Tools for travel planning in urban areas

A guide for local authorities

**Report for University of Westminster
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1.   Introduction

This guide summarises the main tools that travel planners can use to reduce car traffic. Many of the tools described can be used in different situations: as part of a travel plan at a workplace, school, hospital, visitor attraction or leisure destination, or within a residential neighbourhood as part of a community travel plan. The guide is mainly intended for travel planners working in urban areas, although many of the tools described will also be relevant in rural areas.

The term 'travel plan' is usually used to refer to a package of interventions targeted at a particular site or area. These interventions are likely to include marketing and information about existing transport options, as well as small-scale changes to infrastructure and provision of new transport (and non-transport) services. But site-specific travel planning is just one element (though an important one) of a wider strategy to influence people's travel choices.   Other ways of affecting travel choices include city-wide or national awareness campaigns (such as In Town without my Car and Bike Week); city-wide information, marketing, branding and image-building campaigns to promote public transport; new forms of service delivery such as home shopping; new forms of transport which are more closely targeted at people's individual travel needs (such as car clubs and demand-responsive taxibuses); and city-wide rolling programmes of individualised travel planning.

These different types of initiative are sometimes referred to collectively as 'soft factors'. Other terms used are 'smart choices' (the term now preferred by the Department for Transport), or 'mobility management' (the term used in many European projects).

Until fairly recently, we knew rather little about the potential contribution of these initiatives, and tended to assume that their impact was likely to be marginal at best. They were seen as 'nice to have' but not a core part of a local authority's transport strategy. This is now changing. Recent evidence shows that soft measures are already delivering substantial changes in travel behaviour, and if they were applied more intensively and in more places they could deliver even more. They are also extremely cost-effective, with higher benefit-cost ratios than most other types of transport project. There is now a strong case for local authorities to start to develop smart choices strategies (or soft strategies, or mobility management strategies) as a major part of their transport strategies. A good example of this type of approach is the three sustainable travel demonstration towns (Worcester, Darlington and Peterborough), recently awarded over £3 million each by the Department for Transport to develop town-wide soft strategies, including workplace and school travel planning, large-scale personalised travel planning programmes and other initiatives.

This guide works upwards from the basic building blocks of individual behavioural change tools, to a town- or borough-wide smart choices strategy. Section 2 describes the individual tools. In section 3, the guide looks at how these tools can be assembled into a travel plan for a specific site or residential area. Section 4 reports the latest evidence on how much impact a site-specific travel plan at a workplace, hospital or school can be expected to have. Sections 5 and 6 look at the potential cumulative effect if many travel plans and other smart measures were implemented together across an entire town, and the actions a local authority can take to make its travel planning as effective as possible.

2.   Individual tools used in travel planning

The tools available to travel plan co-ordinators include:
- *incentives and information* to encourage travel by more sustainable means (public transport, walking, cycling or car-sharing)
- *physical transport improvements*, such as a new bus service or cycle parking on site
- *car park and car fleet management*, to make sure people who genuinely need to use a car are given priority over those who have other options
- *actions to reduce the amount of travel* people need to do, such as shops, cafes and cash dispensers on-site, or practices such as teleworking and videoconferencing.

This section lists examples of each of these tools, arranged by travel mode.

2.1   Public transport

Providing *generic* public transport information
Habitual car users may be unaware of the existence of a bus or train service at the time they wish to travel. Since it is much cheaper to promote existing services than to lay on new ones, it is worth tackling this information barrier early on. One way to do this is to organise a regular mailing of the relevant public transport timetable to staff at the workplace or hospital, or to residents in an area which is developing a community travel plan. Updated timetables should be sent out each time services change (for example, twice a year). An employer might send out the timetables with payslips. A local authority working with many organisations might send out bulk copies of timetables for display on reception desks. As part of a community travel plan, timetables might be sent to every household in a particular area or along a specific bus route.

In places where there are frequent services and many bus and train routes to choose from, it may be more useful to distribute public transport maps or 'spider maps', showing all the bus and rail routes in a particular area or to a particular destination.

Some travel plans may be focussed on destinations to which people travel only occasionally – for example, a visitor attraction such as a nature park, or a university or college that is holding summer courses. For these, clear information about how to reach the site by public transport should be included in publicity fliers and posters and on websites. Public transport information should be enclosed with registration or joining details. Out-patients travelling to hospital should be sent public transport information with their appointment cards. Businesses and conference venues routinely send out maps to people visiting their site: it is important that these give information about public transport access, not just car parking availability.

- In Birmingham, the city council co-ordinates a scheme called Company TravelWise. More than 165 businesses belong to the scheme and receive a range of benefits, including a TravelWise noticeboard on which information updates can be displayed in the workplace, and monthly mailings of information, including bulk copies of public transport timetables for distribution to their staff[1].

- In Aylesbury, Buckinghamshire, the county council sent a public transport timetable for the Route 43 bus service to every household living within 500 metres of the route. The timetable was designed 'to look like a Mercedes advert'. At the same time, the buses were re-branded with route information and the words 'every ten minutes' blazed on the sides. Within a couple of months, nearly a third more passengers were using the route[2].

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[1] *Smarter Choices: changing the way we travel* DfT, UCL, TQL, RGU and Eco-Logica (2004)
[2] *Smarter Choices, ibid.*

Providing *tailored* public transport information
It may be possible to offer a personalised service, so that individuals are given public transport information which is tailored to their specific needs. This costs more than a 'one size fits all' approach, but is likely to have more impact. It ensures that each person gets the information that they really need, and the personal touch may provide greater encouragement to someone to think about their travel options.

Some travel planning programmes offer people the option of receiving a personalised journey planner. Employees are invited to fill in a simple form with their address, the address of their workplace, and the days and hours they normally work. They receive personalised information about the best way to make their journey by public transport. A similar service can be offered to residents as part of a community travel plan, with each household invited to nominate a journey they regularly make, for which they would like a personal public transport timetable.

Another option is to offer a range of simplified public transport timetables – perhaps pocket- or credit-card size – for all services on each main route or corridor. Many people will find these easier to use than an unwieldy book of public transport times, or multiple timetables for different services on the same corridor. As part of the TravelSmart project in Quedgeley, Gloucester, the council developed a series of bus stop specific timetables. Each A4 sheet had a large-scale map showing the bus stop location, and the times of buses from that stop to Gloucester city centre.

It is also worth catching people at transition points in their lives – for example, when they start college, change job, or move house, or when children switch from primary to secondary school. Some school travel plan co-ordinators provide travel information packs for children in Year 6 of primary school, explaining which buses to use to reach their new school.

- In South Yorkshire, the Passenger Transport Executive has developed a service called TOPS – the Travel Options Planning Service – which provides tailored travel information to companies and individuals. This includes the option of a personalised journey planner. Follow-up surveys have shown an 18% increase in bus use amongst people who have received a personalised journey planner[3].

- In Cambridge, the county council and Addenbrooke's Hospital are working on a personalised journey planning project aimed at new employees. Each year, 1200 new employees start work at Addenbrooke's and 280 at Shire Hall. New employees are contacted once their start date is confirmed and four months after being in post, and offered information to encourage them to travel sustainably[4].

Cheaper travel by public transport
Many workplaces offer their staff interest-free loans to buy a season ticket for bus or rail travel.

Some workplaces, hospitals and schools have gone one step further, negotiating with public transport operators to get special deals or discount travel for their staff or pupils. Large employers may be in a strong position to persuade public transport operators to offer special deals.

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[3] *Smarter Choices, ibid.*
[4] *Smarter Choices, ibid.*

In Buckinghamshire, the county council negotiated with bus company Arriva and train company Chiltern Railways to secure large discounts for staff who commute by public transport. The Arriva discount is 50%. The Chiltern Railways discount is 34%, available to the employee and up to three family members, for any journey (not just the journey to work) and at any time of day, seven days a week. Other employers in Buckinghamshire – the police, furniture company Ercol and Wycombe District Council – have negotiated similar schemes.

In West Sussex, the county council underwrote the cost of a special student fare card, entitling school pupils at its secondary schools in Bognor Regis and East Grinstead to travel at a quarter of the adult fare. The council also paid for new bus services where parts of a school catchment area were poorly served, and school pupils received tailored information about bus services. In Bognor Regis, the initiative led to a five-fold increase in the number of pupils travelling to secondary school by bus, from a maximum of 30 to over 150[5].

Visitor attractions and leisure destinations such as football grounds and cinemas can also offer cheaper travel. For large attractions, it may be possible to negotiate with public transport providers to offer a special 'all in' ticket, covering travel and visitor entry. Smaller attractions can offer reduced-price entry to visitors who can show a valid bus or rail ticket for their journey.

Better public transport services
Better information and cheap fare deals will not be enough to reduce car use at a site that is poorly served by public transport. Where this is the case, travel plan co-ordinators have various options for improving public transport services.

First, it may be possible to negotiate with the local bus company to improve the existing service. Travel surveys may provide evidence of the number of people who would use a new service. The bus company may be prepared to reschedule services to match start and finish times at a school or workplace, or it may agree to re-route buses so they come onto the site. It may be possible to move an existing bus stop closer.

Train companies may also be willing to consider stopping at extra stations if there is enough demand.

Some employers or visitor attractions may be able to fund extra services. One option is to pay a bus company to run extra public bus services on routes that serve the site.

Alternatively, an employer or group of employers on one site might fund a free shuttle bus exclusively for their staff, linking the site with the town centre or the nearest train station. Some employers run works buses that take employees all the way from home to work. Visitor attractions might pay for a shuttle bus to link to the nearest train or tube station, or, if visitor numbers are not large enough to justify this, an attraction might subsidise a shared taxi to link with trains. Some schools now have dedicated school buses; a national trial of American-style yellow school buses in Surrey, West Yorkshire and Wrexham offered a guaranteed seat for every child, seatbelts, a smoking ban, on-board escorts and drivers trained in supervising children.

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[5] *Less traffic where people live: how local transport schemes can help cut traffic* TQL, University of Westminster, Transport 2000 and RCE1851 (2003)

- In Bristol, the mobile phone company Orange laid on free buses for staff, linking their North Bristol edge of town offices with their city centre Temple Point site. The distinctive bright orange buses run every half hour throughout the day. Car commuting to the edge of town site fell from 92% to 80% over five years, and bus use increased from 1% to 6%[6].

- As part of the travel plan at their site near Sandwich, Kent, the pharmaceutical company Pfizer invested heavily in new bus services. A free shuttle bus links the site with Sandwich town centre and rail station, running every 10 minutes at peak times (morning, lunch and evening) and every 20 minutes through the rest of the day. The company contracted Stagecoach to provide additional services, including an evening bus to Canterbury. It also paid Stagecoach £100,000 over three years for enhancement of a public service[7].

- At Reigate Priory Junior School in Surrey, the local authority negotiated with the bus operator to adjust the timetable, route and bus stops for a scheduled service. The bus company charges a discounted fare for pupils that buy tickets through the school every half-term. About 25 pupils use the bus regularly[8].

2.2   Cycling

Better facilities for cyclists

Cycling is a viable option at sites where a reasonable proportion of trips are quite short. A travel survey will reveal whether this is the case. Nationally, one third of all trips to work are less than three miles. Most trips to school are also likely to be short enough to cycle, although traffic calming, cycle paths and safe crossings may be needed before parents will allow their children to cycle to school.

New facilities on site can be an effective way of raising the profile of cycling. There should be good quality cycle parking, preferably under shelter, close to the main front entrance. Visitors may prefer simple Sheffield stands, while employees may prefer a secure shelter with key or swipe card access. At schools, the cycle shelter should be in a site overlooked by classrooms.

Some employees will appreciate having changing facilities and showers where they can freshen up before starting work. Lockers to store cycle clothes and equipment are also likely to be welcome. Some employers also provide an iron and ironing board.

At larger workplaces, it may be possible to persuade a local cycle shop to provide a repair and maintenance service on-site once a week.

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[6] *Making travel plans work* DfT, Transport 2000, UCL and Adrian Davis Associates (2002)

[7] *Making travel plans work, ibid.*

[8] *Making school travel plans work*, DfT, Transport 2000, UCL, TQL, Sustrans, Cleary Hughes and Adrian Davis Associates (forthcoming)

- Addenbrooke's Hospital in Cambridge has more than 1300 bike parking spaces (about double the number before the travel plan was introduced). Cycle lanes have been introduced throughout the site. There is an on-site cycle repair operator on Wednesday mornings. The trust has installed shower and changing facilities. Staff are entitled to interest-free loans of £500 for bicycles[9].

- Sefton Borough Council on Merseyside has installed cycle parking for over 590 bikes at schools in the borough. At Hatton Hill Primary School the new cycle sheds have been accompanied by a comprehensive package to get the children cycling. This includes giving children a helmet, a good lock, back and front lights and a reflective belt. Bikes are security marked. Children take part in a bike maintenance workshop, to find out how to repair a puncture and remove a tyre. There is cycle training – both for the children and for adults who cycle with them. The area around the school has also been traffic-calmed[10].

Encouraging cycling

Once basic cycle parking facilities are in place, it is important to raise the profile of cycling as an option.

Lack of confidence in busy traffic stops many people getting on their bikes. One way to help address this is to offer on-road cycle training. Local authorities can offer this to schools as part of a step-by-step road safety programme, starting with basic bike control skills in the playground and moving on to cycling on the road. Businesses can contract a cycle training company to provide on-road tuition to their staff. A recent survey in London found that even a small amount of training can greatly increase people's confidence cycling on roads. With an average of 2 hours training, the number of trips people made by bike rose by 144%.

At colleges and workplaces, bicycle user groups can be an effective way of building interest in cycling. Members may be willing to run special events, such as cycle to work days or cyclists' breakfasts. It may be possible to organise a 'buddy scheme' so new cyclists are matched with experienced cyclists for advice on good routes to take.

Businesses can encourage cycling for work-related trips, by having one or more office bikes available for use by staff (and folding bikes for longer trips, which can be taken on the train or bus). Staff should be offered the maximum possible business cycle mileage allowance that will not incur tax – at present 20 pence per mile.

At schools, cycle to school days or regular 'cycle trains' can encourage more pupils to cycle. A cycle train is led by experienced adult cyclists, and picks up pupils from their homes along a set route to school.

Some travel plan co-ordinators have tried intensive support programmes to encourage non-cyclists to try cycling. These have included giving participants a free bike and cycle equipment for a year. In exchange for this, participants agree to record their cycle use and sometimes to take part in fitness monitoring. Health promotion officers may be interested in working with local authorities to offer incentives for people to cycle – for example, giving local residents a cycle milometer and offering vouchers for cycle equipment or healthy food for every mile cycled. These incentive programmes could be effective as part of a community travel plan, or a travel plan in a workplace, school or hospital.

Personalised journey planners usually focus on public transport options, but they can also tell people how to get to their destination by bike. Developing this type of journey planner will require good local knowledge of cycle routes.

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[9] *Making travel plans work, ibid.*, and http://www.addenbrookes.org.uk
[10] Merseyside TravelWise, personal communication

- York offers a comprehensive cycle training programme to pupils at its schools. The programme starts with a half-day of training in year 5 or 6 of primary school, which almost all children take up. A further 70% go on to take level 2 training before leaving primary school. About 20% take advanced level 3 training in their first year of secondary school[11].

- The Bike Bus'ters project in Aarhus, Denmark, gave a bike, free bike maintenance, rain gear, information and an optional health check to 175 habitual car users. Participants also received a free one-year public transport pass and timetables. Trips by car fell from about 80% of all trips beforehand to about 45% four months after the project ended. The impact was most dramatic for regular trips, such as work and shopping trips. Cycling increased most in the summer months and bus travel in the winter[12].

2.3   Walking

Encouraging walking

Promotional campaigns and information can be effective at increasing walking, particularly as part of workplace or hospital travel plans (when aimed at employees) or as part of a community-based programme. A 'Walk in to Work Out' education campaign targeted at employees of three Glasgow organisations succeeded in increasing walking among its participants. Targeted employees were sent a booklet with information on choosing routes, personal safety, showers and safe cycle storage. The pack included an activity diary in the form of a wall chart, a map of walking and cycle routes, distances from local stations and reflective safety strips. Six months after the start of the project, targeted employees were typically spending about 2 hours a week walking to work, compared to about 1 hour per week in a control group which had not received the information materials[13].

Personalised travel planning programmes also offer opportunities to increase walking. These are usually neighbourhood-based projects, and involve offering a comprehensive range of information and incentives to participants, such as personalised journey planners, public transport timetables, and local cycle and walking maps. The large-scale personalised travel project in South Perth, Australia, cut car driver mode share from 60% to 52% of trips, with half of this being due to more walking (up from 12% to 16% of trips). The first UK large-scale project in Quedgeley, Gloucester, cut car driving from 49% to 45% of trips, with most of the change due to people walking more (up from 22% to 25% of trips)[14].

Many school travel plans, especially those for junior schools, are primarily aimed at increasing walking. There are a wide range of techniques, including walking buses which run on fixed routes, collecting children at designated 'walking bus stops'. In Merseyside, the local authorities promote special walking days such as 'Walking Wednesdays' and 'Fresh Air Fridays'. Children can be encouraged to walk some of the way through park-away days or park and walk schemes. Some park and walk schemes offer points or stars to children for walking from outside a parking exclusion zone, with rewards once enough points have been accumulated. Walk to School Weeks in May and September provide a focus for schools to make a special effort. Some schools have organised health and safety weeks, with information about the benefits of walking and fitness checks for adults and children. Practical road safety training can help encourage parents to walk with their children to school.

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[11] English Regional Cycling Development Team, personal communication

[12] *Bike Bus'ters – from car to bike and buses in Aarhus*, Aalborg University (undated)

[13] "*Walk in to Work Out": a randomised controlled trial of a self help intervention to promote active commuting*, Mutrie, Carney, Blamey, Crawford, Aitchison and Whitelaw, Journal of Epidemiology and Community Health 2002;56:407-412

[14] *Smarter Choices, ibid.*

Surveys suggest the main motivation for people to walk more is to be more healthy and fit. One survey found over a third of people who had cut back on short car journeys did so because they wanted to get more exercise, and this was a much stronger motivator than congestion, desire to help the environment, or parking difficulty. This suggests that campaigns which emphasise the health benefits of walking could be particularly helpful in encouraging behaviour change.

Better facilities for walking
Once a group of people has been engaged in the process of travel planning, it may become clear that there are some specific problems with access to a site on foot. For example, parents at a primary school may feel that a wider pavement, a pedestrian crossing, 20 mph zone or traffic calming would make it safe for their children to walk. Residents may say that traffic calming, seats and environmental improvements would make them more likely to shop on a local high street rather than drive to the supermarket.

Changes on-site may also be needed to encourage people to walk. For example, Buckinghamshire County Council has found that covered waiting areas or 'gazebos' are popular with primary schools, because they enable parents to wait somewhere dry and warm when they come to pick up their children.

The promise of funding for these fairly small-scale changes to physical infrastructure can act as a powerful incentive for a school community or a local neighbourhood to take other actions to encourage walking. This is especially true if it is clear that funding will be directed to the changes that the community itself feels to be most important.

> • Merseyside TravelWise helps schools to set up their own travel plans. As part of this, the five Merseyside local authorities each have an annual budget of between £80,000 and £250,000 for small-scale infrastructure improvements around schools. Once a school has a fully-fledged travel plan, including behavioural measures such as walk to school days, it is encouraged to draw up a wish-list of physical changes that it feels would encourage sustainable travel. These might include traffic calming, pedestrian crossings, or better street lighting. The Merseyside school travel co-ordinators believe that this linkage between soft behavioural change tools and hard infrastructure measures is an important feature of a successful school travel plan[15].

2.4   Car-sharing

There are two main types of car-sharing. Some car-sharing schemes are focussed on people regularly making the same trip, to work or to school. For these schemes, participants are encouraged to register on a car-sharing database, and potential 'matches' are then identified either automatically or by a scheme administrator. Participants may be encouraged to join in various ways:

• Car-sharers may be allocated the most convenient parking bays close to the main entrance.
• Car-sharers may be eligible for free or cheaper parking. For example, at a call centre for the financial services company Egg on the outskirts of Derby, car-sharers are exempt from a daily 75 pence parking charge paid by other employees[16].
• There may be financial incentives or rewards like gift vouchers for people who register, or who car-share regularly. For example, the company Computer Associates pays

[15] *Making school travel plans work, ibid.*
[16] *Making travel plans work, ibid.*

employees approximately £300 – 400 per year if they car-share regularly (at least 25 days in six months) [17].

- Launch events and anniversary events (for example in a staff cafeteria at lunch time) can be used to persuade people to sign up.

- Many employers offer a guaranteed taxi ride home if a pre-arranged lift falls through.

Some organisations have developed their own schemes, using software provided by companies such as Intrinsica. These types of schemes require in-house administration. Others use internet-based systems provided by companies such as Liftshare or Share-a-journey, which can provide a degree of automatic matching. These internet-based systems can be locally branded. For example, Liftshare provides branded car-sharing schemes to about 300 businesses, local authorities and local communities. Whichever approach is used, local promotion and marketing of the scheme is still essential for success.

Although this type of car-sharing scheme has most often been used as part of a workplace travel plan, it could also form part of a school travel plan or a community travel plan.

Car-sharing can also be promoted for occasional journeys, such as leisure trips. For example, Share-a-journey helped develop a scheme aimed at the 15-20,000 regular visitors to the Eden project ('passport holders' who live within 50-60 miles). Liftshare's website enables the arrangement of specific one-off lifts on-line, including click-on national maps of where members are based.

- In Milton Keynes, a car-sharing scheme called CarShareMK is aimed at people who commute to jobs in the town centre. Members benefit from free parking, whereas non-sharers must pay 20 pence or 80 pence an hour. To qualify for free parking, two registered sharers must display their permits together in the windscreen of the vehicle [18].

- Staff at airports operated by BAA can join Airport CarShare, a scheme run by Vipre. At Heathrow there are over 2000 members representing about 100 companies. More than 60% of members share at least three days a week. Members are offered a guaranteed ride home if their car-sharing arrangements fall through, priority parking bays, and a wide range of discounts on breakdown cover and purchases from high-street shops [19].

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[17] *Making travel plans work, ibid.*

[18] *Smarter Choices, ibid.*
[19] http://www.airportcarshare.co.uk

Car fleet management

Companies can reduce the need for staff to drive to work by providing pool vehicles for travel during the course of the day. These might include bicycles for short trips and folding bikes for use with public transport for longer trips, as well as cars or vans.

If there is a car club in the area, businesses or local authorities may be able to arrange to use car club vehicles as pool cars during the day, since this tends to be the time when car club vehicles are less heavily used by individual members. This type of arrangement can help increase the financial viability of a car club.

Companies should also consider carefully their policy on allocation of company cars. Use of pool cars and a contract with a taxi firm are likely to result in more efficient and sustainable travel practices, both for commuting and business travel. Instead of a company car, employees may be offered cash, a season ticket, or a bicycle plus cash.

Fleet management is usually thought about in the context of workplace travel plans, but it is also relevant for community travel plans. Inner city residential neighbourhoods often suffer from acute pressure for on-street parking. Formal car clubs or informal car-sharing arrangements between neighbours can reduce parking pressures, free up space for more productive use, and encourage residents to choose sustainable travel options.

2.6   Cross-modal measures

Creating a car-free culture

All travel plans need an enthusiastic champion – someone who will constantly think up new ways of engaging colleagues, pupils, neighbours or visitors. Publicity and encouragement play an important role in persuading people to cut their car use. Regular newsletters or email bulletins are a good way of keeping people informed about changes such as new bike parking at work or a new walking bus route to school. Special days, such as car-free day or walk to school week, can provide a focus for celebrations. Prize draws are a good way of encouraging people to join car-sharing schemes. 'Freebies' such as post-it pads, stress balls and frisbees have all been used to publicise the car-free message.

Many local authorities also run travel awareness campaigns, which can help influence public attitudes and may make people more ready to change their travel behaviour.

- Merseyside TravelWise helps schools develop travel plans. Promotional activity is an important part of the work. Schools are supplied with banners to hang at the front gate, saying 'WALKING ... NEXT WALK TO SCHOOL DAY IS ON....' with a space for the date to be posted. Schools keep parents informed about their travel plan through newsletters. During international walk to school week Billinge Chapel End school had a French theme: pupils walked to school carrying French flags, and had a French breakfast of croissants and jam. Walking to school is encouraged by a 'golden shoe' award: children are awarded points for walking, and the class with the most points gets the golden shoe[25].

- City of York Council has run a series of travel awareness campaigns promoting walking and cycling. The campaigns use media that car drivers are likely to see: for example, on the back of buses, on the back of city centre parking tickets and at the motor show. There has been advertising on the local radio station – because car drivers often tune into this – and at out-of-town cinemas. The council has also produced coasters and beer mats for distribution to local pubs and employers[26].

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[25] *Making school travel plans work, ibid.*
[26] *Smarter Choices, ibid.*

Reducing the need to travel

There are various ways of reducing the need for people to make trips. Large workplaces, colleges, hospitals and business parks can reduce the need for people to travel during their lunch hours by providing facilities on-site such as convenience stores, a cafe or cafeteria, and cash dispensing machines.

Practices such as teleworking can reduce the number of days staff have to travel to work. Teleworking can also improve staff retention, increase productivity, reduce absenteeism, and enable staff with childcare responsibilities to remain in paid work. Teleworkers may work at home most of the time, or just a day a week or less. Other flexible working practices, such as flexitime (which enables staff to time their arrival and departure to match public transport) and compressed working weeks (working 9 long days every fortnight) can also help reduce car use.

Teleconferencing facilities are an effective way of reducing business travel. Larger organisations may invest in their own teleconferencing equipment (video links, web links or telephone-based systems), or videoconferencing suites may be hired. For example, the videoconferencing company face2face charges £50 - £100 an hour for use of their facilities. This is comparable to or cheaper than the cost of travelling to a meeting in another city. Teleconferencing also saves on travel time. A survey by face2face of rail passengers at Paddington Station found that most business trips lasted more than six hours, of which less than two hours was actually spent in the meeting with the rest of the time taken up by travel[27].

As well as its use for meetings, teleconferencing can be used for training programmes. It has also been used in the NHS for specialist consultations.

> - About 7500 staff at British Telecom are registered with its Workabout teleworking scheme. Staff who join the scheme are provided with a computer, a dedicated phone line, a furniture budget of up to £650, and access to a helpdesk via phone and email. Some BT offices have been re-organised as open-plan flexible spaces incorporating internet cafes, meeting rooms and space for staff to 'hot-desk'. Saving office space was one of the initial motivations for BT's teleworking programme, but it is also valued for the better work-life balance it offers to employees. Surveys of teleworking employees suggest they have reduced their weekly mileage by between about 100 and 200 miles a week[28].

[27] *Smarter Choices, ibid.*

[28] *Smarter Choices, ibid.*

3.   Putting the tools together in a package

3.1   Types of travel plan

Each of the tools described in the previous section would on its own deliver rather little behaviour change, but when the tools are combined in a package to form a site-based or area-wide travel plan the impact can be significant. The contexts in which travel plans have been developed include:

Workplaces

Workplace travel plans may be co-ordinated at the level of an individual business site, or one plan can cover many sites – for example all the companies based on a particular business park, or multiple sites of one employer, or clusters of employers from the same sector such as educational institutions. Workplace travel plans mainly tend to focus on those working at a site (employees, or students in educational institutions), but at some sites the travel generated by visitors or customers and delivery vehicles will also be significant, and should be looked at as part of the travel plan. Staff travel for business should also be considered.

Schools

Travel plans for primary schools are more likely to focus on measures to encourage walking and cycling, since primary schools generally serve fairly small catchments. Travel plans for secondary schools and independent schools may need to place more emphasis on public transport, cycling and car-sharing, though they should not overlook walking. Although school travel plans usually look mainly at travel by pupils, it is also worth considering travel by staff. They may account for a small proportion of all trips to and from the site, but are likely to travel greater distances.

Hospitals

Hospitals are often strongly motivated to address the issue of travel to their sites, since the large number of vehicle movements generated by staff, out-patients and visitors can cause severe congestion and access problems, in some cases leading to ambulances having difficulty getting access to a site. Most hospital travel plans focus primarily on travel by staff, but some hospitals, notably Addenbrooke's in Cambridge, are also trying to cut car use by visitors and out-patients.

Visitor attractions

There is less experience of travel planning for visitor attractions than for workplaces, hospitals and schools. Examples of the types of attraction that have developed travel plans include National Trust properties, museums and stately homes, nature reserves and botanical gardens, and major one-off events such as the Farnborough Air Show. Tourist honeypot areas with multiple visitor attractions can develop area-wide travel plans. For example, the local authority, tourist board, accommodation providers and attractions might work together to encourage sustainable travel by visitors and tourists both to and within a market or seaside town. Town-wide travel plans will probably need to concentrate exclusively on trips made by visitors and tourists, but travel plans for individual sites might also consider the trips generated by staff.

Leisure destinations

Although there are instances of leisure destinations taking action to reduce car travel, they tend to be few and far between. However, there is clearly potential for travel planning to be applied to travel to leisure destinations. For example, pubs, clubs, theatres and cinemas can generate significant travel in the evenings. There are obvious advantages to being able to travel home from these types of venues by public transport without having to worry about which member of a party is not going to drink. On the continent, some towns such as Münster in Germany have turned this to advantage, working with insurance companies who have sponsored extensive networks of night buses to get people home[29]. Leisure centres,

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[29] *Rural transport futures* Transport 2000, Countryside Agency and Citizens Advice (2003)

gyms and swimming pools are more likely to generate daytime or early evening traffic, much of it fairly local, and there is the potential to encourage people using these facilities to get fit by walking or cycling. Spectator sport venues such as football grounds may generate large traffic volumes on match days. Measures such as controlled parking zones may already be in force around such sites. Merseytravel has worked with Liverpool and Everton Football Clubs to develop a 'Soccerbus' service to reduce the number of supporters arriving by car[30].

Neighbourhoods

Recently the idea of a community travel plan, based on a defined residential area, has started to be developed. For example, the small town of Langenlois in Austria (with a population of 7000) developed a 'traffic-saving' plan which included measures such as car-sharing, publicity and incentives to encourage residents to shop locally, safe routes to school, cycle parking and events to celebrate car-free day. The project was very successful: car mode share fell from 63% to 54% and cycling increased fourfold[31].

In the UK, local residents in a neighbourhood of Hereford are working with the council to develop a community travel plan.

In theory, community travel plans could include all sorts of neighbourhood-based initiatives, such as:

- Car clubs
- Car-sharing schemes (for regular and occasional trips)
- Personalised travel planning
- 'Shop local' schemes and shopping home delivery services
- Mailing public transport timetables to households
- Travel information packs for new residents
- Incentive schemes for local people to walk or cycle more.

3.2   Choosing the right tools

Whatever the context for the travel plan, section 2 is a starting point for thinking about the tools it should contain. Each tool can be adapted to the type of site and the nature of the journeys being made. The tables on the following pages show how the different tools can be tuned to fit the special circumstances of each type of travel plan. Looking at the tables, it is clear that the range of tools available for workplace and hospital travel plans is wider than the range of tools that have been used in the other kinds of travel plan. In particular, relatively few tools have as yet been applied to visitor attractions and leisure destinations. This may be because there is less experience of these types of travel plan. As experience grows, the number of tools available is likely to grow too.

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[30] *Soccerbus* Merseytravel submission to National Transport Awards (2002)
[31] *Rural transport futures*, ibid. and http://www.vspar.at

Table 1: Public transport tools	Workplaces	Hospitals	Schools	Visitor attractions	Leisure destinations	Neighbour-hoods
Providing generic public transport information						
Send regular mailings of public transport timetables to target audience	Y	Y				Y
Produce and distribute public transport network maps to target audience	Y	Y				Y
Send out public transport information with tickets or appointment cards, or include in publicity fliers		Y		Y	Y	
Providing tailored public transport information						
Offer personalised journey planners for specific regular trips	Y	Y	Y			Y
Market specific public transport route(s) to people within catchment area	Y	Y	Y	Y	Y	Y
Personalised travel planning (offer package of personalised incentives and information)						Y
Provide information about travel to new destination (new school for Year 6 pupils / new workplace for new employees / in new area for new residents)	Y	Y	Y			Y
Cheaper travel by public transport						
Interest-free loans for staff to buy season tickets	Y	Y	Y	Y	Y	
Offer discounted travel cards / season tickets	Y	Y	Y			
Offer discounted 'all-in' tickets for travel plus visitor entry, or reduced-price entry for visitors arriving by public transport				Y	Y	
Better public transport services						
Negotiate with rail / bus operators to run new public service to site	Y	Y	Y	Y	Y	
Shuttle bus or shared taxi linking site to train station or town centre	Y	Y		Y	Y	
Run dedicated bus specially for target group	Y	Y	Y			

Table 2: Cycling tools	Workplaces	Hospitals	Schools	Visitor attractions	Leisure destinations	Neighbour-hoods
Better facilities for cyclists						
Provide cycle parking in convenient location	Y	Y	Y	Y	Y	Y
New cycle lanes on site, or linking site to national / local cycle network	Y	Y	Y	Y	Y	Y
Install changing facilities, showers and lockers	Y	Y				
Weekly on-site cycle repair service	Y	Y				
Encouraging cycling						
Offer interest-free loan for purchase of bicycle	Y	Y				
Offer bike maintenance training			Y			Y
Offer on-road cycle training	Y	Y	Y			Y
Set up bicycle user group	Y	Y				
Run special cycling events (cycle to work/school days, cyclists' breakfasts)	Y	Y	Y			Y
Buddy scheme for new cyclists	Y	Y				Y
Provide pool bikes for work-related trips	Y	Y				
Offer business mileage allowance for cyclists	Y	Y				
Set up cycle train			Y			
Provide cycle equipment (lock, lights, safety clothing)			Y			
Intensive support programme, offering bike and cycle equipment plus voluntary fitness monitoring	Y	Y				Y
Incentive programmes (e.g. vouchers or points for cycle equipment or local shops) for every mile cycled			Y		Y	Y
Personalised journey planners with cycling information	Y	Y				Y

Table 3: Walking tools	Workplaces	Hospitals	Schools	Visitor attractions	Leisure destinations	Neighbour-hoods
Encouraging walking						
Targeted 'walking for health' promotional campaigns	Y	Y	Y		Y	Y
Personalised travel planning programmes						Y
Walking buses			Y			
Special walk to school days / weeks			Y			
Incentive programmes (vouchers / points for every mile walked)			Y		Y	Y
Offer on-road pedestrian training			Y			
Better facilities for pedestrians						
Safer street environment (pedestrian crossings, traffic calming, 20mph limits, home zones)			Y			Y
On-site improvements in facilities for people arriving on foot (e.g. covered waiting areas, seating)			Y			

Table 4: Car-sharing tools	Workplaces	Hospitals	Schools	Visitor attractions	Leisure destinations	Neighbour-hoods
Promoting car-sharing for regular trips						
Establish and promote car-share database to match people for regular trips	Y	Y	Y			Y
Preferential parking for sharers	Y	Y				
Make sharers exempt from parking charges	Y	Y				Y
Incentive payment to staff who car-share regularly	Y	Y				
Guaranteed ride home if car-share falls through	Y	Y				
Promotional events to encourage people to register on database	Y	Y				
Promoting car-sharing for occasional trips						
Publicise internet car-sharing schemes in promotional literature to members				Y		

Table 5: Car parking and car fleet management tools	Workplaces	Hospitals	Schools	Visitor attractions	Leisure destinations	Neighbour-hoods
Car park management						
Charge for use of car park	Y	Y		Y	Y	
'Parking cash out' for people not using car park	Y	Y				
Allocate parking permits on basis of need	Y	Y				
Incentives for people giving up a parking permit	Y	Y				
Preferential parking / exemption from charges for car-sharers	Y	Y				
Car fleet management						
Pool vehicles (cars and bikes) for business travel	Y	Y				
Offer cash / season ticket / bike to employees, instead of company car	Y	Y				
Establish car club						Y
Integrate car club with pool cars at large organisations	Y					

| Table 6: Cross-modal tools	Workplaces	Hospitals	Schools	Visitor attractions	Leisure destinations	Neighbour-hoods
Creating a car-free culture						
Newsletter or email bulletins to keep target audience informed and involved	Y	Y	Y			Y
Special events (car free days, bike to work days, walk to school weeks)	Y	Y	Y			Y
Travel awareness campaigns						Y
Reducing the need to travel						
Providing facilities on-site	Y	Y				
Teleworking / flexible working practices	Y	Y				
Teleconferencing facilities	Y	Y				

4.   How much can be achieved at site level?

Travel plans can achieve substantial cuts in car use. There is now quite a large body of evidence on the effectiveness of workplace and school travel plans, and some evidence on the effectiveness of hospital travel plans. So far, there is not enough experience or research to show how much the other types of travel plan can cut car use. This section looks at the evidence for workplaces, schools and hospitals.

The impact of a travel plan can go up over time, as more measures are put in place. However, it can also go down, for example if a key champion of the travel plan leaves a company. This means that the local authority has to keep up the pressure! It is important to keep supporting an organisation once it has got its travel plan up and running. Travel plans do not run themselves.

4.1   Workplace travel plans

Individual workplace travel plans can have widely differing impacts on car use. The number of cars being driven to work can fairly commonly be cut by 10 – 20%, but some travel plans can reduce car commuting by 35% or more, while others may have no impact at all on car use[32]. In general, travel plans which include car parking management tools are likely to be more effective than those which do not. Figure 1 shows the range of behaviour change achieved by 38 travel plans in 17 UK local authority areas. The (mean) average reduction in car use for these 38 travel plans is 18%. In other words, a local authority promoting travel plans to businesses in its area might reasonably expect overall car commuting reductions of about a fifth across the companies with which it is working. This figure allows for some 'poor performers' as well as some companies that do much better.

Figure 1: Reduction in car use achieved by workplace travel plans
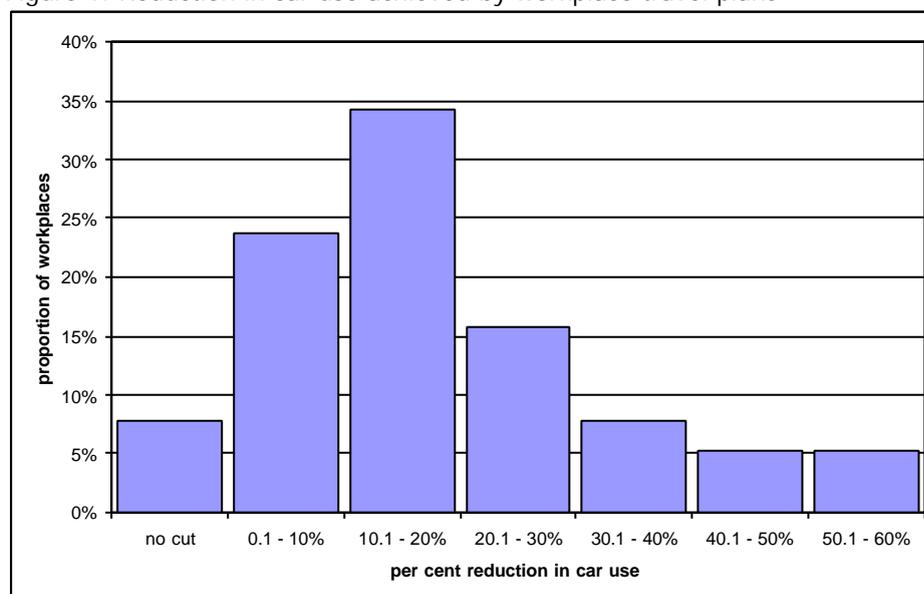
Source: data from *Smarter Choices: changing the way we travel* and *Making travel plans work*

The thrust of a workplace travel plan is usually to reduce car commuting, and there is little information about the effects of travel planning tools on travel by visitors or delivery vehicles. However, there is some evidence about the extent to which measures such as teleconferencing can reduce staff travel for business[33]. Studies in the UK, USA, Canada, Germany and Ireland suggest that between 20% and 35% of business travel is of a type that could potentially be replaced by teleconferencing. The Swedish company Tetrapak reported

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[32] *Smarter Choices, ibid., Making travel plans work, ibid.,* and *Less traffic where people live, ibid.*

[33] *Smarter Choices, ibid.*

that teleconferencing had reduced its business travel by about 10%. In the UK, PR agency Mason Williams reported that it had cut travel costs by a third after installing video-meeting equipment. At BT, teleconferencing is estimated to have cut business travel by about 10%, or roughly 500 miles per employee per year.

Most workplace travel plans pay more attention to commuting than to business travel. However, these results suggest that action to reduce car use for business could be as effective as action to cut the amount of commuting by car.

A recent UK study of seven local authorities found that promotion of workplace travel planning cost about £2 - £4 per employee targeted[34]. This included the cost of a staff team, plus a grants scheme (if one existed) and a promotional budget. A medium-sized town with a workforce of 100,000 might therefore expect to spend between £60,000 and £120,000 a year to reach about a third of its workforce. A conurbation with a workforce of half a million people would need to spend about £100,000 - £200,000 a year to reach a tenth of its workforce, and more than this as the programme grew to cover more people.

Businesses will also incur some costs. The median average cost of a travel plan is about £50 per employee per year[35]. This is a lot less than the typical £300 - £500 cost of a parking space. However, some businesses may save money, for example by using revenue from car park charges to help fund travel plan measures, and by saving on the amount of car parking they need.

4.2   School travel plans

As with workplace travel plans, the success of school travel plans varies a great deal. Figure 2 shows the results achieved by 80 schools. About three-quarters of the schools had reduced car use, and in some cases the effects were large. A tenth of the schools had more than halved car trips.

Figure 2: Reduction in car use achieved by school travel plans
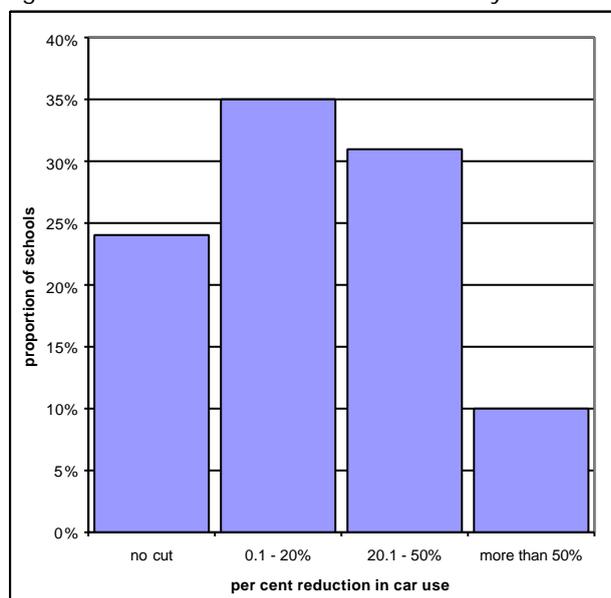
Source: data from *Making school travel plans work*,
reported in *Smarter Choices: changing the way we travel*

If there is a fairly intensive programme to cut car use, average cuts of 20% across several schools are quite common. For example, the Smarter Choices report found that:

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[34] *Smarter Choices, ibid.*
[35] *Making travel plans work, ibid.*

- fully-developed travel plans in Buckinghamshire had cut car use by an average 21% (across 6 primary schools);
- travel plans in Cambridgeshire had cut car use by an average 22% (across 8 private schools and sixth form colleges);
- travel plans in Devon had cut car use by an average 28% (across 9 schools identified as showing good practice).

Drawing together evidence from over a hundred schools, Smarter Choices concluded that most schools involved in travel planning (about 60 – 90%) will achieve some reduction in car use. A substantial proportion (about 15 – 40%) will reduce car use by over a fifth.

There are many other benefits to school travel work. Some teachers say that children who have walked to school with their friends are more ready to settle down and learn once they reach school. Walking buses can improve punctuality and attendance at schools where this is a problem. Children who walk to school develop better road safety skills than children who are dropped off by car. They also develop more independence and get regular healthy exercise.

There are revenue and capital costs associated with school travel plans[36]. Revenue costs (publicity, promotion and employing a staff team to work with schools) are about £4 per pupil targeted. Capital costs depend on the amount of infrastructure required. This might include pedestrian crossings, cycle lanes, traffic calming and wider pavements in nearby streets, and micro-infrastructure on the school premises, such as cycle shelters. A local authority might typically spend about £30,000 - £75,000 on street improvements around one school. Average spending per pupil place is about £95. This would not be sufficient for comprehensive treatment of all the roads used by pupils. For example, £30,000 would pay for one zebra crossing and some footway improvements.

A medium-sized town with about 25,000 school pupils would need about £50,000 a year to work with half of its schools. To put in place some basic safe routes infrastructure at every school over a ten year period, it would also need a capital programme of at least £240,000 per year. However, comprehensive safe routes treatment would cost substantially more. York, with about 25,000 school pupils, is investing about £628,000 per year from its capital programme on safe routes to school and school safety zones.

Micro-infrastructure like cycle shelters can be funded by the grants the government now offers to schools with full travel plans. These are £5000 for primary schools and £10,000 for secondary schools.

4.3   Hospital travel plans

Most hospital travel plans focus primarily on reducing car use by staff for the journey to and from work. A relatively small number of hospital travel plans have reported results of their travel plans, but those for which data are available suggest that travel planning can be at least as effective at hospitals as at other types of workplace. For example, Addenbrooke's hospital in Cambridge has cut car use by over a third between the early 1990s and 2002. Table 7 summarises reported reductions in cars driven to work at other hospitals in the UK. The range of results and the average are very similar to those reported in section 4.1.

Having achieved substantial reductions in car use amongst its own staff, Addenbrooke's hospital has recently started to apply the principles of travel planning to the 16,000 visitors and out-patients who travel to the site every day. Its 'Space programme' (aimed at saving car parking spaces for the people who really need them) includes various 'space travel' options, such as the 'space walk' for people who live near the site and the 'space shuttle' (over 60 buses an hour from across the city). The Space programme is strongly promoted on the hospital's website.

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[36] *Smarter Choices, ibid.*

Table 7: Reduction in car use achieved by hospital travel plans

	Reduction in car use
Addenbrooke's Hospital, Cambridge [1]	34%
Derriford Hospital, Plymouth [2]	31%
The Priory Hospital, Birmingham [1]	25%
Dental Hospital, Birmingham [1]	18%
Nottingham City Hospital [2]	16%
John Radcliffe Hospital, Oxford [2]	7%
Royal Orthopaedic Hospital, Birmingham [1]	0% (car use increased)
Mean average	*19%*

Sources: 1: *Smarter Choices: changing the way we travel*; 2: *Making travel plans work*. Reductions achieved over different time periods, and mostly refer to change between 'before travel plan' and 'latest results after travel plan'.

The costs of a travel plan can be substantial for a large hospital site. Some hospitals fund their travel plan measures from ring-fenced parking charges. For example, income from car parking charges at Addenbrooke's hospital was reported as about £1 million per year, and this is ring-fenced for maintenance and staff costs of the car parks and travel plan initiatives.

Table 8 shows the annual running cost, and the cost per employee, for four hospital travel plans. Running costs are typically £20 - £40 per employee.

Table 8: Annual running costs of a hospital travel plan

	Annual running costs	Annual running cost per employee
Addenbrooke's Hospital, Cambridge	£205,000	£41
Derriford Hospital, Plymouth	£150,000	£36
Nottingham City Hospital	£144,000	£41
John Radcliffe Hospital, Oxford	£142,000	£22

Source: *Making Travel Plans Work*

5.   How much can be achieved over an entire area?

Several recent research studies have estimated how much travel plans and other 'soft' measures might cut traffic. The most recent and most comprehensive work concluded that the effects could be substantial[37]. An intensive programme over ten years could cut traffic levels by an estimated:

- 21% in urban areas at peak times
- 13% in urban areas outside the rush hour
- 14% in non-urban areas at peak times
- 7% in non-urban areas outside the rush hour
- 11% nationally.

These figures are based on a programme of workplace and school travel plans, personalised travel planning, public transport marketing, travel awareness campaigns, car-sharing schemes, car clubs, teleworking, teleconferencing and home shopping. They assume much greater investment in these measures than has been the case up until now. However, they do not take account of potential traffic cuts from visitor or leisure travel plans, since there is not yet enough experience to be able to assess how significant these could be. Some of the measures that might form part of a community travel plan are included (such as car clubs, personalised travel planning and public transport marketing), but they are treated as individual elements, not as a travel plan package.

A combined programme of this type would have to be coupled with traffic restraint measures to prevent its benefits being eroded by induced traffic, especially in congested areas. If there were no effort to restrain traffic, the road space freed up would simply attract more car use by other people, so the net effect would be much less. Traffic restraint might include:

- re-allocating road capacity (for example, installing high quality bus priority measures, increasing space for pedestrians and cyclists; re-phasing traffic lights to allow more time for pedestrians and buses; replacing pedestrian subways with surface level crossings)
- parking control (including low parking standards for new developments, charging, use of workplace parking levies, re-development of parking space for more productive uses)
- congestion charging and adjustment of transport prices and fares
- traffic calming, pedestrianisation, stronger speed regulation and enforcement.

Although the *potential* effect of this type of programme is large, the actual effect will only be significant if there is a step-change in the priority afforded to these instruments. The box below summarises what an effective strategy would look like. For a medium-sized town or a London borough with a population of about 200,000 people, such a strategy might cost something of the order of half to one million pounds per year.

Increased spending on these measures can be justified by their high benefits. The Smarter Choices research concluded that the average cost of a comprehensive programme of these measures was 1.5 pence per vehicle kilometre saved – that is, £15 for removing each 1000 kilometres of vehicle traffic. Current official estimates suggest that measures to reduce traffic congestion bring benefits of about 15 pence for every car kilometre taken off the road, and more than three times this level in congested urban conditions. This means that every £1 spent on soft factors could bring benefits worth at least £10. This only takes account of benefits from reduced congestion. If other benefits (for example, to the environment) were included, the benefit:cost ratio would be even higher.

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[37] *Smarter Choices, ibid.*

Smart Choices: a strategy for a medium-sized town or borough

- Set up a team of people to develop workplace travel planning amongst large and medium-sized employers. This team would promote sustainable working practices such as teleworking and teleconferencing, and establish a town-wide car-sharing scheme as well as working with individual businesses. Over a period of ten years, it would reach the stage where about half of the workforce were covered by travel plans.

- Develop a rolling programme of personalised travel planning, targeting 5-10,000 people each year, neighbourhood by neighbourhood. Over ten years, such a programme would cover between a quarter and a half of all households in the town or borough.

- Work with bus and rail operators to market public transport service improvements to people living in their immediate catchment.

- Set up a rolling programme to develop school travel plans, including construction of 'safe routes' infrastructure such as cycle tracks and zebra crossings. Over ten years, this would cover every school in the area.

- Run a broader travel awareness campaign, to underpin the more targeted initiatives.

- Commission a series of smaller-scale experimental projects to develop understanding of some soft measures which are currently less well-developed. For example, this might include establishing a car club, or looking at ways the local authority can promote home shopping.

6.   How local authorities can promote travel plans

This section describes successful strategies adopted by local authorities to promote travel planning. It is about *processes*, or how to go about getting the best result. It looks first at travel planning for workplaces (but covering also hospitals and colleges, which are similar), and then at travel planning for schools.

6.1   Promoting travel planning to employers

Employ a team dedicated to promoting travel planning to businesses
No local authority travel planning initiative will stand much chance of success unless it employs a specialist team of officers to liaise with companies, set up special deals for their employees, co-ordinate grant schemes, commission guides and publicity materials, and take all the other actions necessary to develop and implement the travel plan tools described in section 2. As a rough rule of thumb, each full-time workplace travel plan officer might be able to work with businesses covering about 15-20,000 employees, assuming that he or she concentrates on larger employers. With time, as a travel plan initiative develops and moves on to smaller companies, this ratio will go down, so each officer will be able to engage fewer people. Equally, travel plan officers in areas where there are few large companies will not be able to work with this many employees.

Generally, workplace travel officers are directly employed by the local authority. However, in Cambridgeshire the county, city and district councils have set up a Travel for Work Partnership, with two staff, which they jointly fund. The university, primary care trust and Addenbrooke's hospital also contribute funding. There is a similar model on Merseyside, where the five local authorities and passenger transport executive Merseytravel have set up a joint Merseyside TravelWise partnership with seven staff (covering schools as well as workplaces). The partnership on Merseyside has also been successful in attracting some health sector funding.

Require workplace travel plans to be built into all large or strategically significant developments
The development control team should play a critical role in ensuring that large or strategically significant developments have travel plans. In Birmingham, any development that will employ more than 50 people must join the council's Company TravelWise scheme as a condition of planning permission. In York, the travel plan officer scrutinises all planning applications and advises on inclusion of travel plan issues in planning conditions. She also follows up old planning permissions to ensure conditions related to travel planning are enforced. There are particular challenges for non-unitary authorities in using the planning system to best effect, as district councils may not always be willing to co-operate by attaching conditions or agreements to planning permissions.

Concentrate on larger employers and those with congested site access
Once a local authority has a travel plan team up and running, there is the question of who to work with. Initially, very few businesses are likely to be interested in travel planning, so it makes sense to concentrate effort on those that are keen. These are likely to include large organisations with problems of site access. For example, hospitals often suffer acute problems with ambulances, staff, visitors and patients getting onto the site, and may want help tackling this. Working with relatively few large organisations is likely to be more effective than working with many smaller companies. In Nottingham, the city council has focussed its work on the 25 largest organisations in the city, and sees it as more important to continue working intensively with them than to spread its effort to encompass many more companies. Although only working with about 0.5% of companies, it is reaching 28% of the workforce.

Negotiate deals with public transport operators
Public transport operators should be key allies. Many local authorities have negotiated special deals with bus and rail operators, and these are an important incentive for companies to get

involved in travel planning. For example, Birmingham City Council works closely with bus company Travel West Midlands and CENTRO. They offer a half-price season ticket to any employee who gives up their parking space at work or their company car. Conurbation-wide public transport bodies (Transport for London and the passenger transport executives) should have an active role in setting up special public transport deals which local authority workplace travel officers can then use as a carrot to attract the attention and commitment of companies in their patch.

Set up area-wide car-sharing schemes

An area-wide car-sharing scheme saves each company the effort of setting up its own scheme. It may also be more effective, since the pool of commuters available for matching will be larger. Large companies may be interested in having a scheme specifically for their own staff, or for staff of a cluster of companies (for example, on a business park), while smaller companies may be willing to promote a public access site to their staff.

Set up commuter planner clubs to help companies share information

Many local authorities have set up commuter planner clubs to encourage travel co-ordinators in different companies to share information and work together. It may also be useful to set up business clusters, for example bringing together employers in the same sector (such as education institutions), or employers that are based in the same area of the city. In Nottingham, companies based near the train station have worked with Central Trains to promote train travel by their staff. One of the largest companies, Capital One, now has over 15% of its staff arriving by train.

Offer small grants to help businesses to develop travel plans

In order to 'get a foot in the door' with companies, a local authority must be able to offer something in return. Sometimes interest is generated by parking problems or local authority restrictions on parking. Sites without parking problems will not have much incentive to talk to the local authority about workplace travel, though introducing a workplace parking levy could dramatically change this. As already discussed, special public transport deals can help attract businesses. Other options include centrally co-ordinated and branded car-sharing schemes and small grant schemes to contribute to the cost of developing a travel plan, or to provide specific infrastructure. In Bristol, companies receive grants of up to £5000 to fund 40-50% of the cost of their travel plan initiatives. In Cambridgeshire, there is a grants scheme for cycle parking.

6.2   Promoting travel planning to schools

Employ a team dedicated to promoting travel planning to schools

As with workplace travel planning, a local authority will need a team of officers working full-time on travel plans for schools. School travel advisers can typically work intensively with 5-10 schools each year, and less intensively with another five. The travel planning team usually acts as the main point of contact for schools, liaising with road safety and traffic engineering teams to arrange pedestrian and cyclist training and design of safe routes infrastructure.

Work in partnership with the schools

Involving children, parents and teachers in the travel planning process is likely to lead to much greater behaviour change than if the local authority simply goes ahead and installs traffic calming or new crossings without active involvement from the school. Sometimes, schools will identify small actions that will turn out to have a large effect. Even if there are no surprises in the changes to street infrastructure that are needed, involving pupils and parents will lead to a stronger feeling of ownership of the scheme, and this is likely to encourage greater behaviour change.

Offer a step by step framework, with rewards for fully-fledged travel plans

Schools should be offered clear guidelines to work through to develop their own travel plan. In Buckinghamshire, the local authority has developed a three-stage grading system for travel plans (levels 1, 2 and 3), with level 3 schools eligible for an awards scheme to get funding for the measures they feel are needed. Level 1 schools must have taken at least two out of the following three actions: (a) identified a named contact to champion the travel plan; (b) had a presentation from the school travel plan officer; (c) started a walking incentive scheme, walking bus, cycle train or other similar measure. Level 2 schools must have prepared a draft school travel plan with targets and an action plan, consulted on it, and established a working group. At level 3 schools, the full governing body will have adopted the travel plan and included it within the school's development plan. The school will be committed to reviewing progress annually.

Work first with the schools that are keenest

Not all schools will necessarily see the benefit of being involved in school travel planning at first. However, contact with staff and parents from schools that have become involved at an early stage – for example through healthy schools or eco-schools networks – is likely to lead to growing interest. The motivation for getting involved may vary from school to school. For example, some schools may be concerned about traffic chaos outside the school gate, whereas others may see the benefits of initiatives like walking buses more in terms of improved punctuality and attendance.

7.   Conclusion

Every travel plan is made up of a package of individual behavioural change tools. The most successful travel plans are likely to include a mixture of tools aimed at restraining car use, improving the alternative options available, and promoting what is already there.

Local authorities are now starting to develop town-, city- or borough-wide travel planning strategies. Already, several towns have engaged a third of their workforces in travel planning. Nationally, about 15% of schools have travel plans, although in some areas the figure is over 50%. Hospitals are required by the NHS to address travel issues, and although not all have a fully-fledged travel plan as yet, the number involved is likely to continue to grow. Visitor attractions and leisure destinations have as yet been much less involved in travel planning, and the idea of community travel plans is still in its infancy.

Together with other 'soft' or 'smart' measures, site-specific travel planning could have a large impact on future levels of traffic. People's travel patterns are less fixed, and more susceptible to influence, than we might imagine. Travel planning offers a way for local authority transport planners to engage with businesses, employees, parents, pupils, leisure centres, visitor attractions and others. The resulting partnerships are a highly cost-effective way of tackling the congestion and environmental and social impacts of high traffic levels.

8. Useful sources of information

Soft measures / mobility management / smart choices

Smarter choices: changing the way we travel. Final report and case study reports Department for Transport, UCL, Transport for Quality of Life, Robert Gordon University and Eco-Logica (2004)
This project included 24 detailed case studies of the full-range of soft measures, including workplace and school travel plans, personalised travel planning, public transport information and marketing, car clubs, car sharing, travel awareness campaigns, teleworking, teleconferencing and home shopping. The research report evaluates the potential for these measures to reduce traffic, if applied as part of a large-scale strategy over a ten year period.

Less traffic where people live: how local transport schemes can help cut traffic Transport for Quality of Life, University of Westminster, Transport 2000 and Royal Commission for the Exhibition of 1851 (2003)
A review of the potential for soft measures and small-scale infrastructure schemes such as quality bus partnerships and cycle schemes to cut traffic.

TAPESTRY Campaign solutions for transport Transport and Travel Research and University of Westminster (2004)
CD ROM including all the outputs of the EU TAPESTRY project. TAPESTRY included detailed reports of 18 travel awareness projects across Europe. It developed a seven stage model to explain how behaviour change occurs.
http://www.eu-tapestry.org

MOST Mobility management strategies for the next decades final report FGM-AMOR, University of Westminster and others (2003)
Report of EU research programme which included case studies of travel planning at educational institutions, tourist destinations, health institutions and temporary sites and events. Further information, including MOST newsletters, is available at the MOST website,
http://mo.st

Encouraging behavioural change through marketing and management: what can be achieved? P. Jones and L. Sloman, International Association for Travel Behaviour Research (forthcoming)
Paper summarising the current state of knowledge of soft behavioural change measures.

Workplace travel plans

A travel plan resource pack for employers Energy Efficiency Best Practice Programme (2000)
A periodically updated information pack for employers wishing to implement a travel plan. It includes detailed guidance on how to carry out a site assessment, staff travel survey and business travel audit, and description of the tools available as part of a workplace travel plan.

Developing an effective travel plan: advice for government departments DETR (2000)
An overview of the process of developing a travel plan, aimed at government departments and executive agencies but useful for similar public sector organisations.

Making travel plans work: lessons from UK case studies, case study summaries and research report Department for Transport, Transport 2000, UCL and Adrian Davis Associates (2002)
The biggest study so far of travel plans in England. '*Lessons from UK case studies*' is a good practice guide, highlighting key actions employers can take to promote workplace travel planning. The '*case study summaries*' volume gives detailed information on 20 UK travel plans covering a variety of public and private sector organisations. The *research report* sets out evidence on the effectiveness of workplace travel plans.

Using the planning process to secure travel plans: best practice guide, research report and appendices to research report Department for Transport, Addison & Associates and Transport 2000 Trust (2002)
The '*best practice guide*' gives advice on the use of planning conditions and Section 106 planning obligations to require travel plans as part of new developments. The '*research report*' reviews the experience of local authorities in using the planning system to implement travel plans.

School travel plans
Making school travel plans work Department for Transport, Transport 2000, UCL and others (forthcoming)
Research report and good practice guide based on an in-depth study of school travel plans across England.

A safer journey to school: a guide to school travel plans for parents, governors and teachers Transport 2000, DETR, DfEE (1999, updated version forthcoming)
A practical guide to implementing a school travel plan

Hospital travel plans
The healthy transport toolkit: a guide to reducing car trips to NHS facilities Transport 2000 and Department of Health (1998)
A practical guide aimed at travel plan co-ordinators in hospitals and NHS facilities

Visitor travel plans
Tourism without traffic: a good practice guide Transport 2000, DTLR and English Tourism Council (2001)
The first work in the UK to explore how travel planning could be applied to tourist destinations