- **Further research is needed into the comparative efficacy of operator devised and delivered and Local Transport Authority determined multi modal ticketing schemes (4.4.2).**
- **Operators, local transport authorities and PTEs should recognise a latent demand for carnets (4.4.3).**
- Most tickets have printed on them the legal formula "not transferable" for which today there appears to be no justification **(4.4.3). Operators and local transport authorities should consider marketing multi journey tickets which have the attraction of being transferable.**

²¹ e.g. WMPTE where NEG run Central Trains and WM Travel.

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- The introduction of the NOW smartcard is mired in technical and political difficulties²² **(4.4.7). A pilot smartcard scheme should be introduced in the NW** irrespective of ITSO approval (although this should none the less be sought!)
- Existing multi journey tickets are of little use for cross boundary travel **(4.4.7)** Ideally they should permit this to some extent, perhaps **making them valid (using reciprocal / bi-lateral agreements) within some or all of adjacent travel areas.**
- When two or more people travel together there are rarely any discounts for bulk purchase of tickets **(4.4.8 & 4.4.9). Operators and local transport authorities should consider providing or procuring and marketing similar group travel opportunities.**
- A buses only concessionary fares scheme may cause migration from rail to bus **(5.2.4). Local Transport Authorities should discuss with TOCs the possibility of “piggybacking” free concessionary bus/rail onto their statutory minimum schemes.**
- Some local authorities’ current concessionary fare schemes may already be more attractive than the 2006 scheme, for example, offering concessionary travel before 09.00²³ and/or by modes other than bus **(5.2.5). Authorities should attempt to retain, or run in parallel, their own scheme if this is better²⁴.**
- The concession will be of little help to pensioners who now make cross boundary journeys²⁵ **(4.4.7, 5.2.3 and 5.2.5). Local Transport Authorities should consider at least making bilateral agreements with neighbouring authorities.**
- European best practice serves as a standard to aim at **(6.4). Local Transport Authorities/Operators should consider adopting the principles employed in Continental Europe, wherever practicable.**

²² The Chester/Flint Smartcard, referred to earlier, is a small scale example spanning a National boundary.

²³ “Twirlies” (“are we too early?”) are believed to distort the bus travel market around 0930 in London and Merseyside, with spare capacity before then in the tail end of the morning peak.

²⁴ For example the GMPTE half fare is more attractive than the current 50p flat fare on short journeys with a full fare of less than £1.00!

²⁵ The National Assembly for Wales has determined a Countrywide scheme, as has the Northern Ireland Department of Transport. The Scottish scheme will be countrywide by April 2006 (LTT 290905)

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APPENDIX 1 - Analysis of Multi Modal Tickets in the NW and beyond.

Rail add on tickets - PlusBus in NW

Mode(s) Bus/Rail

Owner ATCO

Peak Hour Use Yes

Notes Only bookable at rail sales outlets

	Type	Period
PlusBus Station	Operator-specific or Multi-operator	D - Daily W - Weekly M - Monthly Q - Quarterly A - Annual S - Special
Barrow-in-Furness	Operator specific	S – Date of rail travel only
Blackburn	Multi-operator	D/W/M/Q/A
Blackpool North	Multi-operator	S – Date of rail travel only
Blackpool South	Multi-operator	S – Date of rail travel only
Bolton	Multi-operator	S – Date of rail travel only
Burnley Barracks	Multi-operator	D/W/M/Q/A
Burnley Central	Multi-operator	D/W/M/Q/A
Burnley Manchester Road	Multi-operator	D/W/M/Q/A
Carlisle	Operator specific	S – Date of rail travel only
Chester	Multi-operator	S – Date of rail travel only
Chorley	Operator specific	S – Date of rail travel only
Darwen	Multi-operator	D/W/M/Q/A
Lancaster	Operator specific	S – Date of rail travel only
Manchester Oxford Road	Multi-operator	S – Date of rail travel only
Manchester Piccadilly	Multi-operator	S – Date of rail travel only
Manchester Victoria	Multi-operator	S – Date of rail travel only
Oldham Mumps	Multi-operator	S – Date of rail travel only
Preston	Multi-operator	S – Date of rail travel only
Rochdale	Multi-operator	S – Date of rail travel only
Stalybridge	Multi-operator	S – Date of rail travel only
Stockport	Multi-operator	S – Date of rail travel only
Warrington Bank Quay	Multi-operator	S – Date of rail travel only
Warrington Central	Multi-operator	S – Date of rail travel only
Wigan North Western	Multi-operator	S – Date of rail travel only
Wigan Wallgate	Multi-operator	S – Date of rail travel only

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Other Area Wide, Leisure and Multi Modal Tickets

Ticket name	Mode(s)	Type	Owner	Period	Peak Hour Use	Notes
	B - Bus R - Rail L - Light Rail F - Ferry	O - Operator specific M - Multi-operator		D - Daily W - Weekly M - Monthly Q - Quarterly A - Annual S - Special		
<u>Shirebrook Bus/Rail Link</u>	B/R	Operator and route specific	Operators	All	Yes	Bookable on bus as deposit towards rail ticket, also free bus travel with season on route
<u>Thameslink Saver</u>	B/R	Operator specific	Operators	Daily	No	Can be booked on Brighton and Hove Buses
<u>Derwent Valley</u>	B/R	Multi-operator	Operators/ Rural Transport Partnership	All	Yes	Full inter-availability
Anfield Bus Link	B/R	Operator	PTE	S	N/A	Match days only
Goodison Park	B/R	Operator	PTE	S	N/A	Match days only
<u>Chester Zoo</u>	B/R	Operator	Operator	D	Yes	Includes admission
Tranmere Rovers Link	B/R	Operator	PTE	S	N/A	Match days only
<u>Ravenglass and Eskdale Railway</u>	R/L	Operator	Operator	S – As rail ticket	N/A	
Liverpool Airport	B/R	Operator	PTE	D - Single/Day	Yes	
<u>Chester City Centre</u>	B/R	Operator	LA	D - Single	Yes	Free to rail ticket holders
Windermere	B/R	Operator	Operators	D – Day	Yes	Rail ticket restrictions
Clitheroe	B/R	Operator	LA	S - Sunday	N/A	Rail ticket restrictions
Carnforth	B/R	Operator	LA	D/W	Yes	Rail ticket restrictions
Quarry Bank Mill	B/R	Operator	L/A – Nat Trust	D	Yes	Rail ticket restrictions.

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						Also entry included.
Metrolink	R/L	Operator	Operator	D/W	Yes	Rail ticket restrictions
Lakes Day Ranger	B/R	Operator	Operator	D	Yes	
Cumbria Bus Explorer	B/R	Operator	Operator	D	Yes	Voucher exchange
Carlisle	B/R	Operator	Operator	S – As rail ticket	Yes	
Chester Business Park	B/R	Operator	Operator	S – As rail ticket	Yes	
Derbyshire Wayfarer	B/R	M	Derbyshire CC	D	Yes (bus only)	
Wayfarer	B/R	M	GMPTE	D	Yes (bus only)	
Trio	B/R/O (ferry)	M	MPTE	D W M A	yes	
Saveaway	B/R	M	MPTE	D	NO	

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APPENDIX 2

THE EUROPEAN PERSPECTIVE - A REVIEW OF SOME EXAMPLES OF MULTI-MODAL TICKETING IN CONTINENTAL EUROPE

Almost every European country sells a variety of multi-modal tickets and passes, the period of validity varying from as little as an hour to a day, a week, a month or even a year, and in some countries these tickets give unlimited use of the entire public transport network. Elsewhere a range of different tickets is usually available, each covering a smaller area of the country, such as a major conurbation or a holiday area, often divided into a series of zones from which passengers can select as few or as many as they wish. In some holiday areas tickets give maximum freedom and flexibility by being valid for a specified number of days chosen freely within an overall defined period. Most tickets of this kind cover all forms of public transport, though there may be some limitations such as peak hour exclusions or certain express rail services on which the tickets may not be valid. In Alpine countries some privately operated mountain railways and cableways may be excluded from free travel but will usually offer the multi-modal ticket holder a discount off the full fare.

The way the various European public transport networks are organised will often determine the types of ticket available. Recent trends towards regionalisation in countries such as Germany, where regional bodies provide the funding and largely specify the services, have resulted in a number of tickets being available which are promoted and marketed by such bodies themselves. Similarly, several countries have set up 'tariff unions' (*Verkehrsverbund*) covering the main conurbations, similar in concept to the PTEs in Britain, and most of these issue their own multi-modal tickets covering the areas for which they are responsible. In countries such as Austria some of these tariff unions cover extensive rural areas and in some cases an entire province.

It might be thought that a state-run network will provide the most favourable conditions for multi-modal ticketing, but this is not necessarily the case. In most European countries experience shows that the successful integration of different modes of transport to provide a 'seamless' journey experience and inter-available tickets does not depend on whether the rail services are publicly run or privatised or whether the buses are de-regulated or not. Switzerland is perhaps the classic example of a public-private partnership which really works, with multi-modal tickets playing a major role in promoting overall public transport use. The Swiss Federal Railways network (SBB / CFF / FFS) and the extensive 'Postauto' postbus network, both publicly provided, are augmented by around 80 independent railway companies (either entirely privately run with each owning their own stations, track and equipment, or sometimes with some form of local community funding), along with a vast number of other undertakings which operate steamers, buses, trams, funiculars and mountain cableways. Yet despite this plethora of service providers both public and private, most tickets are valid on virtually all forms of public transport, regardless of who operates them, and the passenger's perception is that of a single unified transport network. This is enhanced by a standardised approach to signage and the widespread availability of information about other operators' connecting services and times, not to mention the smooth nature of interchange between all these various transport modes, with no worry about connections not being maintained, indeed these being positively promoted. To describe integrated transport of this kind as

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'seamless' is a gross understatement, so it is perhaps unsurprising that an enormous range of tickets is available, virtually all multi-modal and mostly multi-operator, despite the large number of privatised concerns involved. Although Switzerland is almost certainly the best example, the degree of integration of services and inter-availability of tickets in Germany, Austria and indeed most other European countries (with the notable exception of France) will be seen as quite remarkable by those whose travel experiences are confined to making the best of the sadly fragmented structure of public transport in Britain.

The Schengen Agreement which relaxed border controls within the European Union, combined with the introduction of the Single European Currency, has facilitated the introduction of a number of multi-modal tickets which cross national borders and cover parts of several different countries. This makes particular sense where a geographical feature such as a lake or a mountain range is bisected by a national border which has little significance on the ground. Such tickets are issued and regulated by a consortium of the countries involved, which agree on joint pricing and marketing and measures to ensure revenue apportionment. A prime example is the *Euregio Bodensee Tageskarte*, a zonal day ticket centred on Lake Constance, which gives unlimited travel on trains, postbuses and steamers (as well as a discount on some cablecars) in parts of Austria, Germany and Switzerland in a wide area around the lake. Bearing in mind that such a ticket required the agreement of a large number of different transport operators in three different countries, the end product is no mean achievement, particularly as Switzerland is outside the Euro Zone and retains its national currency, and therefore separate CHF (Swiss Franc) prices were required for those tickets sold in Switzerland. Similar cross-border tickets include the *Benelux Pass* covering Belgium, the Netherlands and Luxembourg, the *Euregio Rhein-Meuse* ticket along the French/Dutch/German border east of Liège, the *Saar-Lor-Lux* ticket covering Saarland, Lorraine and Luxembourg, the *Ticket Tri Regio* based on Basel, Switzerland and surrounding parts of France and Germany, and the *Ortenau Europass* straddling the Rhine between Strasbourg and the Black Forest. Successful international agreements between transport authorities on this scale throw into sharp focus the obstacles sometimes faced in Britain in seeking reciprocal ticketing agreements between operators who at least live in the same country and speak the same language.

The marketing, promotion and availability of multi-modal tickets naturally varies across Europe, but in almost every country the need to make passengers aware of the various ticket options is taken far more seriously than in Britain. Much of this promotion is aimed at capitalising on the flexibility of such tickets to encourage much greater use of public transport, and this seems to bear fruit. Invariably there are prominent posters promoting the tickets at bus and rail stations, and the national rail timetables and local timetable leaflets usually contain full details, often with full page advertisements, and for many tickets an attractive leaflet containing a map showing the area of validity is also available in display stands at stations and tourist centres.

Many of the tickets can be purchased in a variety of different ways, including by telephone, over the Internet and from ticket vending machines. Recent trends in some countries have been to encourage purchases made in this way and to discourage the more traditional methods such as from station ticket offices, though this applies less within holiday areas so as not to deter tourists. In the Netherlands for example a small surcharge is payable for most types of ticket bought at the ticket

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window, with exemptions only for the elderly and disabled. Some national tickets can even be purchased in Britain in advance from the national tourist office in this country. In most European countries tickets are generally still available from train conductors and bus drivers, but the tickets will usually cost more if purchased in this way (unless the ticket office is closed or no vending machine is available) in order to encourage purchase before boarding.

A resumé follows of some examples of multi-modal tickets to be found in the different countries.

Austria

Verkehrsverbund (tariff union area) tickets are available for most parts of the country, covering unlimited use of all public transport throughout the area or in defined zones within each, usually for either a day (*Tageskarte*) or a week (*Wochenkarte*). The Vorarlberg ticket, described in **Case Study 2** below, is a typical example.

Belgium

Apart from the *Euregio Rhein-Meuse* ticket already referred to, relatively few multi-modal tickets are available outside the main conurbations, the principal one being the *Brussels Jump Ticket*, a day ticket valid on all trains and most buses, trams and metro services within Greater Brussels. At weekends two people can travel together using the same ticket.

France

Except in Paris, for which the *Paris Visite* and *Mobilis* tickets provide a range of options covering different zones, user-friendly tickets covering different modes of travel are not easily found in France. A few one-day regional passes cover some of the holiday zones (e.g. *Pass Évasion*, covering Alsace, and *Pass Bretagne*), but most are only available at weekends for a few months during the summer. Experience also shows that such tickets are liable to be withdrawn at short notice, and their existence is sometimes even denied at booking offices, which hardly inspires confidence in their use. As with other aspects of local transport in France, obtaining information is not easy.

Germany

Each of the 16 German regions or provinces (*Länder*) issues a *Tageskarte* ticket valid for a day's travel throughout each of their territories. The conditions are standardised throughout the country, being valid only after the morning peak and only on certain categories of train operated on the national (DB) network (excluding expresses). Some tickets are also valid on private railways where these are funded by the *Länder*. At weekends a *Schönes Wochenende* ticket, valid on regional and local trains throughout Germany, as well as on all forms of transport in most of the tariff union areas, is available for either Saturday or Sunday, and up to five people can travel together for the same price (30 Euros - £20.70 - per day if bought from a ticket machine). A wide range of *Verkehrsverbund* tickets is also available, most

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covering a day's unlimited use of all public transport within defined zones in each of the tariff union areas, or sometimes throughout the entire areas, which together cover most of the country. Prices vary widely depending on the number of zones or the size of the area, and in some areas weekly tickets are also available.

A welcome feature of some tickets purchased in Germany, in complete contrast to the universal "not transferable" condition imposed in Britain, is the positive encouragement given by some operators for a ticket holder to pass the ticket to a friend or other family member when the holder is not making use of it but its validity has not yet expired. Thus a ticket valid for a week might quite legitimately be used by different passengers on different days - all in the cause of promoting and encouraging greater use of public transport, and highly commendable.

Luxembourg

This small country, which runs the world's smallest national rail network totalling just 275 route kilometres, exhibits a multi-modal ticketing system for public transport which is probably the simplest to use, the easiest to understand and almost certainly one of the cheapest anywhere in Europe. As it is a model of simplicity which deserves to be copied it is described in greater detail in **Case Study 1**.

The Netherlands

An *OV Dagkaart* is available, valid for one or five days' unlimited travel on trains, buses, trams and metro systems throughout the Netherlands. For occasional travellers on shorter journeys a *Strippenkaart* ticket can be obtained, valid for a fixed number of journey stages which are cancelled by the passenger inserting the ticket into a cancelling machine when boarding the bus or train. Plans are under way to convert the *Strippenkaart* to a smartcard, as part of a nationwide smartcard ticketing system.

Switzerland

Understandably, in a country geared up for the tourist and holiday market, a wide range of tickets is available. Most form part of the *Swiss Travel System*, an integrated marketing initiative which embraces virtually all forms of public transport, including the federal rail and postbus networks as well as most private operators. *Swiss Pass* tickets are valid for unlimited travel over virtually the entire system, for periods of from four days to a month, while the *Swiss Flexi-Pass* includes from three to eight days of unlimited travel within a month, with journeys available at half fare on the remaining days. If two or more adults travel together (up to a maximum of five) a further 15% reduction is given. The *Swiss Half Fare Card* allows unlimited purchase of tickets at half price within a month.

For residents of Switzerland the range of ticket opportunities is equally impressive. The Swiss themselves undertake more rail journeys per head each year than the residents of any other European country, perhaps because of the wide range of tickets available, virtually all multi-modal. A high percentage of Swiss households include at least one member who benefits from reduced travel costs by purchasing a *General Abonnement* or GA, a railcard giving unlimited travel for a year, with further

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reductions for young people and senior citizens. Half-fare cards and multiple journey cards are also available for varying periods of time, and some can be used in conjunction with the GA. The overall principle is that the more you travel, the more you save.

In addition to tickets covering the whole country, many regional passes and tariff union area tickets are available for smaller areas. For example for travel in the tariff union area operated by the Zürich public transport authority (the *Zürcher Verkehrsverbund*, which covers the city and the surrounding area) there is a choice of a 6-hour pass, an off-peak 9-hour pass, a day ticket or a 6-day ticket, and each is available for any number of zones (with over 30 to choose from). All tickets cover all forms of public transport and are available from a wide range of outlets including post offices and ticket machines at stations. Similar tickets are available in most other major towns and cities. The ticket covering Geneva is described in **Case Study 3**. A nice touch in Basel, in the *Tarifverbund Nordwestschweiz* (or TNW) tariff union area, is that in return for the modest tourist tax payable for an overnight stay in that city, hotels provide each guest with a free *Mobility Ticket* valid for unlimited travel in the city centre (TNW Zones 10 and 11) for the duration of their stay, including the day of departure. Other TNW tickets covering additional zones can be purchased in the usual way.

On top of all this, multi-modal day tickets are also available from many of those private railway companies which also operate their own connecting bus services integrated with the rail timetable. The *Arc Jurassien Carte Journalière*, covering the CJ (*Chemins de fer du Jura*) rail and bus network in the Jura region is just one such day ticket from numerous examples. A seven-day ticket is also available.

Almost any form of public transport in Switzerland is covered by a multi-modal ticket of one kind or another, making passengers in this transport-friendly country utterly spoilt for choice.

Case Study 1: Luxembourg

The publicly-run national network of buses, trams and trains in Luxembourg comprises four integrated undertakings which have all signed up to a single ticketing system. These include the rail operator CFL (*Chemins de Fer Luxembourgeois*), bus operators AVL and RGTR and tram operator TICE. CFL also operates certain bus services itself.

For internal journeys (excluding only frontier rail stations) nothing could be simpler as there are essentially only two types of multi-modal ticket, a Short Distance Ticket and a Network Ticket. The entire country is divided, in honeycomb fashion, into a series of hexagonal shaped cells (see Fig. 1 which shows a small part of the key diagram covering the whole country). Passengers choose how many cells they wish to travel through, and this determines which of the two ticket types is needed. (Groups of adjacent cells covering Luxembourg City and some of the larger towns count as just one cell for ticketing purposes and are shaded on the map.)

Both types of ticket are widely available from a number of sales points and need to be obtained and validated with the date and time immediately before travelling. This

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is achieved by inserting the ticket into a slot in one of the cancelling machines on station platforms and at bus stops. The **Short Distance Ticket** (*Billet Courte Distance / Kurzstreckebilljee*), currently 4.60 Euros (£3.17) is valid for up to one hour from the time of validation and covers a single journey at any time of day by any form of public transport through any six adjacent cells. For a journey involving more than six cells, a further such ticket is required for each additional six cells entered, i.e. two tickets validated at the same time would cover a journey through 12 cells (valid for two hours) or a maximum of three tickets would cover a journey through 18 cells. For longer journeys than this, a **Network Ticket** (*Billet Réseau / Oeko-Billjee*), costing the same as four Short Distance Tickets, i.e. 18.40 Euros (£12.70), would be the obvious choice instead (see Fig. 2). This ticket is incredibly good value for money as it is not only valid for unlimited journeys throughout the day on the entire network, including peak hours, but it can also be used until 0800 hours on the following day as well. For both types of ticket, a supplement is payable for First Class rail travel.

To encourage ticket purchase before boarding, a surcharge of 1.20 Euros (83 pence) is added to the cost of a ticket if bought from the bus driver or train conductor, provided in the case of the latter that the passenger approaches the conductor immediately on boarding. However, if this does not happen a penalty of 49.50 Euros (£34.15) is payable if a rail passenger is discovered on board without a valid ticket. For the convenience of regular travellers, and to encourage use, both types of ticket are available at a 20% discount if bought in multiple (carnets consist of books of ten Short Distance Tickets or five Network Tickets).

This system involving just two types of ticket is probably the simplest multi-modal ticket to be found anywhere in Europe. It is easy to understand and convenient to use, as well as being extremely economical, especially if carnets of tickets are purchased. Some other tickets described in this review are similarly based on the number of cells traversed within a grid, but with different prices applying to each of a range of different validity periods, thus lacking the essential simplicity of the Luxembourg system.

Case Study 2: Vorarlberg, Austria

The ticketing system of the Vorarlberg tariff union area in western Austria (*Verkehrsverbund Vorarlberg*) is, like the Luxembourg system, based on a grid. In this case the grid is made up of squares (or 'dominos') covering the whole of Vorarlberg province together with neighbouring Liechtenstein and small parts of Germany and Switzerland (see Fig. 3 for part of the network map). There are three types of ticket, offering maximum flexibility, each available for either a single journey or for a day, a week, a month or a year, and each is valid at any time of day on all trains, buses and trams within the area chosen. The **Domino Ticket** covers one or more adjacent squares (dominos), the price of the ticket depending on the number of dominos traversed. The **Regio Ticket** covers one or more of nine defined regions, made up of individual dominos grouped together and similarly the price depends on the number of regions chosen (the thicker lines in Figs. 3 and 4 indicate the regions). The **Maximo Ticket** covers the entire tariff union area. The pricing structure is such that a Domino Ticket covering four domino squares costs the same as a Regio Ticket for one region, and a Regio Ticket for five regions is the same

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price as a Maximo Ticket. The passenger is thus given absolute flexibility in choosing how many squares to travel through, and how they are grouped together, and therefore which ticket to opt for (see Fig. 4). Tickets are available for sale on board all trains and buses (without surcharge) as well as at stations and information offices. They are valid from the time of purchase, so cannot be obtained in advance.

Vorarlberg province is a relatively rural mountainous part of Austria with only a few major towns, but with the main Zürich to Vienna international rail route passing through the area and with an extensive network of postbus services. The ticket system therefore offers excellent value for holidaymakers. As an example, the Maximo Ticket valid for one week costs just 23 Euros (£15.87) which, unbelievably, is even less than the price of the standard rail fare for just one return journey between the two stations at opposite extremities of the ticket area.

Case Study 3: Geneva

The day tickets issued by the Geneva transport authority TPG (*Transports Publics Genevois*) are valid on buses, trams and local trains within seven zones covering the city and surrounding districts. Two of the zones extend as far as St. Julien and Annemasse across the French border. Five types of ticket are available, one limited to a single journey of three fare stages, one valid for unlimited journeys within an hour in the central city Zone 10 (or extended to 90 minutes if travelling through more than one zone), one for unlimited travel all day, and others valid for a month or a year. Tickets are available from bus and rail stations and information offices, from automatic vending machines at each bus stop, and (except within Zone 10) from bus and tram drivers (without surcharge) when boarding the vehicle. If purchased in advance the tickets need to be validated immediately before travel by being inserted into a special slot in the vending machine, which endorses them (see Fig. 5).

Conclusions

Many of the ticket examples referred to in this review contain innovative features which would repay careful study, as would the imaginative manner in which many of them are marketed and promoted. For travellers in the countries mentioned, many of the tickets offer amazing value for money and represent a significant saving on normal standard fares for ordinary point-to-point journeys. It would be interesting to discover to what extent the much greater use of public transport in most of these countries compared with Britain can be attributed to the existence of an easily-understood, user-friendly and economical ticketing system. Clearly the structure of public transport and the way it is organised in much of Europe differs greatly from that in Britain, and a fully integrated network which inspires confidence, with connections being held between different modes, is likely to be far more conducive to a successful ticketing scheme than the fragmented and disconnected nature of rail and bus services found in Britain. Nevertheless some of the good points from these examples may be worth experimenting with.

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