Smarter Choices –
Changing the Way We Travel

Case study reports

Volume 2 of the final report of the research project:
'The influence of soft factor interventions on travel demand'

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July 2004

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Accompanying report

This report is accompanied by the following volume:

Cairns S, Sloman L, Newson C, Anable J, Kirkbride A and Goodwin P (2004)
Smarter Choices – Changing the Way We Travel. Report published by the
Department for Transport, London, available via the 'Sustainable Travel' section of
www.dft.gov.uk.

'Smarter Choices - Changing the Way We Travel' is the title chosen for publication
of the final reports of the research project ***'The influence of soft factor interventions
on travel demand'***

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Anable J, Kirkbride A, Sloman L, Newson C, Cairns S and Goodwin P (2004)
Smarter Choices. Volume2: Case study reports. Department for Transport, London

Birmingham City Council

Workplace travel plans

Interviewees: Mike Cooper, Projects Leader - Company TravelWise and Helen Davies, Technical Officer - Company TravelWise

Birmingham City Council co-ordinates an initiative called Company TravelWise, which is intended to encourage more sustainable travel for the journey to work. The council's approach is to offer companies a menu of options, rather than expecting each company to develop its own travel plan. There is close co-operation with passenger transport executive CENTRO and bus operator Travel West Midlands. One highly attractive benefit offered to staff in companies affiliated to Company TravelWise is a discount of 50% on public transport season tickets for staff who give up driving to work. Some 165 companies are affiliated to TravelWise, of which 20 are 'support' companies offering relevant services or products, and 145 are companies or organisations who are developing workplace travel initiatives. Overall, about 29% of the workforce in Birmingham is employed by an organisation affiliated to TravelWise. The planning process is actively used to encourage affiliation to Company TravelWise, particularly for companies with 50 or more employees.

Case study location and main actors

The city of Birmingham is part of the West Midlands conurbation and has a population of 970,000. The city council works closely with CENTRO, the West Midlands passenger transport executive, and with bus operator Travel West Midlands to promote workplace travel plans. Company TravelWise, the council's workplace travel plan scheme, has been adopted by other local authorities in the West Midlands, but is best developed in Birmingham.

Main activities

The origins of Company TravelWise go back to 1996, when Birmingham City Council joined the national TravelWise network. Within the council a working group was formed to look at travel awareness issues. The group examined four areas: bus showcase routes; development of cycling and promotion of the Millenium route; general school travel issues; and developing a travel plan for the city council. The group started writing a workplace travel plan in 1997; this was taken to senior managers within the council and outside organisations such as the Chamber of Commerce, environmental groups, and the City Centre Partnership businesses.

In June 1997, CENTRO and Travel West Midlands became involved. The process of developing a travel plan was labour intensive - it took a year of weekly meetings, coupled with monthly meetings involving senior managers of the three organisations. The council realised that developing a travel plan would not be a priority for most businesses, and that it should therefore aim to 'offer businesses a travel plan on a plate.' The plan – Company TravelWise – was launched in June 1998.

Company TravelWise is a partnership between Birmingham City Council, CENTRO and Travel West Midlands. The council's work on travel plans covers the whole of the city of Birmingham, but other local authorities in the West Midlands conurbation have also become involved, and promote Company TravelWise in their own areas.

Birmingham and Sandwell Health Authority has also been a good partner in the past, although they have been less active recently, partly because of NHS re-organisation. Until recently there were quarterly meetings with the health sector.

Rather than working with individual companies to draw up a tailored workplace travel plan, there is a standard travel plan, and companies are invited to implement the elements of it that they are attracted to. Mike Cooper comments: 'We do the legwork for them and offer a menu of options.'

Organisations which affiliate to Company TravelWise have a range of benefits:
- A 50% discount on annual travel passes for one year for employees in affiliated organisations who give up a company car, car user allowance or free parking space.
- A 5% discount on travel passes in subsequent years.
- The Company TravelWise team, together with Travel West Midlands and CENTRO, runs travel information days for employees.
- The city council, CENTRO and Travel West Midlands provide information packs and regular mailings including public transport timetables for employees.
- The city council can provide tailored advice to tackle specific transport problems, or help set up elements of a travel plan such as bicycle user groups. 'A lot of our role is sorting out problems. Any obstacle that gets in the way of someone being sustainable, we will try to sort out – whether it is cycle parking, street lighting, poor bus routes that don't meet shift patterns, or an access route from a business park to a station.'
- Discounts on a range of equipment and resources, such as cycle parking stands, are available from various companies which are affiliated to Company TravelWise as 'support companies'.
- On affiliation, companies receive customised TravelWise noticeboards to display travel information received for their staff.

The council has started to develop groups or clusters of workplaces within Company TravelWise. Some of these are sector specific – for example there is a hospital group, and there are plans for a college group. Others relate to a particular location within the city.

The planning process is actively used to encourage the participation of employers. For all planning applications for developments which will have 50 or more employees, the company or organisation is required to join Company TravelWise.

The approach of the Company TravelWise team is to work at a relatively less intensive level with a large number of companies, rather than to work intensively with a few. Organisations are encouraged to affiliate, and once they do so will receive regular information mailings from the TravelWise team (about once a month) and

from CENTRO and Travel West Midlands, but some companies may then have little further contact.

The city council has set a target for its own employees to reduce departmental car use by 10%. This has already been achieved by the Transportation Department. There is also a target to reduce car use of all Company TravelWise affiliates by 10%. Mike Cooper comments: 'We expect all affiliates to reach this 10% and then maintain it.'

Staffing and costs

Staffing
At the beginning, one full-time person was responsible for developing Company TravelWise. Now there are two full-time staff, with a third person joining soon. In TravelWise week the team called on help from extra staff.

CENTRO and Travel West Midlands both put significant resources into Company TravelWise. CENTRO has a TravelWise team, with two full-time staff (one of whom is funded by a DfT bursary). One of their team is dedicated to working in Birmingham. Three members of the Travel West Midlands Corporate Sales Team work part-time on TravelWise.

Costs and benefits
Staff salaries and add-on costs amount to about £60,000 per year. Apart from this, the council has no dedicated budget for Company TravelWise. Some costs are met through sponsorship from CENTRO and Travel West Midlands, although this probably comes to less than £2000 in most years. For example Travel West Midlands sponsored the first 200 TravelWise noticeboards for companies, and CENTRO has recently sponsored another 80. About £10,000 is probably also spent by the council itself on promotional items. The council is planning to allocate a dedicated budget to Company TravelWise from 2004/05, but it is not yet known how big this will be.

The health authority funded a good practice guide, and the Director for Public Health contributed £15,000 towards a public transport guide for each NHS Trust.

The city council's capital transport expenditure in 2002/03 was £38.1 million.

Scale of the scheme

Number of people affected by the initiative
165 organisations are currently affiliated to Company TravelWise in Birmingham (see table 1). Of these, 20 are 'support' companies and either offer a service or product to affiliated companies or endorse the concept of Company TravelWise, but are not developing travel plans for their own staff.

The affiliated companies together employ 136,000 out of Birmingham's workforce of 475,000 people (or 29% of the workforce). City council staff make up 57,000 of the 136,000 people covered by Company TravelWise.

Table 1: Engagement in travel planning

	Engaged with on travel planning	Based in the area
Number of employers	165	28,000
Number of employees	136,000	475,000

The employers developing travel plans fall into the sectors shown in table 2.

It is difficult to estimate the level of involvement of different employers. Mike Cooper suggested that about 30% of affiliated companies are very active (this means they are in regular contact, make use of the annual travel pass scheme for their staff, have carried out surveys of staff travel patterns, and distribute travel information to their staff). About 60% of companies are active sporadically. Only about 10% are largely inactive. All the hospitals are fairly active and the colleges are becoming active.

The definitions of company level of activity used in this research project are difficult to apply in Birmingham, as companies are not asked to draw up their own travel plan, and many city centre companies have low levels of parking and hence manage their parking availability by default.

Table 2: Engagement of different types of organisation in travel planning

	Number of employers that council is working with on travel plans	Total number of each type of employer in the area
Local authority	1	1
Further / higher education	12	15 (approx)
Health (excl GP surgeries)	12	20 (approx)
GP surgeries	4	
Other public sector or voluntary organisation	16	
Private sector <300 staff	65	
Private sector >300 staff	33	
Other (schools)	2	
TOTAL	145	

The planning process is an important means of involving organisations in Company TravelWise. Data collected in 2002 suggests that 53% of the organisations affiliated to Company TravelWise had joined as a result of a condition attached to planning approval (64 out of 121 affiliated organisations, excluding 20 'support' companies). At that time, a further 52 planning applications in progress had membership of Company TravelWise as a condition of planning permission. If a company that is already a member of Company TravelWise submits a planning application, the council may attach a condition to approval that the company must remain active in Company TravelWise. The company may also be asked to produce a report on their activity.

Across the West Midlands as a whole, a target was set for 40% of employees to be working for a company with a travel plan by 2006. The local authorities have recently

set a new target of 50% by 2011. Birmingham, with 29% of the workforce involved in Company TravelWise, is furthest on the way to achieving this target.

Changes over time
In 2001, 101 organisations were affiliated to Company TravelWise, so the number of affiliations has grown by more than 60% in two years.

Targeting
The Company TravelWise team has not specifically targeted certain types of organisation. Instead, it relies on companies being interested, or being referred because of planning conditions. There is a tendency for larger employers to show more interest, and most of the top 100 employers in the city are members of Company TravelWise. The team is establishing groupings within Company TravelWise – some of these are sector specific (for example a hospital group already exists and a college group is being set up), while others are area-based (for example a Castle Bromwich group, involving firms such as Jaguar, Goodyear and Baxi Fires). These sector- or area-based groups can exchange experience, and the area-based groups are felt to be a good way to identify specific public transport improvements which would meet businesses needs.

Effects of the initiative

Effect on car use within targeted population
Monitoring data is available for some of the organisations affiliated to Company TravelWise. Table 3 gives 'car as driver' mode share for before and after surveys. The data reported excludes companies where the response rate was less than 10%, and also excludes companies where the earlier survey allowed respondents to indicate more than one travel option (thus leading to data which totals more than 100%).

Caution is still needed in interpreting these figures, because some surveys asked respondents to say whether their usual mode of travel to work was car driver, car passenger, cycle, walk, bus, train, or *multimode.* 'Multimode' is intended to cover employees who travel to work by car some days, and by other means on other days. However, it is not clear how much car travel might be hidden by this category.

The detailed mode share data for each company is given in table 4.

Table 3: Summary of car driver mode share in companies affiliated to TravelWise

	1997	1998	1999	2000	2001	2002	2003	%-point reduction in car use
The Dental Hospital		34%			28%			**6%**
Royal Orthopaedic Hospital				63%		75%		**(12%)**
Compass Group			62%				70%	**(8%)**
City council Transportation Department	49%				36%			**13%**
City council Economic Development Department			51%				29%	**22%**
Northfield Medical Centre			86%		59%			**27%**
HM Prison			64%		90%			**(26%)**
The Priory Hospital		79%			59%			**20%**
WS Atkins					53%		30%	**23%**

Table 4: Changes in mode share at companies affiliated to TravelWise

	Survey date	Number of staff	Response rate %	Car driver %	Car passenger %	Cycle %	Walk %	Bus %	Train %	Multi-mode %	Other %
The Dental Hospital	1998	400	21	34	0	1	4	36	10	15	
	2001	400	23	28	3	3	0	29	12	23	
Royal Orthopaedic Hospital	*2000*	*500*	*25*	*62*	*1*	*2*	*4*	*14*	*0*	*17*	
	2002	*500*	*25*	*74*	*1*	*2*	*4*	*11*	*0*	*8*	
Compass Group	1999	400	50	61	4	1	11	14	0	9	
	2003	640	27	69	1	0	6	7	0	16	
City council Transportation Department	*1997*	*562*	*34*	*48*	*3*	*7*	*1*	*17*	*4*	*20*	*0*
	2001	*593*	*30*	*35*	*2*	*3*	*0*	*18*	*6*	*34*	*2*
City council Economic Development Department	1999	423	43	50	3	2	2	16	5	22	
	2003	350	18	29	3	5	3	17	11	32	
Northfield Medical Centre	*1999*	*50*	*84*	*86*	*0*	*0*	*2*	*10*	*0*	*2*	
	2001	*50*	*58*	*59*	*7*	*0*	*3*	*7*	*3*	*21*	
HM Prison	1999	650	?	64	1	0	1	3	12	19	
	2001	650	11	90	0	10	0	0	0	0	
The Priory Hospital	*1998*	*300*	*78*	*79*	*2*	*1*	*2*	*7*	*0*	*10*	
	2001	*300*	*19*	*59*	*3*	*2*	*3*	*28*	*0*	*5*	
WS Atkins	2001	783	58	53	4	1	2	13	26		
	2003	750	49	30	7	3	2	19	37		

The council has no evidence on whether Company TravelWise has affected commuting trip lengths, when people travel, or trip chaining.

Census data shows that car use for the journey to work is on a rising trend. 'Car as driver' mode share for people resident in Birmingham was 47.9% in 1991. This had risen to 56.0% in 2001.

Other effects within targeted population
Company TravelWise has some social inclusion benefits. A pilot scheme called WorkWise, run by CENTRO with close city council involvement, identifies public transport options and provides tickets for job seekers to get to work or to training, together with maps and timetable information. WorkWise operates in two job centres at present. There is good synergy between WorkWise and Company TravelWise: for example, WorkWise officers approach companies to encourage them to join Company TravelWise.

The initiative has also brought companies together to share best practice. There are better links between businesses, and they will now ring each other up to discuss travel issues.

Wider effects of the initiative
Company TravelWise is operating in a context of broadly stable traffic levels. Since 1995, car trips into Birmingham city centre during the morning rush hour (7.30am – 9.30am) have remained stable at about 53,000 per day. No figures are available for traffic flows outside the city centre. No information is available on 12-hour or 24-hour flows.

There is no evidence as to whether the effects of Company TravelWise have been offset by induced traffic.

Company TravelWise has quite high levels of public awareness. In 1999, 28.4% of people asked in an attitudinal survey in eight council wards had heard of it. The Company TravelWise team feels raising awareness levels about traffic issues is an important part of their role.

There is no analysis of the relationship between spending on Company TravelWise and its impacts.

Synergy with wider policies and strategy

Synergy with 'hard' measures
Parking charges in Birmingham city centre, particularly for long-stay parking, are quite high, and this is felt to have acted as an incentive for companies to join Company TravelWise. If other restraint measures were introduced, such as congestion charging, there is a feeling that interest in Company TravelWise would grow further.

Company TravelWise and the bus showcase routes have also been complementary to one another. Company TravelWise has helped publicise the bus showcase improvements, and hence may have helped increase patronage on these routes. In

turn, bus improvements have clearly made non-car commuting alternatives more attractive.

Synergy with other 'soft' measures
To some extent Company TravelWise plays the role of a general travel awareness campaign. The TravelWise team has also promoted car-sharing (by sending companies information about the services offered by Share-a-journey), although it has not set up any city-wide car-sharing scheme.

Perception of the importance of the initiative
Company TravelWise is a moderately important priority within the city council compared with other areas of transport policy. The West Midlands Area Multimodal Study recently concluded that £5 million per year should be allocated to travel awareness programmes in the conurbation, including TravelWise and other initiatives. The new (2003) West Midlands Local Transport Plan includes a bid for a substantial sum towards a 'Hearts and Minds' campaign, which would probably include TravelWise as one element.

Transport is perceived to be a high priority within the city council compared with other areas of policy.

Factors contributing to success
The close partnership between the city council, CENTRO and Travel West Midlands has been important to the success of Company TravelWise. Mike Cooper commented: 'We all get on brilliantly, we bounce ideas off each other, and we rely on each other.' The close relationship has led Travel West Midlands to fund a Travel Wisely to School project.

Scalability

Staffing and budget
There is a feeling that as more companies affiliate to Company TravelWise, more staff time will be needed to 'keep all the balls in the air'. The TravelWise team envisage that 4 – 6 staff might be employed to promote workplace travel planning in 2006, and perhaps 6 – 8 staff in 2011.

Relationship between spending and impact
No assessment has been made of the relationship between spending on Company TravelWise and impact (unsurprisingly, given the lack of a dedicated budget).

Future scale of the initiative under currently planned resources
Under current or slightly increased resources, the team envisages that about 300 companies, covering 180,000 – 200,000 employees, might be engaged in Company TravelWise by 2006. By 2011, the scheme might cover 500 companies and 220,000 employees. Growth between 2006 and 2011 might be slower as all the largest companies and 'easy wins' would already be covered.

Future scale of the initiative if resources were greater
Increased resources would definitely enable the team to scale up its work on travel plans.

If resources were not the constraint, it was felt that it would be worthwhile to work more intensively with all businesses with 50 or more staff. The vast majority of the 28,000 businesses in Birmingham are either shops or small companies, and these would be very difficult to influence. In order to reach a significant proportion of companies with 50 or more employees, a larger TravelWise team of perhaps 10 people would be needed.

Monitoring plans
The TravelWise team hopes to step up its monitoring of affiliated companies at the end of 2003 (until recently, this has not been possible because of other work). Thereafter, they would like to monitor companies regularly.

Key issues for scaling up
A key issue for Company TravelWise in Birmingham is to think through how workplace travel planning can be more closely linked with other travel awareness work, particularly on school travel. At present, different initiatives within the city council do not necessarily get linked up.

Within the city council, support for Company TravelWise has grown over time. Better communication within the council would help make Company TravelWise more effective. Continued – or increased – support from CENTRO and Travel West Midlands would help in scaling up the work so far.

Central government could support workplace travel planning by continuing to fund bursary posts.

Company TravelWise is definitely transferable to other areas, as has been shown by the fact that other local authorities within the West Midlands have taken it up.

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Case study author: Lynn Sloman

Brighton and Hove City Council and Brighton and Hove Bus and Coach Company

Public transport information and marketing

Interviewees: Paul Crowther, Principal Public Transport Officer, Brighton and Hove City Council and Roger French, Brighton and Hove Bus and Coach Company

Public transport information and marketing in Brighton and Hove is a closely related mixture of hard and soft initiatives. Over the past five years, the bus network has undergone fundamental changes involving simplification and rebranding by Brighton and Hove buses with the development of fast and frequent core 'Metro' routes and the introduction of a flat fare system. This has been supported by the council in terms of bus priority, bus stop infrastructure and real time information. This has taken place within an informal bus quality partnership since the formation of the unitary authority and the merger of the two main bus companies in the city in 1997. There is a very close and constructive working relationship between the council and the bus company. Much has been invested in technology for the local bus service, including new buses, accessible bus stops and, more recently, a Bus Priority Information Management System incorporating real time information. The Council's publicity budget stands at £35,000 per annum and the bus company £225,000, with an additional £2 million invested between them on the real time information system. Brighton and Hove Buses have won awards for marketing initiatives and customer care and the council won a National Transport Award for the integrated information management system. The locality is starting to see the benefit in increased passenger numbers, with an average 5% increase each year since 1994 and recent surveys of traffic leaving and entering the city centre show a drop in car traffic of 12% compared to 2000.

Case study location and main actors

Brighton and Hove became a unitary authority in April 1997, covering a population of 248,073 and a geographical area of 85 square kilometres. The demographics are interesting. Hove has a higher than average elderly population and Brighton has a significant percentage of transient workers and visitors for whom English is a foreign language. As well as the population, there are over 8 million visitors and seasonal workers to move around each year. In addition, in terms of the journey to work, Brighton and Hove is a net importer by about 4000 journeys a day.

The city is bordered in the north by the South Downs and in the south by the English Channel and divided in two, west to east, by the mainline rail link from Brighton to London. The majority of bus routes (2600 bus journeys each weekday) converge on North Street, the only viable east-west route south of the railway. Buses have priority along North Street, but it sees much illegal car use, resulting in congestion and delays. Brighton and Hove is described as good bus territory with four large local authority housing estates some distance from the town centre.

Currently some 97% of bus services within the city are operated commercially, with around 32 million passenger journeys recorded in 2001-02. In 1997 there were two bus companies (Brighton and Hove Buses and Brighton Blue buses, an ex-municipally owned company). The two companies had always co-existed happily and merged in 1997. Brighton and Hove Buses are part of the Go-Ahead Group. The management of the company has been stable and there is a very good relationship with the city council.

Main activities

Five years ago, Brighton and Hove City Council entered into a quality bus partnership with the Brighton and Hove Bus Company. It is a relatively informal agreement, taking the format of five main 'ingredients' on each side, none of which are legally binding or comprise quantitative targets. This is described as a 'best endeavours' agreement, and consists of the following elements:

Brighton and Hove Buses

- **Improved frequencies**

Bus frequencies have been increased in each of the last six years (with the exception of 2000/2001 when service frequencies were reduced uniformly on each route due to serious staffing problems). Now, 75 – 80% of passenger journeys are made on buses running at least every 10 minutes (or better). This has been achieved by gradually increasing the number of buses, drivers, and miles run on key routes to the extent of about four vehicles per annum with associated driver resources (an investment of around £350,000 per annum).

- **Value for money fares and tickets**

The bus company introduced a flat fare in January 2001 (this was initially £1, and increased to £1.20 in May 2003). Prior to this, fares used to be in the range £0.60-£1.30 for a single journey. The introduction of this fare was very heavily promoted, particularly on the sides of buses. It is said to have 'completely demystified the use of buses', offered simplification and value for money. There is also a £2.40 one-day saver ticket and a young peoples' incentive scheme called 'Bus ID'. Outside of school time, 5-18 year olds can travel for a flat 30p fare. This is a way of making youngsters want the ID card rather than the bus company insisting on it for proof of age. This scheme now reaches around 80% of 15 year olds in the city.

- **Investment in new buses**

Brighton and Hove Bus Company boast one of the youngest average fleet ages outside London (around five years). Around 55% of their fleet is wheelchair accessible or low floor. They have spent a total of £22.3 million on new buses since 1996.

- **Development of a customer service culture throughout the organisation**

This includes a comprehensive customer care service strategy and training programme. Approximately £100,000 is spent on this annually.

- **High profile marketing and promotional strategy**

The aim is to develop an effective sales message and branding to increase awareness and modernise the image of bus travel. This has involved the following:

- In 1996, bus routes were colour coded leading to the introduction of the 'Metro' concept in 1997. The Metro routes are the five most frequent cross-city routes represented on a tube style map, with other routes supporting this network. This has developed the 'Metro' brand with its own identity and colour-code system rolled out to the promotional material.

- Express commuter services have also been introduced. Service 55 was a new initiative serving two housing estates in Hove (Hangleton and Mile Oak) and providing a limited stop service into the centre of Brighton. It is perceived to be the 'motorists' bus' and within a few weeks some of the buses were full, although some passengers had transferred from another service along part of the same route. The service carries about 200-400 passengers per day, depending on the time of year. There is scope to develop this type of service in other areas but bus priority needs to be in place first. The product is selling itself, as there is not much publicity involved.

- Since 1986, the bus company has produced 'Bus Times' twice a year which advertises Stagecoach and Arriva services alongside their own. This runs to around 90 pages, is free and has a circulation of around 90,000 for the full version and 70,000 for the pocket version. It has won awards for its comprehensive transport information and was initially 'ahead of its time'. In view of the comprehensive nature of this publication, the council made a policy decision not to produce separate timetable leaflets for the majority of its supported local bus services, but to purchase space within 'Bus Times'. This approach is also cost effective, at a cost of around £750 per page.

- Twice-yearly magazine 'On Route' aimed at discretionary leisure travel which gives ideas for days out, places to visit and local events, all of which can be accessed by bus.

- Two 'One-stop travel shops' selling tickets and information for all forms of public transport.

Brighton and Hove City Council

The council has brought the following initiatives and investment to the partnership:

- **Improving infrastructure at bus stops**

This includes accessible bus stops, bus stop information and improved shelters and waiting areas. Brighton has a fairly ageing population who have difficulty with the climb up to the bus even for a low floor vehicle. There are now about 120 accessible bus stops in the town. These are mainly funded out of the LTP but their installation is also coordinated with other utilities and they are often put in as part of other maintenance and Section 106 programmes. Bus shelters are subcontracted to Adshel who are replacing old style bus stops and adding an extra five shelters a year. At the moment there are 1400 bus stops and 400 shelters.

- **Traffic regulation enforcement**

Controlled parking and decriminalised enforcement are implemented through contractors NCP (since July 2001). This has more than doubled the number of parking

attendants on the street. On-street parking in Hove was a particular priority due to its proximity to Brighton and tendency to be used as a 'park and ride' for the central area. On-street parking charges were introduced there with the net proceeds channelled into public transport related projects such as improving bus stops. However, the funds have not added to the revenue budget to buy additional bus services.

- **Improve Park and Ride**

The council agreed to seek ways in which Park and Ride can play a part in the sustainable transport strategy, but out of all of its commitments, admits it has failed to achieve this. Brighton has had a P&R operation for the past 12 years from a modest site at Withdean Sports stadium, which is too small (only 180 spaces) and too far within the boundary formed by the A27 and A23 to intercept the greatest amount of traffic. However, due to the pending designation of National Park status, there have been problems locating a site further out.

- **Bus priority measures**

These include bus and taxi lanes and other initiatives alongside sustainable corridors.

- **Bus Priority Information and Management System**

This has been up and running for a year now and is a joint initiative with the bus company to install a satellite based vehicle location and real time information system (Siemens Astral System). This provides a much improved flow of information to operationally control the entire fleet of buses as well as information on real time of buses at all major bus stops throughout the city. It also links with the traffic light control system to give priority to buses.

- **Paper-based information and publicity**

In terms of paper publicity, the council purchases pages in 'Bus Times', produces leaflets on its dial-a-ride service and makes a financial contribution towards a series of leaflets under the theme 'Take the Bus for a Walk'. This is a project funded by the Sussex Downs Conservation Board, to promote sustainable access to the South Downs.

- **Telephone enquiry line**

The council continues to provide an office based telephone enquiry line offering information on bus, coach and rail travel. The relevant number is published in all council publications and in 'Travelwise' literature. It is promoted as a means of obtaining 'advice on your travel options'. This service is provided by existing staff and there are no cost implications to the council for this service.

A consortium of six south east local authorities coordinate the Public Transport Information 2000 (PTI 2000) project, comprising a series of regional telephone enquiry call centres using a single 'golden' telephone number. As of July 2002, the service has been provided by a call centre operated by First Group in Plymouth. The database for this has had to be developed from scratch and is subcontracted out to Kent County Council. Roger French complained that this service is too expensive and costs the bus company 90p for every call that is made to it.

- **Breeze Up to the Downs**

In addition, it is worth mentioning the Breeze up to the Downs initiative. Breeze up to the Downs is a network of three bus routes fanning out from the centre of Brighton and Hove to popular countryside destinations which are not served by the main bus network (Devil's Dyke, Ditchling Beacon and Stanmer Park). The aim was to reduce car-borne congestion and pollution at these sites and to reduce social exclusion from enjoyment of the local countryside.

This is funded with the aid of Countryside Agency Rural Transport Partnership grant. The services are also a result of partnership work with the National Trust, Sussex Downs Conservation Board, Brighton and Hove Bus Company, Southcoast Motor Services and South Central Trains and Thameslink. The destinations are served by vintage open-topped buses as well as modern low-floor easy accessible buses. Devil's Dyke is served seven days a week during school holidays (including some evening services) and the other two destinations are served at weekends only. From October to March there is only a Sunday service. The fares have now been integrated into Brighton and Hove's main bus network, giving a day's unlimited travel for just £2.40, with up to two children per adult travelling free.

It is deemed to be a 'customer led' strategy with service improvements originating from feedback gathered through customer questionnaires and surveys. The services were promoted using radio advertising (a first for the city council). Each advertisement targeted a different sector of the listening audience (shoppers, night clubbers, office workers and a general one). Also, the two bus companies on each of their open topped vehicles displayed summer broadside advertisements free. Individual route guides were also produced and the services were advertised in a variety of publications, especially complementing rail passenger marketing. Real time information is now available for all three services at many city bus stops. Feedback on the marketing approach was sought from the marketing department at the University of Sussex. The radio ads were judged to be fun and catchy and the design of the leaflets excellent.

Staffing and costs

Staffing

- **Brighton and Hove City Council**

At the city council, the Public Transport team comprises 3.7 full-time equivalent posts in total. Within this, information and marketing equates to 1fte post (responsible for accessible bus stops, marketing, publicity, travel enquiries). This staffing level has remained the same since the formation of the authority in 1997, despite the fact that a major new project (the Bus Priority Information and Management System) has been absorbed within this team.

There is also some input from Planning and Engineering with respect to the infrastructure for accessible bus stops and bus priority.

- **Brighton and Hove Buses**

At Brighton and Hove Buses there is one person dedicated to marketing and promotion. A full time post has been dedicated to such activities for the past 30 years. This includes the publication of timetables but not the preparation of timetabling.

Costs and benefits

- **Brighton and Hove City Council**

The net revenue budget for the Public Transport Team was £932,000 in 2003. The bulk of this is used for supporting bus services, including dial-a-ride. It does not include education and social services transport.

The publicity budget is £35,000 per annum. This is for conventional promotion and has not been increased since 1997, despite the introduction of PTI 2000. PTI early expenditure was funded out of the LTP as they were able to claim that the end produce (a data CD) was a capital item. This provided £20,000 a year over and above the publicity budget.

Capital expenditure for the public transport team was £7.1 million in 2002/3 (out of a total capital expenditure of £73.2 million for the whole authority) (source: 2002/3 APR). The real time information system is funded out of this in phases. £1.4 million was allocated to the first phase (with £175,000 coming from decriminalisation of parking enforcement), supplemented by £750,000 by Brighton and Hove Buses (a one-off payment for 230 transponders on the buses and a new radio system). The council bought radio masts, the central processor unit and control units and eight real time information signs. Between the two organisations, around £2 million has been invested in this system.

The Countryside Agency has provided £30,000 in 2002/3 from its Rural Transport Partnership grant for the Breeze up to the Downs initiative. The council manages the services and contracts and pays the operator. This funding is treated as a windfall and is not budgeted for.

Sussex University also contribute towards the cost of some services to their campus and other resources are provided through planning agreements (such as bus stop infrastructure).

- **Brighton and Hove Buses**

The bus company allocates approximately £225,000 per annum to publicity and marketing. This does not include labour and includes production of timetables but not scheduling. This has remained stable, albeit with increases for inflation, and represents about 1% of the company's overall budget.

Scale of the scheme

Number of people affected by the initiative

Brighton and Hove has a population of 248,073 people across 85 square km. As well as the population, there are over 8 million visitors and seasonal workers each year. In

terms of the journey to work, Brighton and Hove is a net importer by about 4,000 journeys a day.

Changes over time

Roger French commented that the promotional strategy has evolved over time as the branding has developed. He said:

- Each initiative is evolving by improving it
- The Metro brand evolved from taking each of the five routes one by one and giving them their own identity and in 1997 bringing them together in one brand
- The simplicity of the fare structure has evolved over the years.

Targeting

The marketing and promotion approach is described as 'broad brush'. It essentially promotes a network bus service that is open to everyone. However, within the marketing strategies there are some more specific objectives. For example, the Metro network and flat fare structure were targeted at people who are unfamiliar with the bus system and perceive it to be complicated. The modernisation of the system and associated publicity, such as 'On Route' magazine, also aim to reassure existing passengers about the social status of bus travel.

'On Route' is targeted at discretionary travel, especially for people who do not think of making a trip at all by bus and/ or to a particular destination. Commuters have been targeted with the express bus route and the modernisation of the network. Occasionally, specific initiatives are aimed at growing certain sectors of the market such as a magazine aimed at 9-14 year olds and the Bus ID scheme for the young market. There is also a monthly ticket for senior citizens that equates to ½ the price of an adult ticket.

Both interviewees mentioned that Brighton is 'good bus territory' with large outlying housing estates representing 'captured markets'. These estates lack local services and employment and therefore force people to travel into the city centre. However, they are very well served by buses to the extent that these markets are almost saturated. Both interviewees admitted that new markets needed to be found to sustain the growth in patronage.

Effects of the initiative

Overall effects on bus travel

Last year there were 32.7 million bus journeys in the area. This compares to 1993 when there were 22.5 million, thus representing a 45% increase in passenger numbers over this period. On average there has been a 5% increase in usage each year over this decade. The year on year growth has been variable, however. For example, bus patronage increased almost 9% in 1999, but growth the year before was static. This is attributed to the disruption of the road network due to maintenance activity and the regeneration of a significant part of the city centre (Churchill Square). Patronage within any given year can also be variable. Overall, bus patronage increased by 4.63% over the previous 12 months.

Based on these historic growth levels, the 2000 LTP sets a target of 5% year on year growth in bus patronage.

*Table 1: Bus patronage growth^*

Year ending March	Passenger Journeys	Percentage Increase
1992 / 3 *	22,500,600	
1993 / 4 *	23,445,600	+ 4.2%
1994 / 5 *	24,922,700	+ 6.3%
1995 / 6 *	26,044,200	+ 4.5%
1996 / 7 *	26,991,400	+ 3.6%
1997 / 8 **	27,037,500	+ 0.2%
1998 / 9	29,423,600	+ 8.8%
1999 / 2000 ***	30,120,000	+ 2.2%
2000 / 1	30,518,800	+ 2.2%
2001 / 2	31,065,900	+ 1.79%
2002 / 3	32,531,600	+ 4.72%

^ Figures relate to Brighton & Hove Buses and Brighton Buses only.
* Joint total Brighton Buses plus Brighton & Hove Buses
** Merger between Brighton Buses and Brighton & Hove Buses. Major roadworks in London Road; Churchill Square closed for redevelopment; withdrawal of loss-making rural services inherited in 1997 merger.
*** Staff shortages plus introduction of flat fare in 2001

Bus kilometre figures do exist but Roger French feels that these figures are much less meaningful. For example, bus mileage may decrease if services have been cut which were not carrying any passengers.

Effect of Breeze up to the Downs initiative on bus travel
During 2002-03 a total of 36,560 passenger journeys were made on the three routes. The net cost in subsidy per year was £30,395 (0.83p per passenger journey). Results of surveys show that on the Devil's Dyke service, over 40% of passengers had access to a car, whilst most of the remainder would not have been able to visit these locations without the services. A third (36%) of passengers said they would have come by car had the bus not been an option.

Table 2: Breeze up to the Downs results April 2002 – March 2003

	Service 77: Brighton Pier – Devil's Dyke	Service 78: Brighton Old Steine – Stanmer Park	Service 79: Brighton Old Steine – Ditchling Beacon
Total passenger journeys	29,145	4,951	2,464
Total days of service	108	79	47+
Average journeys per day	270	63	52
Total revenue	£21,424	£3,882	£1,511
Grant required	£15,266	£8,947	£6,182

Source: submission to Bus Industry Awards, buses for pleasure category 2003

Effects on modal share

No data is collected on modal shift. Roger French suggested that there are no plans for monitoring as the company does not have the resources to undertake surveys. He believes that approximately 10% of the increase in bus patronage is due to modal shift, although Paul Crowther believes it is higher than this (up to 50%). It was noted that it is not known to what extent the 4.6% increase in patronage last year for example was due to an increase in the number of journeys made by the same people making more journeys (i.e using day saver tickets) or by new people. However, revenue increased also over the past year suggesting that much of the increase is in new ticket sales. The increases in bus patronage can be contrasted to increases in revenue for Brighton and Hove buses of 12.8% in the year ending June 2003 and 5% for the previous year.

Both believe that improvements in reliability are having a very positive effect on modal shift. In particular, some progress is being made to attract car commuters as with the new express commuter bus service. This service was well used within a short time.

Neither the council not the bus company have done any analysis of peak or off peak public transport demands. Paul Crowther has a gut feeling that buses are getting busier in the middle of the day and therefore suspects that there is a much higher use of the buses for non-essential journeys.

Some research was undertaken after the flat fare was introduced. In essence, this fare structure initially increased the number of long distance trips from the outer areas of the city into the city centre because these were perceived as better value for money. The more recent introduction of the saver ticket, meaning that a one day ticket is the same price as a return, means that people are doing many more optional journeys that would not otherwise be made. However, there is some concern that bus patronage is being underestimated because of a loss of information from the ticket machines.

From late 1996, there was an increase in the student market as, in addition to an increase in student numbers, the universities implemented car restraint policies on their campuses.

Other effects within targeted population

Paul Crowther believes that reducing social inclusion is a main objective of public transport improvement and promotional activity. This is particularly important in Brighton, as pockets of deprivation exist alongside affluence. Safe, accessible and reliable public transport forms a central tenet of social inclusion strategy. Nevertheless, reliability is equally important to everyone and hence not aimed at any particular sector.

Reaching the socially excluded involves using a wide variety of techniques to make information available, although there is little analysis as to the types of people reached by the information. He believes that there are people who are unnecessarily socially excluded, not because public transport options do not exist but because they do not know about them. It is still difficult to reach all sectors of society, particularly the elderly.

Many of the most deprived areas have seen some of the greatest improvements in bus service. For example, the New Deal area in East Brighton has the most frequent services and the best quality buses and because it is some distance from the city centre, it benefits the most from the flat fare structure. As a result, Paul Crowther suspects that the greatest social exclusion in Brighton may exist among the more affluent sectors of the population where the main household car is gone for the day. These areas are relatively poorly served by public transport because they are too affluent to serve commercially and are not regarded as a priority by the city council.

Paul Crowther also noted that improvements in reliability, better bus quality and real time information systems have made improvements to actual and perceived personal safety among passengers.

In general, the promotional activity and the packages of measures implemented to improve the transport situation in the city (including decriminalisation of parking and bus lanes) mean that the public sees that there is a consistent and coordinated policy for the city and that the city council is facilitating transport improvements through its regulatory and statutory options. It would be helpful if central government could offer the same consistency of messages. However, the council often has to fight not to be seen as anti-car.

From the bus company's perspective, innovative promotional work has helped to improve relations between the bus company and the business community. Such activity demonstrates that they are a significant employer and private sector business, which is investing in the city for the good of the city. Roger French noted that 'being seen to invest means that your voice will be respected and listened to'. This can impact on other business leaders and the health of the economy. The bus company plays a key role in the local Economic Partnership and business forums as well as the Local Strategic Partnership of both Brighton and Hove and neighbouring Adur.

Wider context for the initiative
Although there has been a period of instability in the city with extensive road works, the APR reports traffic levels as declining in the city. Recent surveys of traffic leaving and entering the city centre show a drop in car traffic of 12% compared to 2000. Paul Crowther believes that the fact that car use is not increasing means that it could be assumed that some of the increase in bus patronage has come from 'would be' drivers and likewise, that the fact that traffic levels in central Brighton are counter to the trend nationally, could be due to the growth in bus use.

Table 3: Brighton modal split for travel to work (2001 census data)

	Usual mode of travel to work (city area)
All people aged 16-74 in employment who usually travel to work by:	*117,551*
car driver	43.2%
car passenger	4.9%
bus	12.6%
train	8.4%
cycle	2.7%
walk	17.2%
other	1.3%
working from home	9.3%

Table 4: Comparison of 1996 and 2000 personal motorised vehicle movements across the town centre cordon

Year	Total Motorised Movements	Car/ motorcycle	Bus
1996	186,500	97.6%	2.4%
2000	188,800	97.5%	2.5%

Adapted from LTP 2001/02, Table 9.2 p194

Synergy with wider policies and strategy

Both interviewees felt strongly that it is impossible to isolate the effects of promotion and marketing from the other initiatives (both hard and soft). Almost without exception, a package of measures is being introduced at any one time and, as Roger French noted 'It is not a physics experiment where one thing is altered at a time. We keep piling in with as many different things as we can think of and it is then difficult to step back and say which of those initiatives has contributed what percentage.' The lack of stability in terms of road works and changes to the city centre makes it even harder to disaggregate the effects.

Where an initiative is being promoted, it is most often in conjunction with an increase in service and a package of improvements, which inevitably leads to an increase in patronage. It is impossible to say how much each increase in patronage may have been if it had not been promoted. Roger believes that the effects of promotion could be as high as 50/50 in that it is as important to tell people what is being done, making them aware and changing the image, as it is to actually 'do it'. Roger used the example of the introduction of the flat fare and cannot answer whether it was the promotion or the flat fare itself that increased passenger numbers.

Overall, both interviewees believe that both soft and hard measures are necessary in order that the general public can see that each policy is part of a coordinated strategy.

Synergy with 'hard' measures
The decriminalisation of parking has had significant benefits for bus travel both in acting as a stick to car drivers and in generating a source of funding for public

transport related projects. On-street parking charges (for example in Hove) have tipped the balance towards public transport. Priority is given to bus routes with respect to parking enforcement, and this has also had a big effect on bus reliability, although both interviewees mentioned the need for local authorities to have powers of bus lane enforcement. Bus priority and improvements in reliability are particularly necessary in order to run 'commuter type' buses.

Investment in new buses and increasing the number of buses is an obvious hard factor that is strongly related to the marketing of bus travel and the creation of a new image. The progress made by the city council with respect to bus stop infrastructure and accessible bus stops is said to have made bus use significantly more attractive to the elderly and those with children.

Roger French noted that land use policy can often work against public transport usage, but in Brighton there has been some very positive city centre regeneration which has boosted bus travel into the centre.

Synergy with other 'soft' measures
So far, the city council has not been proactive with respect to workplace travel plans. The council itself does not have a travel plan or a travel plan coordinator, although an individual in the personnel department has been earmarked for the role. However, the target is to create an economic partnership and get money from 20 of the largest organisations in the city to help fund a coordinator. Large employers will be targeted in order to get the maximum benefit from the minimum input. Both universities are currently working on travel plans due to expansion and Section 106 agreements. In addition, American Express, Southern Water, Alliance and Leicester and Legal and General currently have travel plans.

In 2003, seven schools (covering 5977 children) had travel plans, compared to zero in 2001.

Roger French cited as a 'very soft factor' the broader public relations work carried out by the bus company. He believes that the 'feel' of the bus company in the market place and relationship with the local media is as important and can have as great an impact as the investment in marketing and information. The idea of good public relations is to get stakeholders, particularly the local media, to talk positively and 'talk up' public transport and to generate a positive role for the bus company in the community. Brighton and Hove Buses has 'developed a positive culture, which is more than just the Metro concept and the flat fare and publicity. It is creating that atmosphere that comes through. People know that they should be using the bus more. It is all part of placing yourself in the community as part of the fabric of the city'.

Perception of the importance of the initiative
Roger French admitted that spend on public transport information was less than 1% of the bus company's overall budget. However, he believes this has more to do with the labour intensive nature of the business, and not to do with a lack of priority and recognition of the importance of marketing activity.

Paul Crowther is generally disappointed that his team and its budget has not increased to take account of the extra work being done in this area, thus inferring that perhaps

not enough importance is attached to this activity within the authority. However, his team enjoys line management and political support.

Factors contributing to success
Brighton is seen to be very good 'bus territory' due to the 'captured markets' residing on the large housing estates in the city.

The informal bus quality partnership and the very good relationship between the bus company and the council are seen to be very important ingredients in the successful promotion of bus travel in Brighton and Hove. As bus travel is fickle and unpredictable, an informal arrangement without quantitative targets and legally binding documentation is seen to be the best form of agreement. The bus company and the council have the same objectives but have control over different things. Both sides recognise the restrictions and problems that the other experiences and therefore aim for 'best endeavours'. The bus company is realistic about what the council can deliver and there is a mutual respect and understanding of each other's positions. The consistency of ownership and management of the bus company has meant that 'short termism' in thinking is not an issue. Current ownership of the bus company goes back to 1993, and Roger French himself has been there for 21 years. In addition, the Go-Ahead Group has allowed the bus company the autonomy to get on and serve the local market and put resources into doing that.

Another ingredient in the success experienced in Brighton and Hove is the formation of the new unitary authority in 1997. This provided a chance for the authority to make a bold statement and be innovative and proactive. The public transport team has been encouraged to 'think big' with full line manager and political support. The unitary authority has been politically stable for some time and the politicians and officers have been receptive to a pro-public transport agenda without wanting control.

Scalability

Staffing and budget
Neither the bus company nor the council foresee any increases in staffing and resources allocated to public transport information and marketing activity. The council is currently £8 million in debt, and so the marketing budget will remain the same, particularly as the team have already proved that they can absorb a big project with existing resources (the Real Time information project). The next LTP bid will depend upon whether the council sees any other form of public transport as viable, such as light rail. A feasibility study is currently assessing three different modes.

Future scale of the initiative under currently planned resources
The 2000 LTP set a target of 5% year on year growth in bus patronage based on historic growth levels and a belief that this trend will continue. It is felt that this 5% target could be improved upon (by at least another 1% until 2004/5) if reliability could be improved further with the aid of powers to enforce bus lane infringements. The government needs to process the relevant statutory powers for this to happen. At the moment bus lanes are widely abused and this has an impact on the image of bus travel as well as operational delays. The adoption of traffic enforcement powers

would be another step in the psychological battle for public transport. Their biggest challenge is keeping labour rates in line with expansion.

Under current resources, both the council and the bus company aim to expand electronic sources of information on the web and roadside information points. Paul Crowther believes that the next target group are wedded to the internet and are not the sort of people who would pick up a copy of Bus Times.

Future scale of the initiative if resources were greater
Roger French believes there is a limit to the effects that marketing and promotion can have, even if resources are increased substantially. Indeed, sometimes promotion has to be careful not to raise expectations too much and has to be 'toned down' instead.

Both interviewees admitted that 'radical things' need to be done if saturation is to be avoided. The 'captured markets' are stable but continued growth will depend on aiming at new markets, particularly commuter travel through employers in the city. Real time information will prevent saturation and ensure continued growth to some extent, but even so, there is a limit to the number of buses that can currently be put on the existing road network. Such radical thinking would include congestion charging in order to reach the potential that could be reached 'if everyone gets serious about public transport'.

As a result, the consensus was that a doubling of resources would have less than double the effect on bus patronage. Paul Crowther believes that extra resources would be better spent on buying increases in bus services and plugging gaps in the network. To spend an extra £35,000 on promotion would not have double the effect, but putting extra services on will have double the effect. If the spend on real time information could be doubled, this would have double the impact. Roger French believes extra resources would be best spent improving pay and conditions for staff. Without this, the danger is that there will not be a bus service to promote. This is why so much of the current cost structure is dominated by wages in addition to diesel, insurance and safety.

Roger French remarked that for some bus companies, however, it is necessary to treble, not double, their marketing spend as their starting point is so low. In addition, if the marketing is well researched and targeted, it is not necessary to spend twice as much to get twice the impact.

To reach the maximum number of people it would be necessary to do targeted publicity drops and have face-to-face contact. This would involve a six-figure paper publicity budget and many members of staff. Even if it were possible to speak to every motorist, although the conversion rate would be high, there is a core sector of society (10-20%) for whom public transport is not the answer. Roger French could not put a figure on resources needed to reach the other 80%.

Monitoring plans
The transition to smart card technology may improve the monitoring situation in the future. However, there are no specific plans for monitoring.

Key issues for scaling up
Continued increases in bus patronage assume a continuation of the real time information project, bus lane enforcement and expansion of electronic sources of information. There will be a greater concentration on commuter travel and closer working with employers in the city.

The key barriers to scaling up include the issue of staff recruitment and retention and the attitudes of the general population. The public need to be better informed as to how much it costs to run a car.

Central government needs to address:
- the cost of motoring
- the fact that revenue support is inadequate - the best way to promote public transport is for there to be more of it
- consistency of their message and the need to be clear and committed about issues such as congestion charging.

With respect to transferability, Paul Crowther believes that the working relationship he has with the bus company is the envy of most local authorities. Nevertheless, many of the 'five ingredients' of the bus quality partnership are transferable, at least to other congested urban areas. Accessible bus stops are relevant everywhere. Roger French, however, believes that the bus company is a local business that cannot necessarily be replicated in other areas. Nevertheless, in terms of soft factors and the relationships with the community and the media, other locations can learn lessons from their approach.

Employers, particularly large employers such as the health authority and the universities, could do more. Paul Crowther believes it would be good to get a steer down from government and a tax regime to encourage local employers to face up to their responsibilities to promote transport efficiency.

References

Brighton and Hove City Council (2000) Local Transport Plan

Brighton and Hove City Council Annual Progress Reports

Brighton and Hove City Council (2003) Bus Information Strategy

Breeze up to the Downs submission to Bus Industry Awards, buses for pleasure category (2003)

Case study author: Jillian Anable

Bristol City Car Club

Interviewees: Iris Eiting, Manager Bristol City Car Club (formerly BEST car club)/ Smart Moves. Extra information and comments provided by Judy Ballard (Carplus, Leeds) and Matthew Barrett, Bristol City Council.

The Bristol City Car Club is the second largest car club in the UK with nearly 100 members and six cars in July 2003 (and 160 members and 11 cars in April 2004). It is managed by Smart Moves (who also manage other car clubs in the UK including Edinburgh and London), working in partnership with Bristol City Council. The club plans to expand to 1000 members and 50 cars by 2006, and although this has been delayed by some problems, there is public interest in the club and expansion is planned in response to calls from neighbourhoods for new car stations. The many other transport initiatives underway in Bristol complement the car club, as joining the club requires members to assess the other options available to them for getting around.

Case study location and main actors

The Bristol City Car Club is currently managed by Smart Moves through a four-year partnership with Bristol City Council which is part-funded by the European Commission-supported Vivaldi project (from 2002-2006). This partnership aims to see the club become self-sustaining financially. The club is based in Bristol with cars in the Knowle, Totterdown, Cotham, Kingsdowne, St Andrews & Southville neighbourhoods, and stations are planned for a further six sites.

Main activities

The BEST (Bristol Environmentally Sustainable Transport) car club originated through a partnership between the Bristol Community Car Clubs Association (BCCCA) and Bristol City Council with advice from the Community Car Share Network (now Carplus) in 1999. Richard Armitage Transport Consultancy were commissioned to undertake a feasibility study, and as a result the club launched in July 2000, operated by Smart Moves. The club was re-named Bristol City Car Club in 2002 when the funding arrangements between Smart Moves and Bristol City Council were set up. The philosophy of the club is that it will become a financially viable sustainable transport initiative which is informed by and sensitive to the wishes of its members.

Members join the club for £140 per year (£125 in subsequent years, or £12/£11 per month). A member uses the car by booking either via the internet or over the phone. The car is unlocked using a smart card. The keys are accessed inside the car, and the user mobilises the car by typing in their key code. If they have not booked the car, it is not possible to mobilise the car. They use the car, return it to the car station and walk away. Rates for using the car are £2.30 per hour plus 15p per mile, and members are billed monthly.

The club is managed by Iris Eiting in Bristol with support from Richard Drew and back office support from Smart Moves head office. On-the-ground management combines development activities such as devising publicity and marketing campaigns and events, identifying and locating new car stations, negotiating on-street parking spaces etc, and day-to-day running including managing bookings, responding to enquiries from members and the public and troubleshooting problems that arise. Bristol City Council's involvement includes providing institutional and financial support, additional publicity and negotiating with developers to provide car clubs as part of new developments. A designated council officer is a point of contact and advocate for the car club, and this has been invaluable during the recent negotiations with the Legal Services department for the designation of parking bays at car stations. Funding from the city council is intended to enable the club to expand so that after four years it will be self-supporting (see below for details).

The Bristol club is one of the oldest Smart Moves clubs. As such it has become a 'reference' club which has shown how to set up and develop a city car club. Many of the lessons from the Bristol club have been learnt from by others. The approach includes well-targeted publicity, sensitive recruitment campaigns and a system whereby people can lobby to propose a new car station in their neighbourhood. New car stations are planned to fill in the gaps between the original stations. This evolutionary and bottom-up approach to planning is felt to help ensure the future success of the club. The way that the club interacts with the public – especially when recruiting members – is different now than at the outset due to the increasing awareness of the club, car clubs in general and other transport initiatives in the city.

Specific targets for members or stations were not set at the outset, but the four year partnership between the council and Smart Moves involves attaining a membership of 1000 and 50 cars by 2006/07.

Staffing and costs

Staffing
Staffing in the early stages involved voluntary and informal (expenses paid) input from members of BCCCA, as well as input from the council. Since April 2001, a part-time (0.5 fte) Smart Moves staff member has been employed. This became a full-time post in June 2001. There is also important back-room support from Smart Moves head office (dealing with insurance, arranging new car leasing etc). This is difficult to quantify in terms of staff time, but is probably about half a full-time post. Since September 2002, all Smart Moves staff input is 1.5 fte in total.

Costs and benefits
Smart Moves took on full operation of the club in September 2002. The club will receive development funding of £160,000 over four years, split into yearly tranches of £50,000, £50,000, £30,000 and £30,000. Three quarters of the funding is from Bristol City Council and a quarter from the EU Vivaldi programme. The funding covers most of the club's operational costs except the cars. The cars are obtained under a lease deal via Carplus with Vauxhall, and the operational income from the club now covers the lease costs of the cars.

Funding in the early stages was complicated, piecemeal and involved in-kind elements, so it is difficult to put a value to it.

A key external partner is First Bus who offer 10% discount on tickets for car club members. Expansion of the club involves work with developers and employers (including North Bristol NHS Trust) and there are plans for further collaboration with First.

Scale of the scheme

Number of people affected by the initiative
As of July 2003, there were 92 club members[1]. A further 15 people have been members at some point and have left, mainly due to moving out of the area. Of the current membership, about 60 members routinely use the cars with 4-5 core users at each of the car stations. Anecdotally, it appears that several people take part in a journey during a booking, suggesting that the number of people affected is significantly greater than the 92 members, and is more like several hundred.

In July 2003 there were six car stations, and demand for more. Several new car stations have been planned for the city centre, Bishopston, Horfield, Clifton, Hotwells and Montpelier. On-street parking bays have been designated by the council and cars have been secured through the Carplus / Vauxhall leasing deal. Future planning for expansion means that car delivery schedules are currently being revised to allow for a steeper growth curve in the future.

At the end of the first year, there were about 20 members sharing two cars.

Targeting
As the car club was originally a community-led initiative, the initial areas were defined by where that group was based. It is accepted (and supported by evidence from mainland Europe) that the 'early adopters' of car clubs tend to be slightly more affluent, liberal and fairly well educated, and that as the club develops, membership spreads into other types of neighbourhood.

The locations of new stations are determined by:
• a feedback form which allows the public to lobby the club for a station in their neighbourhood
• identifying key locations which enable a 'filling in' of the network of stations.

Based on the postcodes of members in 2002, the types of neighbourhood where the members live are shown in figure 1. These are based on ACORN classifications of neighbourhood type.

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[1] By April 2004, there were 160 members and 11 cars.

Figure 1: Neighbourhoods where car club members live
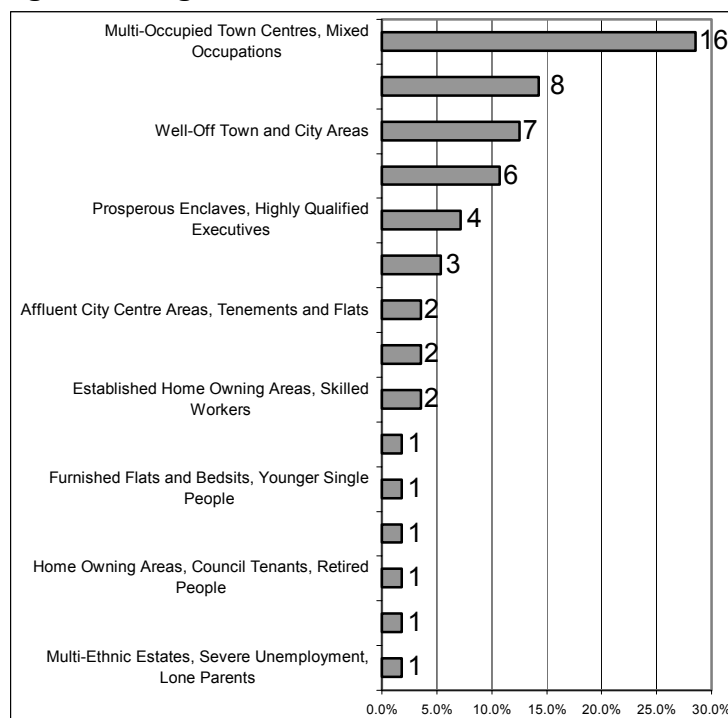
Data is for 2002. Bars show the percentages; the values are the number of members in each classification. n = 56

Effects of the initiative

Effect on car use within targeted population

As part of the contractual requirements with the city council, travel use is monitored as members join the club. Systematic 'after' surveys have not yet been carried out but are planned. The monitoring is in the form of a travel behaviour questionnaire, including monitoring number of cars in the household, the function and frequency of different trips by different modes and motivations for joining the car club.

From informal monitoring of members and from knowing their situations and habits, Iris Eiting suggests that, for the 60 regular users, 30 cars have been taken off the road by members who have got rid of a private car (many being 'horrible old cars'). Several others were on the point of buying a car but joined the car club instead. This means that the existence of the club and its six cars has removed an estimated 35 cars from the road. This is a better proportion that the widely quoted 1:5 ratio for the Bremen car club in Germany.

The car club cars clock up about 12,000 miles per year. Until the monitoring results are produced, it is not possible to say how many of these miles have replaced other car journeys. However, the distribution of this total mileage over the whole membership along with the reduction in private car ownership suggest that the club is responsible for significantly reducing the road miles travelled by members.

Iris Eiting has observed that the cars tend not to be used for commuting or local shopping, and suggests that user behaviour can be split into two types:

- those living close to a car station use the cars for short journeys and specific purposes
- those living further from the car station tend to use the cars for longer journeys (day trips, weekends) and/or for chained journey purposes.

Other effects within targeted population

There is an obligation under the Vivaldi funding to consider social inclusion effects of the car club. The relationship between car clubs and social exclusion is complex. Examples of two explicit benefits include:

- releasing capital for those getting rid of a car on joining the club. The significance of this depends on the affluence of the household and whether the car was a second (less essential) car.
- increasing mobility for those who could not afford a car. Expansion of the club will involve consideration of car station location in more deprived or challenging neighbourhoods.

There are also more subtle issues relating to social inclusion. For example, the car club provides a sense of shared ownership and communal responsibility as well as acting as a social focus in a community, encouraging a sense of civic and community pride.

An example of how the club has affected one family involves a working mother who sold her car on joining the club. Her children now cycle more (to see friends, to get around generally), and the mother routinely uses the bus. She says that she feels freer, sleeps better and that the club permits choice in the way that the family travel. It is a 'happy lifestyle change'.

The club has certainly raised awareness and changed the perception of members to other transport initiatives in the area. Beyond the membership, the car club sends out the message that good things are happening regarding transport in the city, and as the car club is seen as 'a bit different', it may be more noticeable than more conventional initiatives in its effect of raising awareness generally.

Evidence that perceptions and acceptance of the car club have changed over the last two years comes from the observation that when publicising the club and when dealing with new members, there is a much better background knowledge of the club and how car clubs work.

Iris says that experience from attending local networking events suggests that car clubs are an effective lever for communities and authorities to think more broadly and openly about solutions to transport problems. She suggests that as car clubs are a relatively new idea in the UK, and as they challenge some dogmatic stances regarding public/private transport and 'car addiction', people naturally start to challenge other ways of thinking. This also provides people with confidence to consider expanding their own initiatives as they see that new, slightly unconventional ideas can be successful, effective and attractive to a wide cross-section of the public.

Wider effects of the initiative
The car club is one of many measures and initiatives underway in Bristol which are aimed at reducing car use, and it would be difficult to disaggregate the effects of these initiatives on traffic levels. Various indicators of general changes in traffic levels in Bristol are given in the 2002 APR. These suggest that:
- pedestrian flows in the central area have increased 13% since 2000
- there has been sustained growth in cycle use, increasing by 7% in the central area and 13% in the area immediately surrounding the city centre
- local rail journeys increased by 5.1% since 1999
- car trips in the inner and central area reduced by 8% since 1996
- the increase in number of car trips in the outer area is slowing to levels below a 'do minimum' target rate. This was based on BRITES modelling of impacts on transport if all additional transport measures planned ceased and the transport network remained as it was in the mid 1990s.

Synergy with wider policies and strategy

Joining a car club usually means a change in certain elements of lifestyle and routines, especially if joining involves getting rid of a private car. Potential joiners therefore look critically at the other transport options that are available to them to consider whether they would be willing to use them.

Synergy with 'hard' measures
Car clubs complement other hard measures that are being installed in Bristol. A network of showcase bus routes is currently being developed, and the cycle network is being expanded and becoming more dense. In the eyes of a potential car club member, these are significant issues that would encourage them to join.

Synergy with other 'soft' measures
In recent years, Bristol City Council has gained a reputation for its development of soft initiatives. These include workplace and school travel plans, safe routes to school programmes, improvements in public transport information (real time information, Traveline promotion, internet journey planner www.travelbristol.org), implementation of the 'legible city' signage system, home zone developments which incorporate car club bays, 62 major footway schemes, cycle training and an internet car share scheme. From the perspective of someone considering joining the car club these initiatives would make the decision that much easier, though clearly the location of the schemes relative to the person is important.

The development of the car club has been made easier because of these other initiatives, although it is difficult to suggest which have been more or less important.

Perception of the importance of the initiative
Bristol City Council is proud to have led the way through its partnership with Smart Moves on developing car clubs in Britain and moving the concept of the car club into the mainstream.

Matthew Barrett of Bristol City Council summed up the council attitude: 'Car clubs fit very well with Bristol City Council's transport objectives which include lessening

dependency on the car, fostering a climate receptive to alternative modes, reducing harmful emissions and improving health. By providing a good quality alternative to owning a car, the car club makes it possible for marginal car users - those who need a car from time to time - to avoid having to buy a car, or keep a second car. This in turn encourages people to look at alternative modes of transport when planning journeys, rather than immediately using the car. It is hoped that this will lead to more thoughtful and sustainable car use. Other positive effects of car clubs include reducing pressure on parking spaces as car club members use up fewer spaces than non-car club members. The more thoughtful use of the car should also have an impact on congestion and pollution. There are also opportunities for encouraging the use of car club cars by employers as pool cars and in new developments.

'The pioneering nature of the work has also meant overcoming new obstacles, such as the legislation relating to car club bays as well as some opposition to car clubs, particularly in relation to the loss of public parking spaces. However, given their important role, we are determined to continue to support the principle of car clubs in Bristol.'

Factors contributing to success
Iris Eiting gave an in-depth assessment of 'what is going on in Bristol and why', and used this to explain why Bristol has had a significant influence on the way and ease with which the car club has been set up and developed. Her context is of a person arriving from Germany in the early 1990s and observing the community and the changes over ten years.

In the early 1990s there was a public perception that congestion was becoming a serious issue that needed addressing. The following years saw a renaissance focussed on the city centre. This put people back into the city as well as focussing attention on the city centre. The visually evident positive effects of city centre improvements (regeneration of the harbour and city centre as well as transport initiatives) gave a sense of optimism and pride in civic vitality.

However this same period saw major expansion of residential, office, industrial, retail and leisure facilities on the north fringe of the city in the neighbouring authority of South Gloucestershire. This caused significant traffic growth and increased levels of car-dependency which present new challenges to transport management in the city.

Bristol has a certain attitude which is difficult to pin down. The emergence of BCCCA (the community group from which the car club emerged) is an indicator of the type of creative feeling. The presence of the city wide 'mainstream green' magazine, The Spark (with a readership of 70,000), is another indicator: 'The Spark magazine is a free quarterly magazine about positive change for the West of England especially the Bristol, Bath and Glastonbury area. It's packed full of information about personal, social and global change. We've been publishing since 1993.' (www.thespark.co.uk)

The presence of Sustrans in Bristol is significant, and the extensive new and well-used cycle path network sends out an important message. This has helped to reach a critical mass of transport activity in the city. It complements a creative and dynamic team in the city council's transport department. Further evidence of this sense of critical mass

is VOSCAR (the voluntary organisations network in the city) recently starting up a specific transport section.

Bus services have long been perceived as poor, and this has been supported by a very negative local press for First Bus (the main operator). This means that people take note of non-bus initiatives. Recent improvements in bus services, including the showcase bus route, have largely been attributed to the council rather than the operator in the eyes of the public (despite significant investment in new buses by the bus company), and so other transport initiatives in which the council is involved have indirectly benefited.

Bristol is also a manageable size where walking, cycling and public transport are realistic options for many trips in many parts of the city.

There have been some significant individuals associated with the council itself who have been influential in the approach to dealing with the city's transport problems. In 2001, Bristol Councillor Helen Holland won Local Authority Transport Personality of the Year for 'driving forward the integrated transport agenda by building successful links with the business community, populace and media'.

Together, these elements provide a fertile institutional setting as well as an open-mindedness of residents to encourage the development of the car club.

Scalability

Staffing and budget
Plans to scale up are defined by the targets set to 2006/07 (1000 members, 50 cars). The idea is that the club will become self-funding (as the cars themselves are at present), and that expansion will be funded by growth of the club. As the club expands there will be a number of economies of scale, and it will probably change the way that it carries out some of its activities (e.g. contracting out more tasks such as car maintenance).

Some aspects of the expansion will not be self funding; for example, expansion into more deprived areas, where lower disposable incomes and higher crime rates (and therefore increased maintenance costs) may require subsidy at least at first, though such trials will take place in the four-year contract period.

As the club expands, Smart Moves's involvement would continue in the roles of managing the club (publicity and deciding on policy and nature of expansion), day-to-day running of the club and undertaking on-the-ground tasks.

More staff will be needed as the club expands, but it is difficult to define how many.

Relationship between spending and impact
The club has not yet formally considered spending and impact, but this is implicit in the business plan which underpins the 2002-2006 partnership. Informal monitoring shows that the effects of the club on reducing car use are broadly in line with those of more established clubs in mainland Europe. The Bristol club aims to be self financing

by 2006, and expansion after that date should be possible with no further external finance. This may not be the case if the club deliberately expands into more challenging areas in order to address mobility issues of the socially excluded.

Future scale of the initiative under currently planned resources
Membership is predicted at 1000 by 2006, but growth is currently held back (92 members, 200 predicted by now) due to unforeseeable delays in three areas:
- a pilot programme involving two of the major hospitals in North Bristol
- designation of on-street parking bays using Traffic Regulation Orders
- car supply through the Carplus / Vauxhall leasing scheme.

Expansion into new areas was held back as the implementation of the bays holds the key to expansion of the club across the city, and there have been delays. However, as a result of the council's planning polices, a number of additional sites that were not included in the original programme will be introduced, linked to new housing developments in the city.

Experience suggests that optimum utilisation per car is about 40% of the 16 bookable hours per day. Any increase beyond this might result in poor car availability, but it also means that there is sufficient demand to provide an additional vehicle; this is one of the key elements on which the business plan bases its expansion. Current average utilisation is 39%, and hence the club is on the cusp of sustainable expansion.

The application of German experience of club growth to the UK context suggests that a membership of 5000 is quite feasible in the longer term, although this is not currently an explicit target for the club, nor can current evidence point to whether this is an absolute ceiling.

Future scale of the initiative if resources were greater
Relating resource availability to the ability to scale up is not straightforward. It would depend on other factors such as the availability and provision of parking bays and the time it takes for the public to accept the idea of a car club as a serious proposition before joining.

Iris speculated that a significant increase in resources would allow the club to buy its own cars and factor in re-sale to release capital to fund new vehicles. The club could have its own depot so that it would have closer control of the management of the fleet, though this could only work once the club was much larger. Extra resources would allow new opportunities for publicity to be exploited such as local television advertising and more extensive advertising such as on backs of buses, and buying-in systems management to make the running of the club easier and release expertise to focus on development of the club.

The dynamic of the club would change if, for instance, three car club parking bays were made available in every neighbourhood. This would require roughly £0.5 million to fund 25 new cars, plus a comprehensive publicity campaign and the opportunity to target key employers. It would require a six-month run-in period before launch. Such a 'flooding' of car club infrastructure would have knock-on effects both in terms of how people behave and how other developments (planning, transport initiatives) would exist alongside. This would be a huge boost to membership.

Monitoring plans

Comprehensive monitoring of the car club is required as part of Smart Moves' contract with Bristol City Council. A new monitoring questionnaire will start being used soon, including both quantitative and qualitative information, and will be common across all Smart Moves clubs. Bristol City Council have commissioned the University of the West of England to develop monitoring for all aspects of the Vivaldi project, and this will provide further monitoring of the club and its members.

Key issues for scaling up

Increasing the scale of the club would depend on:

- The reliable supply of cars in the short to long term. Current problems (now resolved) have exposed the sensitivity of the expansion to car supply.
- A streamlining of the process of designating car club parking bays via TROs. A major increase in streetworks caused a backlog in the TRO process in Bristol, which meant that it took over two years to obtain the first four bays. It is predicted that at least another 10 will be needed before the end of 2003. Now that the initial TRO has been implemented, it is anticipated that the addition of subsequent bays will be a simpler process, although it is still expected that they will still take several months. This process could be speeded up by processing the legal paperwork for new bays in large blocks, e.g 10-12 at a time rather than individually. Careful selection of sites can help ensure that there are not major objections during the consultation period which delay the process.

On a broader scale, there are some issues that are believed by the club to require resolving at the national scale. The Department for Transport is still seen to be relying too heavily on the 2002 Motorist's Forum Report as a reference document for the future of car clubs. As car clubs have developed rapidly since 1999 in the UK, this report gives an overly conservative view of the potential of car clubs, mainly due to the absence of comprehensive empirical data when it was written. It would be better if the positive aspects of car clubs were realised – that they work, they are popular and they strike at the heart of many of the government's own objectives for reducing car dependency. It would be very useful if a positive vision, based on emerging UK experience as well as that from overseas, was expressed by the government about car clubs.

There is potentially much benefit in using planning laws through Section 106 agreements to provide a broader base for car club development. If used more widely, they would incentivise car club use by placing stricter constraints on new developments across the board. Developers are generally supportive, so it is up to the government to show leadership. The government should extend various exemptions to car club vehicles (e.g. congestion charging, tax exemptions) as is being proposed in Edinburgh. These could be used to provide incentives such as providing further tax exemptions for every car club car which has taken a certain number of private cars off the road.

The Bristol City Car Club was one of the pioneer clubs in the UK. Its place within the Smart Moves organisation means that many lessons learnt from its development are being applied to other clubs across the country. It has shown that there are certain generic elements of car club development, but these must be tailored to the particular needs and style of a specific town or area.

For a club to work well, the Bristol experience suggests there must be pre-existing transport problems – e.g. congestion, parking problems, a lack of transport provision or the cost of transport. In order to get a club up and running, the presence of some form of alternative or green community to seed the idea of a car club is useful. Environmentally aware residents tend to be the early adopters of car clubs and will support them until they become self funding. As perceptions and awareness nationally gradually change, this will probably become less important. Furthermore, the Bristol club has developed from the bottom-up i.e. neighbourhoods have elected to become involved. This means that it is not yet possible to tell how the idea of a car club would be accepted in other sorts of neighbourhoods, nor how well it would be used. Knowledge of this should emerge as the Bristol club (and others around the country) expands into more challenging areas in the next few years.

Most UK car clubs have developed from the bottom-up i.e. have been led by community groups. The larger European clubs started in the same way (e.g. Bremen, Germany; Mobility in Switzerland), but were then developed by a larger authority. The club in Bristol is currently in the phase of switching from one to the other, but is making sure that the voice of the local people is continuing to be heard. The commitment of Bristol City Council in the Bristol car club shows that the backing of a local authority results in a step-change in effectiveness in the UK context.

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Cox A (2001) BEST Experience from Bristol. Town & Country Planning, May 2001

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Carplus toolkit (www.carclubs.org.uk/information/index.htm)

Vivaldi website (www.vivaldiproject.org)

Case study author: Alistair Kirkbride

Bristol City Council

Personalised travel planning

Interviewees: Pete Davis, Team Manager, Transport Initiatives and Tim Hapgood, Transport Planner, Bristol City Council, with further information from James Ryle, TravelSmart Project Director, Sustrans

Individualised marketing is a method which aims to increase awareness and ease of use of non-car transport modes by providing personalised information and advice to people who are willing and able to reduce their car use. Two projects are currently underway in Bristol in contrasting neighbourhood types. The project in the first area, Bishopsworth / Hartcliffe, was carried out in two phases a year apart. The first phase has shown a 5% reduction in car driver trips and double the increase in bus use compared to a control area. Preliminary results from the second phase were not yet available. The marketing intervention in the second neighbourhood, Bishopston, was carried out in April - June 2003 between the two phases in Bishopsworth / Hartcliffe, and results which became available after the case study interview suggest it has delivered a 10% reduction in car driver trips.

Bristol City Council, Sustrans and Socialdata are in partnership to carry out these projects. The range of complementary transport initiatives that are being implemented in Bristol makes marketing alternative options to car use realistic.

Case study location and main actors

Bristol City Council is involved in individualised marketing projects in two areas. The first project is in the Bishopsworth / Hartcliffe area, 5 km south of the city, as part of the EU-supported Vivaldi project, and has involved two phases of marketing activity. Another project, part funded by the Department for Transport, focuses on the Bishopston neighbourhood. The two neighbourhoods have contrasting socioeconomic profiles, as detailed below.

The Bishopsworth / Hartcliffe scheme is managed by a working group comprising Sustrans, Bristol City Council and Socialdata. First Bus has provided information materials and trial tickets. The Bishopston scheme is managed by the city council, through a contract with Sustrans, who in turn have subcontracted Socialdata.

Main activities

TravelSmart® is a programme initiated by Sustrans in partnership with Socialdata. It involves individualised marketing as a method which aims to increase awareness and ease of use of non-car transport modes by providing personalised information and advice to people who are willing and able to reduce their car use. It is split into distinct phases: initial contact is made with households which are then segmented into groups according to their use of different transport modes and whether they are interested in making more use of alternative travel modes. Those who would like to

use public transport more, or walk or cycle more, are provided with personalised information about transport alternatives. Some of these households receive further support (the "convincing" phase) to encourage walking, cycling or to use public transport more.

The Bishopsworth / Hartcliffe project is an integral element of the European Vivaldi project, itself a part of the European Commission supported Civitas Initiative. Civitas is focused on developing cleaner and better transport in cities, and the Vivaldi project (VIsionary Vibrant Actions through Local transport Demonstration Initiatives) involves the five cities of Bristol, Bremen, Nantes, Aalborg and Kaunas working together to share experience and best practice in developing local transport solutions. The individualised marketing initiative is one of several complementary schemes which comprise the Vivaldi project activities in Bristol.

The Bishopston project began about a year after that in Bishopsworth / Hartcliffe following a successful bid to the Department for Transport for a similar project in a contrasting area, details of which are given below.

The council's involvement in the projects includes co-management of the two projects (with Sustrans). The key tasks include:
- Providing the travel information. This includes gathering materials (timetables etc), commissioning new materials (e.g. local area travel map and cycle leaflets which will also be used more widely and which have been adopted by other local authorities)
- Negotiating incentives with transport operators including First Buses and in relation to the "walking to health" scheme.

Sustrans has been responsible for negotiating discounts with cycle shops and managing Socialdata activities. A Sustrans community worker has been involved with cycling & walking home visits. Socialdata is responsible for the contact with the public on the ground. For this, they use their IndiMark® methodology. The approach taken for running the projects was adopted from previous individualised marketing schemes. Sustrans were involved with individualised marketing projects in Gloucester and Somerset, and Socialdata's IndiMark® methodology has been developed through several schemes around the world. There were differences in the way that residents perceived and welcomed the initiative in the two areas although it was generally very well received from the outset. The approach was kept deliberately low key so as not to prejudice the results.

For both projects, one formal target relates to the number of people approached in the initial contact phase of individualised marketing (i.e. 5000 people per scheme) and this has been achieved. Specific targets relating to take up of measures by those contacted were not set, but those already reported from the first phase of the Bishopsworth / Hartcliffe project are comparable to good practice with other individualised marketing schemes elsewhere. These are outlined further below.

Staffing and costs

The initiative involves three key partners, and different amounts of time are contributed at different stages of the implementation of the scheme. During the few weeks of the intense campaign phase, 4-5 people were involved from the council which corresponded to about 2.5 full time equivalent posts.

The overall budget for the Bishopston campaign is £100,000, with a DfT capital allocation of £50,000. The costs for the two phases of the Bishopsworth / Hartcliffe scheme are of a similar order. For both projects, work is contracted out to Socialdata

Scale of the scheme

The first phase of the individualised marketing campaign in Bishopsworth / Hartcliffe took place in September/October 2002. The initial target population for the marketing campaign consisted of 1,192 households equating to 2500 people. After accounting for households that were uncontactable because of long-term absence, death etc, an initial approach was made to 1,081 households. A total 867 households (80%) responded, of which 46% expressed an interest in receiving information on alternative travel modes. Information materials and further advice/support were given to 284 households, (of whom 52 received rewards only). A total of 2053 items of information (timetables, cycling advice leaflets etc) were distributed, making an average of 7.2 items per household.

At the "convincing" phase, the following extra services were provided:
- Public transport: 43 four week test tickets valid on First buses in Bristol given out and 22 home visits made by a First bus driver
- Cycling: 44 discount cards for local cycling shops given out, and 3 advice and/or training sessions provided by a qualified cycle trainer
- Walking: 83 discount cards for local outdoor shops and 57 walking kits (Step-O-Meter and local walking group contacts) given out and 10 advice sessions by walking expert provided.

Phase 2 of the Hartcliffe Project took place in September/October 2003 (after the case study interview) and involved a further 2500 people.

The Bishopston individualised marketing campaign took place in April-June 2003 and involved 5364 people. Response rates were not available at the time of writing.

In total, approximately 10,000 people will have been targeted by the two projects.

Targeting
Bishopsworth / Hartcliffe is a challenging area to work in, with high deprivation indices, low car ownership and relatively high public transport use.

The two phase methodology (with half the target group receiving the intervention in 2002 and half a year later) was chosen in order to allow for hard measures to be introduced between the two phases i.e. the implementation of the 76/77 service Showcase bus route which passes through the area.

Bishopston is being targeted as a contrast to Hartcliffe. The neighbourhood is close to the city centre (about 2.5km north) and there are relatively high levels of car ownership which generate a relatively large number of short car trips.

Effects of the initiative

Effect on car use within targeted population
The effects of the two projects are being monitored using household and individual travel surveys of a sample of the target group before and after the marketing interventions, and a separate control group not involved in the marketing campaign.

- **Phase 1 Bishopsworth / Hartcliffe**
The feedback from the before and after travel surveys for Phase 1 Bishopsworth / Hartcliffe was analysed to reveal the changes in modal share in the control area (i.e. those due only to improvements in the public transport system during the project period) and changes in people receiving the TravelSmart marketing intervention (i.e. those due to the marketing intervention combined with public transport system changes). These are summarised in table 1.

The results suggest that the marketing interventions have negated a reduction in walking observed in the control area (i.e. due to public transport system changes alone), enhanced increases in public transport use, and turned an increase in 'car as driver' to a reduction. Table 2 presents the results in terms of the relative change in the average number of trips made per person per year:

Table 1: Phase 1 Bishopsworth / Hartcliffe project: mode shares from 'before' and 'after' travel surveys

	Before %	Control area %	TravelSmart area %
Walking	21	19	21
Bicycle	0	0	0
Public Transport	9	11	13
Motorbike	1	1	1
Car Passenger	24	23	22
Car Driver	45	46	43
TOTAL	100	100	100

'After' survey for control area is for people who benefited from public transport improvements but did not receive individualised marketing intervention. 'After' survey for TravelSmart area is for people who benefited from public transport improvements and also received individualised marketing intervention.

Table 2: Phase 1 Bishopsworth / Hartcliffe project: relative change in the average number of trips made per person per year

	Change in control area	Change in TravelSmart area	TravelSmart effect
Walking	-13 %	-6%	+8 %
Bicycle	-	-	-
Public Transport	+18 %	+46%	+23 %
Motorbike	-	-	-
Car Passenger	-9 %	-12%	-3 %
Car Driver	+1 %	-5%	-5 %
TOTAL	-3 %	-2%	-2 %

- **Phase 2 Bishopsworth / Hartcliffe**

Results for the second phase of individualised marketing in Bishopsworth / Hartcliffe were not available at the time of writing. The 'after' survey was due to be carried out in May 2004.

- **Bishopston**

Results for Bishopston were not available at the time of the case study interview, but preliminary results were subsequently provided by Sustrans. They are summarised in table 3.

Table 3: Bishopston: preliminary results from first 'after' survey

Mode	Modal share		Relative change
	Without IndiMark % of trips per person per year	With IndiMark % of trips per person per year	
Walking	37	39	+6%
Bicycle	4	6	+51%
Public transport	6	7	+18%
Motorbike	1	0	-67%
Car passenger	15	14	-7%
Car driver	37	34	-10%
Total	100	100	

Other effects within targeted population

The Hartcliffe project was motivated by the Vivaldi project objective of addressing social inclusion. It is still too early to comment on any effects that the scheme may have had in relation to social inclusion.

Wider effects of the initiative

There are currently many measures and initiatives underway in Bristol which are aimed at reducing car usage. Various indicators of general changes in traffic levels are given in the 2002 APR. These suggest that:
- pedestrian flows in the central area have increased 13% since 2000
- there has been sustained growth in cycle use, increasing by 7% in the central area and 13% in the area immediately surrounding the city centre
- local rail journeys increased by 5.1% since 1999
- car trips in inner and central area reduced by 8% since 1996

- the increase in number of car trips in outer area is slowing to levels below a "do minimum" target rate. This was based on BRITES modelling of impacts on transport if all additional transport measures planned ceased and the transport network remained as it was in the mid 1990's.

Synergy with wider policies and strategy

Individualised marketing aims to decrease car use by increasing awareness and ease of use of non-car transport modes. This means that its potential is, to an extent, a function of the provision of other modes and measures.

Synergy with 'hard' measures
The main 'hard' initiatives that are taking place of relevance are Showcase bus routes which pass through both of the areas (officially launched in December 2003). Showcase routes include improvements such as enhanced bus shelters, raised kerbs, bus priority measures, traffic signalling and regulation of parking and loading along the route, using new low-emission buses and providing real-time information including audio information for the visually impaired.

The two phases of the Hartcliffe project were initially designed to bridge the implementation of these improvements in order to test the effectiveness of the individualised marketing programme alone against the programme in combination with the launch of a complementary 'hard' initiative.

However, as many of the Showcase bus improvements came into effect during Phase 1 of the TravelSmart project, it is likely that these were mainly responsible for the significant changes in travel behaviour observed in the control area. As a result it is possible to measure the relative effects of the soft and hard measures. The results above suggest that TravelSmart more than doubled the impact on bus use of these infrastructure improvements.

The other 'hard' scheme which is relevant to the effectiveness of the individualised marketing programme is the improvement to the local cycle network.

Synergy with other 'soft' measures
Individualised marketing in Bristol is assisted by the varied range of 'soft' initiatives which are being implemented in the city. A new Bristol City Car Club car station is planned for Bishopston in the near future, and a new E-centre, which will allow the public to access information, is scheduled for Hartcliffe. A 'Walking the way to health' initiative has been promoted through the schemes by the provision of leaflets, guides and a step-o-meter.

Other city-wide 'soft' initiatives which will have an effect on the success of the individualised marketing initiative include workplace and school travel plans, safe routes to school programmes, improvements in public transport information provision (real time information, Traveline promotion, internet journey planner www.travelbristol.org), implementation of the "legible city" signage system and home zone developments.

Perception of the importance of the initiative
Transport is seen as an important element in the revitalisation of Bristol along with other areas of council policy. This is reflected in the council's involvement in an impressive array of high profile European transport programmes and partnerships:

- **Partnerships**

€URoPrice / €URoPrice 2 (European Urban Road Pricing Network), POLIS (improving quality of life through innovative measures for reducing congestion, enhancing safety, lowering polluting emissions, and offering better and equal access to transport services), ALTER (clean fuel programme).

- **Programmes**

Citizens' Network Benchmarking Initiative (urban passenger transport), NICE (Networks Integration for Cycling in Europe), PRoGR€SS (Pricing ROad use for Greater Responsibility, Efficiency and Sustainability in cities), CENTAUR (Clean and Efficient New Transport Approach for Urban Rationalisation), DANTE (Designs to Avoid the Need to Travel in Europe), ELGAR (Environment Led Guidance And Restraint) and most recently Vivaldi.

Within the council, individualised marketing is seen as complementary to higher profile visible hard schemes such as the proposed rapid transit scheme and the Showcase bus routes. However, it is generally perceived as being a "soft factor with a hard edge". Respect for the initiative has grown as results have started to emerge, and as people have acknowledged that it is effective, cheap, durable and has a short turn-around.

There is a sense that the initiative has significantly helped in raising the acceptability of other transport schemes in the area and that the impacts are "all positive", although this is currently anecdotal.

Factors contributing to success
The smooth operation of the project has been assisted by the physical presence of Sustrans and Socialdata in Bristol. There has also been the benefit of strong political support which, along with the good track record and results of EU funded projects, has helped to increase the profile of delivering successful transport initiatives in the city.

Scalability

Future scale of the initiative under currently planned or increased resources
There are currently no commitments to continue the initiative beyond the completion of the two projects.

The city council believes a campaign size of 5000 people is appropriate in terms of staff resources and costs. However there are many examples of successful Individualised Marketing projects on a larger scale. Sustrans and Socialdata are currently involved in a project covering 10,000 people in Gloucester (10% of the city's population) and in Western Australia, Socialdata are managing a roll-out of TravelSmart with the aim of reaching half the population of the metropolitan Perth

area. This follows a large-scale application covering 35,000 people in a single phase. At a local level, the largest feasible size for a single project will depend on funding constraints and the capacity of local authorities and other project partners to service the requirements for information materials etc.

Key issues for scaling up
Scaling up (or rather, continuing as at present which is the city council's current preference) would require a commitment to incorporate individualised marketing into the LTP and to compete for funding with other schemes in the formulation of the capital programme. Any extension would rely on results from the two projects being of a positive nature, and the availability of human and financial resources. It would alternatively require external funding. Uncertainty about the continuation of funding beyond the end of the current projects means that strategic forward planning is not possible, and there is currently no way of controlling this.

A key problematic issue at the moment involves the technical difficulty of supplying different types of travel information effectively – e.g. tailored bus stop timetables. This may be overcome with new software tools.

The Bristol City Council team were very satisfied with the way the individualised marketing was being carried out and that it was working well. They identified two issues which would be important to consider for the effective continuation of the method. Firstly, the approach of using a 'hot team', as first set up for the Hartcliffe scheme through the Vivaldi project, is efficient and effective. Secondly, it would be beneficial to find a better means for distilling and supplying some of the necessary information such as bus stop specific timetables over the long term.

The experience of developing individualised marketing in Bristol suggests that it is very transferable to other areas, in the same way that the method was applied to Bristol from experience elsewhere. The method is fairly straightforward and these trials have shown that it is largely generic. While some aspects of it are labour intensive, this is only for a short time and the effects are striking.

Whether the method would work quite as well in rural areas or areas without readily available non-car transport would be questionable, but it may be a useful tool in the process of developing complementary transport initiatives in such areas.

It is thought by the team that individualised marketing will probably become a mainstream element in the toolbox of transport planning and demand management. It should be built into the next round of LTPs.

References

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Case study author: Alistair Kirkbride

Bristol City Council

Workplace travel plans

Interviewee: Mike Ginger, Co-ordinator, Special Projects Team, Transport Planning

Bristol City Council's workplace travel plan programme currently involves contact with 85 employers and nearly 30,000 employees. The programme involves development and support of travel plan networks as well as advice and support for individual employers to develop their own plans. There are award schemes for achievement in car use reduction and plan development, and a grant scheme for employers. Some travel plans have resulted in reductions in car use in excess of 10%. The programme is assisted by a wide range of high profile transport initiatives being implemented in Bristol, including showcase bus routes, car clubs, car share schemes and a dense cycle network.

Case study location and main actors

Bristol City Council is a unitary authority with a population of 381,000 and a working population of 231,800. The council is working with employers and commuter organisations to facilitate the development of workplace travel plans. Key partners include the Bristol Tourism Bureau, various visitor attractions, the University (which is developing car share software) and various transport providers. The council has a £30,000 per year service level agreement with LifeCycle (formerly CycleWest). This involves adult cycle training (125 sessions per year), a scheme to provide up to two Sheffield racks at small employment sites, working with up to 12 employers on bicycle user group (BUG) development (sometimes alongside workplace promotions) and providing tailored cycle route advice to individuals. Several of the workplace travel plan initiatives (e.g. the award scheme) involve partnership with the unitary authorities of South Gloucestershire, Bath & North East Somerset and North Somerset and South Gloucestershire, a total population of 984,700.

Main activities

Bristol City Council became formally involved in workplace travel plans in 1997/98. Some organisations had already started work on their travel plans previously, but the council-led programme was devised to co-ordinate and focus activity of the different players.

City council involvement in travel planning is co-ordinated by the Transport Planning team of the Traffic and Transport Division. They facilitate communication between companies and organisations, for example by establishing the Temple Quay Employers Group and the Green Commuter Group. They advise organisations on the development and implementation of travel plans, including data collection strategies and analysis.

The programme also involves an innovative grant scheme. Employers can apply for up to £5000 i.e. 40-50% of the cost of their initiative. Nineteen schemes have been supported (seven within the council) ranging from about £200 to the full grant. Initially, the council receives an 'expression of interest' form and if appropriate a full application is invited.

Awards, mainly in the form of an accolade and public recognition, are given for progress or achievement, though the package of support is offered to employers irrespective of the awards process. Progress awards recognise commitment during the plan's preparation and implementation, and achievement awards are for monitored traffic reduction. Apart from encouraging and recognising achievement, the awards are useful in providing an incentive for employers to undertake before and after monitoring surveys as part of their plan. The threshold for an achievement award is reduction in car use of 10%.

An indicator was set in the local transport plan to engage six major employers per year in the travel planning process, and recently, Bristol's Community Strategy has also set a target of a further 50 employers developing travel plans by 2006. The LTP target is being achieved, although it is becoming increasingly difficult to measure activity against such a target as the nature of the involvement becomes more complex. For instance, some employers in the city operate from various sites, each of which has different travel plan requirements. Traffic reduction targets have not been explicitly tied to travel plans although some plans do involve setting targets, particularly in relation to new developments.

Staffing and costs

Staffing
At the outset about 0.25 full-time equivalent posts were involved with workplace travel planning. This has grown through various means to about 1.25 fte in 2002/03 (including about a quarter of Mike Ginger's time) although this is currently in some flux. It includes a time-limited bursary post and a temporary secondment working on planning-related travel plans. There will soon be a new two year post working on the city council's own travel plan. This will increase the total staffing to about 2.25 fte, but it will reduce again to about 1.75 fte when the bursary post ends, unless funding of this is taken up by the city council. The travel planning team share their time with other complementary travel initiatives, and so disaggregating staff time to that solely spent on travel planning is not straightforward.

Costs and benefits
In 1997/98, about £3000 - £4000 was spent on promotional work.

The budget for travel planning elements of the team's work in 2001/02 and 2002/03 was £50,000. In 2003/04, this will be £40,000 plus other elements (e.g. promotion & awareness materials), resulting in an effective cost of about £65,000. The way the travel planning programme works alongside complementary schemes means that it is not possible to give an exact figure for the amount spent solely on travel planning. The majority of the 2003/04 budget is devoted to the grants scheme. An estimate of the current cost of salaries is £65,000 per year.

Scale of the scheme

Number of people affected by the initiative
The nature of the city council's involvement with companies and organisations through the process of developing and implementing travel plans means that defining the intensity of involvement is sometimes difficult. Currently, about 85 companies are involved with the Bristol Green Commuter Club – a network of employers involved in travel planning (see table 1). Of these, the city council is involved in a detailed way with about 50 at present plus a further 10 through the planning process (although there are many in the pipeline). Mike Ginger estimates that about 10-20% of the total workforce are involved with an employee travel plan.

Table 2 shows the breakdown of the organisations engaged in travel planning by sector.

Table 1: Engagement in travel planning

	Engaged with on travel planning	Based in the area
Number of employers	85	
Number of employees	29,960	231,800

Table 2: Engagement of different types of organisation in travel planning

	Number of employers council is working with on travel plans
Local authority	33*
Further / higher education	2
Health (excl GP surgeries)	3
Other public sector or voluntary organisation	12
Private sector <300 staff	13
Private sector >300 staff	22
TOTAL	**85**

* LAs are developing separate plans for different sites

Between August 2001 and December 2002, the city council was involved with:
- 27 employers (>21,000 employees) who had been working on travel plans for over 2 years
- 21 employers (>22,000 employees) who had started working on their plans in last 2 years
- 21 employers (3000 employees) who had begun to come in to the travel planning process.

The Local Transport Plan suggests that in the early stages (2000), 26 organisations were involved with voluntary travel plans of which four (>285 employees) had expressed interest, two (10,200) already had some measures in place but did not have a formal travel plan, 15 (>24,000) were preparing a plan and 5 (5,100) had adopted one.

Approach and targeting

According to the Local Transport Plan, Bristol City Council's approach to travel planning has been to target major sites such as hospitals, major employment areas (the city centre, Severnside) and major leisure complexes, where the scope for impact is greatest. The LTP identifies nine major sites where travel plans could have a significant impact: Temple Quay (a new town centre business area), United Bristol Hospital Trust, Bristol University, City of Bristol College, Bristol City Council, Central City Area, Cabot Park (a business park in Avonmouth), Southmead and Blackberry Hill hospitals, and Avonmouth and Brislington trading estates.

The emphasis has been on the public administration, banking and insurance sectors, which together account for about 110,000 employees in Bristol, suggesting that there are still 80,000 to be targeted, some of which are in large companies. There are also large numbers in the hotels and manufacturing sectors (over 70,000) which will be harder to tap but have some potential and some of these employ 200-900 staff. The December 2002 travel plan progress report suggests that the council will also target the main tourism attractions in the harbour-side area (in partnership with Sustrans under Vivaldi funding), as well as the remaining top 50 companies not covered by previous targets. There are good grounds for expecting more large companies to become involved.

In 2003, these approaches are still being followed, though an increasing number of travel planning conditions are being applied though section 106 agreements, and a more reactive response to enquiries from interested organisations is being adopted.

Effects of the initiative

Effect on car use within targeted population

Bristol already ranks highly (82 out of the 376 local authorities in England and Wales) in terms of the proportion of journeys to work made by public transport. Although Bristol City Council does not monitor modal shifts (before/after surveys) of all of the organisations with which it gets involved, some employers have shown significant reductions in car use as a result of their plans. These are shown in table 3. Several other companies have set targets for their plans, as shown in table 4.

Table 3: Companies / organisations with established travel plans which have achieved a measured reduction in single occupancy vehicle (SOV) trips

Company / organisation	Reduction	Number of staff / visitors	Total reduction in number of daily return trips	Key targets
Orange	55% (60 to 27% of trips)	700	231	Reduce SOV travel to 33% of staff.
Norwich Union	16.3% (37 to 21% of trips)	1300	208	No targets set.
University of Bristol	12% (36% to 32% of trips)	5000 staff	200	No targets set.
Bristol Zoo	5%	700,000 visitors/annum	100	Less than 70% of visitors to come by car.
ARUP	8% (41% to 38% of trips)	109	4	10% reduction in SOV trips by 2005.

Table 4: Companies / organisations new to travel planning who have set targets

Company / organisation	Current car use	Number of staff / visitors	Key targets
IKEA	Staff SOV trips currently 53% Customer SOV trips currently 15%	600 staff and 4 million visitors	Reduce staff SOV trips by 25% (5% in first year). Reduce visitor single occupancy car journeys by 10%.
BBC	50% SOV trips in 2001	900 staff + visitors	Reduce staff SOV trips by 35%. Increase staff cycling from 12% to 16%.
Environment Agency (Westbury site)			Reduce business mileage by 10%.
Faber Maunsell	48% SOV trips in 2002		Reduce business travel by 5% by Sept 2003
UBHT	Staff SOV trips currently 37.7%	5000 - 3000 part time	Reduce SOV trips by 11.4% over plan period. Plan awaits approval.
North Bristol NHS Trust (covers all sites)		4276 f/t 6639 p/t	Reduce SOV trips by 10% by 2005 based on 2001 level.

In 2003, gold awards were given to Norwich Union and Arup for measured traffic reduction, and silver to the Environment Agency and Ikea for measures implemented. Previous winners have been the University of Bristol, City of Bristol College, Bristol Zoo, DAS, Orange and the North Bristol NHS Trust.

Bristol City Council is also involved with travel plans in fairly challenging parts of the city. The Avonmouth area has very poor public transport links and increasing awareness is seen as a key element of travel plan intervention in the early stages.

Other effects within targeted population
The city council monitors traffic levels and speeds, journey times, accidents and public transport use. Various indicators of general changes in traffic levels in Bristol are given in the 2002 APR. These suggest:
- pedestrian flows in the central area have increased 13% since 2000
- cycling has grown by 7% in the central area and 13% in the area immediately surrounding the city centre. The 2001 LTP Annual Progress Report gives examples of high numbers of cycle trips where travel plans have been implemented
- local rail journeys have increased by 5.1% since 1999
- car trips in the inner and central area have reduced by 8% since 1996
- the increase in number of car trips in the outer area is slowing.

The most significant levels of traffic reduction in the city have occurred in the city centre. As much of the travel plan activity has been focused here, it is reasonable to suggest that the travel plans themselves can explain some part of these achievements.

Wider effects of the initiative
Although the social inclusion benefits of workplace travel planning are not formally monitored, support for non-car transport options clearly provides benefits to those without access to a car. For example, the Avonmouth area has relatively poor public

transport provision, and the city council is working there with the employment services so that the development of workplace travel plans helps improve accessibility to work.

Employers view travel plans as an effective element of personnel policy, offering benefits to all staff, and see them as beneficial to staff recruitment and retention.

The public acceptability of travel planning has certainly improved over the years. There is greater interest from employers and they are more willing to invest in travel plans, suggesting that travel plans are increasingly seen as mainstream. Employees are more open and informed about travel plans and the transport initiatives that are associated with them, and attendance at Green Commuter Club events is steadily increasing.

Workplace travel planning is one element in a co-ordinated suite of travel initiatives in Bristol. It is therefore difficult to disaggregate their specific benefits from the combined benefits of several complementary initiatives.

Synergy with wider policies and strategy

Travel plans rely on the existence of alternative modes to the car which offer a practical and attractive option to employees. Bristol has a certain renown for the variety of travel initiatives which are being developed in the city. It has formal strategies which include targets and measures for buses, cycling, walking, safer routes to schools, road safety, air quality, passenger rail, and is developing a parking strategy.

The dialogue between the council and employers under the initiative has allowed a better understanding of the practicalities of project delivery amongst employers, including how the LTP and APR process works. It has also enabled the council to understand better the needs of employers.

Synergy with 'hard' measures
The main hard measures currently underway in Bristol are improvements to bus, park & ride, walking and cycle provision. The first of a network of showcase bus routes in Bristol will be launched towards the end of 2003, and the cycle network, already one of the most comprehensive in a UK city, is further expanding and becoming denser.

There are four park & ride sites located around the city. Parking is free, and there are frequent buses to the city centre, typical ticket prices being £2 - £2.50 depending on time of day. A unique initiative is the Bristol ferry boat which is supported by the council and connects Temple Meads (near to the rail station) to the city centre. There are several home zone developments which incorporate car club bays and 62 major footway schemes.

There are plans for a light rail system for Bristol, although its implementation target date has been repeatedly delayed.

Synergy with other 'soft' measures

Soft measures include school travel plans, safe routes to school programmes, improvements in public transport information (real time information, Traveline promotion, and an internet journey planner www.travelbristol.org), implementation of the "legible city" signage system, cycle training and an internet car share scheme. There are effective synergies with events such as the Biggest Bike Ride, Bike Week, European Mobility Week and Car Free Day.

Temple Quay is a good example of hard and soft initiatives working together. A Temple Quay Employers Group has been established. The cycle track improvements in the central area of the city have encouraged cycling to this area, and an internet-based car share matching scheme has been developed for the site. Some 164 people have so far registered, resulting in 46 matches. The scheme is in its early stages – two of the larger employers, Norwich Union and Bristol and West, have not yet made the scheme available to their employees – but there is a potential pool of 4000 people, and the scheme is now being expanded across central Bristol.

Perception of the importance of the initiative

Workplace travel plans reach a large number of people directly and are the portal through which many people hear about other initiatives that are taking place in the city. In this respect, they are generally viewed in a positive light. The sheer number of initiatives taking place in Bristol means that the public is now more aware of them and more accepting of them than previously. Employers are less hostile to restraint measures and perceive that they are more 'involved' through travel plans.

Factors contributing to success

Though none of the complementary transport initiatives have been critical for the success of travel planning, some lend themselves to travel plans (e.g. car share matching) and some are very useful in specific locations (e.g. workplaces located on or near showcase bus routes). An effective capital programme which results in people seeing progressive improvements (e.g. bus routes, Traveline) has been important for the success of the schemes as have the Local Plan parking standards. Easier access to information through specific travel information initiatives and general awareness of the public has been important.

Bristol suffers from bad congestion, and so a widely held perception (of the council, business and the public) that 'something has to be done' provides a fertile seed bed for new transport initiatives to be developed and implemented. This has corresponded to successes in inward investment and the regeneration of several deprived residential areas, business areas and the heritage-rich city centre. All of these developments were mutually supportive and together provided the necessary critical mass for success.

There are a number of employers in Bristol with progressive perspectives (e.g. Orange) who are more likely to be open to travel planning and who have been willing to invest in travel plans at an early stage. In addition, Bristol University had to find a solution to a worsening parking problem. These examples give confidence to employers who enter into developing a travel plan. The presence of Sustrans in Bristol should not be overlooked in terms of its influence on people's perspectives regarding travel initiatives in the city.

There have been some significant individuals associated with the council itself who have been influential in the confident and visionary approach to dealing with the city's transport problems. In 2001, Bristol Councillor Helen Holland won Local Authority Transport Personality of the Year for "driving forward the integrated transport agenda by building successful links with the business community, populace and media".

Scalability

Staffing and budget
There are no plans to scale up or down staffing or resources for travel planning beyond the adjustments outlined above.

Future scale of the initiative under currently planned resources
It is envisaged that about 20 organisations will become involved in travel planning per year through the planning process, and that a steady rise in other employers developing travel plans will continue. This is higher than the LTP target of 6 per year due to changes in the way that the system now operates – plans tend to be developed for individual sites rather than for whole organisations (e.g. the city council is likely to have 20 separate plans for its different sites), and smaller employers are becoming engaged in the process. These increases rely on the continuation of LTP funding for travel planning.

Future scale of the initiative if resources were greater
It is difficult to assess productivity gains resulting from resource increases. A doubling of resources would not result in a doubling of effectiveness as more travel plans would be undertaken in more challenging areas (e.g. Avonmouth) with diminishing returns. However, there may be a longer-term pay-off in being able to tie together travel plans for organisations in the same neighbourhoods to reap the benefits of scale (e.g. developing whole new transport connections to a neighbourhood). Other complexities of increasing resources for travel planning relate to how resources would change for other initiatives such as showcase bus routes, cycle routes, individualised marketing. The complex inter-reliance between initiatives would need to be acknowledged.

Mike Ginger speculates that an ideal form of expansion to make travel planning more effective might involve phasing in extra staff over two to three years up to about seven full-time equivalent posts, split into sub-teams with responsibilities for the five areas of Bristol (four quadrants plus the centre). This would necessitate a change in other strategies and could not be done in isolation. Although it would increase the number of plans undertaken, it is not possible to quantify by how much nor what the impacts of traffic would be. It is likely that the effect would be non-linear; coupled with the tendency for more employers to achieve the ISO14001 Environmental Management Systems Standard, the process would start to snowball.

It is not possible to estimate the maximum number of employees that could be affected by workplace travel plans. In a simplistic sense, city-wide adoption of travel plans suggests that they *could* affect all employees either through plans for specific medium or large employers or through linked plans for an area.

Monitoring plans

The monitoring of travel plans will continue as at present. It is expected that more "after" surveys are likely to emerge as new travel plans have chance to bed-in and the awards scheme and increasing use of section 106 agreements means that before/after surveys are required.

Key issues for scaling up

Scaling up the travel planning programme would require the following issues to be addressed:

- the provision of good quality public transport across the whole of the city. The programme of upgrading all of the main bus corridors to "showcase" bus routes has only just started.
- the limitations of control between the council and the bus companies. The companies are commercial organisations and while dialogue between them and the council is good, the council has limited controls over routings, prices and deals.
- the amount of revenue support available to support schemes after the initial injection of capital has got them up and running, although this is more of an issue for the LTP programme than for the travel planning programme itself.
- at what stage the provision of public transport and alternative transport infrastructure is sufficient to be able to entertain the prospects for travel restraint. Investigations into the possibilities of congestion charging in Bristol are linked to public transport provision and a number of demand management tools (such as parking management enforcement) are already used.

Support for workplace travel planning has increased over time within Bristol. As the emerging effects of travel plans are positive and comparatively cost effective, it is becoming increasingly difficult to dismiss travel planning as an effective tool in managing demand.

Working with the Regeneration and Planning Departments continues to be effective (e.g. they will soon be producing a joint supplementary planning guidance document).

There are various key issues at the larger scale which are seen as important for the successful continuation of travel planning including:

- continuation (and continuity) of funding to allow for effective longer term strategic planning
- re-instatement of the funding for the bursary posts
- while PPG13 is helpful when working with developments, it has sometimes been necessary to develop more detailed recommendations on what is appropriate for different situations
- the mis-match between the current tax regime and government policy on transport. This would need addressing in order to put weight behind the initiatives involved in workplace travel plans.

Although the workplace travel programme has been tailored to the situation in Bristol, there are several generic elements which would be transferable to other places. These include setting up and servicing knowledge and support networks and the use of an

award scheme to provide incentives and a focus to the planning process. The convergence in elements of the planning process also applies across all councils.

The approach adopted in other places would be influenced by population size and density, public transport provision (pre-existing and potential) and the car parking regime (provision, costs and politics).

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Case study author: Alistair Kirkbride

British Telecom

Teleconferencing

Interviewees: Ian Wood, Digital Inclusion and Environment Project Manager, BT Social Policy Unit. Extra information from Peter James, Visiting Professor of Environmental Management, University of Bradford.

Teleconferencing is a strong growth area of BT's business and BT is currently the number 5 provider internationally and number one in Europe for teleconferencing services on a commercial basis. This is reflected in the widespread and active use of all types of teleconferencing in BT's internal business. A fundamental re-structuing of BT in the 1990s has put teleconferencing (audio, video and web) at the heart of communications within the organisation to the point where it is now used routinely for meetings.

Travel and cost impacts of teleconferencing are impressive: within BT, teleconferencing is replacing up to half a million road journeys per year, which equates to 50 million road miles resulting in an annual cost saving of £6 million to the company. The change in work practices that teleconferencing allows also means significant efficiency and productivity gains for the company as well as enhanced job satisfaction for the employees.

Main activities

There are three main types of teleconferencing:
* audio-conferencing involves multiple-person telephone meetings. There are two kinds – centrally booked conferences, where calls are booked with a central service, and "Meet me", where calls are set up through a website and users can dial in without requiring central facilitiation.
* video-conferencing involves real-time two-way visual and audio links, and
* web conferencing which involves interaction via IT, such as using shared files and "live" whiteboards

Conferencing may involve many people using normal telephones for an audio conference, or using cameras and audio for video conferencing. For the latter, BT 'dials-out' to each pre-booked registered video device and connects them into the conference call. 'Continuous Presence' enables up to four sites to be seen simultaneously on the same screen, although the availability of service is determined by connection speeds and formats.

In the 1990s, BT underwent fundamental re-structuring to increase the efficiency of workspace use. This was in response to a recognition of a desk occupancy rate of 25%, and the realisation that BT was in a prime position to re-evaluate how it and its employees operate. With the changing nature of work – ever-increasing reliability on computers, more flexible working, more mobile workforce – it was recognised that the building types and locations were no longer appropriate for the type of work in

which BT employees were involved. This led to an assessment and re-organisation of BT's estates (location and type of offices, depots etc), of how functional units of the company were structured (e.g. do all people from the same section *have to* work together in the same office all of the time?) and how employees work (flexible hours, working from home etc). This was all taking place at a time when advances in IT meant that teleconferencing in all its forms was becoming feasible as a realistic facility for communications between staff.

BT has been involved in teleconferencing since before privatisation in 1984. BT currently actively encourages the use of teleconferencing as appropriate to needs within the organisation. As BT's business is telecommunications, it is geared up to using these facilities widely. Within BT, all staff have access to phone and web conferencing services, either through specific accounts or via a freephone helpdesk service. There are currently over 40 BT *SeeMe* video conferencing suites across the UK, covering all major cities, accessible to all BT staff. Numbers of web cameras are not recorded. New video conferencing suites are considered as part of any planned building upgrade work.

BT has developed its teleconferencing facilities for much wider commercial reasons than solely its own use. BT make all conferencing facilities easily and freely available to its employees whenever there is a need. They are used for meeting between offices as well as an integral part of teleworking. Use of the services is still increasing.

BT expected growth in use to be 10% pa. This has been "wildly exceeded", and growth within BT has been more like 20% per year.

Staffing and costs

Conferencing services within BT use the same system that BT provides as a commercial service. For BT users, this is charged internally to account holder budgets. Equivalent commercial rates for the different formats are as follows:

- For audio-conferencing, there are two levels of charges for the BT *MeetMe* service. Occasional users pay no monthly fee and calls are charged at 22p per user per minute. Regular users pay a £35.00 monthly fee then calls are charged at 12p per user per minute. All user rates are chargeable to the designated chairperson, therefore those participants dialling in will be charged at their service providers national rate.
- Video conference charging includes an element for set-up times plus the amount of time used. This is scaled by the total number of hours used per month and the data rate. Charges are also related to the global location of the individual user sites. Typical charges per moderate user for a UK conference would be £35-45 per hour per user depending on connection speed. For oversees calls, charges per minute range between £1.40 for a slow connection within Europe to £12.60 for a fast connection to Australasia and the Far East.
- Web conferencing is charged at 35p per user per minute plus any ISP charges payable by the users.

Video and web conferencing require dedicated infrastructure and maintenance, although there are no data in the public domain regarding the resourcing of this for

BTs own operations. Video conferencing solutions are different for each customer. The mix of 'public' and desktop solutions (£5,000 to £40,000), payment plan options, coupled with differing rates depending on bandwidth requested make it impossible to give indicative prices.

Scale of the scheme

Number of people affected by the initiative
In March 2002, BT had approximately 108,000 staff, all of whom are eligible to use teleconferencing services.

There have been two studies of BT teleconferencing services. In March 2000, an sample (of unspecified size) of BT staff were contacted who had booked an audioconference call on March 30th or 31st, and asked about its impacts. This is reported in BT (c. 2001). The implied (albeit not specified conclusion) of the study was that 180,000 audioconference calls were typically taking place each year. The average number of people participating in these calls was 7.

A second, more detailed survey was undertaken by Hopkinson et al (2003). This was undertaken in October 2002 about all aspects of teleconferencing at BT. Of 5457 staff contacted, 771 responded who were considered to be fairly representative in terms of business unit and age. They were asked to outline their use of teleconferencing in the previous four weeks. Hopkinson et al (2003) record that, at the time, BT employees were typically initiating around 350,000 audio conference calls per year. (Unfortunately, there are no data on the number of conventional face-to-face meetings to provide a context for these data.)

From the 771 respondents, table 1 summarises how many people used various types of conferencing during the previous four working weeks, and how often they used them. In total, 92% of respondents had used audioconferencing in the previous month.

Table 1: Use of teleconferencing by a sample of 771 BT staff

	% using service in previous 4 weeks	Frequency of use by users				
		Once	**Twice**	**Three times**	**Four times**	**5 and more**
Meet-me audio	86.0%	14.7%	12.6%	9.1%	13.3%	50.2%
Booked audio	49.4%	21.5%	12.3%	12.1%	6.6%	47.5%
Web	13.4%	61.2%	17.5%	5.8%	2.9%	12.6%
Video	2.2%	No data				

Source: Hopkinson et al (2003)

The general picture that emerges from this table is that audio conferencing is much more popular and commonly used than web conferencing, although use of the latter is increasing as technology improves, whilst video conferencing remains a minority activity.

The majority of conferences – 58% for Meet Me, 56% for centrally booked audio and 67% for web - last for under an hour. However, 13% of centrally booked, 9% of Meet Me audio conferences and 3% of web conferences last for more than 3 hours

The number of participants in the respondents' last calls are shown in table 2, and the number of locations in the respondents' last calls are shown in table 3.

Table 2: The number of participants in the respondents' last calls

Don't know	3	4	5	6	7	8	9+
3%	9%	12%	16%	16%	9%	11%	24%

Source: Hopkinson et al (2003)

Table 3: The number of locations in the respondents' last calls

Don't know	3	4	5	6	7	8	10
8.9%	20.0%	17.5%	17.1%	13.9%	6.8%	4.9%	11.0%

Source: Hopkinson et al (2003)

60% of conferences involved 6 or more people, with the mean average being 6.4. Only 36% of calls involved 6 or more locations (with the mean average being 5.3%) implying that many conferences involve more than one person in the same location.

Changes over time
BT report that there has been a 20% growth p.a. in the use of teleconferencing up to 2002. Meanwhile, it appears that the number of conference calls has increased from 180,000 in 2000 to 350,000 in 2003. This implies a growth rate of about 30% a year, suggesting that growth may be accelerating.

Targeting
No particular group has been targeted, but teleconferencing has been particularly useful in the mobile workforce. Apart from this, it has been taken up across many sectors within BT, except the engineering workforce who tend to see each other routinely.

Effects of the initiative

Effect on car use within targeted population
Unravelling the data relating teleconferencing to car use reduction is not straightforward due to (amongst other things):
- non-existent data on pre-teleconference meeting schedules
- limited detailed data on teleconference use and the risk of double counting
- teleconferencing changing the way that people meet (frequency, length of meeting, number of people in the meeting)

For the first survey (BT c. 2001), the following results are reported:
- 75% of respondents stated that their call had replaced a face to face meeting. This comprised all local calls, 75% of national calls but only 38% of international calls
- if the sample was representative of BT, audioconferencing was estimated to be saving 135,000 face to face meetings a year, of which 120,000 would have involved a car journey
- overall travel savings were estimated to be around 150million miles, of which 59 million miles was car travel

- the benefit is estimated to be a saving of £6 million in terms of fuel consumption

In the survey by Hopkinson et al (2003), 71% respondents stated that their last conference call had definitely or probably replaced a meeting (with 52% being 'definite'), whilst only 5% stated that it had generated a meeting. 443 of the 771 respondents provided details about the travel avoided by their last call.

Table 4: Characteristics of travel replaced by teleconferencing

Mode	Number of replaced trips by respondent's last call	Mean distance of avoided travel (miles)	Total avoided miles
Petrol car	203	91.4	18558.5
Diesel car	45	102.5	4611.0
Van/LGV	15	92	1380.0
Train	143	95.3	13624.0
Plane	20	146.3	2925.0
Taxi	17	34.9	592.5
Tube/bus/tram	68	19.2	1306.5
Other	17	51.8	880
Total	443		41690

Source: Hopkinson et al (2003)

In addition to the information given above, the survey showed that 46% of the avoided trips would have taken place during peak congestion periods.

Hopkinson et al (2003) scale up these results as follows: "In a typical year, BT employees initiate around 350,000 conference calls. If 52% of these calls definitely replaced a meeting (the figure which we obtained from the survey) this gives a figure of 182,000 avoided meetings. If each of these avoided meetings resulted in five avoided journeys (bearing in mind that the mean number of locations participating in a conference call was 5.3) this gives a total of 910,000 avoided journeys" (p31)

A similar scaling up suggests that of the 910,000 avoided journeys, 541,735 would have been by car or van, relating to 50.56 million road miles per year.

This compares well with the previous study which showed that audio-conferencing saves 59 million miles of road travel per year (BT c.2001).

BT estimates that in 2002/03, the total work-related mileage of private, company and fleet vehicles on BT business was 760 million kilometres (472 million miles) (from the BT Betterworld website). If savings are between 51 and 59 million miles per annum, this implies that mileage would otherwise be 523-531 million miles, and that the saving is 9.8 - 11.1%. BT do acknowledge that "if conference calls were not an option, work might have been differently organised to avoid any need for face-to-face meetings", and hence the mileage reductions should be seen as maximum estimates.

Other effects within targeted population

The benefits of teleconferencing are inextricably linked to many of those of tele-working. Hopkinson *et al* (2003) specifically identify the following key benefits to individuals of teleconferencing:

- Reduces the time spent travelling and reduces stress. It may allow more time to be spent with the family rather than travelling at unsociable hours. 75.7% of respondents stated that conferencing had either mild or strongly positive impacts on their quality of life
- Enables people with disabilities which make travel difficult or complicated to contribute more easily to meetings. 44% of respondents stated that conferencing had enabled them to work when they were prevented from reaching another work location. Of those who said so, reasons why conferencing had helped to overcome problems of reaching the work location are given in table 5.

Table 5: Reasons for problems accessing work locations that were solved via teleconferencing

Cost/ expense	On Leave	Health and disability	Domestic issues	Scheduling	Travel
2	7	43	59	70	86

Tele-conferencing has undoubtedly led to a reassessment of transport choices. Providing employees with a choice between travelling to a meeting or using teleconferencing immediately obliges them to think more critically about the travel choices that they make. 44% of respondents said that it had made them more likely to think about working from home.

Wider effects of the initiative

In various BT reports, there are many other reported effects of teleconferencing on company performance and employee well-being. These include an improved resilience of the organisation, improved recruitment and retention and reduced absenteeism. Work-related benefits include

- ease of staying in touch with remote colleagues
- ease of accessing expertise
- facilitating decision making and reducing the time between an issue or problem emerging and finding a solution
- more efficient use of work time.

Hopkinson et al (2003) found that 82% felt that conferencing had increased their work performance (including 44% who felt the increase was 'considerable'). However a few respondents (less than 10%) commented that there was a tendency for conferencing to be overused, resulting in unnecessary meetings, and a very small minority missed face to face contact.

Teleconferencing also saves BT considerable amounts of money: 54% of respondents stated that the journey they avoided would have cost over £50, 26% over £100, and 11% over £200. BT estimate that in terms of reduced petrol payments, teleconferencing saves £6m per year (BT c.2001).

The following quote from a recent BT business strategy conference in June 2003 summarises the corporate viewpoint on some of the benefits of the use of

teleconferencing within BT: "We're also using our own technology a lot more effectively … we're using web-based conferencing extensively in the business. That's great, it means people don't have to travel as much, it means we don't have to use as many hotels, we can be very creative about what we use by way of computer based training [and] we can do more and more training"

BT are aware of 'rebound' effects from teleconferencing. This is where new activities take place and new journeys are made as a result of teleconferencing that would not otherwise have taken place. In addition, the ease of communication means that "meetings" take place that would not otherwise have done so. BT are explicit in acknowledging that this is an issue and that they do not currently know how significant an issue it is in terms of its effects on communications and transport.

Synergy with wider policies and strategy

Synergy with other transport measures
BT has policies and targets for various environmental aspects of their fleet management (outlined on the BT Betterworld web pages), and these are related to their policies of teleconferencing. These include policies to

- shift to using less environmentally damaging fuels, including incentives for essential users to opt for lower emission vehicles. BT's van fleet are almost all diesel powered. The company have chosen this option partly due to the drawbacks in the practicality of alternative fuels, although they are actively monitoring developments and undertaking ongoing review of the alternative fuel possibilities.
- reduce fuel consumption. Various measures include removing mileage thresholds for payment (and hence the incentive for car use), adding a surcharge of £20 per month for those who insist on using cars which return less than 23 mpg, improving fuel efficiency of the BT fleet, and having active policies to reduce the total miles driven. These have resulted in a steady reduction in fuel use from a total of 66.8 to 56.1 million litres of fuel between 1998/99 and 2002/03, representing a 15.9% reduction,
- reduce total distance travelled for work purposes. This fell from 852 to 760 million km between 1998/99 and 2002/03, representing an 11% reduction,
- reduce the effective size of the vehicle fleet (down by 7.5% in the 5 years to 2002/03, with a 21% reduction in the car fleet over the same time)

BT are taking part in various trials relating to fuel economy (organised by the Institute of Road Transport Engineers), the use of electric vehicles (the THINK@bout London mobility project), and ongoing tests of the new Ford Transit involving a fuel economy device.

Perception of the importance of the initiative
Teleconferencing is a central and routine element of organising and planning communications within BT. The following quote (from BT´s travel policy) reflects the core importance of how it is woven into decision making within the organisation: "Everyone in BT has a personal responsibility to ensure that all business travel is operationally necessary and that travel arrangements are carried out in the most cost-effective manner, taking into consideration the needs of the business, the time taken to

travel and the cost of travel. With this in mind, before booking travel you should consider whether audio or video conferencing provide a suitable cost effective alternative to travelling."

Factors contributing to success
As BT's business is telecommunications, its employees are, to an extent, pre-sensitised to the idea of teleconferencing. Coupled with the changes in ethos and management culture which developed in the 1990s, BT are well placed to be successful at implementing it.

There are a wide variety of types of BT employee – from office-based administrators to sales teams to roving engineers. Fundamental changes in the working structure and practices of BT which took place in the 1990s have resulted in a workforce which is more de-centralised and widely distributed, including tele-workers working from home. This, along with the large size of BT, means that teleconferencing lends itself well to facilitating communication amongst the workforce.

Scalability

Staffing and budget
There are no plans to increase or decrease the resources for teleconferencing within BT. It is now largely automated and the hardware is installed.

Relationship between spending and impact
The economic, environmental and social gains of teleconferencing significantly outweigh the costs, such that it has not been necessary to undertake formal spending/impact analyses.

Future scale of teleconferencing
It is not possible to suggest how much the number of calls will increase by 2006 and 2011. This will be a function not only of the uptake of conferencing by staff as it exists in the current environment, but also on the changes in attitudes of society to work and communications, the emergence of other ways of communicating, and any future changes in the overall working practices of the company. There is no reason to suggest that the current growth rates will not continue for the foreseeable future, until an inevitable saturation takes place and growth settles down, although there is no evidence to suggest when this might be.

The scaling up of teleconferencing within BT is likely to be associated with the wider forecast growth in the sector. The forecasted revenue review and growth for BT´s conferencing products and services given in June 2003 are £68 million (2000/01), £83 million (2001/02) and £216 million (2004/05), suggesting that usage is accelerating. There are no publicly available forecasts showing numbers of calls etapproximately These figures are broadly in line with the Key Note market report (2000) which states that "The UK videoconferencing market was worth £122 million in 2000, growing by 28.4% over 1999. The rapid growth in value spend has been the result of a sharp increase in the penetration of videoconferencing products among UK companies, which has more than offset the rapid fall in unit prices. Between 2000 and 2005, Key

Note estimates that the videoconferencing market will grow by 172.1%, to reach £332million."

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Case study author: Alistair Kirkbride

BT

Teleworking

Interviewees: Ian Wood, Digital Inclusion & Environment Project Manager, BT Social Policy Unit. Extra information from Peter James, Visiting Professor of Environmental Management, University of Bradford.

Teleworking has been developed at BT as a core element of fundamental restructuring of the company's operation since the early 1990s, which was initially driven by a review of office space and function. Employees are encouraged to explore the possibility of teleworking not only to enable BT to increase efficiency and productivity, but for the benefits of work-life balance of the employees. The programme is supported by IT support, office furniture and a dedicated help desk. Surveys of employees who regularly telework suggest that they have reduced their weekly mileage by 95 – 193 miles, have increased their productivity, and benefit from other more subtle advantages such as less stressful lifestyles resulting in lower rates of absenteeism. The programme is now embedded within BT policy and is attracting a steadily increasing number of employees, passing 7,500 in summer 2003.

Case study main actors

This case study focuses on the teleworking activities of BT staff. BT have conducted comprehensive research into the effects of their policies of teleworking, and are also involved in the European SUSTEL programme, a two year research project financed by the European Commission's Information Society Technology initiative looking into the economic, environmental and social impacts of teleworking.

Main activities

Teleworkers use telecommunications to enable them to work remotely from an office yet still remain in touch with colleagues and information. This may involve use of the telephone or email, audio, video or web-conferencing and interfacing with computers and equipment remotely.

BT first began investigating teleworking in 1990. This was driven mainly by "a desire to demonstrate that teleworking can work", although "BT itself rarely uses the term teleworking, but sees it as one aspect of a broader commitment to flexible working." (Hills et al. 2003). In 1997/98, the teleworking programme was made more active and formalised through the Workstyle 2000 (then Options 2000) programmes which became the Workabout programme in 2002.

Apart from BT being in the telecommunications business, one of the main roots of these programmes was a drive to increase the efficiency of workspace use, especially as the company was adjusting to being in the private sector. With a 25% desk occupancy rate, BT realised that it was in a prime position to re-evaluate how it and its employees operate. With the changing nature of work – ever-increasing reliability

on computers, more flexible working, more mobile workforce – it was recognised that the building types and locations were no longer appropriate for the type of work with which BT employees were involved. This led to a re-organisation of BT's estates (location and type of offices, depots etc), of how functional units of the company were structured (e.g. do all people from the same section *have to* work together in the same office all of the time?) and how employees work (flexible hours, working from home etc).

One of the major focuses for attention were the London buildings. A wholesale re-organisation resulted in several "Workstyle" buildings being located around the M25. These are open plan, modern, flexible spaces, incorporating internet cafés & meeting rooms, and where workers "hot-desk". This is coupled with the Workabout initiative for home-working.

Further drivers since the mid 1990s were priorities to enhance staff morale, recruitment, and to address work-life balance issues of employees.

With the agreement of their line manager, employees opt into the Workabout scheme as fixed (home based) or mobile workers. They are provided with:
- a phone and email support helpdesk (involving five dedicated staff)
- a computer (sometimes the office computer re-deployed to the home office with new equipment such as a modem as appropriate)
- a dedicated phone line (ADSL since 2002 with upgrade programme for others)
- a furniture budget of up to £650
- an option to work some of the time at a local telework office (if appropriate)

BT is also involved with teleworking as a commercial service for other businesses.

Staffing and costs

A team of five people are assigned to the programme to support BT staff, and an estimate of cost would put this at approximately £100,000. This also includes a variable amount of work for external organisations as part of the business service that BT is involved with.

Scale of the scheme

Number of people affected by the initiative
Various reports note that the term "teleworking" is difficult to define. Figure 1 and table 1 illustrate that there are many different forms of teleworking, that teleworking is amenable to many work patterns, and that there is not one type of teleworker.

Figure 1: Typology of teleworkers
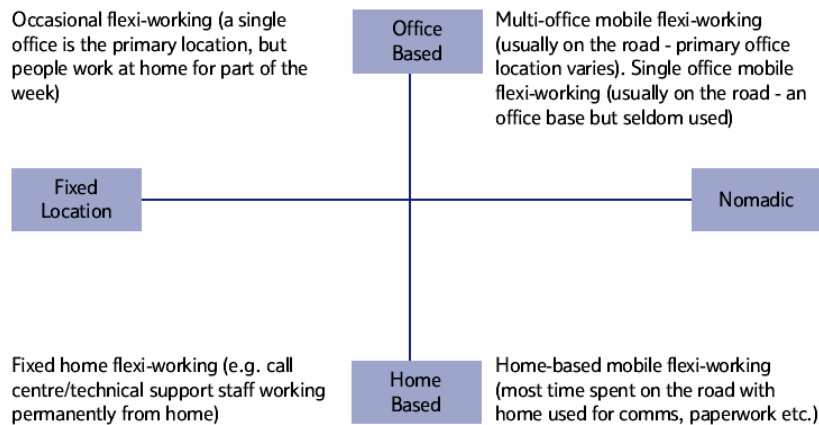
Source: BT (undated) E-business & the environment, p14.

Table 1 shows the number of different types of BT teleworkers in the sample used by Hopkinson *et al* (2002):

Table 1: Categorisation of BT teleworkers

Category of teleworker	Number	%
a Primarily work in a main BT office but regularly spend days/ half days working at home. Relatively small amount of in-work travel.	16	0.9%
b Mixed working locations split between home and main BT office (on average more than one day a week in each of the two different locations). Relatively **small** amount of in-work travel.	63	3.4%
c Mixed working locations split between home and main BT office (on average more than one day a week in each of the two different locations). Relatively **large** amount of in-work travel.	79	4.3%
d Mixed working locations split between home and multiple BT offices (i.e. no main BT office).	460	25.1%
e Mixed working locations split between home, BT offices and customers premises	350	19.1%
f Home working at start and finish of most working days, on the road during the day routinely visiting customers and clients. One day or less on average in BT offices	226	12.3%
g Primarily work at home with occasional days/half days in BT offices for team meetings, training etc	576	31.4%
h None of the above - I do not consider myself to be a teleworker.	4	0.2%
i None of the above for other reasons -	59	3.2%
TOTAL	1833	100.0%

Source: Hopkinson et al. 2002, p 7

In March 2002, 5128 BT staff were registered with the Workabout scheme out of a total workforce of 108,000, and this had risen to approximately 7,500 by July 2003.

Changes over time
BT's approach has changed in response to the changing nature of the drivers for teleworking as well as shifts in attitudes of people to work and to travel. The approach being adopted by BT is seen to work well in the current climate, but will undoubtedly evolve as society and attitudes to work change.

The Options 2000 programme (starting in 1998) had a target of 7000 registrants by March 2004. Already, over 7,500 staff are now registered (summer 2003), up from 5128 in March 2002, with approximately 200 new people currently registering per month.

Targeting
Various groups were targeted:
- those who wanted to and *could* relinquish office space were actively targeted
- certain buildings were targeted.

There was no element of compulsion for anyone to shift to home working. A change in company ethos and management culture from "presenteeism" to function ran alongside this. In 1999, the Options 2000 scheme was opened to any employee who wanted to shift to teleworking who was eligible under a certain set of (mainly job-focussed) criteria. Teleworking uptake was particularly high among those who used to work in London. However, it would be difficult to disaggregate the effect of targeting for teleworking from other structural changes that took place in tandem such as changing office locations and functions.

The onset of active encouragement for teleworking coincided with a change in culture of the engineering workforce who work in the field. More than half of these now base themselves at home, picking up their work schedules and reporting remotely.

Effects of the initiative

Effect on car use within targeted population
The impacts of the Workabout scheme on travel are well documented, since BT is one of the six UK companies in the EU "Information Society Technology" programme (1998-2002) and the SUSTEL programme (2002-2004).

Hopkinson and James (2001) analysed self-completion questionnaires from BT employees who were about to register with the BT Options 2000 teleworking programme. Some employees were already working at home an average of 1.9 days per week and, taken overall, respondents anticipated that in future they would work from home an average of 3.6 days per week. The average car mileage 'saved' by pre-existing teleworking was 95 miles per week per teleworker. If future increases in employees' frequency of teleworking were in line with their predictions, the authors estimated further savings of 76 miles per week car commuting per teleworker, suggesting a potential future saving of 171 miles per week altogether.

Hopkinson et al. (2002) refers to a second survey of BT staff, which found mileage savings of 186 miles per week for teleworkers who travelled by car.

As part of the SUSTEL programme, a third survey was emailed to all 5128 BT staff registered with Workabout in March 2002. This received responses from 1874 employees (a response rate of 37%). It reported an average reduction in commuting of 178 miles per week for car users (Hopkinson et al. 2002).

A further SUSTEL survey was sent to 814 BT staff registered with Workabout in October 2002 (Hopkinson and James 2003). This received 199 responses (a response

rate of 24%). It found that about 90% of Workabout registrees had reduced their commuting travel, with nearly 80% describing the reduction as 'considerable'. The mean commute mileage reduction per respondent was 253 miles per week, although there is no data on whether these journeys involved passengers or car sharing. There were also offset effects:

- some people (20% of the sample) said they now used the car more for other trips. For these, the increase in car use was 77 miles per week.
- some people (47% of the sample) made replacement journeys for tasks that would previously have been part of a chained commute (for example to go shopping, or to escort children). For these, the increase in car use was 34 miles per week.
- business travel also increased for some staff, although this was balanced by other staff who said it had decreased.

Taking account of the offsetting effects, Hopkinson and James (2003) suggest the net effect was to reduce travel by 193 miles per week per teleworker.

There is no information on whether teleworking has resulted in participants living further from the workplace, nor whether it has affected the time of day that they make their replacement journeys.

In the March 2002 survey, 74% of registrants to the scheme said that travel reduction was an important motivation for them.

Other effects within targeted population

The total number of miles travelled by company cars and private vehicles and the BT fleet for which expenses claims were made to BT fell significantly in 2002/03 as shown in table 2.

Table 2: Changes in mileage claimed on expenses

Year	Million km		
	Company /private	Fleet	Total
1998/99	231	621	852
1999/00	257	604	861
2000/01	242	569	811
2001/02	280	602	882
2002/03	216	544	760

Source: BT's Vehicle Database & Business Expense Claims from BT website

The surveys undertaken in March 2002 (as reported in Hopkinson et al 2002) and October 2002 (as reported in Hopkinson & James 2003) highlight a range of other effects of the Workabout scheme.

Various economic benefits of the Workabout scheme have been identified. In particular, in the March 2002 survey:

- 78% of teleworkers stated that their productivity had increased after shifting to teleworking. This was due to reduced disruption, reduced commuting, flexible time, control of time (and more control of work/life balance) and the value of working in a preferable location.

- 69% of teleworkers stated that they worked longer hours.
- Teleworkers were reporting reduced absenteeism, partly in an absolute sense, and partly because people said that they continued to work from home when otherwise they would have been too ill to go to an office.

In the October 2003 survey, 81% of respondents stated that teleworking had led to performance improvements, and that subset were asked to define the ways in which performance had improved. Results are given in table 3.

Table 3: Types of performance improvement due to teleworking

Form of Performance Improvement	% of all BT respondents who identified performance improvement (n = 161)
Higher Productivity	68.9% (111)
Better Quality of Work	65.2% (105)
Higher Total Output	57.8% (93)
More Creative Work	32.9% (53)
Other Effects on Performance	6.2% (10)

Source: Hopkinson & James 2003 p16

Meanwhile, Hills et al (2003) quote information from BT publications which supports these findings, namely that:
- Productivity improvements of 15-30% for home-based workers and up to 20% for flexible workers are seen
- The rate of sick leave amongst Workabout employees is about 25-30% of the rate for BT as a whole.

Hills et al also highlight that teleworking was contributing to above average levels of staff retention, and that 93-96% of women return to work after maternity leave, which is very high compared with the national average.

In addition to economic benefits for the company, the March 2002 survey identified many social inclusion benefits of teleworking. In particular:
- 10% of respondents said that they would be unable to undertake their current job if they could not telework. Reasons included disability, child care constraints, and the need to care for ill or disabled members of their family.
- Respondents also highlighted the value of being able to continue working through illness or after accidents.
- 14% said that they found it easier to engage in community activities, with 6% spending more time on such activities. (<1% reported that it made involvement more difficult or had reduced their available time).

Other benefits of teleworking reported in the October 2002 survey related to work-life balance, including that:
- 90.3% felt that teleworking was having a positive effect on their quality of life and 65.3% felt they had a good or very good work-life balance:
  "Some of the other survey questions provide insight into the reasons for this improved quality of life. They show that the relationship is complex, with a variety of different influences, particularly the personal advantages (greater job satisfaction, reduced stress) of better work performance, the flexibility and psychological benefit which comes from greater control of personal time, the

> *reduced stress of commuting and the opportunities to spend more time with partners and children" (Hopkinson & James 2003, p9)*

- Many felt that being part of the Workabout scheme was having positive effects on other members of their family, with 74.8% reporting positive effects for their partner, 82.4% reporting positive effects for younger children and 72.7% reporting positive effects for older children. (Percentages relate to the proportion of respondents for whom the question was relevant).

In addition, in the October 2002 survey, 55.9% of respondents said that they had experienced personal financial benefits, with many individuals reporting savings of over £1000 per year (although 15.6% reported negative effects).

Downsides of teleworking reported in the October 2002 survey included:

- a sense of isolation from the workplace and less opportunity for informal work "chats". In particular, 58.7% felt slightly or considerably isolated from work contacts, with 63.3% of these people believing this to be negative (i.e. 37.2% of the sample in total). In contrast, only 15.1% felt slightly or considerably isolated from non-work contacts (with 10.9% of the total sample finding this a negative effect), whilst 88.1% felt that isolation from non-work contacts had reduced, with positive effects.
- 25.8% reported an increase in domestic conflict (although 17.8% reported a reduction)
- 75.7% reported that the total number of hours worked had increased.

Wider effects of the initiative
One of the main drives for teleworking in BT was for space efficiency. Hopkinson and James(2003) report that teleworking "has undoubtedly contributed to BT's large space savings of £180 million per annum". Disaggregating the financial savings of teleworking from the other structural re-organising of BT would be very difficult.

Synergy with wider policies and strategy

BT's encouragement of teleworking is part of an integrated set of measures that came about due to structural re-organisation, which were designed to increase efficiency and productivity. The other measures, such as re-organisation of office location and function, shifting the BT fleet to lower emission vehicles etc, are complementary. Whether teleworking has changed attitudes to other travel measures or assisted in implementing other schemes would be difficult to assess. However, the Workabout scheme is given fairly high priority in BT compared to other specific schemes.

Factors contributing to success
As BT's business is telecommunications, its employees are, to an extent, pre-sensitised to the idea of teleworking. Coupled with the changes in ethos and management culture which developed in the 1990s, BT is well placed to be successful at implementing teleworking. Moreover, although there is a wide variety of type of BT employee – from people who would be office-based administrators to sales teams to roving engineers – analysis of the teleworker typology suggests that many of the job types can lend themselves to teleworking.

Scalability

Staffing and budget
Within BT, there are no plans to increase resources for the Workabout scheme as it currently works well at its present size. The external commercial side of BT's teleworking service will expand. Budgets and projections are commercially confidential

Relationship between spending and impact
There is no information available about whether BT has analysed the relationship between spending and impacts for the Workabout scheme specifically. However, the overall sense of the research done by or for BT about the schemes point to the impacts being mainly beneficial and teleworking being highly cost-effective.

Future scale of the initiative under currently planned resources

It is difficult to predict the future numbers of teleworkers as it is up to individual choice and is influenced by externalities such as changing attitudes of society to work, work/life balance and transport (among other things). Some jobs at BT do not lend themselves to teleworking. A very rough estimate is that 65% of the current 108,000 workforce may ultimately take part in some kind of teleworking.

Future scale of the initiative if resources were greater
An increase in resources could possibly increase the numbers of people signing up. However, it is felt that the current scale of operation matches the natural capacity for the size of organisation given that the approach being adopted has been deliberately worked out over time. Scaling up was essentially done in the late 1990s as a part of the broader re-organisation of how BT operates.

Monitoring plans
It is likely that less monitoring will be done in the future. The SUSTEL programme ends in late 2003, and it is considered that there would not be any significant added value in comprehensive monitoring after then. It is felt that it would be good to keep a small monitoring service running to keep tabs on routine issues, and to deal with any new issues that emerge in the future.

Key issues for scaling up
Given that BT considers its internal Workabout scheme to be developing as it wants it to, the only way that it would change is due to management wanting to streamline services. There are no current plans for this to happen. Due to the significant push for teleworking in the late 1990s, most of the initiatives to encourage teleworking are already in place. The steady recruitment to teleworking within BT is evidence that employees are steadily realising the benefits of it. If there had only been a core enthusiastic group, then it would have been expected that the initial wave of registrations would have been followed by a reduction. However, this has not happened.

External policy changes that would have step change impacts on teleworking include issues such as congestions charging, regulations concerning workplace car park

charging, flexible working legislation etc. In addition, if more organisations realised the benefits of teleworking and encouraged its use, then the profile and acceptability would be raised.

BTs experience of teleworking is routinely transferred to other companies. Although every organisation is different in terms of its locations and functions, there are key generic elements of teleworking that apply to any organisation who employ people who need to either travel to a workplace or travel in the course of work. Applying knowledge and expertise in teleworking is a significant commercial activity for BT, as illustrated in the recent launch of their Mobile Office initiative (September 2003) which is specifically designed to enable organisations to embrace teleworking. The experience of BT highlights that developing teleworking in an organisation does not just involve installing appropriate technology, but often requires changes in management culture.

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Case study author: Alistair Kirkbride

Buckinghamshire County Council

Car sharing

Interviewee: Stefan Dimic, Travel Choice team leader. Additional information was provided by Rosemary Bryant, Travel to Work officer.

Bucks CarShare is a car-sharing scheme set up by Buckinghamshire County Council. Although a high proportion of its members are local authority staff, it is open to anyone in Buckinghamshire. The scheme was launched in March 2000, and at present 407 people are registered on it. However, only about 60 of these are known to be regular car-sharers. The scheme is aimed at finding matches for regular journeys: mainly the journey to work although it has also been promoted for school trips.

Bucks CarShare operates on a small budget of £7500 a year (excluding staff costs), which is mainly used to market the scheme to prospective users. It is part of the council's Travel Choice initiative, which is aimed at reducing car use for the journey to work, and which is reported as a separate case study.

Case study location and main actors

Buckinghamshire County Council is in south-east England. The county town, Aylesbury, has a population of 58,000. The other main town, High Wycombe, has a population of 72,000. The county has high levels of car ownership (with one of the highest numbers of households with two or more cars in Britain) and low levels of unemployment. According to the 2001 Census, there were 153,811 people usually driving to work in Buckinghamshire in 2001. Buckinghamshire Business Watch, an organisation representing the interests of local businesses, is responsible for the car sharing scheme administration. Buckinghamshire Economic Partnership has helped to promote the scheme.

Main activities

Buckinghamshire County Council began researching the potential for car-sharing in 1998, in parallel with the development of the county's own workplace travel plan. Their car-sharing scheme, Bucks CarShare, was launched in March 2000.

Although originally launched as part of the county council's own travel plan, Bucks CarShare is open to anyone in Buckinghamshire. The scheme aims to match people for regular trips rather than 'one-off' trips – generally for the journey to work although recently the council has started promoting Bucks CarShare for school trips. The council's main role is to promote the scheme. Publicity for car-sharing emphasises the financial benefits to car-sharers – if you car-share, you can save enough money for a 'free' holiday or slap-up meal. Matching of potential car-sharers is carried out by Buckinghamshire Business Watch. Buckinghamshire Economic Partnership has also helped to promote the scheme.

County council staff may be attracted to join Bucks CarShare because the council provides a few dedicated, free parking spaces for sharers in the multi-storey car park adjacent to County Hall (although only some staff are eligible to park here and all of those eligible are entitled to free parking anyway). For employees of other organisations, the incentives to join are fairly limited: there is a free prize draw every year but no other benefit. However, the council is currently discussing with Aylesbury Vale district council the possibility of offering car-sharers half-price parking in local authority car parks.

Although Bucks CarShare has grown since it was first set up three years ago, its impact has been fairly limited. However, the Travel Choice team feel that with more promotion it could have greater impact. In particular, the council would like to promote it more heavily with local businesses.

The key issue for Bucks CarShare is to try to get a critical mass of people registered on the database. With the current number of registrees, matching of journeys is difficult. There is also some concern that the software being used is rather slow, and that some obvious matches have not been made. To increase the number of people registered, the Travel Choice team has started automatically entering people's names into the car-sharing database unless they specifically opt out. For example, a recent Travel Choice newsletter for county council staff included a questionnaire and prize draw for a weekend in Paris. Draw entrants were registered on the Bucks CarShare database unless they specifically opted not to be.

No specific targets have been set for Bucks CarShare.

Staffing and costs

Staffing
The initial development of Bucks CarShare took up about 5% of one person's time, as part of wider work on the county's workplace travel plan. Currently, Bucks CarShare takes up the equivalent of one day a week (1/5 of a full-time post) within the council. In addition, Buckinghamshire Business Watch processes applications three times a week (this takes about three hours a week) and does some promotional work. This is paid for by the county council.

Costs and benefits
The cost of running Bucks CarShare comes out of the county's Travel Choice (workplace travel planning) budget. Spending on promotion of the scheme is about £7500 a year. This pays for promotion, including cinema advertising in Aylesbury and High Wycombe. The capital cost of setting up the scheme (mainly for the purchase of software) was about £15,000. It is felt that a higher revenue budget for promotion of the scheme (say about three times the current figure) would bring benefits in terms of greater take-up.

The local authority's total transport spending was £27.7 million in 2002/03, of which £16.6 million was capital spending and £11.1 million was revenue.

Scale of the scheme

Number of people affected by the initiative

At present, 407 people are registered with Bucks CarShare. Of these about 60 people have matches and use the scheme regularly. Thirty work for the county council and 30 are from a range of other businesses.

Changes over time

When Bucks CarShare was launched in March 2000, it inherited a group of 13 car-sharers, with 40 official registrees. In the first year, the target was to have 100 people registered. This was not met, but by the end of 2001, there were about 240, and by 2002 the number of registrees had reached 300.

Targeting

The publicity for Bucks CarShare has targeted businesses, because the main aim is to influence repeat trips such as the journey to work. Hospitals were also targeted, but this has been less successful because of complex shift patterns. Bucks CarShare was also publicised to schools in October 2002, and as a result of this one independent school has set up its own car-sharing scheme and three schools have asked for more information. The council has recently been publicising car-sharing to sixth-formers.

Effects of the initiative

Effect on car use within targeted population

Sixty of the people registered with Bucks CarShare are regular car-sharers. In addition, Stefan Dimic estimated an additional 30 people working for the county council are regular car-sharers and eligible to join the scheme, but have not done so.

However, the county's travel survey of its own staff suggests informal car-sharing at the council may be more extensive than this. In June 2003, 7% of trips to work were reported to be car-sharing (see table 1; the full breakdown for all modes is given in the Buckinghamshire workplace travel plan case study). The survey was sent to all 3000 office-based staff in County Hall buildings and Area Offices.

Table 1: Travel survey results from Buckinghamshire County Council staff

	August 1998	January 2001	June 2003
Car driver	71.3%	56.4%	49.4%
Car share	-	-	7.0%
Car passenger	7.7%	8.6%	5.1%

The results imply at least 210 regular car-sharers (counting both passengers and drivers), or a larger number of occasional car-sharers. In addition, 5.1% of staff trips to and from work in June 2003 were as a car passenger. This is lower than in previous surveys, suggesting some employees who previously would have described their journey mode as 'car passenger' are now reclassifying themselves as 'car-sharers', so the *increase* in car-sharing may not be as great as it at first appears. Nevertheless, the 2003 survey data suggests at least 8.6% of staff trips to and from work are as a car passenger, whether or not part of a formal car-share. A conservative assumption would be that each person classifying themselves as a 'car passenger' travels alone

with one other driver. This would lead to the implication that, in August 1998, 15.4% of staff were sharing a vehicle, whilst in June 2003, 19.1 were doing so – an increase of 3.7% representing approximately 110 people.

Bucks CarShare does not have monitoring data on the average number of people sharing each car, but the scheme administrator believes most cars carry only one driver and one passenger, so average vehicle occupancy is unlikely to be much above two people.

A fairly high proportion of people registered with Bucks CarShare (41%, or 128 people out of 316 on the database at the time of the check) have not provided their car registration number, which suggests that they may be non-car owners or may not wish to drive.

The scheme administrator estimates that no more than 20 people were informally car-sharing already before they joined Bucks CarShare.

The council carries out an annual survey of mode share for the journey to work in 850 working households in Buckinghamshire. The results of this survey are reported in the case study on workplace travel plans. They show the proportion of people travelling to work as a car driver to be increasing, and the proportion of trips made as a car passenger to be going down. This suggests that the Bucks CarShare initiative is taking place against a backdrop of a decline in car-sharing and a rise in singl-vehicle occupancy trips.

There is no evidence that car-sharing is affecting how far people travel or how often they make trips or whether they combine different trip purposes into one journey. However, the scheme does have an effect on when people travel, in that instead of still being at work at 7.30pm they have to leave at 5pm – an advantage in terms of work-life balance, even if people only do this one night a week.

From the evidence of the county council's own travel plan, car-sharing tends to be a more attractive option for people who live further away from work. Stefan Dimic felt this was because the financial savings were greater.

In terms of journey purpose, people are mainly car-sharing for the journey to work. This means it mainly affects peak-hour weekday car travel.

Other effects within targeted population
Bucks CarShare has the potential to help social inclusion as well as to reduce car use. Everyone offered a job by the county council receives a Travel Choice pack, which includes publicity about car-sharing. In at least one instance a non-car owning school leaver was offered a job by the county council as a trainee and was able to accept as a result of Bucks CarShare. The person lived in a rural area, and without the car-sharing scheme they would not have been able to get to work and would have had to turn down the job.

There is potential to encourage car-sharing for shopping trips from villages, which would also help social inclusion.

The discipline of leaving the office at the same time as your car-sharing partner rather than working late has a positive impact on work-life balance.

Wider effects of the initiative
Bucks CarShare is too small to have had a discernible effect on traffic levels across the county as a whole. However, as part of the county council's own travel plan, it has helped reduce demand for parking spaces. Overall, the county's travel plan has enabled the council to give up about 100 parking spaces in the multi-storey car park adjacent to County Hall, at a saving of £75,000 a year. Given that about a third of the travel change achieved by the county's own travel plan can be ascribed to car-sharing, Bucks CarShare is saving the county council roughly £25,000 a year.

There is no evidence on whether the effects of the car sharing scheme may have been offset by induced traffic.

Traffic levels in Buckinghamshire are rising. Twelve hour traffic counts of vehicles crossing two screenlines suggest traffic in Aylesbury increased by 5.1% between 2000 and 2003. In High Wycombe, twelve hour traffic counts for two screenlines suggest traffic increased by 1.6% over the same period. This means that any reductions in car use as a result of Bucks CarShare is concealed by the overall rising trend in traffic volumes. There is no information on peak period traffic flows.

Synergy with wider policies and strategy

Synergy with 'hard' measures
Two to three years ago a special parking area was introduced in High Wycombe, and recently a special parking area has been introduced in Aylesbury. The effect of the special parking area is that people cannot park in the town centre unless they have a permit. County council staff who have joined the local authority in the last few years now have to pay £4 a day to park in council-reserved spaces in a multi-storey car park adjacent to County Hall, or park outside the special parking area, some distance away from County Hall, and walk the rest of the way to work.

The introduction of the special parking area in Aylesbury town centre may increase interest in Bucks CarShare, but monitoring data is not yet available to show whether this has happened. If half-price parking for sharers was introduced at local authority (district council) car parks, more people might join Bucks CarShare. This is currently being discussed by the county and district councils.

Synergy with other 'soft' measures
The county council is working on other 'soft' measures in addition to car-sharing, including workplace travel plans, public transport marketing, school travel plans, tele-centres and tele-conferencing. School and workplace travel plans are each the subject of separate case studies, and the council's other work on soft measures is described in the workplace travel plan case study.

Within the county council, and to a lesser extent amongst other employers, promotion of workplace travel planning has been complementary to the promotion of Bucks CarShare, and vice versa. That is, Bucks CarShare has played a role in achieving the

county's own mode shift targets, and promotion of workplace travel plans to employers provides an appropriate context in which car-sharing can be publicised and encouraged. The council can offer Bucks CarShare to employers as a useful service to reduce car commuting and its associated problems.

Perception of the importance of the initiative
There is a perception that car-sharing is not particularly attractive as a way of getting to work. Stefan Dimic believes: 'People are very concerned about their own space. The fact you have to put up with other people in your personal space means car-sharing is not all that attractive.' In general, the interviewees argue that the potential for car sharing is good, but demands strong, positive marketing techniques which, it is hoped, will eventually change people's habits.

Within the council as a whole, there is felt to be a reasonably good balance between transport and other service sectors. It is recognised that transport holds the key to many other services – for example, good bus services and the car-share scheme are important to attract good staff for, say, social services.

Factors contributing to success
Business Watch has played a helpful role in running Bucks CarShare, and without their involvement the Travel Choice team would have found it difficult to administer the scheme.

Scalability

Staffing and budget
Bucks CarShare has not yet reached critical mass, probably partly because it operates on a shoestring, and also because software limitations may initially have delayed progress. The Travel Choice team believes the scheme has potential, and would be worth promoting more intensively. Ideally, they would like to spend about £22,500 on promoting Bucks CarShare by 2006, with perhaps 10% of a full-time post dedicated to developing the scheme.

By 2011, they would like to spend £45,000 on promotion, with 20% of a full-time post to develop the scheme. None of these figures are built into any business plan.

Relationship between spending and impact
With 60 matches in the scheme at present, 30 regular car trips are being avoided at a cost of £7500 per year. Some of these trips (perhaps 20, or 10 pairs) may previously have been informal car-shares, and hence the scheme has not necessarily resulted in 30 fewer regular car trips on the road. Nevertheless, the scheme may help to perpetuate and normalise more sustainable travel behaviour into the future, and the existence of Bucks CarShare publicity may encourage people to informally car-share, even if they do not register with the scheme. This seems to have happened within the county council. As a middle-range estimate, therefore, Stefan Dimic suggests the scheme may be costing £250 per year to get a regular car trip off the road. Pessimistically, the cost could be as high as £375 (if only 'new' car-sharers are considered and no account is taken of the effect of the scheme in perpetuating positive behaviour patterns and encouraging informal sharing).

Future scale of the initiative under currently planned resources
With continued modest spending and support for Bucks CarShare, (and no other major additional incentives, such as preferential parking rights) it would be realistic to expect that 800 people might be registered by 2006, and 1600 by 2011. For this to happen, the county council would need to maintain and ideally increase staffing levels for Travel Choice initiatives generally.

Future scale of the initiative if resources were greater
It is difficult to estimate the maximum number of people that would potentially be willing to car share, and hence what impact Bucks CarShare might have if resources were unconstrained. Stefan Dimic suggested that perhaps 20% of people would be prepared to car share, based on informed guesswork rather than any survey data. However, this figure is so much greater than the number of people currently registered with Bucks CarShare that it is not possible to estimate what resources would be needed to reach the maximum target population.

Monitoring plans
The council would like to consult current car-sharers to find out what they think about the scheme and to understand the pitfalls and how it could be improved.

Key issues for scaling up
One of the barriers to increasing the size of schemes like Bucks CarShare is the negative attitude to car-sharing held by some people. Stefan Dimic feels that higher profile publicity and marketing is needed to influence attitudes, and that a national campaign emphasising the benefits of car-sharing might help raise awareness and increase the number of people who feel positive about car-sharing.

Support for Bucks CarShare has increased within the county council as the scheme has become more established. However, within Buckinghamshire more advertising and promotion is needed. The best way national government could encourage car-sharing would be through a national campaign to promote it. Other organisations could help increase the take-up of car-sharing by promoting it to their staff. Promoting car-sharing is in businesses' self-interest, as it can help cut parking costs.

The lessons learned from Bucks CarShare are relevant for other areas.

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Case study author: Lynn Sloman

Buckinghamshire County Council

School travel plans

Interviewees: Catherine Greaves, School travel plans team leader

Buckinghamshire County Council began work on school travel in 1999. Initially the main emphasis was on physical measures such as traffic calming, but recently the emphasis has shifted to non-infrastructure measures. The council has developed a clear framework for school travel plan work: schools are categorised at one of three levels, depending on how much progress they have made in implementing a travel plan. The most advanced (level 3) schools are eligible for funding for school travel measures from an awards scheme. This creates an incentive for schools to work with the council to reduce car travel. Monitoring of progress in reducing car travel is carried out annually in October, with a 'hands up' survey in which all schools in the county are asked to participate. Response rates are good (47% in 2002). According to this survey, car mode share for the journey to school fell from 45% to 37% between 2002 and 2003. The council is currently working with 142 schools in the county (out of a total of 221), covering 63% of all school pupils. Level 3 schools have achieved particularly impressive reductions in car use, with an average reduction across these schools of somewhere between 21% and 39% (depending on the assumptions made about the car component of park-and-walk trips).

Case study location and main actors

Buckinghamshire County Council is in south-east England. The county town, Aylesbury, has a population of 58,000. The other main town, High Wycombe, has a population of 72,000. The county has high levels of car ownership, with one of the highest numbers of households with two or more cars in Britain. The education system in Buckinghamshire has fairly recently changed from a three-tier system (primary / middle / secondary) to a two-tier (primary / secondary) system.

Main activities

Buckinghamshire began work on school travel in 1999, with the development of a school travel strategy and appointment of a full time officer to work on safer routes to school and school travel plans.

The first person appointed was called a 'Safe Routes to School Officer', but there was always an acknowledgement that school travel plans were necessary, and the appointee worked with development control teams in the district councils to make travel plans a requirement when schools made planning applications. Buckinghamshire had recently shifted from a three-tier school system to a two-tier system, and a lot of planning applications were being made for changes to school buildings to accommodate this, so there were a lot of opportunities to get schools thinking about travel plans.

The geographical area covered by the county's school travel work is the whole of Buckinghamshire, apart from Milton Keynes which is a unitary authority.

The schools are very important partners in the county's travel plan work. Catherine Greaves commented: 'It sounds obvious, but as far as we are concerned, they are our primary partners.' No other organisations put significant resources of time or money into the work on school travel plans.

Catherine Greaves emphasised that the school travel plan team's top priority is to listen to what schools want, be open to new suggestions, and support the schools in achieving change. In the early days, the focus was on area-wide engineering-led schemes involving several schools. However, the council found this approach expensive and time-consuming, and not very effective in terms of achieving modal shift. It also found the schools tended to feel little ownership of the schemes, and did not take much action themselves to reduce car use.

Now, the emphasis is non-infrastructure measures such as Crocodile Trails (the name given to walking buses), and on small-scale infrastructure such as cycle parking and 'gazebos' (covered waiting areas for parents). These are felt to be what the schools and parents actually want. There is an awards scheme to fund measures identified by the schools themselves.

The schools are provided with clear guidelines to work through to develop their own travel plan. Their progress is measured against three levels (see table 1). Schools submit their travel plans to the safer routes to school team, which assesses them and gives feedback on what changes are necessary to move to the next level. Level 3 schools are eligible for funding from the awards scheme.

Table 1: School travel plan levels

Level 1: Working towards a school travel plan
A school that has taken ownership of travel issues and is keen to implement measures to address and resolve them. Two out of the following three criteria must be met:
- School travel initiatives in place, for example Crocodile Trail, Go for Gold, Bike Train or Walk to School Week
- Presentation given by a member of the safe routes to school team
- Named contact within the school for school travel plans.

Level 2: Draft School Travel Plan
A school that has prepared and submitted a draft STP that includes specific targets and actions, in consultation with the school community. Both the following criteria must be met:
- Representative working group established with terms of reference
- Draft STP produced and submitted to Safer Routes to School team, including outline of current situation and survey; specific measurable targets; action plan including dates; and plans for monitoring.

Level 3: Active School Travel Plan
A school that has had its STP adopted by the school community, and submits annual progress reports with supporting evidence of achievements. Schools requiring a STP as part of a planning application must achieve Level 3 for their planning application to be approved. Both the following criteria must be met:
- STP adopted by the full governing body and included within the School Development Plan
- Annual review of STP and targets and evidence of progress achieved.

Each school has a volunteer co-ordinator, who gets training, guidance and back-up. The volunteer co-ordinators all meet once a term, and there is an e-group and phone support. The volunteer co-ordinator could be a parent, a parish councillor, a member of the local community or, in secondary schools, leadership could come from the school council. Occasionally the co-ordinator is a teacher, but this is the teams' least favoured option as the STP then becomes 'just something else the school does', and there tends to be less involvement from parents and the local community.

The initiatives schools are encouraged to consider as part of their school travel plans include:
- Go for Gold, a walking incentive scheme which has been very successful in encouraging 'park and walk'. The school defines an exclusion zone, generally ¾ mile, and every time a child walks from outside the exclusion zone he or she gets a sticker. When pupils have accumulated a certain number of stickers they get a certificate and various rewards. Go for Gold is currently only for primary schools, but the team is considering how it might be extended to secondary schools.
- Crocodile Trails, which are Buckinghamshire's version of the walking bus.
- Young driver training.
- Permit schemes for parents who have to escort their children to school by car.
- Education and awareness-raising, such as a theatre in education project, 'The Walk'.

Alongside these, the awards scheme can fund a variety of materials and equipment: cycle parking, covered waiting areas, drying rooms, reflective clothing and so on. The awards scheme will shortly be oversubscribed, but there is an expectation that if more money is needed it will be found, as the council is very committed to the work on school travel.

The county aims to be working with all schools in Buckinghamshire by 2010 at quite an intensive level. There is a target to reduce the proportion of journeys to school made by car from 47% in 2001 to 30% in 2008.

Staffing and costs

Staffing
At the beginning, there was one full time officer working on both safe routes to school and school travel plans.

Currently, there is a team leader, four full-time school travel plan co-ordinators (one bursary-funded, and one funded by the education department), and three part-time school travel initiative officers who work on implementation of initiatives like crocodile trails. This is equivalent to 6.5 full-time posts.

Costs and benefits
In 2002/03, capital spend was £89,000, and revenue spend was £22,000, bringing total spending to £111,000. This included both safe routes to school (engineering measures) and school travel plans. In addition, there were the costs of employing the 6.5 fte staff.

The planned allocation for the coming year is £200,000 capital and £28,000 revenue.

When work on school travel began, there was the cost of the one full time staff member. The capital allocation for engineering work near schools was higher because the emphasis of the county's work was on area-wide traffic calming around schools. Initially the programme included five traffic calming schemes, typically costing £200,000 each, of which three ultimately came to fruition. However, such work is no longer the focus of the school travel plan approach.

The total budget for the local authority in 2002/03 was £27.7 million. This includes £16.6 million capital funding and £11 million revenue.

Scale of the scheme

Number of people affected by the initiative
The council is currently working with nearly two-thirds of the schools in Buckinghamshire (see table 2).

Table 2: Scale of school involvement in travel work

	Engaged with	Based in the area
Number of primary schools	120	187
Number of primary school pupils	25,000 approx	40,630
Number of secondary schools	22	34
Number of secondary school students	22,000 approx	34,217

Between 1 in 5 and 1 in 7 of the schools the council is working with have become involved via the planning process. The number involved in this way is increasing – a few years ago about 20 schools a year became involved in this way, but now about double this figure become involved via the planning system. This is because school travel plans have become more widely established as a condition for approval of planning applications.

The level of involvement of the schools is shown in table 3.

Table 3: Levels of school involvement in travel work

		Primary	Secondary	Number of pupils/ students involved /affected
Number of schools with …				
	An active school travel plan, plus engineering work to provide safe routes to school	10	2	5065
	School travel plan agreed and / or some or many school travel initiatives in place	12	4	6946
	School contacted and starting to develop school travel work	98	16	34,352

Changes over time

The number of schools developing travel plans is growing rapidly. In August 2001 the county was working with about 40 schools; in August 2002 this had risen to 89 schools; and at the time of interview (August 2003) it was 142 schools.

Targeting

The county prioritises work with schools which are committed to tackling school travel problems. Any school wanting support from the safe routes to school team or funding for specific measures has to commit to taking part in an annual 'hands up' survey of school travel patterns for the next five years. Once schools have committed to the hands up survey, resources and support are directed towards them.

Schools applying for planning permission are also a focus for the work of the team. Finally, if there are complaints about traffic problems at a particular school, or if colleagues in the transportation department identify it as a school where work is needed, the team will get involved.

Effects of the initiative

Effect on car use within targeted population

Figures collected specifically for schools involved in the 'Go for Gold' walking incentive scheme (a primary schools initiative) show an average reduction in car use of 21.6%. The council calculates that if the Go for Gold schools results were replicated at all Buckinghamshire primary schools, there would be 14,700 fewer car trips made all the way to school each day (although a proportion of these would transfer to part way car trips, as some children 'park and walk').

Children who are undertaking 'park and walk' are being driven to a certain point and dropped off, and then walk the last part of the journey. The council considers that park-and-walk is a very positive form of behaviour change. It helps to address congestion at the school gate, and, for primary school children who live too far from the school to walk all the way, it may be their only alternative (if they do not live near bus routes, and if cycling is considered unsafe due to the traffic conditions or their age). Consequently, even if some of the journey is still made by car, the council considers that transfer to park and walk should be considered a major success, which

helps to communicate to the public that they are not 'anti-car', and enables all parents to 'do their bit'.

However, for traffic assessment purposes, the car use part of park and walk trips needs to be included in calculations. Estimating the extent to which park and walk takes place, and what proportion of a typical park-and-walk trip is made by car is problematic. With park-and-walk trips, the distance that children walk varies, depending on the location of car parks chosen as designated 'Park-and-walk' car parks, and/or the size of any 'exclusion zone' drawn up around each school as part of a Go for Gold initiative. (Children walking from within such an exclusion zone do not qualify for incentive points unless they live within the zone boundary). In some cases, more than half the journey to school is walked, in others, less than a quarter of the distance is done on foot, and there is substantial variation from school to school. Based on data obtained from a separate Department for Transport project about school travel (which has involved interviews with 30 schools), an appropriate conservative assumption seems to be that 75% of a typical park and walk trip is made by car (although this cannot be applied to the 'Go for Gold' results, as it is not clear what proportion of the reduction in car trips has converted specifically to park and walk).

Meanwhile, the annual 'hands up' school travel survey circulated to all schools in October every year suggests that the county's work is starting to have an effect on overall levels of car use for the journey to school, as shown in Table 4.

Table 4: Year by year car use for the school journey in Buckinghamshire schools as shown by annual surveys

Year	% car use (excluding park and walk)
1999	39
2000	44
2001 (29% response rate)	42
2002 (47% response rate)	45
2003*	37

* Results based on provisional sample of 89 returning schools (representing over 20,000 students), at the time of latest data availability

This data implies that, in the last year, car use for the journey to school has fallen from 45% to 37%, a reduction of 18%. It is notable that this is the first-year in which park and walk trips have been recorded separately, with 8% of students recording themselves as parking and walking. (In all previous years, students who undertook park and walk were asked to record themselves as walking.) Even making the most conservative assumptions - that 75% of these journeys should also counted as car use and that these trips transferred from the 2002 'car use' category - total car use has still fallen from 45% to 43%, a reduction of 5%. This is equivalent to 300 fewer car trips per day, or 1500 per week. (This assumption is partly so conservative because it does not take account of any park and walk trips being made prior to the 2003 survey. For example, it is entirely plausible that 8% of students were also park-and-walking in 2002, at which point, using the assumption that 75% of each trip is made by car, total car use would have fallen from 51% to 43%, a reduction of 16%).

Examples of changes in car use at all the Buckinghamshire schools which have either reached, or nearly reached, Level 3, and for which data were available, are given

below. Catherine Greaves commented: 'When a school has a Level 3 travel plan in place, these figures show what they can be expected to achieve. It isn't possible to generalise and say every school should achieve a 10% or 20% mode shift – in some cases the focus of the travel plan may be less on reducing car use and more about ensuring children who are already walking to school are safe and keep on walking. However, every school can achieve some change.'

Table 5: Changes in travel to school, for schools in Buckinghamshire at a relatively mature stage of travel planning (as of 31/10/03)

	Number of pupils	*Survey date*	*Car %*	*Walk %*	*Park and walk%*	*Other %*	*Total %*
John Hampden Infant	275	2000	55.0	40.0	--	5.0	100
		2001	33.0	49.1	--	17.9	100
		2002	37.9	59.5	--	2.6	100
		2003	14.6	17.8	14.6	0.0	100
Holmer Green Infant	**180**	**2000**	**70.0**	**30.0**	**--**	**0.0**	**100**
		2001	**36.5**	**46.5**	**--**	**17.1**	**100**
		2002	**31.0**	**69.1**	**--**	**0.0**	**100**
		2003	**25.4**	**58.2**	**12.4**	**4.0**	**100**
Holy Trinity CE*	266	2000	59.0	40.0	--	1.0	100
		2001	55.6	44.4	--	0.0	100
		2002	48.2	51.8	--	0.0	100
		2003	30.4	43.4	23.2	3.0	100
West Wycombe Combined	**209**	**2000**	**--**	**--**	**--**	**--**	**100**
		2001	**78.0**	**22.0**	**--**	**0.0**	**100**
		2002	**67.2**	**31.1**	**--**	**1.7**	**100**
		2003	**55.9**	**19.1**	**20.6**	**4.4**	**100**
Little Kingshill Combined*	262	2000	--	--	--	--	100
		2001	78.3	21.2	--	0.5	100
		2002	62.2	37.9	--	0.0	100
		2003	61.0	21.6	17.4	0.0	100
Marlow CE Infant*	**186**	**2000**	**49.0**	**49.0**	**--**	**2.0**	**100**
		2001	**44.2**	**53.9**	**--**	**1.9**	**100**
		2002	**39.5**	**54.0**	**--**	**6.6**	**100**
		2003	**49.4**	**38.6**	**7.6**	**4.4**	**100**

Notes:

*These schools are considered to be nearly 'Level 3'. The others are all level 3.

Data are based on hands up counts undertaken every October.

Prior to 2003, any children undertaking 'Park and walk' were told to include themselves in the 'Walk' category.

The data about car use at the schools can be alternatively represented as follows. In line with Catherine's comments, table 6 shows that there has been significantly different experience at the different schools. However both at individual schools, and averaged overall, impressive results have been achieved.

Table 6: Changes in car use for schools in Buckinghamshire at a relatively mature stage of travel planning (as of 31/10/03)

	% car use at time of initial survey(a)*	2003 data			% change in straightforward car use^	Minimum % change in 'total' car use^
		% car use (b)	% Park and walk	% implied car use (c) ~		
John Hampden Infant	55.0	14.6	14.6	25.6	-73.5	-53.5
Holmer Green Infant	70.0	25.4	12.4	34.7	-63.7	-50.4
Holy Trinity CE	59.0	30.4	23.2	47.8	-48.5	-19.0
West Wycombe Combined	78.0	55.9	20.6	71.4	-28.3	-8.5
Little Kingshill Combined	78.3	61.0	17.4	74.1	-22.1	-5.4
Marlow CE Infant	49.0	49.4	7.6	55.1	+0.8	+12.4
Average	*64.9*	*39.5*	*16.0*	*51.4*	*39.2*	*20.7*

* Initial surveys at the schools were done in either 2000 or 2001.

~ The figures in this column have been calculated by assuming that, on average, 75% of each Park and walk trip is made by car.

^ Changes in straightforward car use have been calculated by comparing columns (a) and (b).

Minimum changes in 'total' car use have been calculated by comparing columns (a) and (c).

The figures in this column represent 'minimum' changes in total car use, since there may have initially been some Park and walk taking place at the schools at the time of the initial surveys. This would have included a car use component, but it is not possible to include this in the calculations.

Specific results are as follows:

- 5 of the 6 schools (over 80%) have achieved reductions in car use.
- Only one has experienced a small increase in car use. At this school, car use seems to have declined and then risen again – highlighting that sustained effort is needed to maintain reductions in car use.
- Average levels of car use at the schools were initially very high (64.9%). Since the school travel work, the proportion of children who are transported all the way to school by car has declined by 39.2%. Allowing for the fact that some are still driven some of the way, total car use has fallen by at least 20.7%. (Weighting the results by school numbers implies that, for the 1378 children involved, total car use has fallen by at least 21.6%)
- Five of the schools reduced straightforward car use by 20%, and two schools have reduced their total car use by more than 50%.

To summarise overall, Level 3 schools have, on average, reduced straightforward car use by 39.2%. All the schools involved in 'Go for Gold' have, on average, reduced car use by 21.6% and across the county as a whole, car use on the school run has fallen by 18% in the last year. If the car use component of 'Park and walk' trips is included, and

the most pessimistic assumptions about this are used, Level 3 schools have, on average, reduced total car use by about 21%, and, across the county as a whole, total car use has fallen by about 5% in the last year.

No information is available on whether school travel plans have affected parental car use for other trips such as to work.

Other effects within targeted population
The council feels that its school travel work is delivering many benefits in addition to reducing car use.

Catherine Greaves commented: 'In terms of social inclusion, the work on school travel plans is a great leveller. Everybody gets an opportunity to enjoy the health benefits of walking or cycling, and long-term there will be a positive impact on health. Our work also allows the team to look at safety issues for groups that might not otherwise come forward.'

Other benefits include:
- Encouraging a better sense of community, and enabling schools to develop a better relationship with their neighbours.
- Making parents feel more confident to let their children walk to school, and enabling children to enjoy more independence
- Improving education about environmental issues and citizenship. The Theatre in Education project has involved pupils doing their own plays about why walking to school is good.
- Improving road safety education. Pupils taking part in Go for Gold and Crocodile Trails receive pedestrian training; those joining Cycle Trains receive cycle training; a 6th form drivers scheme currently at pilot stage also includes road safety training.

Wider effects of the initiative
There is no evidence of whether school travel plans have affected total traffic levels, or of whether reductions in school traffic may have been offset by induced traffic. The council has not yet tried to compare traffic flow data with school travel data, but may try to do this in future.

Reductions in school traffic are against a background of rising traffic levels. In Aylesbury, traffic increased by 5.1% between 2000 and 2003. In High Wycombe, traffic increased by 1.6% between 2000 and 2003.

Public awareness of what can be done to tackle rising school traffic has grown as a result of the initiative. Catherine Greaves commented: 'In the early days of school travel plans, people had not heard of them and if you went into a school and suggested a walking bus people would say 'what's that'? Now there is much more familiarity and people are asking for them.'

Synergy with wider policies and strategy

Synergy with 'hard' measures
Introduction of special parking areas (in High Wycombe and more recently in Aylesbury) has helped the school travel work, because it has led people to think twice about driving. At some schools, such as Hamilton School in High Wycombe, parking permits are provided to parents who have to drive and park in a certain area. According to Catherine Greaves, this challenges the common assumption that 'people have a God-given right to drive', and again makes people think twice about their travel choices.

Catherine Greaves feels that hard measures such as cycle lanes and traffic calming have had a relatively limited impact on people's mode choice for the journey to school.

Synergy with other 'soft' measures
The county is engaged in other 'soft' measures in addition to school travel plans, including workplace travel plans, public transport marketing, car-sharing, tele-centres and tele-conferencing. Workplace travel plans and car-sharing are each the subject of a separate case study, and the other measures are discussed in more detail in the workplace travel plans case study.

The policy of parental choice means some students are travelling as much as 40 miles to school. The council is about to start work on personalised travel planning for students over the age of 16, to raise awareness of public transport options for students travelling long distances to school. This initiative will also enable them to find out whether public transport is adequate and if not to improve it. The project will be piloted from September at four schools in south Buckinghamshire.

The Bucks CarShare scheme has until recently been aimed at reducing car use for the journey to work. However, since October 2002 Bucks CarShare has been publicised to schools. One independent school has set up its own car-sharing scheme and three schools have asked for more information. The council has also recently been publicising car-sharing to sixth-formers.

Perception of the importance of the initiative
School travel work is a high priority in Buckinghamshire. This is driven by councillors knowing that it is a high priority amongst the general public. A MORI survey in October 2002 found that safe routes to school were the top priority for local transport. In response to the question 'what are your priorities are for local transport?' the results were:

- Safe routes to school 36%
- Improving local bus and rail services 35%
- Managing urban traffic 28%
- Improving road safety 23%
- Improving pedestrian crossings 18%
- Improving cycle facilities 17%
- Managing rural traffic 15%.

Transport is a reasonably high priority within the local authority compared with other areas of policy.

Factors contributing to success
Factors contributing to the success of the school travel work in Buckinghamshire are:

- Strong political support. For example commitment from members was crucial to introducing the planning requirement to have a school travel plan. Cabinet members for transport and for education are both very supportive.
- Strong support from senior officers, including the chief officer and heads of planning and transport.
- A very dedicated staff team.
- Willingness to listen to schools and parents. 'Go for Gold was thought up by a parent, and the county agreed to give it a go.'
- 'The schools are prepared to go with it.'

Catherine Greaves commented: 'So many people are important to making the school travel planning successful. If support was absent at any point, it would be much more difficult. All the links in the chain are important.'

Scalability

Staffing and budget
The budget and staff allocated to school travel work is likely to remain substantial, and certainly not to decrease, for some time. Catherine Greaves commented: 'There's an ever changing school population. The programme will need to continue – it has taken several decades to get into this situation, and we need to give ourselves a good few years to sort out the mess we have got into.'

Relationship between spending and impact
The county knows that there is a relationship between spending and modal shift. Catherine Greaves commented: 'We know that the schools where we have spent (sometimes quite small) sums of money have greater modal shift than those where money has not been spent. But it is important that we spend money on what the schools want, not on what we think is a good idea. This shows the schools that the council is committed. For example, at Wendover school the county had drawn up plans for a large traffic calming scheme, but what the school actually wanted was for the pavement to be widened, which was much cheaper. Sometimes a large scheme is the right thing, but not always, and investment in quite inexpensive measures can deliver a lot of change.'

Future scale of the initiative under currently planned resources
By 2006, the council estimates that about 55% of all schools will have a travel plan at level 3; 15% at level 2; and 10% at level 1. A fifth of schools might not yet be involved.

By 2011, it is estimated that 95% of schools will have a travel plan, all at level 3. Getting the last 5-10% of schools on board may be much more difficult.

These targets are felt to be realistic, given the current level of commitment.

There is a feeling that the school travel plan work in Buckinghamshire has now become embedded in the work of the council so that it is sustainable and will continue, and does not rely on the commitment or charisma of any individual.

Future scale of the initiative if resources were greater
Funding is not the limiting issue on the council's school travel plan work, and so increased resources would not necessarily deliver more change, or more quickly. A certain amount of time is needed for the schools to introduce a travel plan, and this is the main constraint on progress.

Monitoring plans
Each school monitors their own travel plan against their own targets every year. The council reviews their monitoring to check whether they are still a level 3 school. Schools are given clear guidance about how to do the monitoring.

Key issues for scaling up
The voluntary nature of school travel plans means a lot of energy has to go into promoting them. Strong support from DfES and a requirement from OFSTED for schools to draw up a travel plan would make a great difference. The single most helpful thing the government could do to increase the effectiveness of the county's work would be to make school travel plans a statutory requirement. Government should make clear that a school travel plan must be taken seriously as part of each school's health and safety responsibility to its pupils.

The county uses the planning system to require schools to adopt travel plans. It works closely with district authorities (who determine planning applications), and three of the districts are very good. However, one district council has been much less effective in applying the planning requirement. The county is liaising with district councils to develop supplementary planning guidance to secure a consistent approach across Buckinghamshire. Government could help by reviewing and strengthening PPG13, to encourage consistent interpretation by planning authorities.

Parental preference, and the resulting long distances many pupils travel to school, makes school travel increasingly car dependent. The county is responding to this by developing a programme of personalised travel planning, initially for over 16s. Eventually the council hopes to be able to offer personalised travel planning to all pupils, not just over16s.However, it feels that the policy of parental preference is at odds with the promotion of sustainable travel.

Central government could further help work on school travel by adopting and promoting the idea of clear criteria for what makes a good school travel plan (similar to the Buckinghamshire levels 1, 2 and 3).

Within the county council, the school travel team is well respected and used as an example of good practice. However, greater responsiveness and awareness from the education department would make the team's task easier. Parent-teacher associations could also help by promoting school travel plans.

Buckinghamshire's experience is 'hugely' transferable to other areas. Catherine Greaves commented: 'There is absolutely no reason why this can't happen everywhere. Obviously modal shift targets may be different between inner cities and more rural areas, but the principle of what has been done in Buckinghamshire can be done anywhere.'

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Case study author: Lynn Sloman

Buckinghamshire County Council

Workplace travel plans

Interviewee: Stefan Dimic, Travel Choice team leader. Additional information was provided by Rosemary Bryant, Travel to Work officer.

Buckinghamshire County Council's workplace travel plan initiative is branded Travel Choice. One of the notable successes of the scheme has been the county's travel plan for its own staff, which has cut single-occupancy car commuting from 71.3% to 49.4% over five years. The council is working with another 32 companies and organisations based in the county, and altogether its travel plan work covers 21,700 employees, or 11% of the workforce. More than half of these employees are covered by fully-fledged travel plans which include parking management measures. However, monitoring data on the effectiveness of these travel plans is not yet available.

In addition to its work with employers, the Travel Choice team is engaged in marketing and promotional work for public transport. It also runs the Bucks CarShare scheme, which is reported as a separate case study.

Case study location and main actors

Buckinghamshire County Council is in south-east England. The county town, Aylesbury, has a population of 58,000. The other main town, High Wycombe, has a population of 72,000. The county has high levels of car ownership (with one of the highest numbers of households with two or more cars in Britain) and low levels of unemployment. The county council has been supported in its travel planning work by the local bus company, Arriva, and train company, Chiltern Rail, both of whom offer travel discounts as part of the county's workplace travel plan. There has also been some support from the Buckinghamshire Economic Partnership.

Main activities

Buckinghamshire County Council first began promoting workplace travel plans in 1998, as part of its Travel Choice initiative. The county's own travel plan has been very successful, and has won awards for the behaviour change it has achieved. In working with other employers in the county, the council uses a mixture of 'broad brush' publicity and awareness-raising to encourage employers to get involved and more intensive work with individual companies. The benefits of workplace travel plans are publicised through radio adverts (there is a good dialogue with the local radio station); fetes; on-the-street publicity (for example in Aylesbury market square during green travel month); and brochures. Other activities to encourage businesses to adopt workplace travel plans include:

- Re-issuing a travel guide to employers in 2002/03
- Offering incentives to companies to get involved – for example there was recently a prize draw for companies, with the prize being a covered cycle shelter

- Supporting travel groups based at the various business parks (Centre Link, Cressex Link and Globe Link). These groups discuss traffic management and travel planning issues. Cressex Business Park recently contributed £10,000 to pay for a new luxury works bus for the business park. This was secured as part of a planning gain contribution.
- Promoting the Bucks CarShare scheme with businesses
- Taking part in events such as a Green Roadshow, business breakfasts and dinners
- Using bus back, radio and cinema adverts and county council publications and promotional materials to achieve greater levels of brand recognition for Travel Choice.

At the beginning, the Travel Choice team thought many employers would want to work with them to develop a travel plan, but this did not turn out to be the case. The council therefore decided to work closely with ones who were interested and at the same time to try to spread the message. Stefan Dimic commented: 'It's a slow process, like changing attitudes to smoking or drink-driving, and it will take 20 years. It's not an overnight fix. When we get someone who wants a travel plan we'll work with them very intensively, because we know that if we leave them it will fall apart.' However, it is difficult for the Travel Choice team to work with more than a few businesses at a time because of lack of the necessary resources.

The area covered by the Travel Choice team is the whole of Buckinghamshire, but most effort is concentrated in the main towns of Aylesbury and High Wycombe, and to a lesser extent in Amersham.

The public transport operators are important partners in promoting non-car travel to work. Arriva and Chiltern Railways both offer discounts to county council 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. These discounts are also available to staff at Wycombe District Council; other district councils are currently implementing their own travel plans and likely to seek to negotiate similar schemes. The police and one private company, Ercol, have also negotiated public transport discounts. The discounts have played an important role in the success of the county council's own travel plan – for example the number of county council staff commuting by bus has risen from 160 in 1998 to over 400 in 2003.

Another partner for the travel planning work is Buckinghamshire Economic Partnership. The partnership was set up three years ago. It has a transport meeting every two months, and members are being encouraged to develop their own travel plans. BEP has contributed small sums of money, totalling perhaps £5000, towards the cost of promotional events and marketing

The county council uses the planning process to encourage employers to draw up a travel plan. Planning applications for developments that are likely to generate significant traffic are generally required to include a commitment to a travel plan.

The council has three targets for its travel plan work:

- *To reduce the proportion of county hall staff driving to work from 71% in 1999 to 50% in 2005/06.* This target has already been achieved, several years early: the figure for 2002/03 is 49%.
- *County-wide, to reduce the proportion of people commuting by car from 73% in 2000/01 to 70% in 2005/06.* This is not on-track: the figure for 2002/03 was 79%. However, the county council hopes that the new appointment of a personalised travel plan officer will help change this. This officer's role will include providing employees with personalised journey plans, and working more closely with the companies which are implementing travel plans.
- *To implement 75 workplace travel plans by 2005/06, with 15 of them in Aylesbury.* In 1999 one travel plan had been implemented (the county's own). In 2001/02, 19 had been implemented, with 3 of these in Aylesbury. In 2002/03, 24 had been implemented, with 3 in Aylesbury. By July 2003, a total of 33 travel plans had been implemented. The council anticipates that current work with business parks will produce the planned step-change in numbers of travel plans in the next three years.

Staffing and costs

Staffing
At the beginning, the county council had one full-time post researching and developing its workplace travel initiative (particularly in relation to the council's travel plan for its own staff). This has now risen to 1½ full-time posts (half the time of the Travel Choice team leader, who oversees the work on travel plans, plus a full-time bursary-funded travel plans officer). From August 2003 the team will have a graduate trainee working on public transport promotion and a fourth person who will provide a personalised travel information service. In future, these posts may provide some cross-fertilisation with the workplace travel plan work. The Travel Choice team leader post has been broadened to encompass promotion and marketing of bus travel on the council's new Red Routes.

Costs and benefits
The budget for Travel Choice in 2003/04 includes £45,000 revenue costs (for items such as free gifts, advertising, inducements and rewards, but also for cycle racks and improvements to showers). In addition, a proportion of a £50,000 capital budget allocated to improving passenger transport infrastructure (perhaps about half, i.e. £25,000) will be spent on infrastructure measures in workplaces. The total budget for workplace travel plans is thus about £70,000.

In 2002/03, actual spending on workplace travel plans was £91,000, of which £30,000 was capital and £61,000 revenue.

In 2001/02, actual spending on workplace travel plans was £54,000, of which £14,000 was capital and £40,000 revenue.

When the council first started working on travel plans, the budget was rather less. In 1999/00 the total budget was £15,000.

The local authority's total transport spending was £27.7 million in 2002/03, of which £16.6 million was capital spending and £11.1 million was revenue.

Scale of the scheme

Number of people affected by the initiative
Including the county council, 33 companies or organisations in Buckinghamshire have or are developing a workplace travel plan (see table 1). About 10 of these organisations were involved via the planning process.

Table 1: Engagement in travel planning

	Engaged with on travel planning	Based in the area
Number of employers	33	
Number of employees	21,700	205,902

In addition, the 100 largest employers in the county have been targeted this year, receiving an 'Employers Guide to Travel Planning'. The county is also currently working with business parks on the implementation of their travel plans (Cressex, Globe Park and Slough Trading Estate).

The employers developing travel plans fall into the sectors shown in table 2. The level of involvement of the different employers is shown in table 3.

Table 2: Engagement of different types of organisation in travel planning

	Number of employers county council is working with on travel plans
Local authority	2
Further / higher education	3
Health (excl GP surgeries)	3
GP surgeries	1
Other public sector or voluntary organisation	2
Private sector <300 staff	10
Private sector >300 staff	9
Other	2
TOTAL	**32**

Table 3: Number of employers and staff affected by travel plans at different stages

	Number of employers / organisations	Number of employees affected
Fully fledged travel plan including parking management	13	12000
Travel work with various travel initiatives (but not parking management)	14	1400
Considering a travel plan, or just starting implementation	6	8300
TOTAL	**33**	**21700**

Changes over time

The number of organisations developing travel plans is growing slowly but steadily. In 2000/01 the county was working with 11 organisations; in 2001/02, 19 travel plans had been introduced across the county.

Targeting

The county's strategy has been to target the bigger companies first. Stefan Dimic commented that 'We will go and talk to anybody, but we are more proactive with the larger organisations.' The 'Employers Guide to Travel Plans' sent to all businesses in the county with over 100 staff (around eighty in total) in April 2003 yielded a 20% response rate. Of the 16 businesses that responded, most (11) said they were interested and would like to do something in future but did not have the resources at present. Five businesses were keen to do something now, and of these the council has started further work with three already.

There is also recognition that development of workplace travel plans is a gradual process. 'If we can get a business to simply advertise local bus services to its workforce, that is a first step.' Once businesses are on board, possibly in quite a small way at first, the council can work with them to improve their travel plan. 'The priority is not just to get new businesses on board, it's also working to improve the travel plans we've already got, looking at the hooks we already have and developing those.'

Stefan Dimic is enthusiastic about the potential of the local business parks. These contain a mix of larger businesses with around 250 staff and smaller organisations.

There are also particular opportunities when a company re-locates. For example, Ercol recently moved from High Wycombe to Princes Risborough. Many employees lived in High Wycombe, and were driving to work from there. The council liaised with Chiltern Railways over the timing of the train service between High Wycombe and Princes Risborough, and although they were unsuccessful in influencing this, they did manage to negotiate a discount for Ercol staff. The council and the company are currently in discussion about installing a footway which would give a direct route from the station to the company's new premises. They have also promoted car-sharing. Now Ercol is liaising directly with Chiltern Trains. Stefan Dimic commented: 'This kind of direct contact between companies and local public transport operators is exactly what is needed. One of the priorities for the Travel Choice team is to similarly encourage other employers and business parks to build relationships with the

operators, and to put the business case that their staff are a valuable potential market for public transport.'

On the negative side, the health authority has been more difficult to work with. It has been hard to identify who to work with, and there has been little action in two years. However, the Travel Choice team are hopeful that this may be about to change.

Effects of the initiative

Effect on car use within targeted population
The county's own travel plan is monitored every year, and has delivered a steady reduction in 'car as driver' mode share from 71.3% to 49.4% over five years (see table 4).

Table 4: Mode share for journeys to and from work for office-based county council staff

All respondents (410 in June 2003)				
Mode	Number of weekly trips in June 2003	Percentage of weekly trips		
		August 1998	January 2001	June 2003
Car driver	1974	71.3	56.4	49.4
Car share	278	-	-	7.0
Motorcycle	22	0.6	0.4	0.6
Car passenger	204	7.7	8.6	5.1
Bus	375	5.5	10.2	9.4
Train	96	2.0	3.6	2.4
Cycle	155	2.1	3.2	3.9
Walk	825	10.8	16.9	20.6
Work at home	67	-	0.6	1.7
Total	3996	100.0	99.9	100.0

The fall in car use between 1998 and 2001 is equivalent to 125,000 fewer work-related car trips per year. The fall in 'car as driver' mode share has been accompanied by increases in mode share for walking to work, car-sharing, cycling, bus travel and train travel. Working from home has also increased.

The council does not yet have monitoring data to show what is happening to travel patterns in the other companies it is working with, as most organisations only began travel planning in 2002. Rosemary Bryant commented that 'some have had exceptional success and some very limited.'

Over the decade between 1991 and 2001, 'car as driver' mode share in Buckinghamshire rose from 66% to 72%, according to census data. Since 2000, the county has carried out its own annual survey of travel habits of 850 working households. This annual survey suggests that Buckinghamshire's workplace travel plan initiative is struggling against a rising trend to commute to work by car. In 2000/01, it found 73% of journeys to work were 'car as driver'. In 2001/02 this rose to 74% and in 2002/03 to 79% (see table 5)

Table 5: Mode share of the journey to work: survey of 850 working households in Buckinghamshire

	2000/01	2001/02	2002/03
Car driver	72.7%	74.2%	79.2%
Car passenger	3.8%	1.5%	1.9%
Motorbike/scooter	1.1%	0.1%	0.7%
Bus	2.7%	1.5%	2.2%
Train	3.1%	3.8%	1.7%
Bicycle	2.5%	2.7%	2.6%
Walk	10.8%	7.0%	9.6%
Work from home	7.4%	7.8%	7.3%

No information is available on whether workplace travel plans have affected commuting trip lengths or when people travel. There is no indication of whether people are making more linked trips (that is, combining the journey to work with trips to other destinations such as shops or schools).

Other effects within targeted population
There is anecdotal evidence that the county's promotion of workplace travel plans has had some social inclusion benefits. New and better-integrated bus and train services developed as part of travel plans mean that it is now easier for people without a car to gain access to work. In 2003/04 the county will be introducing three new bus services linking large housing estates with the major towns. There are also plans to improve cycling and walking facilities on the estates. As an example, Fairford Leys estate was built about two years ago, with no bus stops, buses or footpaths. The only way for people living there to get to a job was by car. Once the new 'luxury' work buses are introduced, non-car owners on the estate will be better off.

The Travel Choice initiative has been good for the public image of the county council and for the image of the companies the council is working with. Within the council, there is a lot of good feedback from staff even when small new initiatives are introduced (such as putting bus times on the intranet, or making it easier for people to book train tickets).

There has also been a financial benefit to the council from its own travel plan. Because fewer people are now driving to work, the council has been able to reduce the number of reserved parking spaces it pays for. Stefan Dimic estimates that the saving is of the order of £60,000 - £75,000 a year.

Wider effects of the initiative
Traffic levels in Buckinghamshire are rising. For example, traffic in Aylesbury increased by 5.1% between 2000 and 2003. In High Wycombe, traffic increased by 1.6% over the same period. This means that any reductions in car use at the companies involved in workplace travel plans are concealed by the overall rising trend in traffic volumes. No information is available about peak hour flows.

Nevertheless there is some evidence that promotion of alternatives to the car is having an effect. The council has been promoting 'Car Free Thursday' once a week since the

end of April 2003. Early anecdotal evidence suggests that traffic into and out of Aylesbury and High Wycombe is lighter on that day.

There is no evidence on whether the effects of the council's work on travel plans may have been offset by induced traffic.

Since Travel Choice was introduced, people's attitudes to it have become more supportive. Stefan Dimic commented: 'In the early days, people were very 'anti' the Travel Choice work, but now they are much more likely to say 'it's great what you are trying to do.''

Synergy with wider policies and strategy

Synergy with 'hard' measures
Several 'hard' transport measures introduced in Buckinghamshire in the last few years have helped with travel planning. Two to three years ago a special parking area was introduced in High Wycombe, and recently a special parking area has been introduced in Aylesbury. The effect of the special parking area is that people cannot park in the town centre unless they have a permit.

In 1999 the county council introduced parking charges for its own staff. Only essential car users, senior staff, and employees who have worked for the authority since before1999 get free parking. All other staff pay £4 a day to park in the council-reserved spaces in the adjacent multi-storey car park, or £2 a day to park in a more distant car park. The introduction of the special parking area means there is no on-street parking option. About two-thirds of office-based staff have to pay to park.

The special parking area coupled with parking charges have created a strong incentive for local authority staff to try other ways of travelling to work.

Some other hard measures have also helped the development of workplace travel plans, although it is not possible to quantify their effect. One of the five main arterial routes into Aylesbury now has an excellent cycle lane (Stone – Aylesbury, a distance of about 2 miles), which links into the Red Route 9 bus lane (see below). There is now a need to replicate this on the other radial routes, so that people have a genuine option of cycling.

Pedestrian improvements have also helped make walking to work a more attractive option. These include better footways and lighting, safer underpasses, and pelican crossings giving higher priority to pedestrians at major junctions.

The county's work on travel plans has in turn led to a greater awareness of the need to provide and maintain cycle-ways and footways, and has led the county to give more attention to measures such as pedestrian crossings. Stefan Dimic felt it has also made the traffic management staff in the council more aware that they need to help pedestrians and cyclists.

Synergy with other 'soft' measures

The county council is working on other 'soft' measures in addition to workplace travel plans, including public transport marketing, car-sharing, school travel plans, tele-centres and tele-conferencing. The tele-centres and car-sharing have helped achieve changes in mode share for the county council's own travel plan. It is too early to quantify the extent to which other soft measures have helped the work on travel plans, but it is likely that they are complementary.

The Travel Choice team has boosted levels of bus use in one corridor through promotion and marketing. Red Route 9 was launched in February 2003, and runs between Aylesbury town centre and Stoke Mandeville Hospital. Red Route 9 buses have a distinctive livery and branding, which includes information about the route and the words 'every 10 minutes' on the side of the bus. The council produced a glossy timetable booklet, which is intended to look aspirational and 'like a Mercedes advert'. This and a personal letter from the council's chairman of transportation was sent to all 5000 people living within 500 metres of the route, encouraging them to try the service. People who responded to the enclosed questionnaire saying that they had not tried the service will be sent a one-week free 'trial' ticket.

The marketing on Red Route 9 was preceded by a number of infrastructure improvements: a bus lane (or 'red carpet into town') about two years ago, which cost £2.5 million; individual signs at bus stops, with a bus stop name, timetable and route map; new shelters and seats; and Kassel kerbs. There have been some problems with the public transport infrastructure - in particular, real-time information screens have been out of action for the past two years. Patronage on Red Route 9 did not significantly increase after the new infrastructure improvements were put in, but in the months following the marketing work, the number of bus passengers went up by 28%.

The council has followed up the success on Red Route 9 with the launch of Red Route 33 in High Wycombe in July 2003. Stefan Dimic comments: 'We will continue to promote the red route services with days out, parking the new buses in the Market Square, handing out balloons. In the past we made improvements but then rested on our laurels. That didn't work. You've got to keep telling people there's a bus there. But one of our difficulties is that often the actual service is not as good as it needs to be.'

The next planned bus improvement is the Fairford Leys express, which will run every 15 minutes from Fairford Leys housing estate into town.

A team in county hall is also investigating the potential role of teleworking and videoconferencing. Two telework centres have been introduced – one in Amersham and one in Winslow – each with 10 desk spaces for county council staff. The county would like to make these telecentres available to staff from other employers in the area.

The council is actively promoting school travel plans and car-sharing (each the subject of a separate interview).

Perception of the importance of the initiative
Promotion of workplace travel plans is strongly supported by senior management, including the Chief Officer and the heads of education and of transport. Councillors are also supportive, particularly the councillor who holds the portfolio for transport and planning.

Within the council as a whole, there is felt to be a reasonably good balance between transport and other service sectors. It is recognised that transport holds the key to many other services – for example, good bus services and the car-share scheme are important to attract good staff for, say, social services.

Factors contributing to success
The high level support for Travel Choice within the county council was felt to be important in contributing to its success. Stefan Dimic commented that the presence of that high level support means that the culture of the organisation is slowly changing.

However, outside the county council it is difficult to find champions. The last Chair of Buckinghamshire Economic Partnership, a local businessman, was very supportive, but there are few other champions for travel plans.

Scalability

Staffing and budget
There is some uncertainty at present about future staffing levels for Travel Choice. This is because the Department for Transport bursary post has been discontinued at the same time that the county is recruiting a new personalised travel planning officer to assist in developing workplace travel plans. At present it is not clear whether the bursary post will continue to exist. However, there is a strong feeling within the Travel Choice team that more staff are needed.

Similarly, there is a hope that the budget for Travel Choice might increase, but no certainty. The Local Transport Plan allocates a Travel Choice revenue budget of £65,000 for 2006, to which should be added about half of the £50,000 capital budget for passenger transport. The total amount of money available for Travel Choice in 2006 will therefore be about £90,000. No figures are available for 2011.

Relationship between spending and impact
The council has not done any analysis of the relationship between spending on travel planning work and impacts.

Future scale of the initiative under currently planned resources
The council aims to be working with 75 organisations by 2006. It is currently working with 33 organisations, covering 21,700 people (an average size of 660 people). If the additional organisations are smaller (say 75 people), this would mean the council would be working with a total of about 25,000 people by 2006.
By 2011, they might be working with a total of 150 organisations. Again, assuming additional organisations employ an average of about 75 people, this would mean the council would be working with a total of about 30,000 people by 2011.

To achieve these targets with currently planned resources will be stretching but possible. Two things would help meet these targets. First, sufficient resources to be able to work more intensively with interested companies. Second, a stronger incentive for companies to draw up travel plans. Stefan Dimic commented: 'What we lack at the moment is the team of people able to spend eight hours or so in a company, actually helping them work up their travel plan. We need the resources to be able to get stuck in, because the companies won't all do it on their own. We would like to offer stronger incentives to companies to draw up travel plans – for example if you are doing x, y or z as part of your travel plan, we could offer a 10% reduction on business rates.'

Future scale of the initiative if resources were greater
If resources were greater than currently planned, it would be worthwhile to work with many more businesses. The Travel Choice team would like to 'target every single employer in the county'. While an initial approach to all employers would be easy to make now, with current resources, the team would not be able to deal with the response to this. To be able to follow up wherever firms are interested, a larger team (potentially about 10 staff) would be needed.

Monitoring plans
Several organisations will be re-surveying their staff at the end of 2003. The council plans to carry out 'after' monitoring of the businesses with which it works during 2004 with a survey based on its own Travel Choice council staff survey.

Key issues for scaling up
Within the county council, staff and management support for workplace travel planning has grown over time. Nevertheless, some actions could be taken to make the county's own travel plan more effective. In particular, a parking cash-out scheme would be worthwhile. Although staff that have recently joined the council have to pay for a parking space, long-standing staff still park for free. A parking cash-out system might help tackle this, although it is not clear whether it would be cost-effective.

Better quality public transport would also make it easier to promote travel plans. Stefan Dimic commented: 'Public transport operators have an important role. We can only do so much to increase public transport use if underlying services are poor. It would be good to see more commitment from public transport operators to providing a high quality integrated transport system.'

A particular obstacle encountered by the Travel Choice team is that companies think the council can come in and sort everything out for them. There simply are not the resources available to do this, which means that either more resources are needed to work more intensively with companies, or companies need to be given greater incentives to make travel planning a priority, or both.

Central government could help the development of travel plans in several ways:

- By resolving the current constraints on use of capital funding, so that it became possible to employ a larger team of people to promote travel plans.
- By creating incentives for companies to draw up travel plans. For example, if councils were able to offer rate rebates to firms who introduced a travel plan,

many more companies might become interested. Companies could be audited every year to make sure they were meeting their side of the bargain.
- By giving a more visionary and consistent message in support of travel planning.
- By supporting sharing of best practice, particularly to help local authorities who are in the early stages of developing workplace travel planning.

Buckinghamshire's experience of workplace travel plans is highly transferable to other areas.

References

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Case study author: Lynn Sloman

Cambridgeshire County Council

Workplace travel plans

Main interviewees: Mark Webb, Development Manager, Travel for Work Partnership and Joseph Whelan, Transport Assessment Manager, Planning Division, Cambridgeshire County Council.

Additional inputs from: Sarah Collins, Senior Transport Officer, Planning Division; Paul Cook, Transport Strategy, Tim Carter and Barbara Wilcox, Environment Programme Team; Will Haywood, Economic Research Manager, Research Group; Eileen Woods and Graham Amis, Transport Statistics; Wyn Hughes, Addenbrooke's NHS Trust.

At the time of our interview, Cambridgeshire Travel for Work Partnership(TfW) was operating with 1.6 staff, and very little budgetary resources beyond payment for staff. It is an independent organisation which is only funded partly by the County Council, and this is seen as one of its strengths. In addition, the County Council undertakes various related initiatives – it is currently piloting a personalised journey planning initiative with new employees, and provided start-up funding for a car sharing scheme managed by TfW. The Planning Division is also very active in requiring travel plans, although joint working with TfW is only just starting to happen, and, although its innovative 'corridor approach' of requiring developer contributions brings in £1.5 million per annum, none of this money is necessarily used for travel planning. There are data suggesting that TfW has managed to reduce commuter car driving by between 20% and 30% over the last five years at member organisations who are involved in travel planning, although some of this reduction is also attributed to complementary measures that have been taking place in the area. There is considered to be huge synergy between travel plans and the other 'hard' measures taking place (particularly improvements to bus services). Future planned budgets for travel plan work are still conservative - rising to perhaps £60,000 forTfW by 2011. Interestingly, a combined 'fantasy budget' for both the Planning Division and TfW would only equate to £340-360,000 by 2006 and £440-470,000 by 2011. With this money they think that they could reach all large organisations and business parks, and achieve a 'step change' in what they do. It is thought unlikely that the Council would allocate such money primarily because it has no direct remit to intervene on travel plans, it is hard to be certain of outcomes, and an identified 'infrastructure deficit' in the south of the County is seen to be the priority. Factors accounting for Cambridgeshire's success in travel planning include a strong history of cycling, involvement of the health sector (including the lead of Addenbrooke's Hospital) and a strong sustainable policy framework (supported by stalwart members and officers). It is not considered possible to discern the effects of the travel plan work on general traffic levels, due to the huge amount of new development taking place, and also the substantial investment in other initiatives, such as Park and ride.

Case study location and main actors

Cambridgeshire County Council, located in the east of the UK, covers five district council areas. Two of these - Cambridge City (representing a city of about 110,000 people) and South Cambridgeshire - are booming economically, with a huge amount of new development expected. The Cambridgeshire Sub Regional Implementation Study, undertaken by the Government Office and the County Council, has influentially identified the need for £2 billion investment in infrastructure in the southern part of the County over the next 15 years to accommodate this growth. In contrast, in North Cambridgeshire, the emphasis is on improving economic performance and attracting more employment and services.

Cambridgeshire's work on workplace travel plans has taken place in partnership with Cambridge City and South Cambridgeshire district councils. It has also involved Cambridge University, Addenbrooke's Hospital and Cambridge City NHS Primary Care Trust as funding partners. There are also four key non-funding partners - Cambridge Cycling Campaign, Cambridge Chamber of Commerce, the Campaign for the Protection of Rural England, and the Government Office for the East of England. The work is led via the independent 'Travel for Work Partnership', described below.

Main activities

Cambridgeshire County Council's approach to travel plans has four main strands:
- involvement of the transport strategy department, to provide an overview and to integrate the different elements of the work.
- involvement of the planning division, to require travel plans for new developments
- provision of funding to the independent Travel for Work Partnership. (At the moment, the Council also acts as the host institution for the Partnership staff, although previously, the Health Authority did so).
- a personalised journey planning initiative aimed at the journey to work.

Currently, these strands function largely independently, although, over time, they are becoming increasingly interlinked. More details are given below.

Travel plans and the planning division
The Planning Division has been requiring travel plans for new developments, where appropriate, for about the last five years. It uses a variety of approaches depending on the nature of the development, including simply requiring that developers have a travel plan, requiring developers to put in place particular measures, and requiring developers to aim at certain outcomes. It is working closely with all the district councils to try to achieve a consistent county-wide approach to travel plans. Its approach is based on PPG 13 (although it is felt that some of the wording in PPG 13 is a little too open to interpretation). For development along the radial corridors into Cambridge, the Council has used new Supplementary Planning Guidance to require a fixed fee per trip generated from developers (according to their location). This is described in more detail below. Recently, they have also used a Section 106 agreement to require a one-off payment of £15,000 in relation to a particular new

development (by the University) which will go to TfW. This money has been required from the developer in addition to their fixed trip fees and money required for specific physical works). The Planning Division sees its main role as persuading developers to do travel planning (rather than helping them to actually do so). They are starting to get more involved in helping the developer with the implementation (for example, by putting them in touch with the TfW Development Manager), although, at the moment, this is still a minor part of what they do, and could be substantially developed further. (Note this is partly because such activities are not explicitly part of their remit, and partly because they do not have the resources to do so). In the future, they would choose to get more involved in helping developers, if resources permitted.

The Travel for Work Partnership, and its activities
The Travel for Work Partnership was established in October 1997, evolving from the Cambridgeshire Cycle Friendly Employers Partnership. It has six funding partners, and four non-funding core partners, and its remit is set by a steering group, not by the Council. Its independence is seen as being important to its credibility with employers. At the time of interview, it had about 60 active members. It has a strong brand logo, and uses the slogan "Cutting business costs by sustainable transport". Its approach largely tends to be 'broad brush' due to staffing and resource limits. When it was originally set up, its target was to achieve three completed plans a year, and to have four to five travel plans in the pipeline. That target has now been taken out of official documentation, although the new Local Transport Plan is likely to include a target to increase the number of organisations in the TfW initiative from the 40 involved in 2001/02. The Council also has specific targets relating to traffic reduction, which are given in a following section. TfW undertakes numerous activities, which are outlined below.

Guidance, facilitation and advice: The TfW officers provide continuing support to employers actively involved in the travel planning process, including site visits, provision of materials and help in preparing the business case for a travel plan.

Information provision: TfW has a dedicated web site (www.tfw.org.uk), has produced an annual report and regular newsletters; manages various e-mail circulation groups; and has regular steering group meetings and three network meetings a year.

Surveying: TfW undertakes an annual web based travel survey that all members are encouraged to participate in. All organisations with more than 50 respondents are given an individual report of their results.

Teleworking Toolkit: in 2001, in partnership with the East of England Development Agency, TfW produced an advice booklet called the Teleworking Toolkit, for companies that wanted to introduce teleworking. (Currently, the Development Manager estimates that the majority of requests for this booklet come from abroad!)

Take a Stand: for employers who provide matched funding, the Partnership distributes money (provided by the Cambridge City Council Sustainable City Fund and the County Councils' local transport plan funds) for cycle stands at the workplace, and also advises on the types of stand, their location and their spacing. In 2002/03, £7000 was split between two charities and a commercial science park.

Cycling initiatives: the Partnership helps in the production of the Cambridge cycle route map; has negotiated discounts for member employers at local cycle shops and runs adult cycle training sessions.

CamShare: in July/August 2002, a countywide web based car sharing facility was launched with the involvement of five pilot employers, representing a total of 13,000 employees. The scheme provides a matching facility. Employers pay to register, and also pay a yearly licence fee to use the scheme. 350 potential sharers have registered, and about 230 are currently considered to be live members. However, between the end of November 2002, and mid January 2003, 161 searches were made but only two e-mails were sent seeking fellow car sharers. It is up to employers to promote the scheme at their workplace, to provide a guaranteed ride home, and to consider marking out dedicated parking spaces (which some are doing). (One perceived weakness with the system is that there are not countywide incentives for using it.) It is believed that some people may be using the system to find potential sharers and then making their own arrangements. It is also felt that some time will be needed to build up a critical mass. The TfW Development Manager has negotiated a Service Level Agreement with the service provider to address some other problems. The system is currently being expanded so that employees are not limited to only finding matches with other employees at the same organisation (as they are at present). The Development Manager also plans to do a great deal more promotion work of the scheme.

Future directions for TfW include:
- developing an accreditation scheme for travel plans (possibly based on the Travel Plan Evaluation Tool). This is seen as something which could also help with the Planning Division work
- outsourcing the survey work and/or the cycle training scheme, although it is unclear who these would be outsourced to
- working to educate developers, and working more closely with the Planning Division
- redeveloping the TfW Internet site
- more intensive marketing of the CamShare scheme
- promotion of the Travel Choices methodology to employers, if it proves successful.

The Travel Choices Project
As one of the new pilot schemes funded by the Department for Transport, Cambridgeshire County Council and Addenbrooke's NHS Trust are jointly involved in a personalised journey planning initiative aimed at new employees. Both organisations have their own travel plans, both suffer problems of staff recruitment and retention, both are reasonably large and both are located fairly close to Cambridge city centre. 1200 new employees start work at Addenbrooke's NHS Trust each year (located three miles south of Cambridge city centre), whilst 280 new employees start work at the County Council's Shire Hall site each year (located 1.5 miles from Cambridge city centre). New employees are being contacted once their start date of employment is confirmed, and four months after being in post. The effects of this contact, and associated information provision, on their travel habits will be assessed

by comparison with a control group and with changes in the general travel habits at the two organisations. The work on this project started in May 2003.

Staffing and costs.

Staffing
Transport Strategy: There are not considered to be any specific staff resources dedicated to travel plans, as these are dealt with as part of general strategic planning.

Planning Division: Approximately 0.25 fte is spent on travel plans, although this is split between a team of 12 people. The amount of time spent on travel plans has not increased significantly in recent years, although a big increase is expected, associated with forthcoming new development.

Travel Choices : There are two full-time members of staff dedicated to this, working at each of the pilot organisations.

The Travel for Work Partnership: The Development Manager is full-time (and dedicated to this job). There is also a 0.6 part-time project officer, who works with him, who has been in post since 2001. (This officer spends the other 0.4 days of their time working in the Highway section on cycle routes, which provides useful synergy). Since the partnership started, the part-time project officer was appointed, and the funding of the Development Manager has changed. Previously, the Development Manager was employed on only a 12 month contract, subject to the Partnership partners renewing their annual funding. This resulted in a high turnover of people in the post. Now, the County Council has underwritten the post for three years (although the money will still come jointly from the partners). Recently (April 2004), the partnership has been allocated funding from the LTP to pay for a new full-time post (underwritten by the County for three years). Recruitment is currently underway.

Cambridgeshire were also able to provide some comparative data on staffing levels elsewhere, based on a review that they had carried out of travel plan activity by other local authorities. Of ten local authorities for which data had been gathered, seven had the equivalent of 1 full-time post, two had 0.5 or 0.6 fte posts, and one had 2 fte posts

Costs and benefits
Travel Choices : The original project bid was based on a budget of £100,550, which included staff costs. Of the funding, £19,000 was coming from the County Council, £2500 was coming from TfW (as consultancy advice), £29,600 was coming from Addenbrooke's NHS Trust, and £49,450 was coming from the Department for Transport. Funding was for one year.

Travel for Work Partnership: the current budget (which includes staff costs) is approximately £35,000 this year (2003-4). This is expected to increase to about £50,000 next year. Since the Partnership started, funding has gradually increased (although, for the last three years, since the loss of a funding source of £15,000 p.a., it has not been a balanced budget. Instead it has relied on an inherited underspend, which is due to run out in 2005-6). A breakdown of the individual contributions is given in table 1.

Table 1: Breakdown of TfW funding (2003/4)

Funding partner	Amount contributed to the partnership
Cambridgeshire County Council	£12000
Cambridge City Council	£9000
South Cambridgeshire District Council	£3500
Addenbrooke's Hospital	£3000
Cambridge City NHS Primary Care Trust	£3000
University of Cambridge	£5000
Total	£35,500

In the future, fees from the CamShare scheme are expected to bring in approximately £5000 a year. (Note that this money is already included in the estimate of next year's budget, and will primarily be used to pay for the costs of the software license. Camshare is non profit making).

In addition, there have been a number of one-off/ring fenced contributions, including:

- £100,000 one-off payment made by the East of England Development Agency a few years ago, to develop the Teleworking Toolkit, a national advice booklet.
- In 2003/04, £5000 from Cambridge City Council for the Take a Stand programme. (Note that this money comes from their sustainable city fund, and the first year of funding was 2001/02. It is not clear whether this funding will be continued in 2004-05). In addition Take a Stand received several thousand pounds from the County Council from the Local Transport Plan funds.
- £15,000 to set up the CamShare scheme. (This money came from the County Council as a one-off payment.)

Planning Division: this department does not have specific funding for travel plans. However, the cost of staff time allocated to working on travel plans is estimated to be about £8000 per annum. At the same time, the division requires various payments as part of developer contributions, which fund some developments that should assist travel plans - for example, £750,000 was spent on the new bus station at Addenbrooke's Hospital. (As mentioned previously, the Planning Division has also recently requested a specific payment of £15,000 for TfW, although it is unclear whether this will be repeated). Using Supplementary Planning Guidance, it has adopted a corridor approach – where organisations locating along the radial corridors into Cambridge pay a fixed amount per trip generated depending on the corridor. (This does not apply to certain types of organisation e.g. doctors or educational establishments, or organisations likely to generate less than 50 new trips). Fees are:

- £399 per trip for the northern corridor
- £369 per trip for the southern corridor
- £221 per trip for the western corridor
- £219 per trip for the eastern corridor.

It is anticipated that this should raise about £1.5 million per year for at least the next seven years. The approach is allegedly popular with developers, because it provides clarity and early information about what will be required from them. However, some evidence about the benefits from these payments is now felt to be needed. In addition to the corridor payments, some developers are also asked to pay for specific measures for some developments.

In summary, excluding the Travel Choices project, core spending on travel plans in 2003/4 included about £8000 on planning division staff costs, £35,500 for TfW (mainly staff costs), and £22,000 for individual projects (Take-a-Stand and CamShare) - a total of £65,500. Of this, £35,000 came from the County Council (£8000 for the planning division, £12,000 for TfW and £15000 for CamShare).

The total transport budget for the County Council is currently about £17 million (£9 million for schemes and £8 million for road maintenance). The council is bidding for £50 million for next year, given the amount of growth expected in the area.

Scale of the scheme

Number of people affected by the initiative
Currently, TfW has about 60 members, including non-employer steering group members such as the Cambridge Cycling Campaign. In 2003/04, 44 of these were considered to be in the process of developing a travel plan. About 34,000 employees were affected (plus, nominally, another 6000 teachers, although these people were not actually targetted).

In addition to those organisations involved via TfW, a number of others have been required to have travel plans via the planning system. Last year, 21 travel plans were required. Assuming a gradual build-up in the number of required travel plans over the last five years, this would imply that perhaps 50-60 travel plans have been required through the planning system in total. The majority (perhaps 80%) of these organisations are reasonably small (perhaps 50 people on average), whilst the remainder are larger (with a typical size perhaps being 500 people). In total, this would imply that perhaps another 7-9,000 employees are in organisations with travel plans required via the planning system (although there is no available data about the number of required travel plans that have been successfully implemented).

This information is summarised in table 2. Figures are compared separately against a) Cambridge City and South Cambridgeshire, and b) the whole of Cambridgeshire. This is because TfW is currently having most success working with Cambridge City and South Cambridgeshire (largely because the economic situation is different elsewhere).

Table 2: Numbers of those involved in TfW, compared with the employment in the surrounding area

	Engaged with on travel planning	Cambridge City and South Cambridgeshire	Cambridgeshire as a whole
Number of employers	44 (+ 16 support companies + 50-60 engaged via the planning system)	11,199	23,445
Number of employees	34,000 (+ 7-9000 via the plannng system)	118,396 (TfW = 29%)	275,685 (TfW = 12%)

Note: For the two final columns, number of employees is taken from 2001 Census data, and number of employers refers to the number of 'workplace data units' recorded in the 2001 Annual Business Inquiry.

A breakdown of Cambridgeshire's employment structure, based on the Annual Business Inquiry, has been obtained, and is summarised in table 3.

Table 3: Workplace business units in Cambridgeshire

	SIC	Cambridge City and South Cambridgeshire	Cambridgeshire as a whole
General public service activities	75.11	71	--
Higher education	80.30	243	--
Hospital activities (public, private & nursing home)	85.11	21	44
Medical practices	85.12	71	--
Other health and social work	85 (exc. 85.11 & 85.12)	458	<830
Other public sector	L-N (exc. those above)	334	--
All public sector	L-N	1198	1999
Private sector <300 staff	A-K, O-Q	9965	21392
Private sector >300 staff	A-K, O-Q	36	54
TOTAL	A-Q	11199	23445

Note: Data from the 2001 National Business Inquiry

Data from TfW about the number of different kinds of employers that they are working with on travel plans can therefore be approximately compared with the employment profile of the area (see table 4). However, in some respects, this comparison is problematic, since some travel plans may cover more than one workplace business unit. For example, Cambridge University's travel plan spans a number of sites, and so the figure of 2% for engagement with higher education establishments may be misleadingly low.

Table 4: Breakdown of TfW employers and comparison with area employment

	TfW employers	Cambridge & S Cambridgeshire	Cambridgeshire as a whole
Local authority	5	3 (100%)	6 (83%)
Higher education	5	243 (2%)	--
Hospital activities	6	21 (29%)	44 (14%)
GP practices	2	71 (3%)	--
Other public / voluntary	8	334 (2%)	--
Private sector <300 staff	4	9965 (<0.1%)	1999 (<0.1%)
Private sector >300 staff	11	36 (31%)	54 (20%)
Other – business parks	3	--	--
TOTAL	44	11199	23445

For those organisations that the Development Manager has personal knowledge of, the different levels of commitment are shown in table 5. This implies that

approximately 65 out of every 100 employees represented in the Partnership are in an organisation with an active travel plan.

Table 5: Stages of travel plan development

	Number of employers / organisations	Number of employees affected	Implied % split
Fully fledged travel plan including parking management	5	17,500	63
Travel work with various travel initiatives (but not parking management)	2	350	1
Considering a travel plan, or just starting implementation	10	9934	36
TOTAL	17	27,784	100%

It is not possible to assess whether plans required by the Planning Division can be considered to be similarly distributed. The majority of these organisations are not members of TfW – there is no mechanism requiring them to become members, and the Development Manager comments that he "couldn't cope if they did". The mechanisms used to tie down travel plans as part of planning permission vary significantly between the district councils, such that the nature of final travel plans implemented will vary, and the fact that organisations are not necessarily implementing measures through choice may affect what is achieved. In addition, it should be noted that the plans required through the planning system tend to be distributed across the County, not concentrated in the City and South Cambridgeshire.

Changes over time
In 1998, there were 25-30 members of TfW, and numbers have grown gradually. Each year, there are still many new organisations who are keen to become members.

Targeting
The Travel for Work Partnership is a largely responsive organisation, due to constraints of staffing and budgets. Consequently, they have not actively encouraged organisations to join (and try to avoid too much media coverage to avoid generating demand which they would not be able to fulfil).

In general, they have found that there is more interest from public sector organisations and larger organisations. However, there has been some success with SMEs – for example, the Chamber of Commerce (18 employees) and Arbury Road Veterinary Practice in Cambridge (less than 10 employees).

Engagement has largely been with organisations located in Cambridge City and South Cambridgeshire - as these are the economic growth areas. The health sector has also been closely involved in the work of the Partnership, resulting in the engagement of some the larger health organisations in the area.

Effects of the initiative

Effect on car use within targeted population

Addenbrooke's Hospital has been the flagship organisation in the area. At the same time, there have also been a number of other notable successes via TfW. Table 6 gives figures for seven organisations within TfW, including the county council's own results.

Table 6: Changes in commuter mode share at individual TfW organisations

	Survey date	Number of staff	Survey no.s	Drive alone %	Car share %	Cycle %	Walk %	Bus %	Train %	Tele work %	Other %
Addenbrookes NHS*	1993		3992	74~	--	17	4	4			
	1999	4933	4856	45	15	22	6	10			
	2002		5846	42	7	19	12	19			
Generics (ex Scientific Generic)	*2000*	*220*	*105*	*65.7*	*14.3*	*15.2*	*1*	*0*	*1*	*0*	*2.9*
	2001	*220*	*117#*	*74.6*	*8.3*	*13.6*	*0.2*	*0*	*1.1*	*2.2*	*0*
	2002	*220*	*66#*	*67.5*	*7.4*	*10.9*	*0.6*	*3.9*	*3.5*	*3.5*	*2.6*
Cambridge University	2000	5000	869	35.7	10.0	41.2	4.9	4.5	1.8	0.3	1.5
	2001	5000	1651#	31.7	9.4	37.2	9.1	7.1	3.3	0.8	1.6
	2002	7500	1830#	27.0	8.6	43.0	9.2	8.3	3.1	0.8	1.6
Government Office for East of England	*2001*	*290*	*25*	*69.5*	*3.4*	*12.7*	*8.5*	*4.2*	*1.7*	*0*	*0*
	2002	*290*	*30*	*41.7*	*11.9*	*26.1*	*7.5*	*6.0*	*5.2*	*0*	*0.7*
Cambridge City Council^	2000	800	288	34.7	22.2	16.3	8.0	13.2	2.8	0.3	2.4
	2001	800	226	41.4	12.1	19.5	8.0	12.4	5.6	0.2	1.1
	2002	800	128	30.8	6.1	29.9	9.0	19.1	2.7	0	2.4
Cambs. County Council Shire Hall site+	*1999*	*1100*	*376*	*51*	*15*	*15*	*5*	*12*	*1*	*n/a*	*2*
	2000	*1100*	*318*	*53*	*13*	*16*	*4*	*12*	*1*	*0*	*1*
	2001	*1100*	*488*	*49.8*	*12.8*	*15.8*	*5.9*	*11.9*	*0.7*	*2.0*	*1.2*
	2002	*1100*	*n/a*	*44.0*	*15.3*	*15.4*	*6.1*	*13.9*	*1.4*	*2.8*	*1.5*
Chamber of Commerce	2001	18	9	56.6	18.9	9.4	0	9.4	5.7	0	0
	2002	18	18	49.5	10.8	8.6	5.4	4.3	3.2	12.9	5.4

Notes:
* Data not from the general TfW survey.
~ 1993 figure at Addenbrookes is for all staff arriving by car, rather than SOV journeys.
# In later surveys, the 'number of respondents' has been replaced by 'number of trips' measure – since survey respondents are asked to complete a questionnaire as to how they get to work for 5 consecutive days. A conversion between the two has been made on the basis of the average results across the TfW Partnership of 4.7 trips (to work) per week.
^ It should be noted that Cambridge City Council are concerned about the falling numbers of staff responding to the survey. Respondent numbers for the Government Office for the East of England are also low.
+ 1999 and 2000 were snapshot surveys, whereas 2001 and 2002 involved one week travel surveys.

These results can be recast to show the effects on overall car use, as shown in table 7.

Table 7: Results of travel plan work on TfW organisations overall

Organisation	Staff	SOV		Car share		Cars per 100 staff		% point change	% change
		Before	After	Before	After	Before	After		
Addenbrookes NHS Trust 1993-2002	4977	<74.0	42.0	--	7	<74.0	<49*	**>-25.0**	**>-33.8**
Government Office for East of England 2001-2002	290	69.5	41.7	3.4	11.9	71.2	47.7	**-23.5**	**-33.0**
Cambridge City Council 2000-2002	800	34.7	30.8	22.2	6.1	45.8	33.9	**-11.9**	**-26.0**
Chamber of Commerce 2001-2002	18	56.6	49.5	18.9	10.4	66.1	54.7	**-11.4**	**-17.2**
Cambridge University 2000-2002	6250	35.7	27	10	8.6	40.7	31.3	**-9.4**	**-23.1**
Cambridgeshire County Council 1999-2002	1100	51	44.0	15	15.3	58.5	51.7	**-6.9**	**-11.7**
Generics 2000-2002	220	65.7	67.5	14.3	7.4	72.9	71.2	**-1.7**	**-2.3**
Average	**13,655 total**					**61.3**	**48.5**	**-12.8**	**-20.9 (unweighted) -27.3 (weighted)**

*In the first survey at Addenbrooke's, car users were not separated. Therefore, to ensure that the results are not overstated, we have used the figures for overall car users for the latest survey results too. In reality, if car sharing has increased as a result of the travel plan work, greater change will have been achieved than is recorded here.

At the same time as results about individual companies, data has also been collected to show changes in car use across the Partnership organisations as a whole, as shown in table 8 (and reported, in part, by Webb and Carter 2003).

Table 8: Cambridgeshire Travel for Work Partnership survey results

	Aug 1998	Jan 1999	Oct 1999	Oct 2001	Oct 2002	Oct 2003
Number of respondents	*2146*	*2384*	*4960*	*5072*	*3884*	*5410*
Drive alone	57%	55%	49%	50%	40%	45%
Walk	5%	6%	5%	6%	7%	7%
Cycle	20%	19%	24%	22%	29%	23%
Motorbike	2%	1%	2%	2%	1%	1%
Public bus	4%	2%	4%	6%	8%	7%
Company bus	-	-	-	1%	1%	0%
Train	1%	1%	2%	2%	3%	3%
Car share	11%	15%	12%	11%	10%	11%
Telework	0%	1%	0%	1%	1%	3%

Note: October 2000 figures are not available because no manager was in post at the time of the survey. Although Addenbrooke's hospital has been a key member of TfW, it makes a very small contribution to this survey, since planning requirements have meant that it conducts its own modal head counts in early October.
Source: Cambridgeshire Travel for Work Partnership.

The Development Manager has had concerns about the fact that the organisations replying to each survey are not always the same. As a result, he asked the Data Manager at the County Council to undertake an analysis on the most recent three

surveys, using data from a cohort of companies that have been represented in all of them. These results are shown in Table 9. Both the direction and magnitude of trends in the cohort analysis are remarkably similar to the previously reported survey analysis from the partnership as a whole, although it is not possible to assume that analysis of data from earlier years would have produced a similar correlation.

Table 9: Results from a cohort of companies represented in all the TfW surveys

	2001	**2002**	**2003**
Drive alone	48%	41%	44%
Walk	7%	7%	7%
Cycle	22%	26%	23%
Motorbike	2%	2%	2%
Public bus	7%	8%	7%
Company bus	1%	1%	0%
Train	2%	2%	3%
Car share	11%	11%	12%
Telework	1%	1%	2%

In summary, the results from tables 6-9 show the following:
- Table 8 highlights that there is a wide range of results from travel planning. Organisations have reduced the number of cars arriving per 100 staff by between 2% and over 33%. What has been achieved does not necessarily relate to organisation size or the length of time that travel work has been undertaken.
- Results from the Partnership as a whole suggest that, between 1998 and 2003, drive alone trips fell by 12%-points (from 57% to 45%), whilst car sharing remained unchanged. This would mean a reduction of 21% in the number of cars arriving per 100 staff, with about half of this change (10%) occurring in the last two years. Analysis of a cohort of companies who participated in surveys in 2001, 2002 and 2003 broadly confirms the scale of change reported to have occurred in the last two years. Meanwhile analysis of a particular subset of companies where results have been weighted by the number of employees suggest that the average reduction in car use per employee may actually have been considerably higher, at around 27%.

It should be noted that change over time has not been a straightforward decline in car use (with some increases reported in 2003). Reported effects are also attributed to a range of factors occurring in Cambridgeshire, not simply the workplace travel planning initiative. This issue is discussed further below.

As well as information from TfW organisations, there is also more general data available from the Census, which can be compared to the data from TfW (table 10).

Table 10: Journey to work figures – Census figures.

	1991 County	**2001 County**	**1991 Camb. & S Cambs**	**2001 Camb. & S Cambs**
Work mainly at or from home	5.8	10.1	6.2	10.1
Train, metro, underground, light rail, tram	2.2	2.7	1.9	2.9

Bus, minibus or coach	3.5	3.4	4.1	4.5
Driving a car or van	58.8	59.5	54.8	52.2
Passenger in a car or van	7.3	5.5	5.4	4.3
Bicycle	10.7	9.1	15.2	14.7
On foot	9.2	8.1	9.4	9.2
Other	2.5	1.5	3.0	1.7

Sources: UK National Censuses 1991 and 2001.
Notes: Cambs and S Cambs is Cambridge City and South Cambridgeshire
The 1991 data was based on a 10% sample of residents - 10,064 in Cambs and S Cambs, and 23,180 in the county
as a whole. Calculations are based on data for people resident and working in the area, and those resident in the
area and working outside. Those who did not state how they travelled to work were excluded from calculations.

This shows that car use for commuting in the County as a whole has risen (by about
1%) whilst car use for commuting in Cambridge City and South Cambridgeshire has
fallen slightly (by about 5%). In interpreting this information, it is notable that TfW
has had some influence on the overall results, whilst TfW organisations have also
benefitted from measures that have taken place in the area anyway.

To conclude:
- Individual organisations are achieving different effects on car use. A range of
  results from TfW suggest that the impact may have been to reduce commuter car
  driving by somewhere between 20% and 30% at organisations involving in travel
  planning over the last 5 years, although some of this change would probably have
  occurred for other reasons anyway.
- In the areas where most of the TfW work has taken place (Cambridge City and
  South Cambridgeshire), car driving has fallen by about 5%. It is hard to assess
  what contribution TfW has made to this decline, or how far the results of the TfW
  work are partly due to other changes taking place that have affected travel habits.
  A reasonable interpretation is that TfW has partly managed to achieve such a high
  average change in car use amongst its member organisations because of synergy
  with other initiatives taking place in the area – whilst the engagement of these
  organisations in travel planning has clearly resulted in lower levels of car driving
  than at comparable organisations without travel plan work.
- The high levels of change recorded in the TfW survey may reflect the fact that
  TfW organisations join voluntarily – and are therefore presumably motivated to
  make a difference to staff travel.

As well as information about the volume of car driving, there was also anecdotal
evidence about other impacts of the travel plan work on car use. The introduction of
flexible working at some employers with travel plans is thought to have had some
effect on *when* people travel. It was also mentioned that people are living further away
from work - although this is considered to be a general trend, not something which is
occurring due to travel planning.

Other effects within targeted population
In terms of social inclusion benefits, the main gains are thought to be for the general
public who can use bus services that have been funded as part of travel plans (as
discussed further below). Other benefits mentioned included: reducing stress amongst
employees; the health benefits of walking and cycling; positive PR for organisations
and the opportunity for input to standards such as ISO 14001. For Addenbrooke's

Hospital, it was highlighted that the hospital has been able to pack far more development into the site than would otherwise have been possible if they had continued with their original parking allocations.

Wider effects of the initiative
In terms of transport as a whole, Cambridgeshire County Council has various targets to achieve. The aims are - to achieve a 1.3% reduction p.a. in traffic entering Cambridge City Centre from 1999; to stabilise traffic entering and leaving Cambridge on the radial routes each year at the 1996 level of 170,000 vehicles a day; and to achieve a 20% increase in bus patronage on the Cambridge radial routes by 2004 (from the 20,000 passenger journeys recorded in 1999).

Table 11 and figure 2 show what has been happening to general traffic levels according to a River Cam screen line in central Cambridge; a cordon which is done on the radial roads around Cambridge; and a screen line which is taken across the county as a whole.

Table 11: Traffic flows in Cambridgeshire

12 hour total vehicles	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
River Cam urban screenline	77304	79994	80680	73969	76155	77119	73272	69979	69792	70830	69541
Cambridge radials	160103	155742	166873	169569	171614	171424	168305	168964	169916	172926	170480
County screenline	198933	201921	207354	217388	220731	230043	235613	241234	241195	254545	254324

Figure 2: Traffic flows in Cambridgeshire
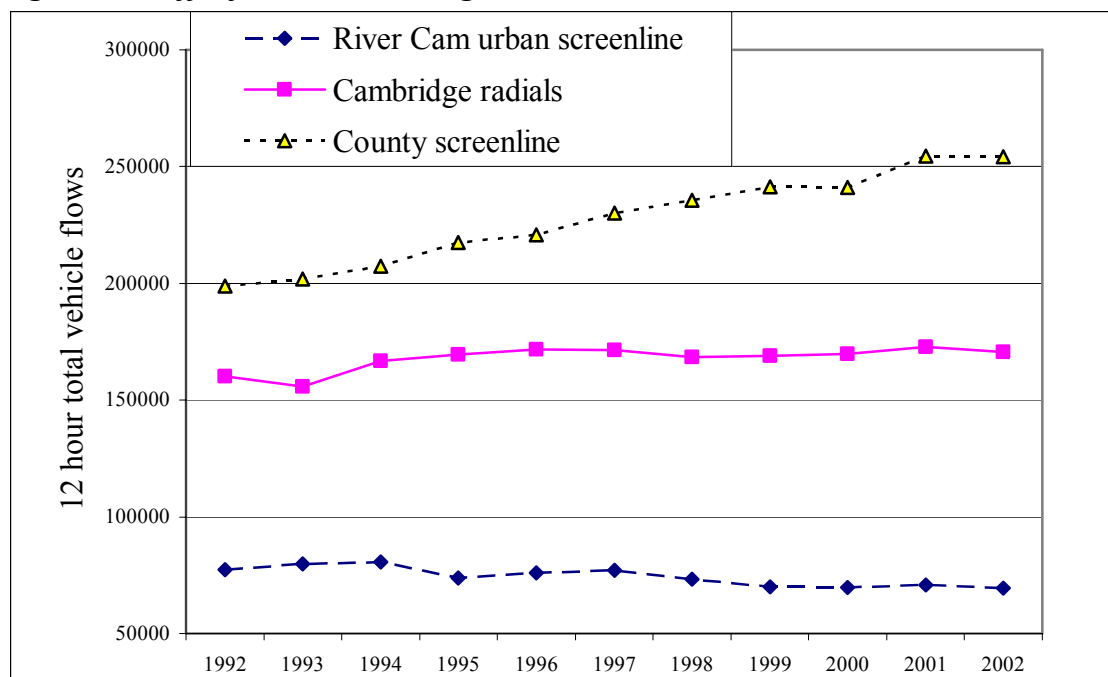
This shows that, since 1992, traffic entering central Cambridge has fallen by about 10% (with a decline of 1.8% in the last year); traffic on the radials into Cambridge

rose until about 1996 but has since stabilised (falling by 1.4% in the last year), whilst traffic in the county as a whole has risen by 28% (although possibly appearing to stabilise in the last year).

At the same time, according to the 2002 APR, bus use has risen by 8% in Cambridge City Centre in the last year, and 18% on Cambridge radial routes since 1999 (with 23,652 passenger journeys taking place on the radial routes in 2001).

These changes have taken place for a multitude of reasons. In terms of observing the effects of TfW, the interviewees commented that this would be impossible because other policies, such as the investment in park-and-ride for the city centre and remodelling of the bus network are all having effects which cannot be disentangled. Meanwhile, the huge increases in development can make it feel like "swimming to stay still".

Meanwhile, there are clear examples where travel plans have brought about wider improvements which benefit the general public. These include:
- New buses to Alconbury airfield, which operate as public services, and are fully accessible.
- Substantial increases in frequency on the 113 public bus service from Haver Hill to Addenbrooke's Hospital.
- A new private shuttle bus from Cambridge train station to the Genome campus at Hinxton Hall, which operates as a public service in the reverse direction.

It is felt that the travel planning work has increased awareness of the need to promote sustainable travel and in some cases, has increased the acceptability of such measures for employees. For example at Addenbrooke's Hospital, reductions in parking are now far less controversial. There are plans to introduce travel planning at Papworth Hospital, and it is expected that this can now be done far more efficiently, as Papworth can benefit from Addenbrookes' experience. Specifically, there are plans to hold joint meetings with Addenbrookes staff, to discuss their experience of implementing their travel plan.

Synergy with wider policies and strategy

Synergy with 'hard' measures
There are numerous hard measures in Cambridge, all of which are seen to have made a important contribution to the success of various travel plans. These include:
- new park and ride site in Trumpington
- new bus station at Addenbrooke's Hospital
- relaunch and remodelling of the Cambridge City bus services
- 7 countywide safety schemes
- 21 km of cycle routes that have been built (including sections of the National Cycle Network)
- stages one and two of the Cambridge City core scheme (which has involved the closure of routes *through* Cambridge City Centre)
- controlled parking zone and pedestrianisation in central Cambridge.

In the future, there are various additional measures which are expected to be beneficial. These include:

- the Guided Bus Scheme
- the extension of the park-and-ride concept to provide a series of rural interchanges
- the development of workplace travel plans in association with the development of bus corridors.

Synergy with other 'soft' measures
The work on travel plans already acts as an umbrella for various soft measures, including personalised journey planning and a car share scheme (although there are no plans to make this car share scheme available for all journey purposes).

There are other soft measures taking place within Cambridgeshire County Council. Notably, this includes the school travel plan work (which involves 47 schools, is mainly focused on private schools, and is mainly being run by a bursary post holder). There are plans for a car club at a new settlement in Long Stratton, and TravelWise work now focuses on European Car Free Day. There have been some synergies between them. For example, any schools located on a bus routes that feeds Addenbrooke's Hospital will have benefited.

Soft measures which are considered to have contributed to the workplace travel plan initiative include: the development of a cycle route map, and improvements in public transport information. In particular, all the bus stops in Cambridgeshire are being mapped for Traveline, and it is considered that this will help with information provision at individual workplaces.

In general, all the work on bus services is seen as being synergistic with the travel plan work, although it is difficult to disentangle cause and effect. For example, Addenbrooke's Hospital was influential in the development of the Trumpington park-and-ride site. So travel plans have affected the provision of public transport which has then affected the success of travel plans.

Perception of the importance of the initiative
Transport is seen as being a high priority within the Council, because of the congestion issues in the city and south Cambridgeshire; and social inclusion and accessibility issues in the North, West, and East. The media gives it a high priority: "many days it's the biggest issue in the papers". Travel plans are seen as being important element. However, they are not given more priority because:

- the lack of infrastructure in the South is seen as the pressing priority
- the Council has no statutory right to require companies to provide travel plans
- it is difficult to assess the importance of the Partnership work to what has been achieved (and how much companies would have achieved on their own anyway)
- it is hard to be confident what effects would result from putting in more resources.

Factors contributing to success
Factors seen as contributing to success include:

- the extent of problems at Addenbrooke's. These meant that 'necessity was the mother of invention', and the scale of work subsequently undertaken at Addenbrooke's has "raised the game".

- the presence of strong, switched-on lobby organisations, particularly the Cambridge Cycle Campaign and Cambridge Futures.
- the presence of the University (Mike Chisholm) and strong culture of civic public debate
- the steer from national government on transport policy
- the prioritisation of sustainability in the Local Transport Plan.

Scalability

Staffing and budget
In the new Local Transport Plan, the County Council is bidding for £30,000 per annum for TfW for 2004-2006, and £60,000 per annum for 2006-2011. The proposed budgetary increase is based on the new development that is due to happen. Concomitant increases in staffing are seen as critical to using this budget effectively, although Local Transport Plan capital funding cannot be used to directly support staff. The Partnership aims to increase to 2.6 (with recruitment taking place in spring 2004) and then to 3.6 fte posts.

Relationship between spending and impact
On the basis of the annual TfW survey, an economic appraisal of the TfW work was undertaken in 2002 by the Travel for Work Partnership Manager in post at the time. It was 'peer-reviewed' by WS Atkins. Although Atkins confirmed that an appropriate and robust methodology was used (including, for example, estimates of travel time savings, lower fuel costs, increased spending on public transport, increased risk of accidents and reduced risk of coronary heart disease), some members of the TfW steering group were not happy about some of the data input assumptions, and so the results have not been made public. In the future, the introduction of an accreditation programme for travel plan organisations (possibly using the Department for Transport's travel plan evaluation tool) is seen as something that could facilitate cost-benefit analysis.

Future scale of the initiative under currently planned resources
The increase in budget is expected to increase the services that can be offered, and result in interaction with substantially more employers and employees. However, it is difficult to be specific about likely impacts. The Development Manager would expect to reach at least double the number of people. To be successful, the Partnership will also need more office space and associated infrastructure. The availability of free government materials on workplace travel planning which can be distributed to employers is seen as being very valuable.

Future scale of the initiative if resources were greater
If money were no object, the interviewees would like the following budgets and associated staffing:

Planning Division: an additional two members of staff by 2006 (at a total cost of about £70,000 per annum), then increasing by about 30% by 2011. Of these:
- person 1 would be used to focused on the process of requiring travel plans through S106

- person 2 would be used to undertake research on both national and international experience, collecting evidence about how travel plans have been required, planning appeal decisions etc..

The Transport Assessment Manager feels that with this resource they would be able to operate at a "different level of confidence" and "be able to test the boundaries" in a way that they cannot do now. For example, it is more difficult to require travel plan work in Fenland, because of the problems of economic regeneration, and they are reluctant to deter developers. However, "you don't know where someone's line is until you try", and they would like to be able to attempt more.

Travel for Work Partnership: the Development Manager would like to have an additional five staff by 2006, increasing to seven staff by 2011. He feels that this would enable TfW staff to spend more time with individual organisations, to be more effective in their work, and that there would be increasing economies of scale. With this resource, he thinks it should be possible to reach all the big organisations, all the business parks, and probably a number of other organisations. TfW could also be far more proactive, and widely promote the Partnership through the media and other sources. He feels that this would enable the work to be taken to "another level". His ideal fantasy budget for 2006 is shown in table 12. Ideally, this budget would then increase by about 30% by 2011 to £350-380,000.

Table 12: 'Fantasy budget' for TfW

	2006
Staff	£150,000
Office	£35-40,000
Back office services	£20-30,000
Literature	£25-30,000
Marketing	£25,000
Survey work	£10,000
Take a Stand	£5000
Cycle training	£25,000
Total	£270-£290,000

Together with the money that the Planning Division would like, this comes to a total of £340-360,000 by 2006 and £440-470,000 by 2011. Both interviewees would partly like budgetary increases in order to be able to cope with the expected growth in the area.

Key issues for scaling up
There were numerous measures which were seen as being useful to enable scaling up the work on travel planning. These were as follows.

From central government:
- continuing provision of free materials on workplace travel planning that can be distributed to interested employers
- sharper wording on PPG13, that leaves less room for interpretation
- more Travelwise television advertising. For example, the advert where Chris Evans gives someone a lift (from the national 'Are you doing your bit ?'

campaign) was seen as being good. However, it was noted that many public awareness adverts are only shown in the middle of the night (presumably because this is when television rates are cheaper), but that, as a result, they will have far less impact. It was felt that a highly visible campaign, such as the Think! Road Safety campaign would be beneficial.

- more engagement with the CBI and Trade Union Congress
- more education of developers about the potential benefits from travel planning. In particular, evidence about the lack of a relationship between parking availability and office space rents would be useful. For example, Ely Business Park, located in a prime public transport location in Cambridge, advertise their parking as a key selling point to potential occupants. In contrast, Pepsi, located in Hammersmith in London, was suggested as a 'good practice' organisation that has realised that parking is not necessarily the most important transport attribute of a location.
- A specific remit to intervene - e.g. some kind of legislation requiring all organisations to have a travel plan. The lack of such a remit was seen as being a key reason why the Council was not keen to give more money to travel plans. It was argued that making travel plans compulsory would probably be unpopular, but that "once all the hoohah died down, travel plans would become all the rage". The regulations on disability access and affordable housing were quoted as comparable examples.

From the County Council:
- more money, staff and office space
- improvements to the travel information service available on the County Council web site
- further improvements in cycle routes
- introduction of congestion charging and/or a workplace parking levy.

From the bus company:
- better continuity and reliability. It was noted that trying to use a service which then doesn't operate according to expectations "makes people feel stupid", and puts them off trying it again.
- cross ticketing. (This is due to happen between Stagecoach and Huntingdon and district bus operators soon)
- smart cards, and on-street ticket machines, to reduce boarding times. (This will happen soon.)
- the provision of real-time information. (This will happen soon.)
- good communication of the bus company with the TfW Development Manager. (At the time of the interview, he had been unable to meet anyone from Stagecoach, having been in post for 6 months, although they are now involved in productive discussions about potential ticket discounts for organisations where employers actively promote buses.)

In terms of the replicability of Cambridgeshire's experience elsewhere, the interviewees note that there are various features which have helped Cambridgeshire, specifically:
- the history of cycling (partly due to the student culture),
- the flat nature of the terrain,
- the fact that Cambridgeshire is currently attractive to developers

- stalwart officers and members.

However, both interviewees noted that on e-mail groups the same issues are coming up all around the country about travel plans, and that Cambridge is not unique by any means. Specific features of their approach which they considered good practice, and which should be replicable elsewhere, included:
- the corridor approach to raising money
- the independence of the Partnership
- making sure that the County Council has led by example.

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Case study author: Sally Cairns

Edinburgh City Car Club

Interviewees: Brian Torrance, Edinburgh City Council, Laetitia Jan, Edinburgh City Car Club and Chas Ball, Smart Moves

The Edinburgh City Car Club can be considered in two phases. After feasibility studies by Edinburgh City Council revealed that likely initial financial losses would require them to put the service out to tender to the private sector, Budget Rent a Car launched the initial car club in March 1999. The funding for the club involved input from the City Council, Scottish Office and DETR totalling £253,000. However, Budget withdrew from the car club two years later, despite having grown the club steadily over that period to 170 members operating from 23 sites with 22 vehicles. Evidence suggests that the withdrawal was due primarily to Budget's global financial situation, causing them to abandon this operation, which had not yet become financially self sufficient or profitable. The membership growth had also begun to plateau during the latter months of its operation, apparently due to a lack of local commitment and presence by Budget and technological difficulties. In October 2001, the car club was relaunched by Smart Moves with a development grant of £40,000 from the city council. In July 2003 the club had 215 members and 17 cars at 15 stations around the city, with a target for 250 by the end of 2003, 500 and 35 cars by the end of 2004 and an annual doubling of membership after this date to 2006. The club is not yet financially self sufficient but hopes to move into profit by the end of 2004. The relationship with the council is good and they have an active support role in terms of marketing. The council provides guaranteed revenue to the club by using five cars during weekdays as a car pool for its staff.

Case study location and main actors

Edinburgh City Council was created in 1996 from what was Lothian Region due to local government reorganisation. It has a population of 448,624 (204,683 households). It is the capital of Scotland, a historic/ heritage city and the seventh largest city in the UK. It is a compact city with over half of its households in tenements or blocks of flats. These were not designed with the car in mind and parking pressure is acute in the city.

The city is served by over 200 local bus services (Lothian buses are the main operator) and there are also seven railway stations within the city area. A three-line tram network has been approved and construction should begin in 2004. Lines 1 and 2 would be due to open in 2009 and Line 3 in 2012.

Main activities

City Car Club (Budget Rent a Car) March 1999 – March 2001
The process of setting up a car club in Edinburgh began in February 1996 when, under the instigation of the City Council who had been inspired by the success of some European car clubs, Lothian and Edinburgh Environmental Partnership (LEEP) was appointed to carry out a feasibility study into the potential market share for a car

club (with some funding also from DETR and the Scottish Executive). The initial idea was that a pilot initiative would be undertaken by the city council themselves.

Two areas (Marchmont and Sciennes) were identified as the areas in the city with the greatest potential for successfully establishing a car club and these were selected for a pilot scheme. An advisory group was established to carry out public consultations, baseline surveys of traffic and transport in the area and detailed business and financial planning. This process revealed that operation of a car club would involve a substantial operating deficit for at least the first three or four years. The fact that the public sector partners could not underwrite long-term financial losses forced the council to put the operation out to tender to private sector operations. In addition, since the cash flow projections indicated that a club in only two neighbourhoods would never be viable on its own, the operating model changed from local pilot initiative to a fully-fledged implementation of a car club.

Budget Rent a Car was selected and agreed to a three-year commitment to the scheme. The car club was launched in March 1999 in Marchmont and Sciennes with six vehicles serving four parking bays. At the launch the club had 35 members which grew to 95 by the first anniversary. In April 2000 the car club was expanded to provide a further 19 parking locations. But new sites were significantly less successful in attracting members.

Budget withdrew from the car club in March 2001 having given the council one month's notice of their intention to withdraw. At the time of withdrawal the club was operating from 23 sites with 22 vehicles and had 170 members. While this made the club the biggest in the UK, the membership level was less than half that projected in the original business plan. The membership had begun to 'plateau' as satisfaction with the service declined.

At the time of withdrawal, Budget was experiencing financial difficulties globally and its commitment to the city car club had been weakening for some time. It is argued, therefore, that the collapse of the club was less to do with the scheme itself than the problems being experienced elsewhere in the company. The initial business plan had not expected financial viability for the first three years. However, a number of factors came together to make the operation uneconomical for the operator:

- Very little day time business use (produces an inefficient use of vehicles)
- The number of hires per member was in line with expectations, but the number of members per car was less than a third of expectations (based on European experience)
- Low utilisation produced reliability problems including battery drain resulting in a high level of failed bookings – the scheme had used a sophisticated telematics-based booking and hire management system which was unreliable
- Initial choice of sites was not well matched to the eventual distribution of membership
- Marketing by Budget was not as extensive as originally projected
- No local presence – local management of the club was withdrawn in June 2000
- On-going technical problems with the vehicles, especially battery drain.

Edinburgh City Car Club (Smart Moves) from October 2001
Despite the withdrawal of Budget, there was continued support within the council for a car club as 'it was seen as part of the transport strategy for the city'. In May 2001, the executive agreed to grant support for the re-establishment of the City Car Club and to appoint Smart Moves as the approved operator.

The relationship between the city council and the car club is stronger this time round. The council agreed to:

- 'Pump prime' the operation with a grant of £38,000 for the first two years
- Designate on street parking stations and associated traffic orders[2]. The council is currently expanding on street parking controls, but the 'hierarchy' of parking recognises the car club spaces in order not to artificially cap demand for car club vehicles and to give the club a prominent place in policy.
- Assist through promotion and advertising as part of the 'On Route' campaign which publicises the local transport strategy, and with other promotional materials.
- Take a block hire of three vehicles in the first year and five in the second year to replace the council pool leasing arrangements at more competitive rates. In effect, therefore, the council is a customer of the car club and provides guaranteed revenue for it. Staff have use of five cars used on a pool car basis Monday to Friday during the day. During evenings and weekends the cars are available to car club members.

Smart Moves started operation in October 2001 with eight on street stations and ten cars in the initial fleet. The rejuvenation of the scheme involved rationalisation of the operation in the following ways:

- At the time of collapse there were around 20 spaces. However, Smart Moves started with less than half this number. The remaining spaces were suspended, not redesignated, and can be reopened easily. They are still not all being used at the moment. Some of them are not considered to be in viable locations.
- Reduced the range of vehicles available to two types (a city car and a medium estate).
- Set up a local presence with an office in Edinburgh and support from Smart Moves HQ.
- Established an active role for the city council in marketing the scheme as part of its approach to sustainable transport.
- Introduced internet booking as an alternative to telephone booking.
- Have succeeded in dramatically reducing the number of customer complaints.

The Club established a simplified tariff for both standard and low users. However, this was changed in April 2003 as it was found that those on the low user rate (paying less for membership but more for petrol/ hourly charge) were not saving any money. There is now one standard tariff: £100 deposit (payable in two £50 instalments) and £140 membership fee (paid in monthly instalments of £11). Hourly and mileage charges are shown in table 1.

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[2] One of the bays is not on street. It is located in a car free housing scheme where a space was arranged at no cost. All the other bays are on street and requested through the council. As the club gets bigger and more corporate members join, the club will pay for bays to be allocated at off street locations.

Table 1: Hourly and mileage charges for car club vehicles

	Hourly charge for the Corsa (larger vehicle costs slightly more)
For a trip of up to 24 hours	£2.30 (max £26.00)
For a trip over 24 hours but no more than 62 hours	£26.00 for the first 24 hours, then £0.80 per hour, max £56.40
For a trip over 62 hours	£56.40 for the first 62 hours then £2.30 per subsequent hour

Mileage charges (includes fuel)	first 100 miles of each trip	any mileage above 100 miles in one trip
Corsa/Aglia	£0.15	£0.11
Astra Estate	£0.16	£0.12

The prices are structured to keep a 'club' spirit and discourage members from using the cars for more than a couple of days. Any hire over a long weekend starts to become more cost effective through a car hire company. The mileage charge covers petrol and devaluation of the car through added mileage.

Chas Ball noted that tariff setting is a balance and is about finding what the market can stand. Assumptions are made about what people will stand for when a new concept such as a car club is introduced. Transparency of costs is needed so that people understand what they are paying for and can compare this to how much it costs to own and drive their own vehicles. The ethos of European car sharing is that there is no such thing as 'free mileage'. There is a premium on top of the real cost of fuel (about 5p-6p on top of the petrol cost per mile). This is structured to limit long distance trips at the weekends. This is done not only because they have a finite mileage contract with the car rental company, but because they need to make sure that the cars are available for everyone. At the moment, rationing takes place by price although it would be possible to set a maximum mileage or a limit on the time a car could be booked out for. However, this is not necessary at the moment because there is not that sort of demand. There is an hourly rate, daily rate and a weekend rate structured so that the charge is slightly less the more the car is used. However, in London, the tariff does not go down the higher the mileage but in fact increases after 62 km. As time goes on, the difference between the annual subscription and pay as you go costs are examined. In Brighton they are experimenting with a lower joining fee (£50) but mileage will be about 10% more per mile. This may be a way of getting more people on the books.

Other partners in the car club are as follows:
- Vehicle leasing is from Vauxhall Motors through an agreement with the Community Car Share Network.
- The car club has had an arrangement with Lothian University Hospital Trust whereby two cars have been based at the hospital in turn for reduced membership for staff. However, this has not been successful, partly because of the hospital's move to a new site away from the city centre.
- Work with LEEP, Sustrans and Spokes on joint promotion.

- Although Budget had an arrangement with Lothian buses, no arrangements have yet been made with bus companies on discount rates for members. However, Smart Moves plans to get the club more integrated in the transport solutions for Edinburgh. They had planned to offer season tickets holders a discount but Lothian buses have changed the structure of their monthly passes to a direct debit system, therefore it is not possible to integrate with this for the moment. To compensate Lothian buses provide Daysavers packs (seven daysavers worth £2.50 each) and they are given to new members. There should soon be deals with bus and train passes.

Targets

Targets are set by the business plan in terms of the number of members required to achieve financial viability. The business plan aims for 450 members by the end of 2004[3]. Five hundred is the number needed to be self sufficient. Thereafter, the business plan projects a doubling of membership in 2005 and again in 2006.

Current membership (in August 2003) is 215[4]. Laetitia claims it is hard to predict exactly how membership will grow as the club has been running for just about two years and there is still no real pattern (e.g. the club started with 60 members in two months as some of the old Budget club members rejoined; winter last year was quiet but it is not known whether there are specific reasons for this or whether winter months will always be quiet). A new integrated operating and booking system installed in September 2003 may have contributed to a 'growth spurt' and a mopping up of a group of members that were keen to join.

The city council has not set targets for the club with respect to travel behaviour in its LTP.

What has been learnt

The experiences encountered when the club was operated by Budget provided some lessons in terms of:
- The speed with which the club can expand;
- The time delays involved in converting interest into membership;
- Where to place parking spaces;
- Technology;
- The need for staff 'on the ground';
- The need to develop a good relationship with the council.

Future plans and priorities
- Use of the car club is concentrated at evenings and weekends. Daytime business use is essential to increase utilisation rates and generate revenue and the club is hoping to get deals with corporate users (e.g. Edinburgh University) by offering an annual fee for a car.

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[3] Business plan membership projections for the end of 2004 have been revised several times. In July 2003 the end-2004 target was 500 members. This was revised downwards to 425, and then upwards to 450 members, in the period between the case study interview and completion of this report.
[4] This rose to 317 members in April 2004, and 19 cars in May 2004.

- The membership fee may be lowered and the hourly fee increased. Members will be consulted about this.
- The club would like to work more with new housing developments by trying to get developers to sell membership with the flat and basing cars within developments.
- Promotion of the club to councillors and council staff - leaflet to all the members in the council.
- The car club would like to get more integrated into the council's transport policy but it feels it is currently too small.
- Introduce more variety in types of cars. The choice of cars was initially limited by the exclusive agreement with Vauxhall. However, it is felt that the current range suits the membership. Some members have requested people carriers and vans but there are not enough members at the moment to justify such cars (members interested in people-carriers would use them two or three times a year only).
- More market research and targeted marketing.

Staffing and costs

Staffing

The city council has very little involvement with the car club on a daily basis. Brian Torrance acts as liaison between the car club and the council and allocates time to the provision of spaces and arrangement of traffic orders and signing. Some time is also spent on promotion of the club. However, this would not even amount to one full-time post.

The staffing at Smart Moves has changed over the two year period. Initially there were two full time posts (a project manager and an operations manager). Now there is one full-time post (branch operations manager Laetitia Jan) and a part-time assistant who may become full time as membership increases. In addition, a consultant will be used for some of the promotional work. There is also some support from head office, including call centre support, but no one there is dedicated to the Edinburgh club.

Costs and benefits

Budget

The funding arrangement for the Budget car club involved input from the city council, Scottish Office and DETR totalling £253,000. Each of the partners made a distinct contribution to the club's development:

- DETR contributed £150,000 to cover the initial set up costs
- The city council contributed £48,000 (in kind) to meet the cost of developing the parking infrastructure at the parking stations and the project management and consulting costs of LEEP who carried out the feasibility study
- The Scottish Office contributed £55,000 required for the monitoring and evaluation of the pilot.

(Source: Hope 2001)

Apparently, this funding arrangement was reached only after a lengthy period of negotiation. The main dispute was whether this was a commercial pilot or a pilot of a policy initiative.

Over the course of the period during which Budget was contracted to operate the car club, over £200,000 was spent on promotional activities (ibid).

Smart Moves
In May 2001, Edinburgh City Council provided Smart Moves with a one-off grant of £39,750 over its first two years. The original business plan predicted that the club would be able to proceed without subsidy after two years and it was estimated that the scheme would move into profit in 2003/4. However, whilst the grant contributes to the operational costs of the club, it is not yet financially self-supporting. A further tranche of development funding is being sought.

The club plan to be self-funding by the end of 2004. As membership grows, the cars and the use of the cars get paid for by the membership. Hence the main issue is one of how to pay for staff, overheads and marketing costs. The budget of the car club excluding the cars themselves should be £60-70,000 for staff, office and contribution to the centre. It costs £1000 per car for the technology.

The value to Smart Moves of the original Budget initiative is a mixed picture. Chas Ball believes that the original founders and operators of the club should be credited with being adventurous. A culture was created that Smart Moves was able to pick up on. They had 60 members straight away and a trickle of original members are returning even now. The car parking spaces were already allocated and this makes it much easier than is the case in other cities like Bristol. However, Smart Moves had to reject the original Budget technology and this is something they had not budgeted for. Smart Moves had to move very quickly to sign contracts for new technology and they do not feel they are given enough credit for this. It costs £1000 per car to fit the technology so half of the council's £39,750 grant went into technology. In addition, the unreliability of the Budget scheme left a bad legacy which has meant that Smart Moves has had to delay launching the corporate side of the car club.

At the council, some costs are also associated with the preparation of the traffic orders and provision of the on-street parking spaces. This is contained within the 'signs and lines' budget for parking. Promotion is supported the tune of around £6000 per year – this pays for printing of promotional leaflets etc. The budget allocated to the pool car operation is a separate issue as this is custom for Smart Moves.

Transport is located within the City Development department. The revenue budget is about £14 million per year and the capital budget £23 million.

Scale of the scheme

Number of people affected by the initiative
The number of members is the key performance indicator for the club. In August 2003 there were 215 active members. This is compared to a projected level of 250 in the

revised business plan by this date. There were 17 cars (five used by the council during the day) and 16 bays in total.

There are no figures supplying a breakdown of participants in terms of activity levels. There is at least one member who never uses a car and at least half a dozen who use a car only once or twice in the whole year.

The membership obviously goes up as well as down over shorter periods. About 30 people have left since the Smart Moves club started. Most of the people who leave are people who move away, or get a company car, or have children. There are also a few members who join for short periods of time to coincide with a stay in the city.

In addition to the city council, the club only has one corporate user. It is keen to get small businesses involved for weekday car use to ensure viability of the scheme. Edinburgh Royal Infirmary contributed to the costs of siting two cars on their new out of town site. They subsidise membership for their staff, who can then use the vehicles for business and personal use. However, the move to the new site is still in operation and this scheme has not got under way.

Edinburgh has a population of 448,624 (204,683 households). Around 40% of all households in Edinburgh have no access to a car or van. This is a higher figure than the Scottish average (34%).

Changes over time
The original business plan assumed that some 120 members of the original car club would rejoin. This did not happen and membership commenced from a lower base level (around 60 members). The delay between the demise of the previous scheme and the launch of the new club, together with a high level of dissatisfaction with the previous operation, resulted in only 40 former members joining initially.

Table 2 shows growth in membership since the club's launch. Whilst membership has not reached its predicted levels, current membership growth rates are comparable with predictions in the original business plan.

Table 2: Growth in membership since launch

	Nov 01	March 02	July 02	Nov 02	March 03	July 03
Members						
Projected	120	151	174	199	232	262
Actual	65	95	131	156	170	203

Figures take into account members that have left the club. Membership was 215 in August 2003 and 317 in April 2004.

Although membership might not be quite as high as expected, use of the vehicles is slightly above that expected. The percentage of time that cars are hired during chargeable hours (07.30 to 23.30) is another key performance indicator. For the vehicles to be self-financing, a car must be used at least 40% (and ideally 50 – 55%) of the chargeable time (07.30 – 23.30) and there should be 15-20 members per car on average, at the current phase of development. Usage varies, especially in summer

months and at school holiday times. Some cars are used less than 40% of the time and when one reaches the 40% mark, another car is introduced in the same area. The average at the moment is 13 members per car. Again, some cars have fewer members in the area than others.

Table 3 shows the average use across the fleet. The figures take into account that five of the cars are not available to members during working weekday hours as the council leases them. The statistics reflect the fact that as new stations are added, the overall usage drops until the bay establishes itself.

Table 3: Average Percentage Use of Cars

	Nov 01	March 02	July 02	Nov 02	March 03	July 03
% time cars are hired during chargeable hours						
Projected	34	32	38	36	42	40
Actual		37	42	35	40	N/a
Cars in fleet	10	10	13	15	15	17
Number of parking bays	10	10	10	11	11	14

Two further cars are due to join the fleet in early 2004 once permanent bays are available. Percentages fluctuate according to when the cars are actually introduced.

Some analysis of the Budget car club shows that at its first anniversary, the following statistics applied:

Members: 95
Members per car: 16
Number of hires per vehicle: 137
Average hire length: 3.7 hours
Average hire distance: 26 miles
Hires per member per week: 0.35
(Source: Hope 2001)

Currently, all cars are on a lease agreement from the rental company and this means that they must not be returned after the year with more than 10,000 miles for the Corsa and 12,000 miles for the Astra estate. So far, none of the cars have exceeded this mileage figure. On average, the Corsas do 8000 – 10,000 miles per year and the Astras around 10,000 – 12,000 miles. There are 17 cars in Edinburgh and 215 members. If the average is 10,000 miles per car, this means that 170,000 miles per year are travelled – this is an average of 790 miles per member per year.

Data for the average number of miles per hire is not collected as it is felt to be of little use. It would be better to look at the average number of miles travelled per type of trip and this has not been done yet. For example, a person may hire the car for two hours but only travel a five mile round trip to go shopping. Or a person may have a car for a whole weekend and travel 200 miles. On this basis an average figure is of little use.

Targeting
The original feasibility study for a pilot car club project in Edinburgh targeted people that it assumed would be attracted to the initiative:

- members of environmental organisations
- people living in areas experiencing parking stress
- people unable to afford a car

(Source: Hope 2001).

The geographical distribution of the initial 20 spaces was based on the identification of areas with these population characteristics and the aim was to get broad geographical coverage so that it was a city-wide car club.

Although not all these spaces are back in operation, and although some new spaces have been designated, Smart Moves have so far tended to target the population around the spaces, rather than identifying types of people and targeting them. Most publicity takes place around the stations.

Analysis of the Budget scheme found that the membership of the car club was drawn from a relatively narrow social group. Even by comparison with the population of the two original neighbourhoods, the membership was characterised by relatively young professional households with lower than average car ownership and higher than average incomes.

Reviews of car clubs consistently identify members as being young families, age 35-50, environmentally aware, middle class, and well educated. Edinburgh appears to be no exception.

Membership of the club falls into two distinct groups:
- Non car owners who join to gain access to a vehicle for journeys that are difficult or expensive by other means. The trip to Ikea was typically used as an example. The car club fills a gap in transport requirements that was previously filled by day care hire or borrowing a friend's car.
- Car owners who have already minimised their driving and are keen to rid themselves of their dependence on a car. These members often had old cars that were due for replacement and view the car club as an experiment or a point of transition between cars.

This split was derived from what Laetitia initially said and from the Hope (2001) report on the Budget club. Laetitia and Chas agreed that this seemed like an accurate summary of the types of members – particularly as the first group combines a few different types of people (there are various reasons why someone may find car ownership 'difficult'). In Bristol there are fewer members and Chas believes that Iris Eiting has a better feel for what percentage actually give up their car. It is less clear in Edinburgh. What is clear is that it is impossible to generalise about socio-demographic characteristics as membership varies (although Laetitia believes that members are all from 'middle classes').

In addition, the current car club has made the following observations about the composition of its membership:
- Members are very middle class – more educated people, more environmentally aware, many cyclists, professionals.

- There is a wide spread of ages - the minimum age is 21 and maximum 75. Older members do not seem to be attracted to the club. The club used to have restrictions due to insurance and used to do credit checks but anyone (including students) can be approved now.
- There are a few foreign / temporary visitors to the city.

Areas where there is low density housing with plenty of parking are not targets for the car club. In poorer areas there is also a security problem as well as an issue of affordability. Edinburgh has a relatively high resident population in the city centre so there is a demand in the centre.

The original Budget car club was based in two areas of Edinburgh, Marchmont and Sciennes. The current club has also concentrated much of its effort in these two areas given that the parking bays were already allocated here, although the area covered has grown. The two areas were mainly chosen because of parking problems and the higher proportion of 'environmentally aware' residents. However, subsequent monitoring showed that these characteristics may not necessarily lead directly to membership of a scheme offering short car hires because:

- There is a low level of everyday journeys such as travel to work and education, trips to leisure, services etc. Since the areas are located close to a wide range of shops and leisure services and within walking distance of the city centre, car use among the population was skewed towards longer journeys such as holiday and day trips.
- Of those interested in joining the scheme, 41% said they would sell their current car but 28% said they would keep it as a second car. The intention to sell a car was strongest among people with more than one car (48%).
- Interest in the club was highest among non car owners (20%) and households with one car (30%). This indicates a strong potential for the club to lead to increased driving.
- An assessment of the size of the market for the club based on a baseline household survey suggested that 7% of car owners were potential members, giving a pool of around 500 car-owners from which membership could be drawn.

(source: Hope 2001).

Effects of the initiative

Effect on car use within targeted population

Brian Torrance believes that because the car club is still very small its impact on traffic is not measurable. He thought membership was lower than hoped for at this stage, but the use of the cars is greater than anticipated i.e. fewer people are using the cars more often.

A comparative study of the Edinburgh Club and Mobility in Switzerland by Ph.D. student Sarah Holt showed that more than half the Edinburgh respondents claimed a decrease in their car use upon joining the club. This appeared to be much more than the Berne Mobility participants. Holt concludes that Edinburgh members appear to give up their own cars on becoming a car sharer (thus resulting in reduced use) whereas Mobility participants already led a car reduced lifestyle prior to joining. However, this data is based on qualitative, open format questions and not on the

collection of quantitative data. The remainder of her data provides insight into the motivations for joining the club.

In the Budget scheme, Hope (2001) concluded that 'given the two groups who joined, the increased car use by the non-car owners appears to have matched the reduced use made by those who joined when they gave up a car.' But he also claims that 'the survey evidence suggested that during its two years, the car club was directly responsible for reducing the number of cars on the road'. In a survey of 38 members, 12 said that they had disposed of a car as a resul of joining the scheme.

Smart Moves does not appear to have any data on the travel behaviour of members (before or after joining). Laetitia Jan believes that very few people use the club for a second car. Instead, most do not have a car. In other words, few people give up their car on joining as they do not have one to start with. Those that give up the car tend to have older vehicles. Her gut feeling is that a lot of people use the club vehicles more than they think they will, given that they are sceptical about the club to start with. Nevertheless, those that gave up their car also realise how little they need one. However, there is no hard data to support these claims.

Data is available on the types of journeys for which the cars are used (there is a log of where people are going when they book the car), but it has not been analysed. What is clear is that the cars are not used for commuting as it is not possible to pick up a car from one location and drop it at another. This has been a 'sticking point' in other European clubs also. However, the cars are used for business trips such as going to meetings. Anecdotally, the cars are often used for trips to Ikea, shopping, garden centres, meetings, weekend and day trips, and taking children to school.

In the future, as the selection of types of vehicle increases, so might the types of journeys.

Laetitia claims that typically, one club car replaces five private cars and that this contributes to the alleviation of parking problems, and a likely reduction in traffic. However, it could make a more noticeable difference if the club was on a bigger scale.

Other effects within targeted population
The perception so far in Edinburgh is that, given the nature of people who have joined and the need to focus on mainstream users in order to expand quickly and establish viability, the club has not had social inclusion benefits. Most of the sites are in relatively wealthy, inner areas of Edinburgh and the cost of membership and insurance approval can limit its accessibility.

However, in future it may be possible to specifically target sections of the community for which access to a car would enable greater access to facilities. This includes working with job centres and the unemployed and possibly acquiring vehicles for the mobility impaired.

Although the car club is not a 'club' as such, it can provide a sense of belonging and community responsibility. This is demonstrated by a core group of members who regularly attend the six monthly council meetings and contribute to events run by the club.

From the individual's point of view, membership of the club has financial benefits in addition to eliminating the 'hassles' of car ownership.

Wider effects of the initiative
Although the car club is too small to have had a noticeable effect on car use in Edinburgh, the city's wider transport strategy does appear to have had some impact. Travel to work modal split figures (census) for Edinburgh are given in table 4. These figures appear to show that walking has almost doubled over a decade, bus use has declined, and so has car use. A fact sheet by the city council points out that only in London and Glasgow does a higher proportion of the population travel by public transport.

Lothian Buses has recorded a 2.9% growth in bus use over the past two years, with increases of 7.5% since 1997 on some corridors such as the A8 Greenway. Other operators are also experiencing growth after 40 years of decline, paralleling 40 years of steadily increasing car ownership.

Table 4: Modal split for the journey to work

	Census Data Usual mode of travel to work City Area	
	1991	**2001**
All people aged 16-74 in employment who usually travel to work or study by:		252,414
Car driver	42.1%	36.1%
Car passenger	6.9%	4.8%
Bus	31.1%	26.3%
Train	3.2%	1.3%
Cycle	1.5%	3.3%
Walk	11.8%	20.8%
Other	0.5%	1.7%
At home	5.8%	5.8%

Brian Torrance believed one of the reasons for the council's enthusiasm for the car club is the fact that it is a 'pro-car' initiative and this is useful in a climate where many sectors of the population are inclined to accuse the council's transport strategy of being anti-car.

Laetitia claimed that so far Smart Moves has concentrated on promoting the existence of the club and has tended to promote personal cost savings rather than the sustainable travel agenda. However, she believes that the type of people that join are already aware of the environmental debate and the real merit of the club is the part it has to play within an integrated transport strategy. As such, she believes the council should do more to promote it as part of a package of measures in the city, especially in relation to the controlled parking measures it is introducing. She believes it may help to mitigate some of the criticisms of this parking strategy.

Unfortunately, however, the club has received negative press in the local media. Much of the popular criticism comes from the perception that the parking stations have

'stolen' parking space from the general public. This is evidence that more work needs to be done to promote the wider benefits of the club to the general population.

Synergy with wider policies and strategy

Synergy with 'hard' measures
The hard initiative within the city with the most impact on the car club is parking policy. There is a controlled parking zone (CPZ) in the city centre and inner residential areas. At its widest, the CPZ extends about two kilometres from the city centre. There are plans to extend the existing city centre zone, introduce new zones in other areas with acknowledged parking problems, and extend the hours and/or days of operation.

Parking policy and the car club policies complement each other. Parking restrictions in the city centre and general scarcity of parking has obvious implications for the attractiveness of giving up car ownership in favour of car club privileges. The extension of parking controls to a wider area may attract new members as the cost and difficulty of parking becomes more of an issue. The council has undertaken to guarantee that car club spaces will continue to be designated with the same frequency within the new parking zone. However the point was also made that uncontrolled parking is also good for the club because as a member you are guaranteed a space.

Edinburgh has the UK's first car free residential area (Slateford Green) which may appear to have direct synergy with the ethos of the car club. However, despite the fact that a car has been stationed at the development from the outset and much promotion has been done there, no one from this housing development has joined. The reasons for this remain a mystery, but one explanation is that some of these flats are affordable housing and rented and therefore not the right 'market' for the club.

However, Laetitia believes that the club could be used in the future to promote acceptability of housing developments with restricted parking. The inclusion of car club stations within developments would increase their attractiveness.

The issue of road user charging is central to the current local transport strategy and it may be introduced in Edinburgh within the next few years. If car club users are given exemption from the charges this will have an effect on the attractiveness of the car club and may also aid, in turn, the acceptability of charging in the city.

The provision of public transport and infrastructure for alternative modes aids the car club because it enables people to make travel choices. The car club is aware of the link but no formal links with public transport operators have been made so far to give special rates to members. This is planned for the future.

Synergy with other 'soft' measures
The council has undertaken as part of their partnership with the club to assist through promotion and advertising as part of the 'On Route' campaign which publicises the local transport strategy for the city.
The sustainable transport officer responsible for the city council travel plan has played a part in promoting the pool cars and the car club.

The Scottish Executive has been running a general travel/ environmental awareness campaign 'Learn to let go'. However, Laetitia felt that this does not really have an impact. She claims that with car club members you are 'preaching to the converted'.

The authority has had a workplace travel plan officer for two years now. In addition, the development control team seeks to secure travel plans through planning conditions. All local employers with over 250 members of staff are given the opportunity of a visit by specialist advisors to give employees detailed, site-specific public transport information. Businesses network through the Edinburgh Employers' Transport Focus Group, although this has lost some momentum in recent months.

Safer Routes projects have been completed or are ongoing at a number of schools throughout the city. The programme encourages head teachers, and parents/guardians to develop local proposals and travel plans to encourage pupils to walk and cycle to school. The Scottish Executive has recently provided funding until 2006 for school travel plan initiatives which the city council has used to fund three school planning officers to work with the 100 schools in the city.

There is no budget in the local authority for travel awareness campaigning. However, Clive Brown in the Public Transport Policy Team believes that should road user charging be introduced, this will provide funding for such campaigns.

Perception of the importance of the initiative
Support for the car club from the city council has remained consistent, despite the problems it has experienced. However, it is not a high priority, but merely 'on the list'. Given that the club was the first car club in the UK and it has received recognition to this end, there is political kudos associated with it that carries weight in terms of support and decision making within the authority.

Transport policy is a big priority within the city and currently receives much attention and publicity given the consultations on controlled parking, congestion charging and light rail.

Factors contributing to success
The impetus for starting the car club came from within the then (Lothian Region) council. David Begg and George Hazel were seen as having a strong influence at the time. The idea for the club also coincided with local government reorganisation in 1996 when Edinburgh City was created from what was Lothian Region.

Other factors contributing to success are that Edinburgh is a compact, dense city with many tenement dwellings and resident parking problems; and the very good partnership between the car club and the local authority.

Scalability

Staffing and budget

The car club is applying to the council for further grant funding. A paper will be presented to the executive board of the city council in October 2003[5] requesting a 'broadly similar sum to last time'. The club plans to be self-funding by the end of 2004.

In the council, the level of staff commitment will stay at the same level, even if the club were to expand significantly, as it does not warrant a full time, dedicated post.

At the car club, there are plans to expand the amount of subcontracting of tasks such as mobile valeting, leafleting, maintenance etc. The current part time assistant may become full time as membership grows. In addition, support from head office will increase as membership grows, as membership enquiries will be increasingly fielded by the call centre.

Relationship between spending and impact

The council has appeared happy to support the club, regardless of the difficulties it has encountered and its slow growth to date. Although it requests six-monthly progress reports, it does not set targets or fund the club on the condition of certain performance. This would suggest that the club offers wider political benefits or kudos to the city. However, the council is becoming more interested in predicted growth of membership and needs an indication that the club will reach self sufficiency. This scrutiny is more in terms of financial viability than in policy terms. In other words, the council do not press for information on the travel behaviour of members and how this might be contributing to sustainable transport objectives in the city.

Future scale of the initiative under currently planned resources

From what is known about other western European schemes, growth rates can be accelerated after the first couple of years. For example, 2004/5/6 growth can be expected to be about 60-70% per year as the club begins to reach self-sufficiency. Chas Ball believes the credibility of the club will be established by this point and that as club income increases, it will be possible to expand infrastructure more quickly in response to demand. In Edinburgh, the combination of extending the residents' parking zones and (the threat of) congestion charging and the tram means that people will begin to work out for themselves that a car club is an interesting and viable alternative. In addition, work with housing developers through Section 106 agreements will play a small but significant part. The council is also gradually seeing the car club as a part of its integrated transport strategy. After 2006, the club should experience a slight slowing down of membership growth to about 40-50% growth per year and then a levelling out. The club is expecting to reach about 4000 people by 2010 – out of about 0.5 million residents in Edinburgh. This is similar to Bristol. Chas Ball believes that 1000 members can be reached relatively easily, but after this point a 'tipping over effect' is needed whereby the club becomes part of the integrated city transport strategy. It is hard for a car club to get recognised and gain credibility. The club needs to be more credible for business to be interested. Credibility can also be

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[5] Confirmation of funding was still awaited in April 2004

gained by the expansion of clubs in other cities in order to demonstrate the viability and success of the concept.

Growth depends on the club getting a higher profile through getting more cars at more locations, eventually allowing all Edinburgh residents to have at least one car within 10 minutes walk of their home. It is hard to say at this point how the growth will be influenced, but reputation, word of mouth and constant promotion will be important factors. At the moment new cars are only introduced when there is demand in a specific area as building up membership around a car is costly. However once the club is self-sufficient it will be able to grow faster by introducing new cars and building the membership around them.

Increased network density and vehicle availability is a crucial aspect to getting more people interested. Unique to Edinburgh is the fact that they have car parking allocation available already from the last scheme and these spaces can be released quickly. Since Smart Moves took over it has only dismissed three of the original parking bays and so has a backlog of bays to use in order to grow organically. However, there is a substantial time lag in getting entirely new bays opened (about 9 months) and this leaves a 'chicken and egg' type dilemma. To get new members needs cars, but to get a car, the club needs members. Interest can be gauged and galvanised in a certain locality, but the time lag to secure a parking bay can sabotage any marketing efforts. However, to put the cars in place first and find the members afterwards requires capital investment. In essence, there is a hierarchy of locations which are targeted by the club. Firstly, confidence is built up in existing residential areas, then new residential developments and then businesses. Finally, off street parking spaces are purchased.

Future scale of the initiative if resources were greater
Based on European experience, growth should be exponential once a critical mass has been reached. The bigger the club, the more confidence people have in it and therefore the more likely they are to join. Also, when the club gets bigger it will be able to reduce charges and therefore interest people on lower wages. The members are mostly middle-class at the moment. With greater resources, cars could be purchased and positioned before members were secured. Promotion would be easier and more effective this way. The idea would be to get a very broad coverage of spaces. In addition, a greater variety of vehicles may attract a greater variety of members and open the club to a broader market. Greater resources would also allow TV advertising and better promotional campaigns. Hence, Laetitia feels that if resources were doubled, membership would more than double.

Laetitia feels that the possible introduction of congestion charging and the extension of the controlled parking zone will definitely help them to interest more people. Chas Ball feels that the potential size of the club is principally determined by public policy, and could be greater if there are far-sighted policy decisions. The club is not looking beyond 3-4000 members at the moment. The scale is influenced by partnership and the local authorities. In this respect there are clear similarities between Bristol, Leeds and Edinburgh as each has far-sighted politicians.

Extensive market research has not been carried out in Edinburgh, so it is impossible to say what the maximum market could be. Latitia estimates that as much as 20% of the

population are potential car club owners. However 'even if 20/1000 joined it would be enough'.

However, younger members (because of insurance), company car owners, and those living in less dense neighbourhoods with ample parking are all unable or very unlikely to join. Consequently, it is impossible to say what the level of resources would be to reach the maximum population as estimates of the maximum population are too uncertain.

Monitoring plans
A survey was carried out at the beginning of the year (in conjunction with the PhD student) and one is planned for next year. The initial survey was largely attitudinal, but subsequent questionnaires will be more quantitative.

Chas Ball commented that, in essence, they are trying to run a business without any real data. They have not been required to collect data in Edinburgh in the same way as they have in London and Bristol and so monitoring has been less of a priority. So far, they have carried out a membership satisfaction survey and some survey work. However, Smart Moves is moving towards standardised surveys. The new booking system should also generate information on utilisation.

A six-monthly report is made to the council (Environmental Quality Scrutiny Panel). This report includes some basic monitoring relating to the number of members and the use of the cars.

Key issues for scaling up
The key barriers are:
- Expansion of the club requires attitudinal change and a general improvement in understanding and perception of the club.
- Availability and swift allocation of car parking spaces is crucial. The process of designating car parking spaces needs to be speeded up as it is currently about nine months.
- Illegal parking in car stations.
- Negative perceptions of the car club and negative press publicity.
- Lack of uptake by local councillors.
- Availability of the cars from the dealer (time delay).

Overcoming the barriers will depend on the expansion of the club itself. Members themselves are the best advocates. In addition, better market research and promotion is needed. This needs to address the concerns that non members raise such as the flexibility of the service and the proximity of vehicles.

The car club is attempting to get more integrated into the council's transport policy. It believes the council could use the club more to its advantage as an important tool in its package of transport options. Even leaving aside any need for funding, the club needs the support of the council. However, at the same time, it does not want to be seen to be too linked to the council as this can have negative connotations. It needs to be seen as a service for everyone.

Chas Ball believes a combination of sticks and carrots is necessary. He believes that if we get to the point where five cities are committed to car clubs and are moving ahead then it will be possible to demonstrate that (at least in congested cities, of which there are about ten more on a par with Bristol, Leeds and Edinburgh) a car club offers a viable alternative. At this scale it is also possible to get synergy with bus, train and tram operators. In order to unlock growth, it is necessary to tie in properly with sectors with a good public service ethos and other providers that can bring more resources in (i.e not car rental companies). A car club will then be seen as part of a sustainable transport hierarchy. People will see that there is life without the car and 'seamless integration' is possible. Ultimately it is a question of credibility. There is a danger of the car club being seen as a private company with a profit agenda. But it requires a public sector ethos and needs to be good at making partnership work. Smart Moves has worked with Thameslink in London and Brighton Buses. These companies are open to innovative solutions and see partnership with the car club as a way of getting more passengers with joint promotions, cars on some stations, and allowing Smart Moves to mail their season ticket holders. West Yorkshire Metro is also interested even though the car club has not started in Leeds yet. Edinburgh car club is in negotiation about the 'One Edinburgh Ticket' covering Fife down to the Borders. Chas Ball believes that smartcard integration and road pricing are the keys in the future.

The council could be more supportive by raising the profile of the club in policy terms. It could also raise the profile of the club internally, to its staff.

In addition, the club needs support from the council to become more involved in planning agreements. The car club is in discussion with the council to encourage provision for car clubs in new developments. The council is keen and sees that there are many new developments coming on line where this would be appropriate.

Smart Moves has more to offer in terms of sharing ideas and experiences and building a more centralised image and brand for promotional purposes. There is also a need for more research into the technology involved in car sharing.

Central government needs to support the development of car clubs with legislation or planning guidance on Section 106 agreements and the incorporation of car clubs and car sharing into workplace travel plans. In addition, a positive vision or belief is needed from government: it needs to take car clubs seriously. More research into what works and tax exemptions for car club vehicles would also be helpful, and the government needs to fulfil its promise of helping to devise standards for data collection.

Important lessons will be learnt from the Edinburgh car club. The car club has the potential to grow and become an integral part of the council's strategy, but commitment is needed from the council. The club is over half way to its break-even point, and arguably the hardest bit has been done.

References

City of Edinburgh Council (2002) Environmental Quality Scrutiny Panel Committee Minutes 9/1/02, 12/6/02 and 8/1/03

Hope S (2001) Monitoring and evaluation of the Edinburgh City Car Club, Scottish Executive Central Research Unit

Case study author: Jillian Anable

Gloucestershire County Council and Gloucester City Council

Personalised travel planning

Interviewees: Adrian Clarke, Manager (Traffic and Transportation), Gloucester City Council and Paul Hardiman, Principal Transport Planner, Gloucestershire County Council. Further information was provided by James Ryle, TravelSmart Project Director, Sustrans.

Gloucester was one of the first pilots of individualised marketing in the UK. The pilot project took place in the suburb of Quedgeley, a few miles south of the city centre, and involved about 500 people. Car driver mode share was reduced by 9%, and car kilometres by the same amount. The pilot project in Quedgeley was followed by a large-scale individualised marketing project which aimed to reach all 10,000 people (4631 households) in the same suburb. This was the first large-scale application of individualised marketing in the UK. The marketing phase of this large-scale project was completed in summer 2003. Preliminary results were available after the case study interview was completed. They suggest a similar reduction in car driver mode share, of 9%. The budget for the large-scale application was £168,600. One of the problems encountered in the large-scale application was a high proportion of ex-directory households who could not be contacted by telephone. This was successfully overcome by door-to-door contact, which resulted in an unusually high proportion of households requesting information materials.

Case study location and main actors

The city of Gloucester in SW England has a population of about 110,000. Gloucestershire County Council (the highway authority) and Gloucester City Council have worked closely together on an individualised marketing project in the parish of Quedgeley, about four miles south of the city centre. The initial pilot project has been followed by a large-scale application (the first in the UK), targeting 10,000 people. The project is managed by the charity Sustrans and carried out by the commercial company Socialdata.

Main activities

The first individualised marketing project in Gloucester was undertaken between April 2001 and May 2002, and involved an approach to a pilot group of about 500 people in the parish of Quedgeley, south of Gloucester city centre. The project was managed by Sustrans, with the travel surveys and marketing work conducted by Socialdata under contract to Sustrans, using their trademark IndiMark technique. Funding for the initial pilot came from the county council, and the city and county councils were involved in planning the project through a steering group.

Following the success of the pilot project, the local authorities decided to carry out a large-scale individualised marketing exercise, contacting all 4,631 households (approximately 10,000 people) in Quedgeley. This large scale application was underway at the time of the case study interview.

Both pilot and large-scale projects used Sustrans' registered TravelSmart trademark as the brand identity in all communications, new information materials, incentives etc used during the marketing campaign.

Quedgeley was once a small village on the outskirts of Gloucester, but in the 1970s it saw extensive new housing development. It is a relatively affluent area with high employment levels.

In addition to the two local authorities, several other local organisations have been involved in the Quedgeley individualised marketing projects. Public transport operators Stagecoach and Swanbrook Transport, Quedgeley parish council and Vision 21 (the Local Agenda 21 forum), and local cycle retailers and outdoor pursuit shops have made a variety of contributions to the project. Most of the funding for the large-scale application was secured from the county council, SEED (lottery) funding and the Department for Transport, but there were also smaller contributions from Stagecoach, the city council (in kind), and Vision 21.

While the local authorities' roles were primarily at the strategic level, they have also contributed staff time in production of information and resources. This included preparing information sheets about the buses serving each bus stop (carried out by the county), and designing a Quedgeley map (carried out by the city council). Staff have also been on hand to provide personal journey plans as requested, and are on stand-by to carry out home visits, although the need for these may be met by Stagecoach (for public transport) and Vision 21 and LifeCycle UK (for walking and cycling respectively).

Because experience of individualised marketing in this country is so limited, the city and county councils did not set formal targets for how much behaviour change they wanted to achieve. However, based on the experience in Perth, Australia, a reduction in car trips of around 10% was hoped for.

Staffing and costs

Staffing
Staff time requirements within the city and county councils have been fairly limited because so much of the work is contracted out. No officers are dedicated to working full time on individualised marketing in either authority. For the individualised marketing pilot project, officers were involved in arranging and attending project meetings, producing tailored bus stop timetables and producing personal journey plans. The total cost of city council staff time on the pilot project was estimated at about £3000.

For the large-scale individualised marketing project, officers estimated about 100 hours of staff time had been required within the city council, to deal with project start-

up and preparation of materials. Three staff members have been trained to do personal
journey plans (it is expected that about 200 requests for a personal journey plan may
be received). The councils are also prepared if necessary to allocate time to home
visits.

Costs and benefits

The budget for the pilot individualised marketing programme was £30,000. Of this,
£12,000 was spent on the marketing campaign and £18,000 on before and after
monitoring surveys. Because the programme targeted only 500 people, the cost per
person approached was high (about £60 per person), but this would be expected to
drop in larger-scale applications both because of general economies of scale in
production of resources and materials, and because per capita monitoring costs would
be lower.

The large scale trial has a budget of £168,600. Of this, £37,600 was for before and
after monitoring and attitudinal surveys; £65,000 was for the actual marketing
exercise; £30,000 was for production of materials, gifts and incentives; £9,000 was for
project management; £10,000 was for production and dissemination of a project
report, and the remainder was for local authority costs including contractual and legal
costs. This figure does not include the cost of staff time within the local authorities,
but as discussed above, this is fairly small.

For the large-scale trial, the cost per person approached (assuming the target of 10,000
people is met) will be £17. In practice this figure might be expected to fall further if
the large-scale trial is rolled out to other areas, as some costs (for example, of some of
the monitoring, and production and dissemination of a project report) would be lower.
James Ryle estimates that a project covering 30,000 people would cost £30 per
household, or (assuming average household size of 2.3) £13 per person.

This would cover the cost of marketing, one before and two after surveys, and
promotional materials. It would not cover the cost of information materials (as
Socialdata's approach is normally to utilise whatever materials are already available)
or the test tickets and public transport home visits, normally provided as an in-kind
contribution by the bus operator.

The total cost of the large-scale individualised marketing trial is small in comparison
to the county council's total transport budget. According to the 2002/03 Annual
Progress Report, Gloucestershire County Council's capital spending on transport in
2002/03 was £18.1 million; revenue spending was an additional £19.3 million. The
city council receives £900,000 a year for capital transport projects.

Scale of the scheme

Number of people affected by the initiative

For the pilot individualised marketing project in Quedgeley, the marketing team
attempted to contact 515 people (of whom 496, or 96%, were successfully contacted).
The approach is household-based, and all household members (including children) are
counted in the target group.

Of these 496 people, 51 preferred not to take part in the marketing campaign for personal reasons or privacy concerns. The remaining 445 people fell into the following categories:

- 62 'R without' (regularly use environmentally friendly modes and did not require further information)
- 40 'R with' (regularly use environmentally friendly modes and indicated a need for further information)
- 177 'I' (requested further information)
- 166 'N' (not interested in receiving information on, or making greater use of environmentally friendly modes)

The total number of people requesting further information or materials was thus 217. These all received a 'Service Sheet' which listed the information they could receive. Of the 217 people requesting materials, 187 (in 80 households) returned their Service Sheet. A total of 454 items of information were subsequently delivered by hand in personalised packages to the 80 households concerned.

Households in the 'R group' were also sent a small gift (e.g. pen, alarm clock) as a 'thank you' for using environmentally friendly modes.

Changes over time
Following the success of the pilot programme, funding was secured for the large scale individualised marketing programme now being implemented in Quedgeley. This was intended to cover all 4631 addresses in Quedgeley, a total of 10,000 people.

At the time of the case study interview (July 2003), the project team was having some difficulty contacting households. As a result of many people being ex-directory, only 954 out of the 4631 households were successfully contacted by phone.

Subsequent attempts to make contact by post were disappointing, with only around 10% of the 'non-telephone' households successfully contacted. Households approached in this way were sent the Service Sheet together with a few questions which would normally have been asked over the phone.

The project team sought to make contact with the remaining households by knocking on people's doors. This approach telescoped the various stages of contact into one: teams of people travelled by bike with a cycle trailer for information materials and incentives, made contact, offered Service Sheets and provided the materials requested on the spot. Of those people at home when the call was made, 90% were interested in receiving information materials – a higher take-up rate than normally expected. Once people could see what was available, they were keen to receive information.

In the end 4069 households were successfully contacted from a possible total of 4360 (excluding households which were classified 'genuine non-response' because occupants had moved away, or were deceased). This is a contact rate of 93.3%.

Interviewees felt that the problem of people being difficult to contact may be related to the profile of the area (a new estate, with many affluent young families), and that it was not necessarily typical of what might be expected in other areas of the city.

The contacted households fell into the following categories:

- 'R without' 3.5%
- 'R with' 13.4%
- 'I' 45.0%
- 'N' 38.2%.

A total of 2120 households received information materials or 'regular user' rewards (with 102 receiving rewards only). The most frequently requested items of travel information were bus-stop specific timetables (requested by around 70% of households). Most walking and cycling information materials were requested by 40 – 50% of participating households. A total of 977 households requested further services (a discount card and/or a personal advice session in the form of a home visit), and of these, 89 received home visits (56 for public transport, 20 for cycling, and 13 for walking).

Targeting

Quedgeley was chosen for the individualised marketing project because it has good local facilities (including primary and secondary schools, a library, and a supermarket), and a good bus service into Gloucester city centre (every 15 minutes). At about four miles from the city centre, many trips are also of cycleable length. Local authority officers felt that the presence of local facilities meant that there was clear potential to reduce car use for short trips.

In addition Quedgeley has higher than average national car use and peak hour congestion on the main trunk road. There are plans for new housing close to Quedgeley, and James Ryle commented that there was a feeling that if individualised marketing was successful it might be used to reduce the impact of any future development.

While the local authorities clearly recognised the potential for change in Quedgeley, there was also a feeling that 'if we can make a difference here, we can do it anywhere'. Car use in Quedgeley is relatively unconstrained, partly because it does not suffer the on-street traffic congestion and parking constraints typical of older city-centre residential areas, and partly because it is close to a motorway junction.

In considering what other areas of Gloucester might be suitable for individualised marketing in future, council officers felt that obvious places to look next would be ones where there was already a reasonable bus service, and where the city centre was within cycling distance. Some areas might be more difficult to target, for example where bus services are already full to capacity or the alternatives simply are not there. The parish of Hucclecote had been discussed as a possible site for individualised marketing. Geographically this is suitable, but it suffers from the problem that bus services are already full to capacity.

Effects of the initiative

Effect on car use within targeted population

At the time of the case study interview, results were available for the pilot project only. Later, preliminary results for the large scale project became available in summary form, and these are reported below.

Evidence of the effect of the pilot project on car use is based on a 'before' survey carried out in September 2001 and an 'after' survey in January / February 2002. For both before and after monitoring, a control group from another part of Quedgeley was surveyed as well as all those people involved in the marketing exercise. The net 'before' survey sample was 871 people (a response rate of 66%); and the net 'after' survey sample was 624 people (a response rate of 76%).

The monitoring suggests that, compared to a control group which was not exposed to the marketing campaign, the proportion of 'car as driver' trips in the target group fell by 9% (from 44% of trips to 40% of trips). The process for calculating this figure is explained in detail in the Technical Annex to the TravelSmart Gloucester pilot project report, and summarised here.

Table 1 shows changes in mode choice in the target group, before and after the marketing campaign, compared to changes in the control group. It is assumed that the changes observed in the control group would also have been expected in the target group, and so a transfer factor is derived from the 'before' and 'after' control group data, and applied to the 'before' data for the target group. Table 2 shows the transfer factors, and the resulting '*before, corrected by control group effects*' mode share.

Table 1: Mode share before and after for target group and control group

TARGET GROUP			CONTROL GROUP	
Before %	After % (weighted)*		Before %	After %
27	30	Walking	19	19
2	3	Bicycle	2	1
1	1	Motorbike	1	1
43	40	Car as driver	51	52
23	21	Car as passenger	22	22
4	5	Public transport	5	5
100	100	TOTAL	100	100
2.7	2.7	Trips per person and day	2.7	2.7

* Table 3 shows how 'after' results were weighted

*Table 2: Target group: 'before' mode share, transfer factor derived from
underlying change in control group, and corrected 'before' mode share*

	TARGET GROUP Before % (unadjusted)	Transfer factor	TARGET GROUP Before % (Adjusted for control group effect)
Walking	27	1.02	27
Bicycle	2	0.55	1
Motorbike	1	1.20	1
Car as driver	43	1.02	44
Car as passenger	23	0.99	23
Public transport	4	0.94	4
TOTAL	100		100

The 'after' data for the target group and the control group is also weighted in two
ways:

- By trip purpose, so that the distribution of trip purposes is the same as in the
  'before' data. This excludes the possible influence of trip purpose variations on
  mode choice.
- (For the target group only) the 'after' monitoring data is corrected so that the
  proportion of 'I', 'R' and 'N' respondents is the same as actually observed in the
  marketing campaign.

Table 3 shows the effect of weighting on the 'after' data.

*Table 3: 'After' mode share for target and control groups, with and without
weighting*

	TARGET GROUP		CONTROL GROUP	
	Unweighted %	Weighted %	Unweighted %	Weighted %
Walking	30	30	19	19
Bicycle	3	3	1	1
Motorbike	1	1	1	1
Car as driver	41	40	52	52
Car as passenger	20	21	22	22
Public transport	5	5	5	5
TOTAL	100	100	100	100

According to Socialdata, there was no change in behaviour in the 'N' group. This
means that the reduction in 'car as driver' trips in those groups which expressed
interest in the marketing campaign (the 'I' and 'R' groups) was greater than the
quoted figure for the whole target group, but it is not possible to calculate how much
greater it may have been.

 Car mileage is also reported to have fallen by 9%, from 21 km per person per day to
19 km per person per day. Again, this figure is averaged across the entire target
population: that is, it represents the behaviour change for both people who responded

and those who did not respond, and for those who requested information and materials as well as those who did not.

Changes in car use were seen across all times of day (both peak and off-peak). Much of the increase in bus use was off-peak, when capacity was already available. There was no information about impacts on weekdays as compared to weekends. The number of activities per day remained the same, and so did the number of trips per day. This suggests that people did not respond to the project by trip consolidation (combining different trip purposes into one journey).

Car use was affected for all journey purposes apart from education: that is, car use went down for work trips; shopping and service trips; leisure trips; and other trips. Although car use did not go down for education trips, use of environmentally friendly modes appeared to increase. There is some evidence of destination switching, with the 'after' monitoring showing an increase in the proportion of trips made within Quedgeley, from 43% to 45%.

Some months after the case study interview, preliminary 'after' results for the large-scale intervention became available. Less detail is available for these, but table 4 summarises the headline results as made available by Sustrans.

Table 4: Preliminary results of Quedgeley large-scale individualised marketing intervention (January 2004)

Mode	Modal share		Relative change
	Without IndiMark % of trips per person per year	With IndiMark % of trips per person per year	
Walking	22	25	+12%
Bicycle	3	4	+35%
Public transport	5	6	+18%
Motorbike	1	1	0%
Car passenger	20	19	-5%
Car driver	49	45	-9%
Total	100	100	

Other effects within targeted population
The main aim of the Quedgeley individualised marketing projects was to reduce car use. However, council officers commented that the projects had yielded a lot of information about people's attitudes to different transport services, and this might be useful to inform national transport planning. It is also useful locally – for example comments about the quality of particular bus services or cycle tracks can help the councils prioritise their actions. The individualised marketing project forced the county to do an audit of bus stop information in the area, and officers commented that 'our information is now spot on!' Finally, if the large-scale project shows the same increase in trips to local facilities demonstrated in the pilot project, individualised marketing will have the spin-off benefit of increasing the viability of local shops and services, which in turn will be of benefit to people without access to a car.

Wider effects of the initiative
The pilot individualised marketing project was too small to detect any effect on total traffic levels in Quedgeley, or on levels of public transport use. Following the large-scale project, council officers hope that it will be possible to see an effect on bus patronage. They commented: 'That, to us, is the crunch. In Perth it was possible to confirm that bus patronage had gone up. The size of the large-scale Quedgeley project is such that increases in bus patronage should show up here too.'

It will be more difficult to identify changes in traffic levels as a result of the large-scale project. This is because a motorway junction near Quedgeley has recently been altered, enabling movements in all directions to be made. Some traffic previously using the Bristol Road from Quedgeley into the city centre is now using the motorway, and the resulting changes in travel patterns may make it more difficult to interpret any changes arising from the individualised marketing project.

There is no evidence about whether the impacts of individualised marketing have been offset by induced traffic.

Public and media attitudes to the individualised marketing project are generally positive. The project has attracted no negative media comment, and in general people seem to feel very positive about being offered information about services. James Ryle commented that individualised marketing is well-received because 'it is not a selling exercise, and it is not overtly trying to get people to change their behaviour.' The emphasis of communications is on offering people information that might make their lives easier and enabling people to make their own decisions.

Synergy with wider policies and strategy

Synergy with 'hard' measures
While some 'hard' measures have clearly been implemented in the Quedgeley area over the last few years (for example cycle lanes, and initiatives as part of Gloucester Safer City), council officers felt that the individualised marketing project was free-standing, and that there was little evidence of complementarity between it and 'hard' initiatives. They felt that the aim was to see what individualised marketing could achieve on its own; if it had been linked with other projects there might have been uncertainty about the reasons for any behaviour change.

Individualised marketing does not seem to have had any effect on people's attitudes to other sustainable transport measures. For example, the introduction of traffic calming in Quedgeley a few years ago was contentious, with some people opposing it. Officers commented that: 'We installed traffic calming in Quedgeley before the individualised marketing project, and people still want it taken out. That hasn't changed.'

Synergy with other 'soft' measures
Safe routes to school are being developed in the Quedgeley area, but the councils' work on sustainable school travel has not been explicitly linked to the individualised marketing project, and there is no evidence that the work with schools has increased the effectiveness of the individualised marketing, or vice versa.

Levels of cycling to the secondary school in Quedgeley increased from about 20 pupils to about 130 per day (out of a school population of about 1200) as a result of investment in safer infrastructure. Council officers speculated that this may be one reason why the individualised marketing project had less impact on education trips.

Although the Gloucester individualised marketing project did not set out to exploit synergies with other hard or soft transport measures, council officers were aware of the potential benefits of synergy between measures and eager to exploit them in future. One commented: 'We don't see individualised marketing working on its own. Maybe 50% of behaviour change is the result of marketing, with the other 50% due to hard measures. If individualised marketing is promoted alongside workplace and school travel plans, we think it could work well. We need to target the workplace, schools and people at home – in the past the missing piece was the work with households.'

Perception of the importance of the initiative
Both the county and city councils accord a fairly high priority to transport compared to other areas of policy. For the city council, Adrian Clarke commented: 'One of the city council's core aims is 'to provide a cohesive approach to transport and parking'. In any opinion survey, concerns about transport always come up as one of the top five issues, and that gets reflected in the council's policies.' For the county council, demand-led areas like social services tend to be given a high priority. However, there is a core set of policy aims and objectives, of which accessibility is one.

Within the transport and sustainable development departments of the councils, individualised marketing is recognised as an important and potentially powerful tool, and there is a fair amount of interest in how it might be developed. However, both local authorities are concerned that the potential to develop individualised marketing in future will depend upon the availability of revenue funding. One officer commented: 'The unfortunate thing is that it can't be funded because the LTP can only fund capital programmes. We really need more revenue funding to be able to develop individualised marketing in the way that we would like.'

One problem in 'selling' individualised marketing to senior officers and councillors is that the marketing exercise is intangible. One officer commented: 'At the moment it's a bit like a black box. It's not like any other project where you can show the physical results to people. It's not tangible – it's happening in people's minds. We got a 9% reduction in car use, but it's a bit of a mystery how we did it.' For politicians being asked to fund a project, this can be difficult. One solution would be to arrange the telemarketing so that politicians could visit and observe it in action.

Factors contributing to success
Both local authorities felt that the partnership with a wide range of players had been important in making the individualised marketing project a success. In particular, they mentioned that the involvement of Quedgeley parish council had been useful in sorting out practical issues such as accommodation in the area, and in ensuring the initiative was seen as a local one.

The experience in Quedgeley was felt to be highly transferable to other areas: 'It's 100% transferable. Any residential area and any other local authority will have the same constraints as us.'

Scalability

Staffing and budget
The local authorities do not have firm plans to roll out individualised marketing after the large-scale trial is completed in Quedgeley. If the current project is successful, they are in principle interested in developing a city-wide programme. However, funding constraints may make this impossible. Officers commented that if funding rules were different, individualised marketing could become a major scheme in a future Local Transport Plan.
One possible source of (partial) future funding is developer contributions. For example, where a developer is building a new housing estate, planning gain agreements might require the developer to pay for taster tickets to encourage new residents to use the existing bus network.

While it is very early to say how the individualised marketing project in Gloucester might be developed, officers speculated that it might be possible to develop a rolling annual programme, covering 10,000 or 20,000 people each year, so that the whole city was covered in either 5 or 10 years. This might cost about £2 million, or an overall cost per head of about £20. Information separately supplied by James Ryle suggests external costs (excluding information materials, local authority officer time and contributions from other partners such as bus operators) might be about £13 per head, so an overall cost of £20 seems a reasonable estimate.

Relationship between spending and impact
The local authorities have not carried out any analysis of the relationship between spending on individualised marketing and its impacts. Once the large-scale trial is complete, monitoring data on bus patronage will be useful in assessing benefit-cost ratios.

Future scale of the initiative under currently planned resources
If the current level of spending on individualised marketing were maintained in future years, it would be possible to develop a rolling annual programme, targeting 10,000 people per year. This could potentially cover the whole of Gloucester over about ten years. However, no plans exist at present to scale the project up in this way.

Future scale of the initiative if resources were greater
The effectiveness of a scaled up programme would depend on how long the behaviour change arising from individualised marketing was sustained. Officers commented that high household turnover might mean that the programme would have to be 'refreshed' every five years. A rolling five-year programme, targeting 20,000 people each year, would cost roughly twice as much per year as the current large-scale project in Quedgeley, although there would be some cost savings due to economies of scale.

Apart from budgetary constraints, a rolling five-year programme could only be achieved if the expertise is available to carry out the marketing. James Ryle

commented that organisations like Sustrans and Socialdata would face organisational constraints at current resourcing levels, but that it would be possible to 'gear up' to overcome these. The process might be streamlined, for example by sending out the Service Sheet straight away, or trying door-to-door contact in parallel with phone contact. This would enable compression of timescales. In the long term, some information might be delivered by email for some groups, and this too would help streamline the process. James Ryle felt that with some streamlining it would be possible to target 20,000 – 30,000 people in one phase.

Staffing within the local authorities would not be a constraint in handling a larger rolling programme.

Monitoring plans
Monitoring is already an intrinsic part of the individualised marketing work. If the project was rolled out to other areas of the city, some savings in monitoring costs would be expected.

Key issues for scaling up
The key barrier to scaling up individualised marketing in Gloucester is the lack of revenue funding. Officers commented that 'The benefits of soft measures like individualised marketing can be at least as great as those of capital programmes, but at a fraction of the cost. We are spending a million pounds on several capital schemes in the city, but their impact will not come close to the impact of individualised marketing.'

More experience – and more time – is needed to understand how long the effects of individualised marketing last, and how soon it has to be repeated.

Council officers felt that support for individualised marketing was growing slowly in their respective local authorities. Changes that might help move to the next stage included:
- development control officers looking for opportunities to fund individualised marketing through S106 planning gain agreements
- partnerships with bus operators, if it can be shown that they stand to gain commercially from individualised marketing
- work with health promotion bodies, to see how individualised marketing could help achieve their objectives of encouraging more healthy lifestyles as well as reducing car use.

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Case study author: Lynn Sloman

Merseyside Travelwise

School travel plans

Interviewee: Sarah Dewar, Merseyside TravelWise Co-ordinator

School travel planning is co-ordinated through a partnership between the five Merseyside local authorities and Merseytravel and is currently funded by a mixture of authority and DfT Bursary funds. A team of seven work on both school travel planning and workplace travel plans. There is fruitful symbiotic cross-over between travel planning and health initiatives in the area, as evidenced by one of the travel planning team being funded by the Health Action Zone.

The team have, since 1999, worked with over one hundred schools. Of the 39 schools with before and after data which have implemented travel plans, the majority have shown positive shifts away from the car use for the school run, with an average reduction in straightforward car use of 10.2%. The results are mainly explained by sustained increases in walking, often as routine "walking buses" or as designated walking days of the week ("walking Wednesday" etc). The success of the school travel work is put down to the partnership approach and the joint team which provides dynamism and focus and their terms of reference relative to the local authorities and PTE. Although satisfied with the current scale of the programme, expansion of the team would allow for more pro-active involvement to more closely integrate travel plans into the educational aspects of the school activities.

Case study location and main actors

The promotion of travel plans is carried out by the TravelWise Team and the Merseyside TravelWise Steering Group. The team currently comprises seven people who share their time between workplace and school travel plans. The Merseyside TravelWise initiative is run by Merseytravel and the five local authorities (Liverpool City Council, Knowsley Metropolitan Borough Council, Sefton Council, St Helens Council and the Metropolitan Borough of Wirral) with a multi partner steering group. They employ a joint team of seven officers to deliver a travel awareness programme which includes promotion and support for Travel Plans. Merseytravel PTE area stretches from Southport in the north, to the Wirral (south) and across to St Helens (east). The total population for the area is 1.36 million with a working population of 0.7 million (2001 census).

Main activities

In 1997, a partnership was set up between Merseytravel and the 5 local authorities to focus effort on travel awareness issues and the TravelWise initiative. In late 1998, a member of staff (Sarah Dewar) was appointed to work full time on sustainable transport initiatives. This involved the early stages of travel planning by linking it to travel awareness through a suite of packages and procedures such as developing a website and distinctive logo, distributing information and having a presence at events.

Several elements of this involved adding value to previously existing material and procedures. Throughout this period, travel planning was identified as a key element of a much wider sustainable transport package. The TravelWise team has since grown to seven.

The local authorities co-ordinate and manage the programme which involves obtaining approval for funding allocations, setting selection criteria etc. The TravelWise team, with support from colleagues in the authorities and Merseytravel, then work individually with the schools by:

- dealing with enquiries from schools,
- providing schools with advice, information and contacts,
- co-ordinating community education programmes which link school travel plans to anti-vandalism initiatives, special needs issues, Road safety "kerbcraft" programmes, the Eco-schools programme, travel awareness, the "fresh air miles" competition, European car free day, Family bike ride days etc. These are made possible by the effectiveness of partnership working,
- Encouraging schools to engage in walking bus initiatives,
- Encouraging and facilitating walking days (Fresh air Fridays, Walking Wednesdays, Trekking Tuesdays etc). They are pre-arranged and promoted using, among other devices, "blackmail" literature for parents and other children designed and/or written by the children themselves,
- Encouraging "park-away" days (worth noting that though the message of these is to not park near to the school, the effect is that many children walk all the way from home).

The team relate back experience and information which emerges to the partners. This promotes effective working where the team progress 'soft' issues at school, and the partner authorities are in a position to make informed judgements about the design and implementation of hard measures.

Although schools tailor their plans to their specific situation, the following example illustrates well the amount of activities involved for a "typical" school:

- Setting up regular meetings to discuss the plan and incorporating the development into assemblies, and producing a first draft of the plan within sixteen weeks,
- Holding regular Walking Wednesdays, Park Away Days, Walk to School Week, and trialling the "Golden Shoe" award scheme for walking to school
- Monitored before and after modal splits

The role of the TravelWise team was to organise and facilitate meetings, respond to requests for advice and share good practice from elsewhere.

The planning process is being used to encourage the participation of schools through Private Finance Initiative (PFI) deals. Whilst the number of these are increasing, they represent a very small proportion of school travel plan activity at present.

Various partnerships currently exist including a *Healthy Schools* initiative in Sefton (which includes a co-ordinator and separate budget), the Kensington regeneration (ex new-deal) scheme, the Merseyside cycling campaign and various other local campaigns and initiatives.

Support for school travel plans has increased markedly within the partner authorities and Merseytravel. There is, however, a perception that it is expensive even though the costs involved are insignificant compared to the various capital projects in the area.

Targets for participation have been set and monitored since 2000/01, although the initial targets were estimates rather than being based on experience. In January 2003, the Bursary Award scheme progress report showed the progress towards the number of schools involved against the LTP targets, and these are presented in table 1.

Table 1: Targets for school travel work

LTP target	Date	Progress
50% of schools working towards school travel plans	2004	35 schools are working towards a school travel plan (6.5%).
25% of schools implementing school travel plans	2004	**30 schools have adopted travel plans and are implementing them (5%)** 26 schools have draft plans (4.5%)

As more schools have become involved in the programme, the targets have been revised based on a realistic vision of progress indicated by experience. Revisions are based on an assessment of continuing the current activity and meeting a similar response from the schools and communities. The current target is for 150-160 schools to have travel plans by 2005/06.

A clear monitoring schedule is incorporated into School Travel Plans including a comprehensive travel survey at the start of the process and annual snapshot surveys which serve as a guide to success of measures being undertaken

Staffing and costs

Staffing
In 1998, a full time staff member was appointed, to work on sustainable travel initiatives, including school travel plans as one of a range of initiatives. A second staff member was recruited in 1999 for three years through a partnership with the Health Action Zone (HAZ). A successful bid for DfT bursary posts provided a further five posts for the team, of which three were focussed on school travel plans, the other two being on workplace travel plans. There are therefore currently seven in the team of which three are dedicated to school travel plans plus a share of another two centrally. A further person works on school travel plans in Knowsley, and some effort is contributed locally in the other local authority areas.

Costs and benefits
The budget for all travel planning (workplace and schools) for 03/04 is £229,000. This comprises £125,000 from the Department for Transport for the five bursary posts, plus £104,500 from the TravelWise partners of which approximately £35,000 is for salaries. In addition to the funding for Merseyside Travelwise, the school travel plan advisor in Knowsley is separately funded from their local authority.

As well as revenue funding, there is also capital funding available within the local authorities. The money is spent on the Travelwise team's recommendations and local authority engineers' input. In St Helens there is a budget of £80,000 a year for school traffic calming; in Sefton £100,000 Safer Routes funding plus £14,500 New Opportunities Fund money in Bootle; in Knowsley approximately £100,000; Liverpool £250,000 and Wirral approximately £100,000. In total, this adds up to £644,500.

The revenue funding package for 2004/05 is £278,000 of which £180,000 is for salaries, and the rest is for funding the programme and a grant system for businesses.

Scale of the scheme

Number of people affected by the initiative
The Merseyside TravelWise partners are currently working with over 100 out of 582 schools in the area. (By December 2003, after the case study was completed, the figure was 124). A small number have become involved through PFI arrangements. Although these have not been too successful, it is envisaged that this area will develop more.

The following tables outlines the number and nature of involvement of the schools*.

Table 2: Scale of school involvement in travel planning

	Engaged with	Based in the area
Number of schools	124	582
Number of pupils / students	43,000	Not available

Table 3: Level of school involvement in travel planning

		Primary	Secondary
Number of schools with …			
	An active school travel plan, plus engineering work to provide safe routes to school	41	3
	School travel plan agreed and / or some or many school travel initiatives in place	22	0
	School contacted and starting to develop school travel work	49	9

* Figures updated December 2003.

Changes over time
In 2000/01, 3 schools were involved which increased to 55 in 01/02, and 103 in 02/03.

Targeting
The approach adopted generally involves close involvement with a wide range of schools over a broad area. Each authority has defined criteria and ways of targeting schools based around
- Safety benefits
- Potential for reducing car use
- Long term commitment to develop and implement the plan
- Schools in areas where other complementary work is taking place

The TravelWise team use the following criteria to judge whether it can be said that the schools have an effective travel plan:
- A school travel plan/written policy statement adopted by the school
- Relevant education/class based work taking place regularly
- Involvement of the parents/governors/children in identifying and implementing measures
- Adoption of a whole schools approach as part of the community
- Child accidents safety audits/access audits

In the application of these criteria, it is often the enthusiasm on the part of the school which leads the successful initiation of a scheme.

Effects of the initiative

Effect on car use within targeted population

The Travelwise team collects baseline mode share data when each school begins travel work. Follow-up data (based on hands-up surveys) is collected annually, either on the anniversary of the school's travel plan, or in May. Schools are also asked to collect data during walk to school weeks and on special park-away or walking promotion days. The 2003 APR reported the headline results for schools across Merseyside given in Table 4, based on the 32 schools for which a follow-up survey was available at the time:

Table 4: Impacts of school travel work reported in the 2003 APR

Changes in mode of travel (according to 2003 APR)	%
Cars to school reduction	7.5%
Walking to school increase	4.5%
Cycling to school increase	3.4%
Bus use to school increase	2.5%
Park and walk to school increase	13.7%

In addition, the 2002 progress report states that "Where we do have results, and from monitoring of initiatives, it is clear to see that the approach is generating changes in behaviour which are being sustained and the partners are extremely pleased by this progress".

Data are now currently available for 39 schools – as shown in table 5. About three quarters (30) have achieved reductions in straightforward car use, with five showing no change, and only 10% (4 schools) showing an increase in car use. Notably 9 schools (nearly a quarter) have reduced straightforward car use by over 20%, with 2 schools more than halving straightforward car use.

Overview analysis suggests that the average change in straightforward car use has been a reduction of 10.2% - in other words, about 10% of journeys that were previously made all the way to school by car are no longer made in this way. Arguably, for traffic assessments, some account should also be taken of offsetting traffic increases due to a growth in Park and walk trips and car sharing. Making the relatively conservative assumption that each car share trip accounts for 0.5 of a car,

and that three-quarters of each Park and walk trip are made by car, this implies that
the overall reduction in total car use has been 3.3%. (Taking this more conservative
definition, there are still 24 schools (62%) which have reduced car use and 6 schools
(15%), which have reduced total car use by more than 20%).

Table 5: Current results for individual schools in Merseyside

School Name	2001-02			2002-03			*car use change*	Effects on total car use*		
	car	car share	P + W	car	car share	P&W		01	02	Change
Ashurst	39.5	0.0	0.0	13.0	0.0	28.0	*-67.1*	39.5	34.0	-13.9
St Pauls / Tims Inf	63.0	0.0	0.0	28.0	0.0	27.0	*-55.6*	63.0	48.3	-23.4
Emmaus	58.0	0.0	0.0	30.0	0.0	26.0	*-48.3*	58.0	49.5	-14.7
Booker Avenue Juniors	62.0	0.0	0.0	34.0	0.0	17.0	*-45.2*	62.0	46.8	-24.6
Childwall Primary	80.0	0.0	0.0	47.0	0.0	25.7	*-41.3*	80.0	66.3	-17.2
Sutton Manor	37.0	0.0	0.0	25.0	0.0	5.0	*-32.4*	37.0	28.8	-22.3
St. Sebastian's	40.0	0.0	0.0	28.6	0.0	0.0	*-28.5*	40.0	28.6	-28.5
Garswood	49.0	0.0	13.0	36.5	0.0	8.0	*-25.5*	58.8	42.5	-27.7
St. Christophers	40.0	0.0	0.0	30.0	0.0	0.0	*-25.0*	40.0	30.0	-25.0
Monksdown	28.0	0.0	0.0	23.0	0.0	0.0	*-17.9*	28.0	23.0	-17.9
Booker Avenue Infants	67.0	0.0	0.0	57.0	0.0	5.0	*-14.9*	67.0	60.8	-9.3
Childwall High	15.0	0.0	0.0	13.2	0.0	5.3	*-12.0*	15.0	17.2	14.5
St John Stone	71.0	0.0	0.0	64.0	0.0	4.0	*-9.9*	71.0	67.0	-5.6
Chapel End	71.0	0.0	0.0	64.0	0.0	0.0	*-9.9*	71.0	64.0	-9.9
Roberts Primary	27.8	0.0	0.0	25.1	13.1	0.0	*-9.7*	27.8	31.7	13.9
Hatton Hill Primary	36.0	0.0	0.0	33.0	0.0	2.0	*-8.3*	36.0	34.5	-4.2
Great Crosby	49.0	0.0	0.0	45.0	0.0	4.0	*-8.2*	49.0	48.0	-2.0
St. Michael-in-the-hamlet	39.0	0.0	0.0	36.0	0.0	3.0	*-7.7*	39.0	38.3	-1.9
Heswall Primary	44.0	0.0	0.0	41.0	0.0	12.0	*-6.8*	44.0	50.0	13.6
Broadgreen High School	16.2	0.0	0.0	15.2	2.0	0.0	*-6.2*	16.2	16.2	0.0
Woolton Juniors	54.0	0.0	0.0	51.0	0.0	17.0	*-5.6*	54.0	63.8	18.1
Hudson	37.0	0.0	0.0	35.0	0.0	8.0	*-5.4*	37.0	41.0	10.8
King David	74.0	0.0	0.0	70.0	0.0	4.0	*-5.4*	74.0	73.0	-1.4
St. Peter's CE school	57.8	0.0	0.0	55.0	0.0	4.0	*-4.8*	57.8	58.0	0.3
Bleak Hill	51.0	0.0	7.0	49.0	0.0	0.0	*-3.9*	56.3	49.0	-12.9
Christ Church	27.0	0.0	0.0	26.0	0.0	0.0	*-3.7*	27.0	26.0	-3.7
Churchtown	58.0	0.0	0.0	56.0	0.0	2.0	*-3.4*	58.0	57.5	-0.9
Bedford Rd Primary	36.0	2.0	0.0	35.0	2.0	0.0	*-2.8*	37.0	36.0	-2.7
Forefield	40.0	0.01	0.0	39.0	0.02	0.0	*-2.5*	40.0	39.0	-2.5
St. Austins	54.0	0.0	3.0	53.0	0.0	0.0	*-1.9*	56.3	53.0	-5.8
Cambridge Road Nursery	41.0	0.0	0.0	41.0	0.0	0.0	*0.0*	41.0	41.0	0.0
Our Lady of Lourdes	46.0	2.0	0.0	46.0	2.0	0.0	*0.0*	47.0	47.0	0.0
St Oswalds Primary	26.0	0.0	0.0	26.0	0.0	0.0	*0.0*	26.0	26.0	0.0
Devonshire Park	25.0	0.0	14.0	25.0	19.0	3.0	*0.0*	35.5	36.8	3.5
Lawrence Road	20.0	0.0	6.0	20.0	0.0	4.5	*0.0*	24.5	23.4	-4.6
Allanson Street	25.0	0.0	0.0	31.0	0.0	0.0	*24.0*	25.0	31.0	24.0
Bishop Martin	57.0	0.0	0.0	71.0	0.0	0.0	*24.6*	57.0	71.0	24.6
Woolton Infants	52.0	0.0	0.0	65.0	0.0	0.0	*25.0*	52.0	65.0	25.0
Eccleston Mere	51.5	0.0	0.0	77.0	0.0	0.0	*49.5*	51.5	77.0	49.5
Average	**45.3**	**0.1**	**1.1**	**40.0**	**1.0**	**5.5**	***-10.2***	**46.1**	**44.6**	**-3.3**

*'Total car use' figures have been calculated by adding 0.5 of each car share trip and 0.75 of each Park
and walk trip to the original car use figure.

Sarah Dewar comments that the significant variability between schools does not necessarily mean that a school has done better or worse at developing a plan, but reflects the fact that not all schools have the same potential for change due to local reasons.

Examples where school travel plans have not worked well are generally where there was little ownership of the initiative by the whole school. In one case, a project floundered despite the best efforts of a single teacher. In another, a school travel plan was developed *after* extensive safer routes initiatives and traffic calming were imposed from outside the school's control.

There has not been a good opportunity to look into whether school travel plans have affected the parental travel behaviour due to a lack of good spatial matching between schools involved with school travel plans and parental workplaces.

There is a great deal of anecdotal evidence about the benefits of school travel plans in reducing traffic levels around the schools, especially at peak times. However, there is currently no hard evidence available to quantify this, nor whether there is any offsetting effect from induced traffic.

Other effects within targeted population
Disaggregating the effects, both direct and indirect, of the school travel plan on traffic flows is not straightforward. However, the 2002 APR states that between 1999 and 2001/2,
- bus patronage is up from 168 million to 170.6 million,
- rail patronage up from 33.7 to 35.4 million passenger journeys,
- the number of children killed or seriously injured in road traffic accidents is down from 216 (1994-98 average) to 137 in 2001, and is on target to meet the 50% reduction by 2010.

The following figure, based on the "most important mode" used for any journey, suggests that
- walking is once again increasing slightly after a decline in the early 1990s
- cycling, bus use and taxi use is declining
- car usage as either a driver or passenger is increasing, but that the rate of increase is slowing

Figure 1: Percentage of trips made by persons aged 5+
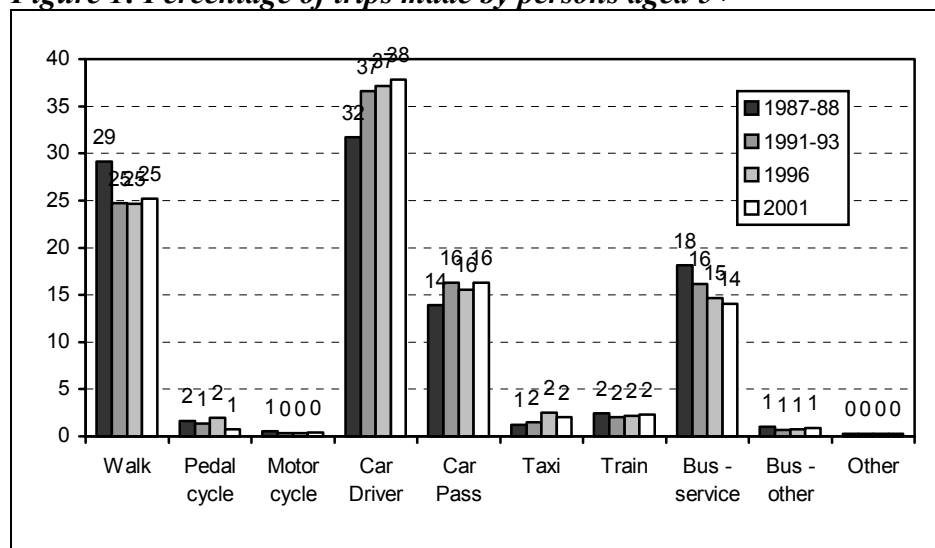
Source: Countrywide Household Survey for Merseyside. Sampling strategy and sample size not known

Wider effects of the initiative
There have been substantial social inclusion benefits through school travel plans,
although these have not been formally monitored. They include:

- Parents and neighbours getting to know each other
- Children from local areas now playing out with each other more
- Parents becoming active in school and community activities, sometimes for the
  first time
- Road safety and other safety issues being addressed. This is particularly the case
  in deprived areas. For example, at St Sebastian's school in Liverpool, new lighting
  has had benefits which affect far more people than just the school pupils
  themselves, and the IT room has been opened to the whole community outside
  school hours.

There are real positive changes in the attitudes of the residents in the area where
school travel plans have been implemented, both among those with direct links to the
schools as well as others. More broadly, there is a sense throughout the region of
"something must be done" regarding traffic. Though a key element of this is problems
of congestion, five years of travel plan initiatives means that awareness of travel
initiatives is increasing and acceptability of schemes is improving.

Synergy with wider policies and strategy

Synergy with 'hard' measures
School travel plan work has been taking place at the same time as substantial
improvement in hard measures in the area. Most of the hard measures involve
ambitious plans to upgrade bus provision, infrastructure and routes, with some
increase in cycle routes. Where hard measures have been associated with school travel
plans, it has usually been as a result of the plan itself – e.g. new crossings or lighting
provision.

Synergy with other 'soft' measures
One aspect of the workplace travel plan development is raising awareness and acceptability of other travel options, and the programme dovetails with other initiatives being developed in the area. Effective links through the partnership are made to child pedestrian training programmes which are provided by the Road Safety team Enhancing and publicising public transport information has been a key priority, and this has involved installing real-time information terminals at bus stops, enhancing information and maps at rail stations, creating new public transport network maps, "How to get to…" leaflets for hospitals, "Walkabout" guides to various parts of the region, cycle maps and guides ("Bike time" leaflets) and calorie-counted walking itineraries). A "Travelsafe" project was undertaken to address public safety concerns on three problematic bus corridors and there is a popular annual green transport festival. The effectiveness of the partnerships in the areas means that these initiatives, to greater or lesser extents, influence or are influenced by the travel planning approaches.

Perception of the importance of the initiative
School travel planning has been significant in raising awareness of transport and travel issues generally not only as their impacts have affected many people, but also as their messages have indirectly reached many others, including parents and residents of neighbourhoods near to schools. School travel plans have not necessarily helped to increase the acceptability of any particular other measure in general, but are integrally linked with resultant initiatives locally.

In Merseyside, transport is seen as one of the three big policy areas alongside regeneration and health. Evidence for confidence in the scheme is the willingness of the local authorities to take on the funding of the travel planning bursary posts after March 2004. The school travel planning programme is seen as an integral part of a linked set of activities being undertaken by the team. It is shadowed by the larger, visible capital programmes (bus routes and tram) but continues to receive support through continuity of funding.

Factors contributing to success
Key elements that drive the success of sustainable travel initiatives in the area relate to the effectiveness of the partnerships involved and that of how the TravelWise team work. Integration and cross-fertilisation of thinking between the partners means that the travel planning process benefits from a large and diverse pool of influences. The cross-boundary nature of the team members allows for effective and routine cross-fertilisation of ideas, and the camaraderie of the team of seven results in a "buzz" which translates to the freshness of the literature and website (as illustrated by the graphics given in figure 2). This atmosphere produces enthusiasm and optimism when working with schools.

It is felt that under current conditions that seven is the optimum number to deal with the workload generated in Merseyside. The team is small enough to provide dynamism and means that each member knows what other people are doing, yet large enough to provide the opportunity for the team members to take on specific roles and responsibilities. The dual function of the team to work on school *and* workplace travel planning is also seen as producing mutual benefits to the two programmes through cross-fertilisation of ideas and informal targeting of neighbourhoods.

Figure 2: Graphics from the Travelwise website, where these icons are animated

(http://www.gotravelwise.com/

Scalability

Staffing and budget
There are no plans at present to change the staffing or resources. Funding for the
bursary posts will be taken on by the TravelWise partners once the DfT funding ends
in March 2004. Current thinking is that the size and make-up of the team is
appropriate for the area covered, but that the opportunity for more staff would allow
the scope and role of the team to be reconsidered and allow a more proactive approach
at various stages of the planning process.

Relationship between spending and impact
There has been no formal analysis undertaken on the relationship between spending
on the school travel planning initiative and its impacts. However, the agreement for
the local authorities and Merseytravel to take on the support of the bursary posts from
2004 suggests that it is seen as cost effective.

Future scale of the initiative under currently planned resources
There are currently no targets beyond 2006, when it is currently envisaged that 150-
160 schools will have travel plans (c. 25%) based on current activity.

Future scale of the initiative if resources were greater
A major increase in resources would be managed by being able to control budgets to
provide grants to schools for the infrastructure improvements requested. These may
be large capital schemes such as traffic calming, but equally be more trivial such as
notice boards. Being able to have a more active programme of developing educational
materials would help to integrate the travel plans and the process of developing them
into the school activities.

Travel Planning is a time intensive activity and although progress made by the
TravelWise partners is strong, additional staff in either the central team or the partner
authorities would undoubtedly contribute to greater quality and quantity of activity.
The most effective use of resources would be considered by the partners.

It is not straightforward to suggest to what extent school travel planning activity
would increase with an increase in resources. Sarah Dewar's opinion is that it would
depend not just on financial support, but on the willingness of participation of schools
and the nurturing of partnerships. In addition, it is necessary to acknowledge the less
tangible but significant issues relating to changing mass perception of local transport
in the public psyche, public attitudes to school travel planning and school politics
generally. The targets set for 2006 are based on an pragmatic assessment of the rate at

which schools become engaged with the programme, and dramatically increasing this is probably not a function of resources alone.

A major increase in resources would have to be considered in terms of whether and how other initiative resourcing in the area was changed as well. The way in which school travel plans would be approached would probably change with a considerably larger budget, but this has never been considered.

Monitoring plans

School travel plans have been well monitored in Merseyside, following an integrated approach as expressed in the 2002 progress report:

"A clear schedule for monitoring progress is incorporated into the school's travel plan. In the first term of development a hands-up survey is conducted in class and a wider survey is carried out with parents and children at the school. The hands-up survey is used to establish the modal split at the school and is repeated the following year. This allows us to gain a relatively swift picture of the progress the school is making. In the meantime, schools measure the success of individual initiatives, which we use as a guide of effectiveness."

Future plans for monitoring involve tightening up and making adjustments to what is currently done as it seems to be working well. As specific plans bed in, repeat after surveys will be done, but this will be determined by the availability of resources and the willingness and capacity of the schools.

Key issues for scaling up

Scaling up of any school travel plan programme would be strongly influenced by the willingness of schools to participate. This requires time to be scheduled and "champions" of the schemes to exist within the school. It is anticipated that engaging schools will become increasingly difficult as the enthusiastic schools get involved at early stages, although to counter this, as word spreads about the benefits of school travel plans, there may be a snowballing effect as other schools may want to get involved.

Sarah Dewar suggests that the key issue beyond all others to allow effective school travel work to continue is the long-term security of funding. This would ensure that the current team of seven staff would be maintained, and allow for longer term strategic planning.

Issues which are acting against rolling out of the school travel planning programme involve the current atmosphere of demand and parking management strategies adopted in the area. These tend generally to be fairly liberal in the regeneration areas in the context of attracting inward investment. There is an ongoing debate regarding theses issues, but a key indicator will be how they are dealt with in the next LTP.

Improved integration of thinking and approaches between departments and authorities within and between the local authorities would also help the success of the school travel plan programme. If time and resources allowed, it would be useful for the LEAs to put more emphasis on school travel plans in their dealing with schools generally, and to integrate travel plans more centrally into school activities.

On a broader scale, experience to date suggests that school travel plans do not sit comfortably with the PFI developments that have been taking place. This relates mainly to the approach of the PFI initiatives which are largely focused on the footprint of the school itself rather than on its surroundings and community. Furthermore, many of the decisions of the school development are taken out of the hands of the school, and so the organic elements of dialogue between staff, students, parents and the community which are so important in the development of school travel plans do not enter the loop of many of the decisions. This may be illustrated by PFI decisions being made about school security. The decisions are undoubtedly taken with the best interests of the school in mind (e.g. restricted numbers of access points, design of school grounds), but may inadvertently act against the more "natural" decisions that would be taken through the more bottom-up approach of travel planning.

Travel planning in the Merseyside area has exposed the innate willingness of a significant proportion of people to change their travel behaviour given the opportunity to do so. It shows that with relatively simple initiatives, benefits of doing so are broad and deep. To those involved in travel planning, there is, therefore, some frustration that this is not more widely acknowledged at national policy level and that national policy is not more bold so that this latent desire for change can be tapped into more effectively. While travel plans rarely produce highly visual or widely publicised outcomes in the way that large capital projects do, there is a sense among those involved that they have a large effect on those affected by the initiatives, that this integrates up to a significant effect which is achieved relatively cheaply, and that this is not properly appreciated and acknowledged.

The way that the school travel plan programme is run in the area is tailored to that which works well over such a large and varied area with the staff involved. The existence of the PTE and the integration of the travel planning team within it are seen as important in the effectiveness of the programme. It is thought by the team that some PTEs may be too large and unwieldy to permit similar ways of working (e.g. would an area-wide cycling map still be relevant in a larger area?), although some aspects of the process are generic. The key partnerships (Merseytravel + 5 LAs) function well together regarding travel planning, and these may not exist or may be organised differently in other places

References

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Case study author: Alistair Kirkbride

Merseyside TravelWise

Workplace travel plans

Interviewee: Sarah Dewar, Merseyside TravelWise Co-ordinator

Workplace travel planning is co-ordinated through a partnership between the five Merseyside local authorities and Merseytravel and is funded by a mixture of authority and DfT bursary funds. A team of seven work on both school travel planning and workplace travel plans. There is fruitful cross-over between travel planning and health initiatives in the area, as evidenced by one of the travel planning team being funded by the Health Action Zone. Fifty-seven organisations representing 56,000 employees are engaged at some level in travel planning. The impacts are mixed but generally good with modal shifts away from single occupancy car use of over 10% in a couple of years being common. There is some conflict between travel planning and policies encouraging inward investment into regeneration zones, but this is being dealt with by the development of supplementary planning guidance.

The success of the scheme is put down to the partnership approach, the joint team which provides dynamism and focus and their terms of reference relative to the local authorities and PTE.

Case study location and main actors

The promotion of travel plans is carried out by the TravelWise team and the Merseyside TravelWise Steering Group. The team currently comprises seven people who share their time between workplace and school travel plans. The Merseyside TravelWise initiative is run by Merseytravel and the five local authorities (Liverpool City Council, Knowsley MBC, Sefton MBC, St Helens MBC and Wirral MBC) with a multi-partner steering group. They employ the joint team of seven officers to deliver a travel awareness programme which includes promotion and support for travel plans. Merseytravel PTE area stretches from Southport in the north, to the Wirral (south) and across to St Helens (east). The total population for the area is 1.36 million with a working population of 0.7 million according to the 2001 census. Some cross-boundary working links have been established with Halton.

Main activities

In 1997, a partnership was set up between Merseytravel and the five local authorities to focus effort on travel awareness issues and the TravelWise initiative. In late 1998, a member of staff (Sarah Dewar) was appointed to work full time on sustainable transport initiatives. This involved the early stages of travel planning by linking it to travel awareness though a suite of packages and procedures such as developing a website and distinctive logo, distributing information and having a presence at events. Several elements of this involved adding value to previously existing material and procedures. Through this period, travel planning was identified as a key element of a much wider sustainable transport package. The team has since grown to seven.

The main activities of the TravelWise team with regard to workplace travel planning include:

- An officer of the team is designated as lead person for each organisation. This involves setting up meetings, giving advice and spreading good practice. This approach is similar to the Site Specific Advice approach, but the team will not write an organisations plan for them. It involves co-ordinating and sometimes writing publicity materials. It also involves raising awareness within an organisation of travel schemes
- Creating and distributing an employer's pack 'Travel Plans: An Alternative Way to Work'
- Organising and co-ordinating various travel plan forums – four groups of employers & organisations in Merseyside meet quarterly.

Some of the travel planning activity has taken place through the planning process. There have been a few examples where section 106 agreements have been used to initiate travel planning work, but these are not yet well developed.

Apart from the five local authorities, the workplace travel plan programme involves partnerships with the Merseyside Health Action Zone through a programme involving the NHS trusts, and the companies who are working on travel plans.

The approach being adopted is a combination of broad-brush and targeted. The target areas together are extensive; when a dialogue begins with an employer, the team work intensively with that employer and consider snow-balling effects in the local area. This approach has developed as the programme has progressed. The onset of a new grant system in March 2004 will change the approach as it will require a formal agreement to be drawn up between the organisations and the TravelWise partnership. Support for workplace travel planning has increased markedly within the partner authorities and Merseytravel as it is recognised that it represents good value for money. The partnership has recognised the value in focussing on quality of delivery rather than on the quantity of plans initiated. The targets set have been informed by this approach. The key targets involve the number of travel plans adopted by employers (target of 60 by 2004) rather than number of employees or levels of modal shift.

Staffing and costs

Staffing

The joint remit of the travel planning team to work on (among other things) school and workplace travel plans is reflected in how it has developed. A second staff member was recruited in 1999 for three years through a partnership with the Health Action Zone (HAZ) largely to focus on school travel plan work, but in doing so released some of Sarah Dewar's time to focus on developing workplace travel plans. A successful bid for DfT bursary posts provided five further posts for the team, of which two were focussed on workplace travel planning, the other three being on school travel plans. There are therefore currently seven in the team of which two are dedicated to workplace travel planning, plus a share of another two centrally. There is some other staff time dedicated to workplace travel plan work in the districts, but it is not possible to quantify this.

Costs and benefits
In the first year, the budget for all travel planning (workplace and schools) was
£42,000. By 2003/04, this had risen to £229,000, comprising £125,000 from the
Department for Transport for the five bursary posts plus £104,500 from the
TravelWise partners of which about £35,000 is for salaries.

The agreed funding package for 2004/05 is £278,000 of which £180,000 is for
salaries, the rest being for funding the programme and a new grant system for
businesses. Funding for the DfT bursary posts ends in March 2004, and funding for
the continuation of these posts will be provided by Merseytravel.

The split between capital and revenue has been messy due to the legacy of the how
the travel plans programme has developed, but will be tidied up during 2004/05
resulting in a capital:revenue split of roughly £75,000 : £175,000.

Scale of the scheme

Number of people affected by the initiative
In 2001, twenty organisations were involved with some form of travel plan
development. The programme currently involves 57 companies, of which a few
organisations have come into the programme through section 106 agreements.

To date, St Helens, Sefton and Wirral local authorities and Merseytravel have adopted
a travel plan, and plans for Liverpool and Knowsley are in preparation. The three
Universities plus a further four colleges are currently developing plans, and four
colleges have already implemented them. Three hospital trusts involving five major
hospitals have adopted plans, and they are in the process of development in a further
five trusts involving seven hospitals. These plus the other travel planning initiatives
are outlined in tables 1 and 2. The level of involvement of the different employers is
shown in table 3.

Table 1: Engagement in travel planning

	Engaged with on travel planning	Based in the area
Number of employers	57	
Number of employees	55,870	700,000

Table 2: Engagement of different types of organisation in travel planning

	Number of employers Merseyside TravelWise is working with on travel plans
Local authority	6
Further / higher education	11
Health (excl GP surgeries)	12
Private sector	36
TOTAL	65

Table 3: Number of employees affected by travel plans at different stages

	Number of employees affected
Fully fledged travel plan including parking management	23,720
Travel work with various travel initiatives (but not parking management)	28,150*
Considering a travel plan, or just starting implementation	4000
TOTAL	**55,870**

* Of these, 21,000 employees are in organisations where the travel plan work is mainly awareness raising or a small number of initiatives.

The nature of travel planning means that in some cases it is difficult to classify the level of activity of an employer. For instance, some organisations in the area are implementing initiatives whilst also drafting their plan. All of the organisations that are progressing travel work are considering a travel plan.

There are currently significant regeneration initiatives taking place in many part of the area covered by the workplace travel plan programme.

Targeting
The following workplaces have been targeted for travel planning:
- Strategic Investment / Objective 1 areas
- All partner local authorities
- All health and education sites (although the Universities have been relatively slow to respond)
- Large employers
- Tourism and leisure sites.

There have been some mis-matches between some of the aims of travel planning and those of inward investment. In order to clarify and highlight the areas of mutual benefit and provide a positive framework for moving forward, the team are currently preparing supplementary planning guidance with the Planning Departments.

Effects of the initiative

Effect on car use within targeted population
An example of an effective travel plan is illustrated by St Helen's College. The College is spread over three campuses, two in St Helen's and one in Newton le Willows, 5 miles to the east, and currently employs 800 staff and has 25,000 full and part-time students. The college has been working on its travel plan since 1999, has been a regular attendee at the local travel plan forum and has actively contributed with presentations and input on topics that it would like covered. The plan is being developed in the context of the college becoming an "Eco-campus" and at a time when parking pressure has been increased due to land being sold. It is also developing an "access for all" policy and pursuing ISO 14001 (Environmental Management Standard).

The first phase of the plan involved:
- Improved car park registration and entry system
- Free bus pass for employees in exchange for car park pass
- Public transport advice and displays
- New cycle facilities.

The second employee travel survey was conducted in June 2002 using the college's intranet. The results demonstrate a shift away from car use as shown in the following table. The travel plan was reviewed and revised in November 2002.

Table 4: Change in car use at St Helen's College

Mode	1999 Survey	2002 Survey	% change
Single Occupancy vehicles	77%	63%	-14%
Bus	6%	13%	+7%
Car Share	13%	17%	+4%
Foot	3%	4%	+1%
Bicycle	0%	1%	+1%
Train	1%	2%	+1%

Since 1999 free bus passes for employees trading in their car park pass have been available to all employees and 17% have now taken this offer up. In addition the college offers financial support through the Study Plus programme to enable students to meet the costs of public transport.

The college made a successful bid to the Cycle Projects Fund to introduce secure cycle storage and have improved shower and locker facilities as well as signing around the campus. To mark these improvements and launch the second travel plan, the college invited the Company of Cyclists to hold a cycling road show for staff and students in February 2003. Participants could also get a health check at the show and take part in a lunchtime health walk. Before these changes cycling was sporadic and bikes were prone to theft and vandalism. Following the improvements, 15 staff regularly cycle with more continuing to register for keys. St. Helen's College now offers cycle mileage for business trips and is exploring a pool cycle scheme.

Some plans have been less successful. This is due to a variety of reasons including
- staff changes (either a key champion moving jobs or organisational re-structuring) or the lack of champion or management backing for travel planning
- the lack of a steering group for the plan.

Not all of the organisations that have been involved with travel plans have reliable data of the modal split of their employees before and after travel plan development. This means that it is not possible to give mean data of modal shifts for all of the organisations with which the team has had contact. This is being addressed with more rigorous demands for monitoring after March 2004.

Effect of travel plans on overall levels of traffic
In 2001, 62.5% of people travelled to work by car, 16.9% by public transport, the rest taking other modes (data from 2001 census). This masks significant variability within the region and between types of organisation.

It is not possible to say what effect travel plans have had on traffic levels near to workplaces. In general, traffic levels are showing improvements on most indicators, as suggested by the following changes between 1999 and 2001/02 (from the 2002 APR):
* bus patronage is up from 168 million to 170.6 million
* rail patronage up from 33.7 to 35.4 million passenger journeys
* the number of children killed or seriously injured in road traffic accidents is down from 216 (1994-98 average) to 137 in 2001, and is on target to meet the 50% reduction by 2010.

Figure 1, based on the "most important mode" used for any journey, suggests that
* walking is once again increasing slightly after a decline in the early 1990s
* cycling, bus use and taxi use is declining
* car usage as either a driver or passenger is increasing, but that the rate of increase is slowing.

Figure 1: Change in percentage of trips made by different modes over time
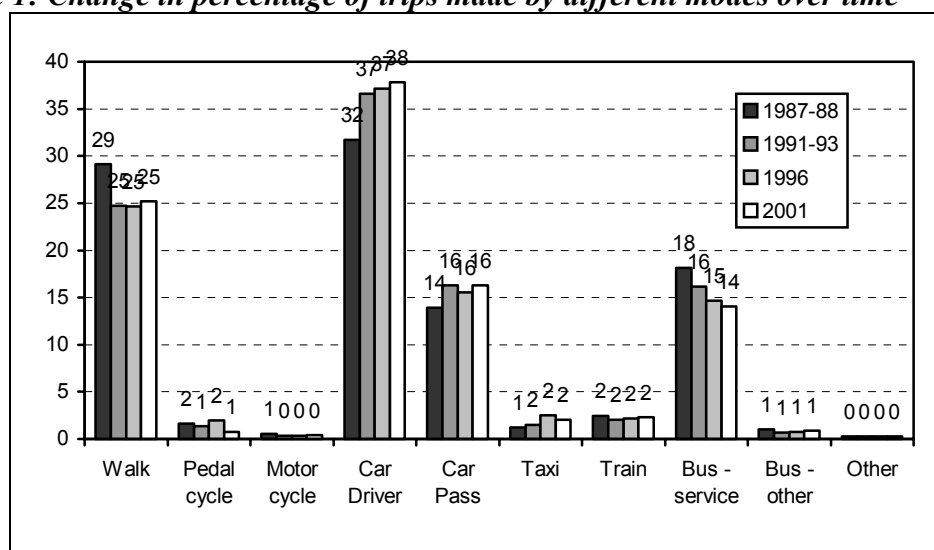
Source: Countrywide Household Survey for Merseyside. Sampling strategy and n not known
% of trips made by persons aged 5+

Other effects within targeted population
Workplace travel plans have had influence beyond their direct effects on modal shift. Indirect or more subtle effects have included:
* enhancing the messages of associated schemes (such as the Access to Healthcare Project) in the areas where organisations have been engaging employees in the travel plan process
* Somerfield/Wincanton have recruited from the local area for their new site at Lea Green, St Helens. They have a requirement to develop a travel plan as part of their planning approval for their new distribution centre. Somerfield are also served by the Urban Bus Challenge Joblink 834 and 841 services in St. Helens.

They are also looking into putting a bus turn around on site so buses from the Parr Strategic Investment Area can come directly on to site.

- Jaguar cars and Liverpool John Lennon Airport have also been served by Joblink services. These are bus services specifically designed to allow employees to get to work by public transport. In some cases, community transport services have been used to cater for shift patterns.

The workplace travel planning initiatives have probably not had a very significant effect in changing public acceptability for sustainable travel *per se*. However, they have put more people in touch with the publicity for other travel initiatives and hence raised awareness.

Other benefits of the travel planning process include:
- a sense of empowerment among those who have been involved
- being a seed and catalyst for positive health promotion
- being the seed which makes people think about transport for all.

There have been positive effects brought about by "leakage" between travel planning for schools and in the workplace where these are in the same area or when parents and children have been affected separately at their workplaces or schools. Apart from affecting their travel behaviour, this has provided a common impetus for parents to interact with their children.

Synergy with wider policies and strategy

Synergy with 'hard' measures
Workplace travel plans rely to a certain extent on the provision of public transport which can be accessed by employees. Between 2000/01 and 2001/02 there has been an active policy to improve bus provision and infrastructure including new and extended bus lanes, re-engineered junctions and installation of CCTV to facilitate bus priority and ease bus flow, new bus shelters and re-modelled bus stop pavements, the upgrade of four key corridors to SMART services (quality bus routes with new shelters and real-time information) and a 24% increase in the number of low floor accessible buses to 252. An extra 14.7 km of cycleways were completed, together with an ongoing programme of installing cycle stands and storage facilities at local centres and public buildings. New 'Job Link' bus services have been set up to key employment sites within each of the Strategic Investment Areas.

Synergy with other 'soft' measures
One aspect of workplace travel plan development is raising awareness and acceptability of other travel options, and the programme dovetails with other initiatives being developed in the area. Enhancing and publicising public transport information has been a key priority, and this has involved installing real-time information terminals at bus stops, enhancing information and maps at rail stations, creating new public transport network maps, "How to get to…" leaflets for hospitals, "Walkabout" guides to various parts of the region, cycle maps and guides ("Bike time" leaflets) and calorie-counted walking itineraries). A "Travelsafe" project was undertaken to address public safety concerns on three problematic bus corridors and there is a popular annual green transport festival. The effectiveness of the partnerships

in the area means that these initiatives, to greater or lesser extents, influence or are influenced by the travel planning approaches.

Health improvement issues are high on the agenda of many travel initiatives in the area including travel planning. For example, joint funding between Sefton Borough and the Heath Trust supports a walking & cycling officer post in the local authority area. Many of the messages which form part of the organisational schemes have a dual role of educating people about the health problems brought about by car use as well as the health benefits of changing travel behaviour. Cross-cutting initiatives include calorie-counted guide to walks in the city centre and *Rideabout* and *Walkabout* guides to cycling and walking. Popular events such as *It's Bike Time*, *In Town Without My Car* days and the *Fresh Air Miles* competition implicitly link getting around with health.

Perception of the importance of the initiative
It would be difficult to suggest whether workplace travel planning has helped to increase the acceptability of any particular other measure. Its importance in this respect has been to raise awareness generally of travel, transport and health initiatives, especially in the workplace neighbourhoods.

In Merseyside, transport is seen as one of the three big policy areas alongside regeneration and health, and initiatives routinely bridge these areas. Evidence for confidence in the scheme is the willingness of the local authorities to take on the funding of the travel planning bursary posts after March 2004. The travel planning programme is seen as an integral part of a linked set of activities being undertaken by the team. It is shadowed by the larger, visible capital programmes such as SMART bus routes and the tram, but continues to receive support through continuity of funding.

Factors contributing to success
Key elements that drive the success of sustainable travel initiatives in the area are the effectiveness of the partnership and how the TravelWise team work. The travel planning process benefits from a large and diverse pool of influences. The cross-boundary nature of the team members allows for effective cross-fertilisation of ideas, and the camaraderie of the team of seven results in a "buzz" which translates to the freshness of the literature and website.

Under current conditions, seven is the optimum number of staff to deal with the workload generated in Merseyside. The team is small enough to provide dynamism and means that each member knows what other people are doing, yet large enough to provide the opportunity for the team members to take on specific roles and responsibilities. The dual function of the team to work on school *and* workplace travel planning is also seen as producing mutual benefits to the two programmes through cross-fertilisation of ideas and informal targeting of neighbourhoods.

Scalability

Staffing and budget
There are no plans at present to change the staffing or resources. Funding for the bursary posts will be taken on by the TravelWise partners once the DfT funding ends in March 2004. Current thinking is that the size and make-up of the team is appropriate for the area covered, but that the opportunity for more staff would allow the scope and role of the team to be reconsidered and allow a more hands-on approach with employers, especially once the grants scheme comes into operation in 2004.

Relationship between spending and impact
There has been no analysis done on the relationship between spending and impact. The impact of the travel plans already carried out has been difficult to assess partly due to inconsistent quality of monitoring data between organisations, but also due to different levels of intensity of engagement with organisations.

Future scale of the initiative under currently planned resources
There are currently no targets beyond 2006. It is very difficult to suggest how many employers may be involved in the longer term, partly due to the changes brought about through the grant scheme which is starting in 2004. It is envisaged that the number of employers undertaking travel planning will continue to grow.

Future scale of the initiative if resources were greater
An increase in capital availability would be committed to delivering more effective grant and support packages to businesses, part of which would be larger grants than those anticipated when the scheme starts in 2004. This would not only attract more organisations into the scheme and raise the profile of travel planning, but would permit more ambitious development and implementation.

Travel planning is a time intensive activity and although progress made by the TravelWise partners is strong, additional staff in either the central team or the partner authorities would undoubtedly contribute to greater quality and quantity of activity.

It is difficult to assess the extent to which any increase in resources would result in an increase in the scale of the workplace travel plan programme in the area. Theoretically, all employers could be engaged in travel planning, but this is not practicable due to the nature of the process in that it is felt that the impetus should come from the employer, and that the role of the team is to facilitate and encourage this interest. The rate at which organisations can be entrained into the process is not known, and so estimating a limit to this is not currently possible.

Monitoring plans
It is acknowledged that monitoring to date has been inconsistent, and this is currently being tightened up. Planned changes which will affect monitoring include:
- an add-on to Microsoft Outlook. A pilot facility is being tested which is used to assess journey to work behaviour by asking the user to indicate how they travelled to work by clicking on a single option. This will be recommended to all organisations involved in travel planning.

- the agreements which will be drawn up when the grant system starts in 2004 will strongly encourage employers to undertake systematic before, after and repeat travel behaviour monitoring.
- a potential to tighten up the monitoring of workplace travel plans when they are conditions of planning.

Key issues for scaling up

Sarah Dewar suggests that the key issue to allow effective travel planning to continue is the long-term security of funding. This would ensure that the current team of seven staff would be maintained, and allow for longer term strategic planning.

Issues which are acting against rolling out the travel planning programme involve the current atmosphere of demand and parking management strategies adopted in the area. These tend generally to be fairly liberal in the regeneration areas in the context of attracting inward investment. There is an ongoing debate regarding these issues, but a key indicator will be how they are dealt with in the next LTP.

Scaling up workplace travel planning activity also relies on the commitment of the organisations involved. This may become more difficult as the more enthusiastic employers or those with most opportunity for change enter the programme early, but changes in ethos and raising awareness among employers of travel planning (i.e. the snow-balling effect) will probably more than counter this problem.

Although it is generally felt that the travel planning programme is operating well in the area, further improvements in communication between departments in the authorities and more joined up thinking across departments would further enhance the performance. Generally, support within the partner authorities and Merseytravel for travel planning is good. Though travel planning in the area is often closely linked with health initiatives, there is still potential for the health authorities and primary care trusts to be more transport aware on a more strategic level, and to see transport as a higher priority that they do at present. There is also a frustration that the private sector is currently not paying sufficient attention to transport; it is generally not pushing for change, but this may be because they are not being pushed enough.

Travel planning in the Merseytravel area has exposed the innate willingness of a significant proportion of people to change their travel behaviour given the opportunity to do so. It shows that with relatively simple initiatives, benefits of doing so are broad and deep. To those involved in travel planning, there is, therefore, some frustration that this is not more widely acknowledged at national policy level and that national policy is not bolder so that this latent desire for change can be tapped into more effectively. While travel plans rarely produce highly visual or widely publicised outcomes in the way that large capital projects do, there is a sense among those involved that they have a large effect on those affected by the initiatives; that this integrates up to a significant effect which is achieved relatively cheaply; and that this is not properly appreciated and acknowledged.

The existence of the PTE and the integration of the travel planning team within it are seen as important in the effectiveness of the programme. It is thought by the team that some PTEs may be too large and unwieldy to permit similar ways of working (e.g. would an area-wide cycling map still be relevant in a larger area?), although some

aspects of the process are generic. The key partners (Merseytravel + five local authorities) function well together regarding travel planning. Such relationships may not exist or may be organised differently in other places.

Case study author: Alistair Kirkbride

Milton Keynes Council

Car Sharing

Interviewees: Graham Simpkins, Manager, MK Sustainable Transport Ltd, with additional information from Graham Walter (Transport Policy Technician) and John Harper (Transport Policy Manager) Milton Keynes Council.

CARSHAREMK has attracted over 1,000 members in its first 9 months through incentives such as free parking for sharers, dedicated parking bays in prime locations in the town centre and discounts on the local buses. The scheme was launched at the same time as further charges for parking in the town centre were introduced. It is used primarily for commuting into Central Milton Keynes (CMK). Over 90% of the members routinely use the scheme, and shared cars make up nearly 8% of the total town centre parking at peak times during the week. Recruitment is steady at about 100 new members per month, even though there has not yet been any concerted campaign to target the large employers in the town.

Case study location and main actors

Milton Keynes has been a unitary authority since 1997, covering a population of 207,057 (2001 Census). The new town was constructed in the early 1970s on a design based around "grids" created between a network of roads and crossed by pedestrian routes. Due to its new-town origins, English Partnerships still has active involvement in Milton Keynes. According to the 2001 Census, there were 67,986 people usually driving to work in Milton Keynes in 2001.

Main activities

CARSHAREMK is managed by MK Sustainable Transport Ltd. This company is a partnership between Milton Keynes Council and English Partnerships. The scheme was launched on 28th October, 2002, the same day that further parking charges were introduced in the town centre. Research by a consultant led to the development of this pilot scheme, which includes free parking.

Members can park for free in CMK if they car share. To qualify, two registered sharers must display their individual but linked permits together in the windscreen of the vehicle. There are designated CARSHAREMK parking bays distributed around the town in prime sites for car sharers although they can park in the standard bays as well. Parking charges for non-sharers in the central area are 20p per hour in standard bays (less if an CMK employee using prepaid scratchcard) or 80 per hour in premium bays. Sharers also receive discounts on the bus services (typical fares of over £1 are reduced to 55p). There is a "Gold card" which gives extra benefits for heavy users.

CARSHAREMK is managed by Graham Simpkins at MK Sustainable Transport Ltd with a part time assistant. Their roles involve enrolling members, publicising the scheme through leaflets, the media & events, dealing with day-to-day problems,

negotiating deals (e.g. with transport operators) and assessing and reviewing the location of reserved parking bays.

The scheme is a part of a suite of initiatives taking place in MK, and there is some overlap in activities such as publicity and events, including co-organisation of car free day activities.

Figure 1: Some of the advertising material used to promote the case share scheme

Several companies are encouraging the use of CAR**SHARE**MK for its employees, but this does not involve formal partnerships at present.

The approach has always been to have a high visual presence. Parking bays are well marked and in prime sites, and emphasis is put on highly visual targeted advertising such as on the backs of buses. Some of the advertising materials used are shown in Figure 1.
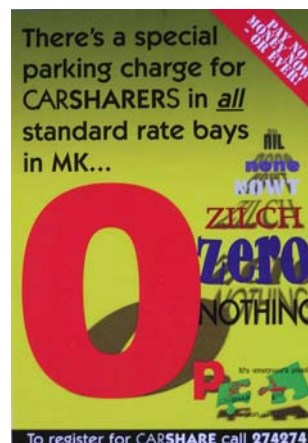
Staffing and costs

Staffing
Since September 2002, two people have been working on the scheme: Graham Simpkins manages CAR**SHARE**MK for 0.43 of his time with an assistant making up the rest of a full time post dealing with the day-to-day running. Extra services such as some marketing and graphic design work is bought in.

Costs and benefits
The budget for the current scheme is £58,711 (2003/04) plus 0.43 of the manager's salary, and it is envisaged that this is appropriate to cover the operation and development. In 2002-03, the initial budget to set up and run the scheme for the first seven months was £104,000, although the expenditure was only £75,917. The scheme is funded by planning obligations from the Xscape retail/leisure development in the town centre. Half of the funding comes via English Partnerships and half via Milton Keynes Council Funding beyond the current financial year is expected to be from CMK parking revenue. No cost-benefit analysis has been carried out on the scheme

Scale of the scheme

Number of people affected by the initiative and changes over time
The feasibility study for the scheme (Stirling Maynard Transportation 2000) identified that there were 11,658 people coming into central Milton Keynes by car in the am peak hour, of whom 10,050 were car drivers and 1,608 were car passengers (making an average car occupancy of 1.16). These people formed the target group for the initiative.

By launch day in October 2002, 1,000 information packs had been sent out to interested people, and 400 people had been issued with permits. This was due to good publicity as well as people who were already informally car sharing signing up so that they could receive the benefits of the scheme. Membership grew to 1,000 by mid

January but then fell as some people did not apply to have their permits renewed after the initial 3 month period. The numbers then stabilised before recommencing the upward trend from spring 2003, resulting in 780 by late March, 1,066 in late June 2003 and 1,200 by mid-August 2003.

Targeting
The scheme is targeted at commuters who work in the centre of Milton Keynes as the town centre is where the privileges are focussed. The scheme will expand to the Milton Keynes General Hospital in spring 2004 as part of their travel plan implementation (the plan has already been accepted by Milton Keynes Council). A further extension of the scheme is planned to include those who drive to the rail station (to commute to London). Negotiations are currently underway and implementation is likely in spring 2004.

The data collected regarding profiles of people as they register suggests that the scheme appeals to people from a wide range of economic and social types, and involves many types of car including a mix of private and company cars. The catchment currently covers anywhere where people travel into Milton Keynes i.e. it is defined by the travel patterns of people visiting the town. In effect, this is largely the town itself with a few clusters of car sharers distributed further away, including Cambridge. A publicity campaign focussed on members who live along the key transport corridor to Coventry. The aim was to increase the size of local pools of sharers, but the response was disappointing. Lessons from this are informing the planning of a similar campaign on the Leicester corridor.

Effects of the initiative

Effect on car use within targeted population
There has been no formal routine monitoring of the scheme although over 90% of members are believed to routinely use the scheme. There are also various indirect ways of assessing usage.

Monitoring of reserved parking bay usage is done quarterly as part of the routine parking surveys undertaken by the council and are shown in figure 2.

Figure 2: Mid-week occupancy of car share bays
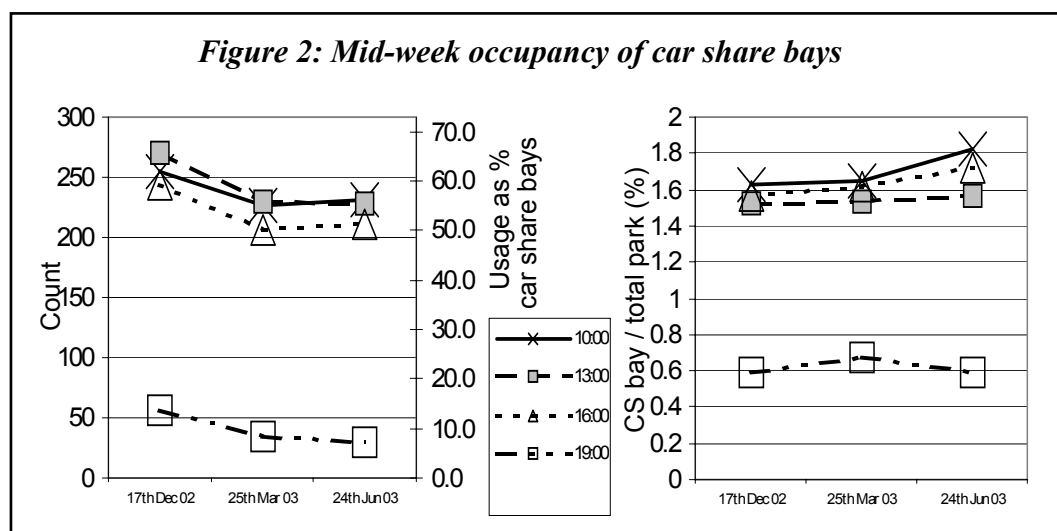
The number of people registered for the scheme on the three dates were 736, 783 and 1,066. The decrease in bay use between December and March is partly due to the success of publicity in early spring which explained that car sharers could use any parking space, not just the dedicated ones. The second graph in figure 2 factors out the total number of bays occupied at the sampled times in order to account for issues specific to the sampled day. This shows that usage in the daytime is increasing. Whilst this information indicates parking levels in designated bays, it is clear that there are considerably more members parking in non marked bays. One count suggested that, at peak times, 8% of the cars parked in the central area are official sharers, which would account for the majority of the membership.

Each member is part of a local sub pool, and monitoring of these by CAR**SHARE**MK shows that the total membership divided by the total number of local sub-pools is currently approximately 2.25. There is no data on how many SOV journeys have been avoided. Most of the journeys undertaken are weekday employment, together with small amounts of use for other purposes at weekends, and this is reflected in the parking bay data shown above. Although data exist which would allow journey frequency and journey length to be derived, these calculations have not yet been undertaken.

Other effects within targeted population
Some non-drivers have joined the scheme as a way of reducing transport costs. Some users use the car share one-way to make their transport options more flexible and reduce the dependency on a private car.

Wider effects of the initiative
Other reported benefits of the scheme include:
- reducing the pressure on town centre parking. At peak times, 8% of parked cars are official car sharers, suggesting that if they were not sharing, more cars would need to be accommodated.
- increased use of buses in response to the reduced fares for car sharers.

Traffic monitoring data show that between 1997 – 2001, two-way traffic into and out of the town centre rose by 11% on average, with peak morning flows up by 10%. Two-way daily flows across SouthWest-NorthEast and SouthEast-NorthWest screen-lines show average daily flow changes of 15% and -3% respectively, and equivalent one-way morning peak increases of 19% and 15%. In addition to road traffic:
- Automatic cycle count data show a reduction in number of cycling trips of between 9% - 25% between 2000 and 2001, although cycle stand occupancy surveys show no real change in their use.
- The number of bus trips between 2000/01 and 2001/02 increased by 1.4%, and this rises to 23% (between 1998-2001) for ridership on the two quality bus routes.
- Partial weekday data for two Park & Ride sites show that usage increased by 41.3% and 107.5% between autumn 2000 and 2001.

All of these data are from prior to the launch of the car share scheme. The existence of pre-existing sharers suggests that people were already responding to increased

congestion by car sharing, and the good recruitment to the scheme suggests that it may be tapping in to this natural trend.

Synergy with wider policies and strategy

The car share scheme has complemented a range of hard and soft measures which together have been increasing the overall profile of transport initiatives in the town in the last three years.

Synergy with 'hard' measures
The provision of high profile dedicated parking bays in prime sites has been critical to the scheme. In the first few months, some users did not realise that they could park (almost) anywhere for free in addition to in the parking bays. Once this was established, the scheme began to run more smoothly. Parking policy is under ongoing review by the Council, and car sharing is dealt with in a positive light, suggesting that any future changes will be beneficial to car sharing.

Other hard measures that have recently been underway include a new programme of pavement and footway replacement, a strategic new bus lane designed to improve bus reliability, new toucan crossings and traffic calming schemes in two of the older district centres. It is not possible to say whether there has been any synergy between these initiatives and the car share scheme.

Various proposals have been recommended in a study by FaberMaunsell to develop a 'Long Term Public Transport Vision' for Milton Keynes. This included infrastructure alterations (e.g. replacing some roundabouts with four-way junctions to ease bus flow), and public consultation in the summer 2003. This has had the effect of substantially raising the profile of transport initiatives in general.

Synergy with other 'soft' measures
There are ongoing soft measure programmes in Milton Keynes including:
- Safer Routes to Schools schemes
- Travel awareness campaigns which include a regular transport newspaper delivered to every home
- The annual "In town without my car day" which has evolved into a large town centre event including (operating!) car crushers, cycle races etc
- A web-based post-code driven public transport information resource

The development and promotion of the car sharing initiative is integrated with the travel awareness campaigns and events, and they aim to support each other.

Perception of the importance of the initiative
The Car Sharing initiative is seen as a flagship scheme within the Sustainable Transport Team, and the Council's enthusiasm for it has increased as recruitment has taken off. Milton Keynes Council sees the promotion of alternatives to single occupancy car driving as a priority. This is partly because the development of the town was, to an extent, based around facilitating car-based accessibility; the change of emphasis to increase non-car transport has re-vitalised transport as an issue. The car share scheme is seen as a good initiative as it allows people to continue to use their car, but to do so more responsibly.

Factors contributing to success
In Milton Keynes, one of the main current transport issues is the management of parking. Further parking charges were introduced on the same day as the car share scheme launched and the two are integrally connected.

Milton Keynes is designed around grid squares. This generally means that to travel anywhere by road requires moving around in one of the squares to an exit point, and using a major road to access the grid square of the destination. This is quite different to how the road system works in the majority of towns. The implication of this arrangement means that there is good *potential* for car share clusters to emerge from these grid squares which has, to an extent, been realised.

Scalability

Staffing and budget
Staffing is planned to remain constant for the foreseeable future. There are plans to expand the scheme into the Milton Keynes General Hospital, the Open University and for Milton Keynes Central rail commuters. The dialogue with these partners is underway and the implementation is anticipated to take place in spring 2004.

Relationship between spending and impact
There has been no analysis made between spending and impact of the scheme.

Future scale of the initiative under currently planned resources
It is anticipated that the scale of the scheme will remain the same i.e. the amount of resource being applied will sustain the current rate of growth for the foreseeable future. This scale works well given the current focus of the scheme i.e. commuters to the town centre and the planned extensions to the hospital, university and train station. However, there are also discussions about the possibility of a wider scheme, involving Bedfordshire and Northamptonshire.

Future scale of the initiative if resources were greater
It is not possible to predict the maximum size of the scheme as it is seen as depending on too many internal and external factors. Graham Simpkins suggests that there would be a significant benefits from increasing (doubling) resources to release a member of staff (GS) to focus solely on recruitment and setting up focussed dialogues with employers such as hospitals, Open University etc. This would probably more than double the number registered.

More ambitious expansion would be more dependent upon too many external factors to be able to predict the effects. For example, the impact of providing grants for employers to get involved with the scheme would be determined by the attitudes of the employers and their willingness to become involved in wider travel plan initiatives.

Monitoring plans
There are no further plans for monitoring unless some extra resource is made available. The main issue at the moment is to recruit people to the scheme, and all resources are being directed towards this.

Key issues for scaling up

The historical integration of the scheme with charges for parking means that one element which would be important for the expansion of the scheme would be the expansion of charging for parking (e.g. outside the central area), although there are no plans to do this at present.

The main hindrances against expanding the scheme at present are limits on the marketing budget and on the time available to engage with larger employers. These limits may be overcome if funding increases in the future.

There are several strategic partners which would be useful to involve in order to expand the scheme, including:

- Silverlink (rail station operator), in order to develop the station as a high profile car share centre
- public transport operators, in order to negotiate better ticketing deals discounts and targeted advertising space

At present, the scheme operates in isolation. Graham considers that it would probably be more popular if it was integrated with other schemes in towns around the country, so that people would be more used to the idea of car sharing. A nationally endorsed scheme which attracted stable central funding would also allow for longer term strategic planning and development as well as a greater confidence when selling the idea to users. Economies of scale would come into play – the car sharing activities of different authorities could be co-ordinated and individual towns would not have to re-invent the wheel to set up its own scheme.

He believes that the Milton Keynes scheme could translate easily to other places if:

- there is a charge for car parking
- the local authority is on board
- there are other key partners who are enthusiastic, (parking operators, public transport operators, employers)
- there are a significant number of town-based employees.

It would be easier to apply the model in a town with a more traditional hub & spoke road structure. In smaller towns, commute distances and parking may not be such important issues. In larger towns and cities, better public transport may obviate the need for a scheme which functions like the Milton Keynes scheme.

Endnote

In June 2004, we were informed that the council took over MK Sustainable Transport in April 2004, and that CarShareMK is now funded through Central Milton Keynes parking revenue. Meanwhile, the CarShareMK scheme is not being expanded, and, instead, in March 2004, Liftshare were awarded a contract to set up car sharing services for Milton Keynes, Northamptonshire and Bedfordshire, to provide schemes that cover all individuals, 50 businesses and 150 schools.

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Case study author: Alistair Kirkbride

Nottingham City Council

Personalised travel planning

Interviewee: Bruce James, Transport Investment Consultant, Nottingham City Council

Nottingham City Council is participating in one of the Department for Transport's 14 individual marketing pilot projects. The initiative uses Socialdata's individualised marketing methodology developed as TravelSmart by Sustrans. Both Socialdata and Sustrans are partners in the project. Preparatory work started early in 2003, targeting two contrasting socio-demographic areas of the city, linked together by a newly improved bus route. In total, 1000 people will be contacted in these two areas, and a further 350 people from across Nottingham will comprise a control sample. The 'before' surveys are taking place in July/August 2003 and the implementation and 'after' survey stages will be completed by late 2004. No results are yet available. However, some projections as to the potential changes in travel behaviour have been made. In summary, car use (trips and distance) is expected to fall by at least 6%. The initiative has been allocated a total budget of £68,000.

Case study location and main actors

A unitary authority was formed five years ago comprising the city of Nottingham and some surrounding built up districts (population 266,988). The area of the City of Nottingham is 7,461 ha, which is a population density of 3,579 people per square kilometre. The Greater Nottingham Local Transport Plan has been jointly produced by Nottingham City Council and Nottinghamshire County Council (population of approximately 650,000 in the plan area). The journey to work area goes beyond the county boundaries as many travel in from adjacent counties such as Derbyshire. Nottingham City Council won Transport Authority of the Year in 2002.

Nottingham has a very buoyant economy, with declining unemployment and a vibrant retail and nightlife. However, there are also a number of deprived areas in the city with social problems. It has a large number of bus services per head of population compared to cities of equivalent size and can be described as relatively compact.

Nottingham City Transport is the major bus operator for the city (with Trent and Barton running services mainly beyond the built up area). This was a city council owned company and is now a municipal limited company.

The TravelSmart pilot project is a City of Nottingham initiative, with some input from the county council. The charity Sustrans and the consultancy Socialdata have been contracted to carry out most of the preparatory work, survey work and marketing activities for the project. The local bus operators are partners in the project.

Main activities

The history of individualised marketing in Nottingham can be split in to two phases:
- Travel Blending 1997
- TravelSmart 2003

Travel Blending

The 1997 travel blending experiment was a county council initiative. This experiment followed the launch of the STEPS travel plan for Nottingham County Council's 2,300 employees (launched in March 1996). An interim survey suggested that the STEPS initiative had resulted in a 17% reduction in drive alone journeys. To extend this initiative from work to home, the council invited a random sample of 100 county council employees and their families to be involved in travel blending. A control sample of another 100 was also recruited.

TravelSmart

This is a new individualised marketing initiative planned by Nottingham City Council as one of a number of DfT pilot projects. The TravelSmart brand is held by Sustrans, who worked with Socialdata to develop their Individualised Marketing (Indimark) approach. Both Sustrans and Socialdata are involved in the Nottingham pilot project.

Two areas of Nottingham, Lady Bay and Meadows, have been chosen for the pilot. The two areas share a bus corridor, with Meadows having relatively high unemployment/ low car ownership and Lady Bay having low employment/ high car ownership. Both areas are close to the city centre.

The sample size (determined by the budget) is as follows:
- Gross sample of 1000 persons
- The minimum target population for the marketing action will be 900 people (based on previous UK experience, expect a response rate of 90% for successful contact for the marketing action)
- The target population will be randomly selected households within the Meadows and Lady Bay areas of Nottingham
- The control group will be drawn from the rest of Nottingham
- A 'before' survey will cover 500 persons (net) in Meadows, 500 persons (net) in Lady Bay and 350 persons (net) in the control group
- An after survey will cover all participants of the marketing action in each area and 350 persons/ households control group.

When contact is made it is done with an adult in the household. This represents one household as all members in the household can participate in the requests for information and household visits.

There are more than 14,000 residents in these areas to whom the scheme could be extended.

The TravelSmart/ Socialdata programme involves three stages as shown in table 1.

Table 1: Stages of implementation and timescale for Nottingham TravelSmart

Stage	Activity	Timescale for Nottingham pilot
Pre-intervention	• Preparation of marketing materials, including bus stop timetable information and modules, and bus service improvements.	August 2003
	• Before benchmark travel survey and monthly bus patronage data for the area to receive the intervention.	June 2003 (results Sept 03)
Intervention	• Deliver the individualised marketing intervention.	September 2003
Post-intervention evaluation	• Post intervention evaluation survey and analysis of bus (and tram) patronage.	June 2004

The project involves building partnerships with local transport operators. A summary of the key task of the project partners can be seen in table 2.

Table 2: Summary of the key tasks of project partners

	Sustrans	Socialdata	Nottingham city council	Public transport operators
Preparatory work				
Local partnerships	✓✓	✓	✓✓	✓
Project Planning	✓✓	✓✓	✓✓	✓
Marketing Materials	✓✓	✓✓	✓✓	✓✓
Before Survey	✓	✓✓		
Marketing Activities	✓	✓✓	✓	✓✓
After Survey	✓	✓✓		
Analysis and Reporting	✓✓	✓✓	✓	

✓ supporting role ✓✓ Key role
(Source: Sustrans 2002 Information sheet FF36 TravelSmart: Changing the way we travel)

Both bus operators are involved. Trent Barton is providing a test ticket for their services through Lady Bay and Meadows, as well as participation on the steering committee. Nottingham City Transport have a larger involvement parallel with their high coverage of services with provision of staff for home visits.

The project has some elements not used in other initiatives so far within the council. These include:
• Bus stop specific timetables
• Use of GIS to produce location specific walking routes
• Pocket timetables.

No specific targets have been set.

Staffing and costs

Staffing

The number of staff required varies during the course of the initiative. There is one person full time at the city council who draws upon help from the county and from GIS support within the authority.

Claire Flemming is the key person with half her time on the programme. Bruce James provides consultancy advice on the marketing and travel surveys (about a third of his time) and fills the gap while Claire is on leave or unavailable. Helen Greenwood at the county also allocates about a third of her time to the project. Bruce James estimates the average staff time per month is £3,000.

In addition, Sustrans regional representatives are used in the planning stage, in the design of materials for cycling and home visits, and in the report writing stage. One or two people from Socialdata are used during the implementation phase (before and after survey and marketing activities) and bus drivers will be used for the occasional 'home visit'.

Costs and benefits

In total, the budget for this pilot project is £68,000. The top level breakdown in terms of marketing and evaluation is as follows:

- Before Survey   £23,000
- Marketing intervention   £27,200
- After survey   £17,800

These costs are inclusive of staff time, travel, meetings and other expenses. The cost also includes the cost of information materials or marketing services supplied by the contractor or sub-contractor, but not those supplied by the public transport operators and other project partners. All other materials needed to run the marketing campaigns (printing, postage etc) are included.

DfT provided a capital budget of £50,000, and the remainder is funded internally by the city council and 'in kind' (eg from the operators: Nottingham City Transport provide test tickets and some home visits; from the county – about £8000 in staff time). Most of the work is contracted out to Sustrans and Socialdata.

The pilot project costs should not be used as a benchmark as it is different for large scale applications. A cost estimate has been made for the cost per household for a large scale application to the whole area which has economies of scale plus smaller relative sample sizes for the travel surveys. This is estimated at £35 per household. This is based on an occupancy rate of 2.3 people per household and individualised marketing, one 'before' and two 'after' travel surveys, cycling and walking marketing services (incentives, home visits) and promotional merchandise (rewards, bags etc). Of this figure, £5 per household is needed for additional public transport signage in Nottingham. It not possible to say what the cost per head would be purely for the marketing intervention - i.e., including the cold calling, but not including the assessment surveys.

The total capital transport expenditure for the authority was £18.7 million.

Scale of the scheme

Number of people affected by the initiative
There are more than 14,000 residents in these areas to whom the scheme could be extended. The total population of Nottingham is 266,988 people.

Targeting
The two areas chosen for this pilot study were chosen due to:
- Contrasting socio-economic characteristics and car ownership
- The introduction of an improved bus service joining up the two areas (route 11) with higher service frequency and better buses. In this sense TravelSmart can be seen as a marketing device to introduce other services. However, the initiative could happen without the introduction of the new bus route.

With respect to the targeting of different population groups, some segmentation is inherent in the TravelSmart methodology in that those already using public transport or those not interested in using alternative modes are not contacted further. This has generally left around 40% of the sample population taking part in the implementation phase of the initiative. As a result, the target market tends to be 'potential/ willing new users' of alternative modes. Beyond this, the tendency is to focus on journey purpose rather than the individual's characteristics in as much as marketing materials are designed around different themes (eg shopping bag, pocket bus timetables to major destinations, baskets for bicycles, shopping trolleys).

Even though formal targeting is not carried out, areas with high car ownership and use and better alternatives tend to become more involved in individualised marketing and yield the highest change.

Effects of the initiative

Effect on car use within targeted population

1997 Travelblending experiment
For this experiment, the control sample showed no change in car miles, whilst travel blending participants (those completing both diaries) reduced car driver trips by 7.6%, car driver miles by 14.2% and hours in the car by 11.8%. Total experimental sample achieved reductions of 3.3% (car trips), 6.2% (car miles) and 4.8% (car hours).

The results in Nottingham were less impressive than those of a similar project at about the same time in Adelaide. The literature (Ampt, Chatfield, Rooney undated) speculates that this is probably because participants in Nottingham had already been under various pressures to optimise their travel decisions.

TravelSmart
There are no results yet to document the effects of the initiative on travel behaviour. Nevertheless, evaluation is an important part of the method. Each evaluation consists of a before and after travel survey to measure the effects on behaviour change (mail

out mail back diary technique on a nominated travel day). This is conducted with a random sample of persons/ households which form the target group and these results are compared with those of a control group that has not received any TravelSmart advice. The data available will include:

- Mode choice
- Mobility figures
- Car usage
- Distance travelled
- Journey purpose
- Mode choice by explaining factors
- Some in-depth research on attitudes
- Optional geo-coding of the origins and destinations of the travel data.

Socialdata also have an in-depth survey technique that quantifies attitudes and opportunities for behaviour change to other modes. This is an optional add on to the survey that has not been agreed to by the county or city.

In Nottingham, the 'before survey' phase will supply data about the sample groups in autumn 2003. However, data on the effects of the initiative will not be available until late 2004.

Some predictions as to the *potential* behavioural change effects of the pilot programme have been carried out. The extent of behaviour change is drawn from the extent of change achieved in other locations and is considered to be on the conservative side of the range. The ranges in table 3 are measured in terms of trips per person (all people) per year and can be applied to the whole population. It must be noted that the estimates are based on the experience of Perth, which may or may not be relevant for Nottingham.

Table 3: Potential for behaviour change from TravelSmart (trips per person per year)

Range	Total trips* (trips/person/year)	Change from car trips				Change** (car trips)
		Public transport	Cycling	Walking	Car trips	
High	1080	22	18	49	89	-8%
Medium	1080	17	16	32	67	-6%
Low	1080	13	15	17	45	-4%

* The trips per person rate is drawn from Perth (3.4). The mobility rates for Perth are slightly higher than the German average. The mobility rate at which predicted trips are based on the Frome and Gloucester mobility rates – 2.7 trips per person per day. The use of the higher trip rate leads to a more conservative estimate of change.
** The extent of relative change is much lower than the 13-14% of the three large-scale projects applied in South Perth (Australia), Viernheim (Germany) and Gothenburg (Sweden). It is similar to the Cambridge (Australia) change (-7%) that is in an area very poorly served by public transport and the UK pilot averages in Frome and Gloucester, also with poor public transport. The rates of change could therefore be considered conservative. The public transport increases are similar to the German average for large scale public transport individualised marketing.
(Source: Bruce James M1 Multi modal TravelSmart Proposal)

These figures draw upon experience in other locations. All the measures of difference are relative changes. In summary, the Perth and UK projects demonstrated the following effects on behaviour:

- Perth pilot project – this included all green modes and reduced car trips by 10%. Further travel surveys one and two years after the project in 1998 and 2000 showed that these changes had been sustained. The success of the small case study and the evidence of a detailed cost benefit study laid the foundations for a large-scale demonstration project in 2000, extending to a population of 35,000 people in the City of South Perth, with the eventual aim of reaching half the population in the metropolitan Perth Area.

- Perth large scale applications – the large scale application for 35,000 achieved a 14% reduction in car trips with these trips changing to walking (up 35%), cycling (up 61%), public transport use (up17%) and car sharing (up 9%). Expansion of the approach to the town of Cambridge achieved a 7% reduction in car driver trips.

- The travel survey results have been reinforced by analysis of the independent electronic ticketing information from the public transport system. This analysis is only available with large scale applications. The results from the various large scale applications are as follows: South Perth 17% (14 months average after intervention); Cambridge 10% (12 months after intervention); Marangaroo 8%; Subiaco 12% to 19% (includes train); Fremantle 15%.

- In Gloucester – car trips were reduced by 9% (across the whole sample population) with three quarters of these journeys being substituted by walking (which increased by 10%) and cycling (which doubled) and the remainder by an increase (of about 1/3) in public transport use (see Gloucester case study for more details).

- In Frome – the marketing activities resulted in a 6% reduction in car trips with more than 80% of these substituted by walking (which increased by 11%). Use of public transport grew 10% and there was a 60% increase in cycling.

In terms of the types of journeys by mode being influenced, there is insufficient data to make a robust conclusion. There is a sense that the use of alternative modes for shopping and leisure trips is increased, particularly to local destinations.

Other effects within targeted population

There is much included in the TravelSmart literature on the additional benefits of the initiative. According to ARRB Transport Research Ltd (2002), the Government of Western Australia conducted a detailed cost-benefit analysis on the results of the South Perth Project (as discussed later) in which the following benefits were assessed

- Public transport fare revenues
- Savings in private vehicle running costs
- Improved health and fitness due to exercise
- Users and others exposure to air pollutants
- Greenhouse gas emissions
- Road capacity requirements
- Reduced road casualties
- Government tax revenue
- Viability of local shops and businesses
- Reduced noise and water pollution
- Improved security and safety in the community.

With respect to health benefits, the impact of these depends on the extent of physical activity already being undertaken. For example, if the participant(s) is already fairly active, the increased activity makes little difference.

In terms of social inclusion, the only comment made inferred that middle class areas are more inclined to participate in this type of initiative.

Wider effects of the initiative
Where individualised marketing has been implemented, community feedback has been very positive and the results have been used to 'sell' the idea of green travel initiatives to politicians. For example, although not partners in terms of delivery, the Area Committees (of which there are eight in Nottingham, providing an interface between the council and local communities) in the pilot areas could be key partners in TravelSmart, particularly for the future scaling up of the initiative. The TravelSmart process provides tools to tackle travel behaviour change and the information collected through the survey work carried out as part of the initiative can be used as part of a community learning programme. Resource booklets (TravelSmart Action Plans) can be produced to influence key decision makers and look for opportunities for behavioural change. This will help to 'explode the myths' about the potentials for behaviour change in order that the local problems and solutions can begin to be identified at a local level.

The in-depth survey work undertaken in South Perth shows that public attitudes towards bus use are noticeably affected by the individualised marketing approach. In particular, the home visits conducted by bus drivers were received very positively from households and this has in turn improved the perception of the company. The bus drivers also found the home visits a rewarding experience, which has a motivational effect throughout the company.

Synergy with wider policies and strategy

Synergy with 'hard' measures
The following areas were mentioned as having some kind of impact on the pilot:
- The two areas of Nottingham chosen for this TravelSmart pilot are linked by a newly improved bus route (number 11) benefiting from greater service frequency and better buses. This will have a direct impact on the tendency for people to be attracted to this mode.
- The introduction of real time information at bus stops would have been another factor in influencing mode-switch in conjunction with the individualised marketing. However, this will not happen during the pilot study.
- The introduction of the tram in Nottingham could have an influence on travel behaviour during the project time-scale. As a result, the control group participants have been selected from locations that are not near to the proposed route.
- The planned workplace parking levy has achieved much publicity. This may have an influence on TravelSmart in as much as it may force participants to re-evaluate their options. However, its imminent introduction is not something which TravelSmart intends to explicitly 'exploit'. Indeed, none of its marketing and information provision uses negative campaigning against the car or rules the car

out as an option, and TravelSmart has not associated itself with The Big Wheel campaign for this reason (as described below).

- Parking in the city centre for commuter parking is constrained.

Synergy with other 'soft' measures
Nottingham has been proactive in public transport information and marketing campaigning for some years. Indeed, the literature on the 1997 Travel Blending experiment noted that the pressure already exerted on Nottingham residents to optimise their travel habits may have been a factor in the lower than expected rates of behaviour change experienced.

Currently, the Big Wheel campaign is very prominent within the council's promotion of sustainable transport. Most informational elements are being branded as part of the 'Big Wheel'. Such campaigns will have a direct influence on attitudes and therefore as to how many people fall in to the 'interested' and 'not interested' groups. There is also synergy with these broader marketing measures in terms of spin-off effects for parallel cycling, walking and public initiatives through word of mouth. However, Bruce James offered the opinion that TravelSmart was 'keeping its distance' from the Big Wheel brand due to the negative connotations that the workplace parking levy may have. (This decision was not agreed with by everyone involved).

Although this pilot has not been used to increase the acceptability or effectiveness of any other particular transport initiatives, it is feasible that it could be specifically run alongside the implementation of new infrastructure projects.

Perception of the importance of the initiative
Although transport is a high priority within the authority, alongside education and economic growth, TravelSmart does not have a high priority. The suggestion was made that politicians are sceptical about the approach due to a lack of understanding and an over concentration on the supply of public transport as a panacea to transport problems.

Factors contributing to success
TravelSmart is taking place in this authority at this time primarily because of the funding available from the DfT. However, the progressive 'culture' of the city council was also mentioned in that they appear to 'do things intuitively' and benefit from political stability. In addition, the good relationship between the county and the city councils was seen to be beneficial to the initiative.

Scalability

Staffing and budget
There are no plans to scale up the initiative, although an assessment has been made of the resources needed and the potential impacts of doing so (below).

Relationship between spending and impact
A cost benefit analysis of the Perth pilot project and large scale project was carried out for the Western Australian government (ARRB Transport Research Ltd 2002). This analysis produced evaluation frameworks for the socio-economic, public sector

finance and private (user) benefit in order to assess impacts and value to each of these groups. In summary, the analysis concluded that the benefits of TravelSmart individualised marketing would outweigh the costs by a ratio of more than 30:1 over 15 years.

However, Ker and James (1999) noted that "the range of costs and benefits resulting from individualised marketing in relation to travel behaviour raises some fundamental questions about how these can be best incorporated into a single evaluation framework. These questions centre on the applicability of monetary values, especially for social and environmental impacts, and the derivation and application of implicit or explicitly weighting schemes for various components."

Future scale of the initiative under currently planned resources
The current resources have directly dictated the size of the samples to be contacted under this pilot scheme. The only potential hindrance to the extent of the project under current resources would be any delays in the production and distribution of timetables and publicity materials.

Future scale of the initiative if resources were greater
Future resourcing of the TravelSmart approach is seen to be a revenue versus capital issue. To be serious about expanding this programme, a significant amount of revenue funding is required. It was noted that the parking levy could produce a revenue stream.

The costs of undertaking individualised marketing are known from the pilot projects. In respect of a wider scale project, unit costs would be likely to be lower than for the pilot project as:
- set up costs would be spread over a larger number of households/ people
- project staff would become more practiced in applying the individualised marketing technique and more familiar with the area and its access/ transport opportunities(Ker and James 1999)

It is also worth noting that:
- Individualised marketing can be delivered on a large scale effectively – it is not dependent on workplaces or schools agreeing to it
- Delivery system on a mass scale has not got to be tailored each time (other than timetable information and maps).

This suggests that if resources were doubled, this would have more than double the impact. This has been the experience in the larger scale projects so far whereby each of the three large scale projects with previous pilots have been consistently stronger than the pilots.

Bruce James has carried out an analysis of the potential scalability of TravelSmart in Nottingham, which looked at areas within the M1 multimodal study area where TravelSmart could be applied. This is summarised in tables 4 and 5. The areas presented in the table 4 are in the immediate catchment of the M1. The Lady Bay and Meadow areas are outside the immediate catchment and were not included.

Table 4: Suggested areas in the M1 multi modal study in which to apply TravelSmart

Area	Population	Households	Total cost	Reduction in car trips (trips per day)	
				High	Low
Clifton & Wilford	28,700	11,600	£406,000	- 6.370	- 3,200
Abbey, Wollaton & Beeston	48,700	19,300	£675,500	- 10,830	- 5,480
Aspley, Lenton & Robin Hood	33,300	14,000	£490,000	- 7,400	- 3,740
Beechdale, Bilborough & Strelley	27,600	11,200	£392,000	- 6,150	- 3,110
Attenborough, Bramcote & Chilwell	23,500	9,900	£346,500	- 5,220	- 2,640
Total	161,800	66,000	**£2,310,000**	-35,970	-18,170

(Source: Bruce James M1 Multi modal TravelSmart Proposal)

Any of the areas listed in the table can be delivered in stages, such as Clifton and Wilford, over a two year period, which is likely to reflect implementation anyway. TravelSmart could be applied over a five year or ten year programme to these areas, although a five year period is preferable.

The delivery cost for this larger scale project would be £35 per household. There are economies of scale because monitoring becomes a smaller part of the figures and the development of the marketing materials is for a larger number of people. There are also lower relative start-up costs.

The total population of the Nottingham conurbation is roughly 650,000 (this is the area covered by the Greater Nottingham LTP). Assuming 2.7 car driver trips per person per day, the overall car trips per day is 1,728,000. The proposed programme in the M1 immediate catchment would achieve a reduction in car trips between 2% and 1% for the whole of the Nottingham conurbation.

Table 5: Potential change in trips in large-scale TravelSmart application

Area	Total trips per day	High range				Mid Range				Low range			
		Car driver	Public transport	Cycle	Walk	Car driver	Public transport	Cycle	Walk	Car driver	Public transport	Cycle	Walk
Clifton & Wilford	77,340	- 6,370	+ 1,575	+ 1,290	+ 3,500	- 4,655	+ 1,220	+ 1,150	+ 2,300	- 3,220	+ 930	+ 1,075	+ 1,220
Abbey, Wollaton & Beeston	131,445	- 10,830	+ 2,680	+ 2,190	+ 5,960	- 7,900	+ 2,070	+ 1,950	+ 3,900	- 5,480	+ 1,580	+ 1,830	+ 2,070
Aspley, Lenton & Robin Hood	89,784	- 7,400	+ 1,830	+ 1,500	+ 4,080	- 5,400	+ 1,420	+ 1,330	+ 2,660	- 3,740	+ 1,080	+ 1,250	+ 1,410
Beechdale, Bilborough & Strelley	74,572	- 6,150	+ 1,520	+ 1,240	+ 3,380	- 4,490	+ 1,170	+ 1,100	+ 2,210	- 3,110	+ 900	+ 1,040	+ 1,170
Attenborough, Bramcote & Chilwell	63,380	- 5,220	+ 1,290	+ 1,060	+ 2,880	- 3,810	+ 1,000	+ 940	+ 1,880	- 2,640	+ 760	+ 880	+ 1,000
Total	436,531	-35,970	+8,895	+7,280	+19,800	-26,255	6,880	6,470	12,950	-18,170	5,250	6,075	6,870

(Source: Bruce James M1 Multi modal TravelSmart Proposal)

Anable J, Kirkbride A, Sloman L, Newson C, Cairns S and Goodwin P (2004)
Smarter Choices. Volume2: Case study reports. Department for Transport, London

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There is no experience with the maintenance costs of individualised marketing, nor have techniques been developed specifically to address it.

There are, however, some constraints on the maximum effect that TravelSmart can have:
- There is a section of the community that will not change their travel behaviour
- There is a certain proportion of trips that are most suitable to car travel and will not be changed
- There are some types of people that probably cannot be usefully targeted – e.g. company car owners and those with very low car ownership already
- Implementation is difficult in areas with low telephone ownership
- TravelSmart may be difficult to introduce where there is little spare public transport capacity
- Rural areas are more difficult but it is possible to find that people have more choices in terms of walking and cycling.

Monitoring plans
The results of the after survey will be available in autumn 2004. Some qualitative data may also be collected.

Key issues for scaling up

The key barriers to scaling up personalised travel planning were perceived to be:
- Generating faith in the effectiveness of the method by key stakeholders
- There needs to be a 'champion' and this will dictate where it takes off in the UK
- There is a skill issue – not in delivering, but in how to extrapolate pilot results to a larger scale. Also in terms of GIS and timetable information – this is an issue in the UK depending on where you are.

Interviewees felt that there is more support and awareness compared to four years ago. However, it was considered that there are not enough pilot projects in the UK and that mainstream support has primarily only come from Sustrans. Within the city council, funding and greater awareness would help scale up personalised travel planning.

Comments on central government involvement in personalised travel planning were as follows:
- DfT should earn more about the subject and appreciate the impact it can have
- DfT should focus on it from the customers perspective
- DfT thinking is constrained by their focus on the journey to work, with too much emphasis on school and work travel plans – this approach appears to be problem driven, not solution/ outcome driven
- Travel blending works on the perspective that behaviour cannot be changed until you know more about what that behaviour is – DfT looks at it this way too. In contrast, TravelSmart already understands general travel behaviour and the potential to change – for example, Travelsmart highlights that there is greater potential to walk/ cycle to shops but not necessarily to work.
- Evaluation needs to take place on a comparable basis to road building solutions. The cost effectiveness of this approach has to be compared to traditional hard

measures. It is crucial to focus on the customer perspective and on the results, as this has a political impact. The evaluation of most marketing initiatives focuses the input cost and evaluates success by whether or not people remember the message. However, to make comparisons with hard measures, it is important to focus on the outcomes – that is, behaviour change and acceptance.

The interviewees felt that other organisations could also help. Support from public transport operators was seen as crucial. It was argued that the freight industry stands to benefit from personalised travel planning (as shown by modelling in Perth). The health promotion sector could also become more active. The cycling lobby and groups such as Transport 2000 need to help build local alliances.

The interviewees felt that TravelSmart is readily transferable to other areas. Socialdata has applied the methodology to more than 100 large scale projects and around 60 pilot studies worldwide for more than 1.5 million people. The variety in location provides evidence of its universal applicability. The different locations show that the issue is not whether the technique works, but the extent of behaviour change that will be delivered.

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Case study author: Jillian Anable

Nottingham City Council

Public transport information and marketing

Interviewees: Andy Gibbons, Team Leader – Public Transport, Nottingham City Council; Nicola Tidy, Marketing and Communications Manager, Nottingham City Transport (NCT); Lynn Hanna, Transport Marketing and Communications Manager, Nottingham Development Enterprise (The Big Wheel)

Since becoming a unitary authority five years ago, Nottingham City Council, together with Nottingham City Transport, has undertaken fundamental changes in transport provision and the way it is promoted in the city. In 2002, the city council developed a Public Transport Information Strategy which defined its primary focus as multi-operator route information and the promotion of the integration of modes and interchange. Much work has been done on bus stop infrastructure, integrated maps and timetables. The annual budget for this work is £35,000 plus resources allocated to database development for future expansion of electronic information resources. The Big Wheel campaign was launched to the business community in December 2001 and to the general public in June 2002. This was conceived by the Greater Nottingham Transport Partnership to support the joint LTP of Nottingham City and Nottingham County councils. It is an awareness, marketing and communications programme to inform people of the whole package of changes taking place, how they fit together and encourage behavioural change. The campaign is managed by the private sector, under contract from the city council with an annual budget of around £230,000. It sees itself as a 'virtual PTE' for promotional work and has developed a strong brand which is now used on almost all public transport promotion materials by the city. Nottingham City Transport (NCT) completely restructured its bus network in September 2001. It appointed a Marketing and Communications Manager and large team working in this area, stopped all cross city routes, colour coded routes travelling along the same main corridors, and introduced new fast and modern 'Go2' services along 11 of these corridors. The company has seen an increase in bus passengers of 1.5% each year since these changes, and an increase on some Go2 corridors as large as 5%. In the first year the budget for information and marketing was £500,000, and £250,000 the following year. All this has taken place alongside fundamental changes to the transport infrastructure in Nottingham including Clear Zone traffic restrictions in the city, construction work for the tram (NET – Nottingham Express Transit) and extensive changes to parking management. In addition, the city has been consulting on the introduction of a workplace parking levy. Traffic levels have remained stable in the city over the past two years.

Case study location and main actors

A unitary authority was formed five years ago comprising the city of Nottingham and some surrounding built up districts (population 266,988). The area of the City of Nottingham is 7,461 ha, which is a population density of 3,579 people per square kilometre. The Greater Nottingham Local Transport Plan has been jointly produced by Nottingham City Council and Nottinghamshire County Council (population of

approximately 650,000 in the plan area). The journey to work area goes beyond the county boundaries as many travel in from adjacent counties such as Derbyshire. Nottingham City Council won Transport Authority of the year in 2002.

Nottingham has a very buoyant economy, with declining unemployment and a vibrant retail and nightlife. However, there are also a number of deprived areas in the city with social problems. It has a large number of bus services per head of population compared to cities of equivalent size and can be described as relatively compact.

The implementation of public transport information and marketing in Greater Nottingham is carried out by three main agencies: Nottingham City Council; The Big Wheel (managed by Nottingham Development Enterprise) and Nottingham City Transport. However, in practice, there is much overlap and partnership working between all three of these organisations together with the county council.

Nottingham City Transport (NCT) is the major city operator for the Greater Nottingham area (with Trent and Barton running services mainly beyond the built up area). This was a city council owned company and is now a municipal limited company.

The Big Wheel campaign was conceived by the Greater Nottingham Transport Partnership (GNTP). This is a public-private partnership that advises the councils on strategic transport issues across the conurbation. It has mainly business membership of around 20 with a wider forum of around 700 organisations. There is political representation from local authorities and it meets every six weeks. The Big Wheel campaign is project managed by Nottingham Development Enterprise. The campaign applies to the whole of the LTP area but is inevitably focused on the Nottingham conurbation.

Main activities

Nottingham City Council
The emphasis of public transport information in Nottingham is on integration – of different modes and of commercial bus services. Four years ago, Social Research Associates carried out a comprehensive research study with the population of the conurbation. This was a precursor to the development of the city council's Public Transport Information Strategy (published January 2002) with the purpose of identifying gaps in information, defining the role of the local authority and providing a guide as to where resources should be concentrated. The study found that, individually and commercially, each public transport operator provided very good information in many different formats. However, this was assessed as fairly standard information provision so that once 'in the system' existing users could find information about individual operator's services relatively easily, but journeys involving more than one bus operator (20% of journeys), or new customers, were not well catered for. Information at bus stops was also poor.

As a result, resources were concentrated on interchange and on multi-operator route information. The Public Transport Information Strategy set out a hierarchy of areas

for improvement and provision of printed information by the city council. All information is to be printed in the 'Big Wheel' branding style (see below):

- **Multi-operator interchange information**

This includes way-finding signage, stand-alone panels and departure boards in the city centre, district centres and ring road interchange points. There is coordinated information at every bus stop on all the major corridors involving more than one bus operator. In addition, bus stops were grouped to form mini bus stations. All bus stops in a cluster have a similar letter (and colour coding – see below) and finger posts direct people to where ranks of bus stops are. This is rolled out at key interchange points in the city. City centre maps indicate where to change buses and these are on the back of every bus shelter and on stand-alone panels around the city centre. This is presented in topographical style with the Big Wheel branding.

- **Frequent high quality bus network**

The bus network in Nottingham now consists of a formal network of bus quality partnerships where a simplified multi-operator approach is promoted. The network comprises18 high quality bus routes, each with a 10 minute daytime frequency within the conurbation. Bus quality partnership sector guides are used to show incremental bus priority improvements on the corridors within each sector and overarching publicity is to be produced showing standards for all aspects, progress to date for each corridor and planned works for next four years.

- **Sector guides**

The city is split into eight sectors, radiating out from the city centre. Each sector has its own detailed journey planning map indicating most roads, stop locations/codes, services, key points of interest etc. These are designed to complement operator timetable/route information by providing information at lower level of detail. Only one of these had been produced at the time of the case study interview (August 2003) but they were a priority for 2003/4 to coincide with quality bus corridor improvements.

- **Themed/ specialised maps**

Education: all schools, colleges and universities are marked on a map with links from the city centre. This has come out of school travel planning work.
Employment: all industrial sites and businesses over 100 employees are marked on a map distributed to job centres and people involved in improving access to companies.
Health: all hospitals, medical centres etc and information on how to access all pharmacies, health centres etc
Leisure: including key hotels.

- **Timetables and bus stop plates**

Individual service timetables and roadside publicity are produced for each contracted bus service and all plates are renewed with multi-operator information.

- **Bespoke information**

There is also specialised information such as a guide to using conventional buses for disabled people, which shows the locations of accessible bus stops; Braille services; agreement with ethnic minority languages group to do translations; 'how to use buses'

for first-timers; a night bus leaflet covering departure times for all late buses from the city centre; and a leaflet for older and disabled people on concessionary fares, how to apply for a pass, discounted day tickets for travel outside the scheme area and how to use the new Smartcards (below).

In addition to these information services, the city council is involved in a number of other initiatives:

- **Electronic information**

Andy Gibbons believes this to be the key with respect to future transport information provision. There are a lot of different approaches to electronic journey planning including national Traveline, SMS text messaging ('Next Bus' see below), electronic web based journey planning and real time information. Andy believes that personal travel planning is the best way to get newcomers into the market. The city council has been developing an automated personal journey planner using GIS and various databases (approximately 100 have been trailed on its own intranet site) but it will be about a year before this is in the public domain.

- **Demand-responsive bus route**

The Big Wheel-branded minibus around Mapperly and Sherwood, 'My Bus', is Nottingham's first flexible bus route and was launched in March 2003 for a two year trial period. The route was marketed using the concessionary fares database and at local fairs. The aim was to achieve 50% capacity and this was well on target as after 15 weeks, capacity had already reached 45%. After six months, the service carried 940 passengers per month, or 50% of total capacity. The buses were bought by the city council and the service costs approximately £35,000 to run, of which around £1000 is on promotion. However, it is difficult to strip out the effect of the promotion.

- **Smartcard concessionary bus pass**

During 2002 a trial of a Smartcard concessionary bus pass took place. The trial was a success and the information was used to design a distribution method and to produce a guide on how to use such Smartcards. So far, 34,000 elderly concession cards have been distributed and around 5000 education cards.

The city council also works with the county on some promotional aspects as there are areas of overlap. However, each has quite distinct areas and a different emphasis. The overlap has been addressed to a large extent by the Big Wheel.

The Big Wheel

The Big Wheel was conceived after Greater Nottingham Transport Partnership identified the need to support the joint LTP of Nottingham City and Nottinghamshire County Councils with an awareness, marketing and communications programme. GNTP business members felt this needed a fresh approach to marketing but required skills that the councils themselves were not perceived to have. As a result, it is a project managed by the private sector (Nottingham Development Enterprise). The Big Wheel was originally set up for three years (due to finish October 2004).However it is almost certain that it will continue, and Nottingham Development Enterprise is currently involved in discussions as to the best way to set it up more permanently.

The Big Wheel was launched to the business community in December 2001 and to the general public in June 2002. Its aim has been to articulate a transport vision for the city and to raise awareness of the measures contained in the LTP i.e. an integrated transport system for Greater Nottingham, and to encourage modal shift from car use to public transport, walking and cycling. It is described as the 'marketing PTE equivalent' for Greater Nottingham.

The function of the Big Wheel lies somewhere between a general awareness campaign and a specific promotional tool. There is no disputing that the potential implementation of the workplace parking levy in 2005 and the fundamental changes in the Greater Nottingham transport system, such as the implementation of a Clear Zone and comprehensive traffic management alterations in the city centre, have necessitated a sensitive, consistent and coordinated tool to inform and sell the whole package of measures planned for the city. The concepts developed by the campaign are based on the understanding that businesses in particular need to have the confidence that transport improvements in the city are part of a long term, coordinated plan. The purpose of the campaign is described in the The Big Wheel Indicative Strategy document (2003): 'Many established brands already exist in the conurbation's transport system. The Big Wheel could not hope to supplant them and would not want to. However, the brand will educate the public in the concept and use of an integrated transport system, commonplace in continental Europe. It will also help to establish a new interconnected, efficient image that will encourage modal shift. The nearest description to our aims is the establishment of something near to a virtual PTE. Many of the elements are separate, but in the consumer's mind they will become part of a connected whole.'

Rather than appear intermittently as part of an awareness campaign or newspaper offers, the Big Wheel is becoming a permanent part of the transport infrastructure. Its objectives and specific approaches have evolved over time in response to issues and experience of what is well received in the city. The first phase of the project can be described as more of a general awareness campaign to inform business and the public 'how it all fits together'. This encompassed more general promotional products appealing to the 'hearts and minds' at a more abstract level of awareness. Now, the campaign is moving to a stage with more factual information and the establishment of the Big Wheel brand. Almost all public transport information and many initiatives by the city (such as timetables, area travel guides, school travel plan packs, workplace travel plan information etc) uses the Big Wheel brand. This brand uses a bright, technicolour style with straightforward imagery of the various elements in the city's transport network.

The two 'audiences' of the Big Wheel material warrant different approaches:
- Business: this sector needs to be informed about a long-term transport vision and practical achievements. This includes those working but not living in the city who need to be convinced that the workplace parking levy will be spent on initiatives which will also improve their circumstances. Communication with the business sector has been through a variety of media. A Big Wheel 'sub brand' based on the more sober, authoritative 'Freewheel' magazine has been developed for business. This has a circulation of 20,000, although it is also available on the website. Also, 120,000 copies of The Business, a special round up of transport achievements, was inserted in the business section of the Evening Post.

- General public: for this sector the task has been to inform people of changes as and when they are happening, as well as to communicate the longer term vision. The challenge is not to overclaim current success and risk cynicism. The strategy therefore aims to give transport a new, optimistic image to help encourage modal shift and address the ways that transport is relevant to personal choices and concerns.
- A great number of presentations and meetings have also been undertaken, with individuals and organisations. In addition, the Big Wheel brand has been used for the station masterplan brochure and associated south side website and consultation.

Examples of four specific public awareness campaigns on posters, postcards, bus stops and roadsides have addressed:
- A radical change in transport that people can join – 'Join The Revolution'
- The vital impact of your mode of transport on personal health – 'Better for Everybody'
- Air quality, pollution and the environment – 'Can you do without it for a day?'
- Bus travel is a better option to car travel during the congested festive season – the 'Christmas Carol' campaign

A partnership with the Evening Post, Nottingham City Transport and Profile Nottingham has promoted discounted bus travel to a wide audience at very low cost to the project. During the summer health campaign, the Big Wheel provided passports offering cut price admission to local attractions with discounted bus travel. Another offer asked commuters to try twilight leisure offers after work to avoid the rush hour with discounted bus travel home. There have also been editorial articles on air quality combined with Nottingham City Transport and Trent Barton offers. The Travelwise website is also being resurrected under the Big Wheel banner.

Inevitably the issues addressed by the Big Wheel go beyond the boundaries of the built up area. This has been a main impetus for its development, in order to develop a consistent approach and message from both the county and the city councils. An ingredient in the success of the Big Wheel is the degree to which it works in partnership with a wide range of bodies in the public, private, voluntary and community sectors. Officers from county and city and representatives of the bus companies form a joint promotional force.

There are clear guidelines as to the use of the Big Wheel brand. The branding guide has been an invaluable way of managing a large number of partnership projects, giving partners sufficient autonomy. This maintains the brand's quality and integrity, but encourages its extensive use by a variety of partners. This means that partnership organisations can use the brand to specific guidelines, often financing the material themselves. The use of the Big Wheel logo signals that a partner's project is part of the overall long-term plan.

Nottingham City Transport
Nottingham City Transport has adopted a concerted commercial communications and marketing strategy since the appointment of Nicola Tidy (Marketing and Communications Manager) in 2000. A number of factors came together at this time

that led to her appointment. Nottingham was due to open its tram network in late 2003/4. Although part of the tram consortium, Nottingham City Transport could not ignore the prospect that the tram would abstract passengers from its network. Combined with falling bus patronage and the traffic commissioner's standards of reliability, this provided particular impetus to the bus company to move away from its predominantly engineering based approach, to a more commercial marketing and communications focus in order to attract new customers and reverse the trend of declining patronage. In addition, its main competitor, Trent and Barton, were felt to be particularly good at marketing and promotion with a distinct branding and good customer loyalty.

The bus company totally reassessed its network and its approach to marketing. Although Nottingham City Transport is the major city operator for the Greater Nottingham area (with Trent and Barton running services mainly beyond the built up area), the network had largely remained static for the previous 20 years. In September 2001, the network was dramatically changed and simplified. The main changes involved:

• Removal of all cross-city services so that all routes started and terminated in the city centre. This had the effect of improving reliability as 30% of all congestion delays occurred within a one mile radius of the city centre, yet only 3% of journeys went beyond the centre.

• Each corridor out of the city was colour-coded so that all buses using that main route were the same colour, even if the end destinations were different.

• All bus stops serving routes along the same corridor were clustered and colour-coded.

The crux of the new marketing initiative and the rebranding of the Nottingham City Transport network is considered to be the introduction of the 'Go2' services. On every major corridor (and on some routes more than one), these services have the following characteristics:

• Fast and direct with a guaranteed 10 minute daytime frequency.

• Midnight departures (this was new – previously the last bus was usually well before midnight).

• Average fleet age of no more than six years old.

• Low floor buses.

• Colour-coded (whole of the front of the bus as opposed to the roof on other services).

The first of these was launched in autumn 2001 alongside the wider network changes. Eleven routes are now in operation and three more are planned. The services were specifically aimed at the commuter by providing an easy, modern and positive image to counter the bad image of the older corporation buses. Indeed, it is described as a 'tram like bus service'. However, the challenge was to avoid alienating existing customers who identified with the old buses that had been around for so many years.

The remainder of the services were rebranded as the Nottingham Network. They comprise the less frequent neighbourhood services and feed into the Go2 services. Eventually the network will consist of approximately 1/3 Go2 and 2/3 Network services.

Before the launch of the new network, a teaser campaign was run in the local press. Upon launch, many different marketing and PR activities were undertaken including: the insertion of the Nottingham City Transport newsletter 'Network News' into the local paper (The Nottingham Evening News – circulation 120,000), 48 sheet advertisements around the city, a new website, a mail-out to bus card holders, local radio advertising and various PR activities in schools. A call centre has been introduced to handle all kinds of customer information. There was resistance and criticism from the local community at first as emotions and passions about the bus services ran high. However, after approximately three months, local press coverage and patronage settled down. Patronage in the first year increased despite having taken out 10% of the fleet and routes having been cut (see below). Reliability also improved.

More recently, SMS text messaging was introduced across the whole network (the Next Bus Project). This service is not limited to the time of the next bus but also offers journey planning by providing information on interchange and buses arriving by a certain time of day. The service costs 25 pence and came online in July 2003. Whilst it may eventually generate revenue, the objective is for it to merely cover its costs. It will eventually be linked to real time information when this is introduced on the whole Nottingham network subject to the current trials being successful. This may be in the next 2-3 years.

In addition, the company is developing its ticketing initiatives. In particular it has introduced a Smartcard system which will eventually be used on the tram and the bus combined. This can be 'topped up' and renewed by a number of different methods including the internet and direct debit.

Nottingham City Transport has fulfilled its objective of reversing the trend in declining patronage. Nicola Tidy claims that people are now beginning to trust the bus company and more people are at least beginning to try the services. Research in May 2003 by TAS and RAMA (Research & Marketing Associates Ltd) showed that most people now understand the colour coding. The company won the bus industry marketing award for Go2 in 2002. This has also had the effect of changing the internal culture of the organisation. Much of the workforce had been in place for many years and had never seen such comprehensive changes in the organisation, even after deregulation.

Nottingham City Transport has also worked closely with the Big Wheel. Whilst the Big Wheel has a wider agenda, it is seen as entirely compatible with the objectives of the bus company, despite the fact that in effect, the 'competition' is also promoted. The common agenda is to encourage people to use alternatives to their car, whether Nottingham City Transport or Trent Barton buses. Joint promotions in the Nottingham Evening Post have attempted to get people to try the bus. These have been very successful. A promotion last summer to encourage family travel to leisure destinations generated discounted sales of over 7000 Nottingham City Transport bus cards, potentially used by 28,000 people. This was the Evening Post's most successful promotion ever and gives much wider exposure for which Nottingham City Transport would not normally have the budget.

Staffing and costs

Staffing

- **Nottingham City Council**

Andy Gibbons is part of the Public Transport Team. Whilst he oversees public transport promotion, publicity is not his main function and accounts for only a fifth of his time. There are two additional full-time posts working on publicity. One other person in another team (1/2 fte) is developing web-based information. This adds up to be 2.7fte staff time spent on information and marketing.

One of the two full time members of staff was appointed 18 months ago, the other eight months ago. Before this, no members of staff were dedicated to promotional work and indeed, very little work was carried out by the authority before this date.

It is worth noting that this is a different team to the transport strategy team which oversees workplace and school travel plans and the individualised marketing pilot project.

- **Big Wheel**

A service level agreement and a budget to support the Big Wheel programme were agreed between Nottingham Development Enterprise and the city council. The Big Wheel campaign is described as relatively labour intensive. However, it is essentially a team of two core staff – Lynn Hanna (marketing and communications manager) and Kay Hardiman (project manager). Both are based at Nottingham Development Enterprise, though funded by the city council.

A great deal of the work, such as idea generation, copywriting, art-direction, proof reading and production scheduling has been done in house, rather than given to a commercial marketing agency. However, a freelance arts and events organiser sometimes supplements this work. In addition, the project has generated a great deal of work in kind from members of Greater Nottingham Transport Partnership, other partners both public and private and from the local media. It was intentionally started as a snowballing project in that it was hoped that partners would come on board when they came to recognise its value and relevance to their own organisations. This aim has been largely realised, but it can be difficult to plan given the growing workload and the complicated partnership work involved in many campaigns. Also, the Big Wheel team offer marketing skills and experience that are often not present in partner organisations.

- **Nottingham City Transport**

Nicola Tidy was appointed in March 2001 as Marketing and Communications Manager. She now has around 40 people working for her (although many of these are in the Travelcentre and are part-time) – though some must be considered more 'communications' than 'marketing'. She is responsible for all aspects of the business which affect the image of Nottingham City Transport. The team is made up of:
- Design team: 1 fte and a full time graduate on placement. They are responsible for the design of all leaflets.

- Publicity team: 4 fte (this has increased by one over the three years). This team is responsible for bus stop publicity/ timetables (there are 3200 bus stops of which 2/3 have passenger information) + 250 outlets where timetables are provided.
- Travelcentre: 20 fte. This was set up three years ago to issue Smartcards, period passes and concessionary cards and house a call centre.
- Another graduate developing performance data.
- Liaison team: 2 fte. This team is responsible for liaison about, for example, road works and assigning temporary stops.
- 1 fte implementing a new software package to integrate scheduling and rotas.

Costs and benefits

Nottingham City Council and the Big Wheel
In terms of revenue costs, £35,000 was spent in 2002/3 on coordinated maps, plate information, timetables other promotional material. However, this figure is not fixed. The biggest variable is the number of bus registration changes. In the current year (2003) there have been two changes so the figure may be more like £50,000 (indeed, £50,000 has been set aside for the task). In addition, £25,000 is dedicated to data collection, development and manipulation of the various databases.

This compares to 1999/00 when only £10,000 was spent on promotion. This £10,000 was the city's contribution to various county initiatives. However, the city council has gradually gained autonomy from the county and developed its own Public Transport Information Strategy.

In summary, the budget in the authority is about £35 – £50,000 a year and staff costs for 2-3 members of staff (£50,000).

Capital costs over the past *two* years are:
- £150,000 for infrastructure at bus stops such as timetable drums
- £50,000 on bus stop plates
- £50,000 on standalone illuminated information panels across the city
- almost £50,000 on departure boards in two bus stations
- half way through spending £280,000 on real time information.

Over the next year, £100,000 will be spent on interchange works, £100,000 on departure boards and £2-300,000 over the next two years on real time information.

In the Annual Progress Report, funds are allocated to 'bus promotion' from which the above capital expenditure is taken. This is £1.4 million (2002/3 APR). The majority of the bus promotion funding is allocated to highway work for bus quality partnerships. The Big Wheel money is also taken out of this money as dispensation was received from the government office for the East Midlands to spend money 'promoting the Local Transport Plan'.

Expenditure on the Big Wheel was £326,623 from when it started in October 2001 to March 2003. The budget allocation for 2003/4 is £250,000. This expenditure includes two people's salaries as they are fixed contracts funded through the Local Transport Plan.

The Big Wheel was allocated £53,000 from the Greater Nottingham Partnership (GNP) for the financial year up to end of March 2004. The Greater Nottingham Partnership is the sub-regional partnership of East Midlands Development Agency and allocates EMDA funding in the Greater Nottingham area. It is also almost certain that the Big Wheel will receive at least the same amount in the next two financial years. The Greater Nottingham Transport Partnership is now the official Strategic Action Team (SAT) of the Greater Nottingham Partnership.

The Greater Nottingham Partnership money is in addition to the funding from the city council. There have been some preliminary discussions as to the county council contributing in future.

According to the 2002/03 Annual Progress Report, the annual capital transport expenditure for the authority was £18.7 million. Within this, £750,000 was allocated to the tram; £1.4 million to bus promotion; and £237,000 to rail development.

The total transport revenue budget is approximately £5 million. This includes the concessionary fares scheme and tendered bus services but does not include educational or social services transport.

Additional revenue is provided by two hospital trusts which support and run their own bus services (two services at the moment, will increase to four); Nottingham City Transport; and employers through the Commuters Planners Club where their own material is produced.

Nottingham City Transport
In each of the last two years, £250,000 has been spent on marketing activities. In 2001 when the major network changes took place, this budget was £500,000. This covers: physical production (timetables, bus stop plates), Go2 advertising, radio ads, poster campaigns, any PR activity/ launches, new design concepts, Network News mail out to 40,000 people, internal staff newsletters, yellow pages and merchandising. Nottingham City Transport's overall revenue budget was £37 million last year.

The marketing budget is likely to remain fairly stable now unless any more major network changes are implemented, which is unlikely. Nicola Tidy explained that there is a will to grow and invest in the business and marketing is now seen as a crucial element in this.

The increase in patronage of 1.5% translates into a 6.6% increase in ticket revenue on 2003 compared to 2002. However, a fare increase during the year distorts this figure.

Scale of the scheme

Number of people affected by the initiative
The population of the city council area is 270,000. The Greater Nottingham area has a population of 650,000.

It has been calculated that 60% of people are within walking distance of Nottingham City Transport's premier bus routes.

Changes over time

The last three years have witnessed step changes in the approach to marketing and promotion by both the city council and the bus company. The city council has gradually 'brought back' responsibilities from the county council and developed its own style and emphasis, including the Big Wheel. It is seen to be important to inform the public and business sector of the 'bigger picture' in the light of the introduction of the tram, road network changes and workplace parking levy. Nottingham City Transport has combined a fundamental reappraisal of their network with a commercial, modern and positive approach to marketing.

Targeting

Both organisations identify commuters and the socially excluded as the two groups to which most material is aimed. Information for commuters is aimed at simplicity and encouraging people to try the public transport system. With respect to the socially excluded, Nottingham City Transport has a remit to continue unprofitable services to a certain level. Indeed, Nicola Tidy claimed that approximately 10% of the services would not be in operation if the company operated on a purely commercial basis. However, the council is increasingly taking over these services.

Effects of the initiative

Effects on bus travel

Andy Gibbons collates annual information on ticket sales. The figures in table 1 combine Nottingham City Transport, Trent Barton and Park & Ride sales. Whilst the boundaries of all these services differ from each other, they are consistent from year to year.

Table 1: Bus travel in Nottingham

	NCT	Trent Barton	Park & Ride	Total
Annual passenger journeys				
2000/01	52.4m	16.9m	0.96m	70.3m
2001/02	53.2m	17.9m	1.1m	72.2m
2002/03	53.6m	18.2m	1.1m	72.9m
% change 2000/01 to 2002/03	+2.2%	+7.7%	+13.5%	+3.7%

Source: 2002/3 Annual Progress Report

An increase of 2.6 million bus passenger journeys (3.7%) has been experienced over the past two years across the LTP area.

It is only in the last three years that bus patronage has been collated in this standard way and hence figures before this date are unreliable. However, the consensus is that bus patronage was in decline by about 1% a year before this date on average across the network. This figure is slightly larger for Nottingham City Transport, as Trent Barton did not experience such decline.

2002 saw the upgrading of Nottingham City Transport service 11 to 'Go2' standard as part of a bus quality partnership. A pilot real time information system was also funded and other bus stop infrastructure improvements. This system allows passengers to find

out the exact time their next bus is due to arrive either by a text messaging service, via the internet or from electronic displays at three bus stops along the route. A real time information contract will be signed as soon as the trials are satisfactory. The APR reports that monitoring of patronage carried out before and after the upgrading of the service highlighted a 48% increase in usage of the route (from approximately 10,000 monthly patronage to 16,000 patronage). However, Nicola Tidy believes this growth is nearer 25% (compared to year on year growth for other Go2 routes in the area of 8-10%). She assumes that given that there is nothing else different and that there are no other extraordinary factors, this growth is due to greater awareness and the real time information provided on this route. Andy Gibbons believes that this figure must be taken with caution as it does not compare 'like with like'. On service 11, the route changed significantly and incorporated a 'city centre link' service and was marketed as such. In addition, it now has dedicated low floor buses and increased frequency.

In general, however, Andy Gibbons felt it was misleading to cite figures for individual bus quality partnership corridors. He claims that most of the work being done is city wide, not confined to a corridor, and each corridor depends on interlinked services and improvements city-wide. Not all corridors meet the same quality standard.

Bus patronage for Nottingham City Transport to the end of 2003 was 53.5 million. The company has experienced annual growth in patronage of 1.5% since the network changes in 2001. This is despite removal of 10% of the fleet (approx 12,000 km less per week). In terms of the Go2 routes, the average increase on these was 3%, some performing better than others. Some routes experienced 5% growth. If there was not a driver shortage, frequencies on some of these routes would be increased. The company is expecting to see a decline in patronage next year due to the introduction of the tram.

Nottingham City Transport has a five year business plan containing aspirational targets for patronage and satisfaction levels. These include:
- All low floor buses by 2008
- Service delivery targets - level of service operated and departures 1 minute early / 5 minutes late
- Go2 average age of fleet under 5 years
- Rest of fleet under 12 years (double deckers) and 10 years (single deckers and midis)
- Patronage growth 1.5% per annum over next five years on comparable routes (total patronage will fall when the tram is introduced)

Effects on modal share
Nicola Tidy believes there is a slow increase in commuters, helped by the new image promoted by NCT and the council's commuter planning work and the Big Wheel. She believes that more and more people are beginning to try services, even if they are not yet full time users.

The peak hours are very busy and most of the 1.5% growth in patronage is said to be concentrated here. However, most routes now are busy throughout the day although unprofitable routes have been cut.

Research on ticketing has investigated period tickets and the extent of their usage. The 'city wide' all day tickets (launched March 2002) are used on average for 3.7 journeys, indicating that their use is much more than for commuting alone. This will be monitored again next year to see whether usage increases.

As there are now midnight departures, bus use for evening leisure has increased. The Big Wheel promotion for family tickets has encouraged family travel usually at weekends.

Other effects within targeted population
Social inclusion benefits are seen by each organisation as part of their remit. Nottingham City Transport works closely with the city on this issue. If it were operating as a fully commercial company, another 10% of services (about £2 million) would not be run (over and above tender services). They believe they have a social role to play and shareholders are also aware of this policy.

Nottingham's retail sector has continued to thrive, with unemployment strongly down in the city. The APR attributes this success in part to transport improvements.

The Big Wheel carried out a 'familiarity study' with 1200 respondents and a random sample of 299 businesses early in 2003, and the results were compared with a similar survey in 2001 to assess the success of the campaign. The Big Wheel, although chiefly instigated by the business community, has always been aimed at the general public, particularly commuters, as well as businesses. Its clear branding and simple concepts mean that recognition is as high, if not higher, among the general population. The 2003 survey revealed a number of important shifts in awareness since 2001:
- In 2003, businesses are implementing more environmental measures (staff travel plans; using public transport for business travel).
- Since 2001, members of the public have become much more aware of the LTP (27% increase) but business awareness appears not to have changed.
- Members of the public are much more aware of the Big Wheel campaign than businesses; 67% of City of Nottingham residents and 52% of residents in a wide travel-to-work area, including Hucknall and Long Eaton, were aware of the Big Wheel. This was after only 6 months of its launch.
- In 2003, most businesses and members of the public found out about the Big Wheel in the local newspaper. This was the same for the LTP in 2001.
- Most members of the public interpreted the Big Wheel pictures as encouraging them to walk or use public transport more.

(Source: Measuring the Success of Marketing the Greater Nottingham Local Transport Plan – Phase 2, TTR, 2003)

The radical change in approach to marketing and promotion of public transport in Nottingham has had particular benefits for the business community. The Big Wheel concept promotes understanding of the changes taking place. This is necessary for the community and simple enough for the general population. This has benefits for confidence of the business community and the local economy. There is also a strong connection between transport and regeneration and the Big Wheel has added its branding to the redevelopment of the railway station area in the city.

There appears little doubt that the promotional work has eased the path of the construction phase of the tram. The Big Wheel campaign is also specifically aimed at easing the path of the workplace parking levy and in promoting the overall vision of integrated transport that commands widespread support.

Nicola Tidy believes that her promotional work has changed perceptions of Nottingham City Transport as a company, has improved the image of bus travel and is changing the culture within the organisation.

Research carried out by the council shows that, compared to two years ago, satisfaction levels with respect to information provision have increased from 76% to 83%.

Wider context for the initiative
Tables 2 – 4 show traffic levels and mode share in Nottingham.

The Local Transport Plan sets a target of increasing the share of peak period public transport journeys from 1991 levels by 5% by 2006 (i.e from 25% to 26%) and 10% by 2011 (25% to 28%). The census data summarised in table 2 indicates that this was not on track at the time the bus improvements were introduced in 2001.

The context for Nottingham's marketing efforts is one of relatively stable traffic levels. Targets to reduce vehicle kilometres travelled per day are ahead of target. The original target aimed to restrict traffic growth to 7% between 2000 and 2006 within the LTP area, but because of good progress so far, this has been revised to restricting traffic growth to 5% between 2000 and 2006. Daily vehicle kilometres have fallen by 1.5% (to 6.64 million) between 2000 and 2002/3 across the whole LTP area.

Congestion, however, appears to be worsening slightly. Peak speeds fell by 2 mph and off peak speeds increased slightly between 1999/00 and 2002. One response to congestion has been peak period spreading with high rates of growth on the 'shoulders' of the peak hour (2002/3 APR, p(A) viii).

Table 2: Nottingham mode split (census data) – all purposes*

	Census Data Usual mode of travel to work City Area		Personal Travel Survey 2003 LTP Area	
	1991	**2001**	**All Journeys**	**Work**
All people aged 16-74 in employment who usually travel to work by:	*96,830*	*101,697*		
Car driver	43.4%	44.7%	32.4%	50.8%
Car passenger	7.4%	6.2%	9.3%	6.5%
Bus + tram	24.8%	21.5%	18.6%	19.1%
Train	0.5%	0.7%	0.7%	2.1%
Cycle	2.9%	3.7%	2.7%	2.8%
Walk	13.8%	14.7%	31.7%	14.6%
Other	3.9%	1.2%	1.7%	0.9%
Working from home	3.2%	6.7%	N/a	N/a

* Census Data are drawn from a 10% sample of the census in 1991 and 2001. Figures are for persons aged 16 and over, employees and self-employed. Figures are not entirely comparable due to boundary changes between 1991 and 2001. Personal Travel Survey: 2001 people interviewed, of which 1194 were in the city and 807 in the county.

Table 3: Multi modal cordon survey am peak period inbound personal motorised transport to Inner Traffic Area

Year/Mode	Total Motorised Movements	Car/motorcycle %	Bus %	Average car occupancy
1998	77,700	70.8	29.2	1.30
1999	77,800	69.0	31.0	1.25
2000	75,000	66.3	33.7	1.25
2001	75,600	69.1	30.9	1.25
2002	72,650	69.8	30.2	1.25

APR 2002/3 Annexes of Supporting Data Table A4, p(A) viii

Table 4: Multi modal cordon survey Monday – Friday average 9 hour flows motorised transport to Inner Traffic Area

	2000	2001	2002	% change between 2000 and 2002
Cars	184,600	190,900	187,500	+1.6
Light vans	28,500	28,750	29,000	+1.8
Heavy goods vehicles	8,100	7,900	7,750	-4.3
Buses	6,350	5,900	5,500	-13.4
Motor cycles	1,700	2,250	2,000	+17.6
All motor vehicles (excl cars)	44,650	44,800	44,250	-0.9
All motor vehicles	229,250	235,700	231,750	+1.1

APR 2002/3 Annexes of Supporting Data Table A1, p(A) vi

Synergy with wider policies and strategy

Synergy with 'hard' measures
Nottingham has undergone and is continuing to experience some step changes in the provision of transport infrastructure in the city:

- Construction of the first phase of the tram (NET line 1)
- The City Centre Integrated Transport Major Scheme, a programme of work in the city centre making greater priority for buses and clearer and easier interchange. It started with making the central core a Clear Zone Area (second phase completed in February 2002), changing the direction of traffic flow movements and imposing restrictions on driving between 8 am and 6 pm every day for non-essential traffic.
- Bus lane construction
- Parking management changes, including parking meters in the city centre which are gradually spreading out to a wider area and decriminalised parking from October 2002.

All of the interviewees claimed that the marketing of an integrated transport system is intimately related to its delivery. The Big Wheel has sought to raise sights, but not to raise expectations of the fast delivery of complicated, long term projects that depend on national and regional decision makers. The Big Wheel balances its broad vision with examples of practical current improvements – bus lanes, bus shelters, easy access buses, the clear zone, the filling in of subways etc – and it is important to show that improvements are being delivered steadily. Without the improvements on the ground, the campaigns would be ineffective. The tram is a linchpin for the promotional work as it represents something of high quality that people can latch on to. This is contrasted to bus quality partnerships which are more difficult to explain to the public.

However, it is not all positive; Nicola Tidy believes that the crucial effects of the infrastructure improvements combined with effective marketing are yet to come. In the last few years there has been so much disruption that bus services and patronage have been hindered. When the works have stopped and new schemes are in place it will make their work much easier and success greater.

Synergy with other 'soft' measures
All of the promotional measures themselves complement each other, even though each has a different focus. They can be seen as a hierarchy from the general (Big Wheel) to the more specific (the council's Area Plans and Nottingham City Transport's promotion of specific services).

Nicola Tidy was very complimentary about the work being done through the commuter planning club and feels that it assists her in her focus on commuters and encouraging them to try out the services.

Travel plan work with schools has increased in the last couple of years, particularly since the appointment of a DfT bursary post. The 2002/3 APR reports that in 2000/1, 4 schools in the city had a travel plan, and in 2002/3 this had increased to 12 schools. A school travel pack supports schools in the city with the development of a travel plan and uses Big Wheel branding. A flyer promoting the pack was sent to 147 schools in Nottingham (4 LEA nursery schools; 101 LEA primary schools; 20 LEA secondary schools and 16 independent). In 2002/3 40 schools (27%) requested a copy and so are considered to have taken the first step toward development of a school travel plan. In addition, there are 3 ASSIST schemes (Awards for Smallscale Sustainable Initiative for School Travel), and 26 Safer Routes to School.

Perception of the importance of the initiative
Andy Gibbons admitted that the promotion work was almost insignificant in comparison to the harder infrastructure improvements for which his authority is responsible. He believes that the work of the city council is not as important or effective as that done by the bus company. However, the Big Wheel has made the introduction of the infrastructure changes easier and more effective. Nicola Tidy asserted that the promotion work was crucial, especially given the extent of change to the bus network and the degree to which people can be passionate and emotional about transport issues. The key, however, is the fact that reliability has improved. Without that, no amount of promotion would be effective.

Factors contributing to success

The following comments shed light on why Nottingham is being so proactive in this area:

- Both Andy Gibbons and Nicola Tidy highlighted the good working relationship between the city council and the bus company as a key factor in the success of the promotional activities. This has meant an efficient delineation of tasks and complementarity, so that each authority is able to undertake projects that it would otherwise not have the resources for. The council has also been supportive of Nottingham City Transport when difficulties have been encountered, such as problems with driver recruitment and relations.
- Nottingham is seen as good 'bus territory' due to the poor development historically of the rail network and the relative lack of wealth in the region. However, as incomes have improved, car ownership has also increased dramatically.
- The Big Wheel has taken place in Nottingham because of the need to clarify the 'city versus county' issue and because so many changes were due to take place in the city.
- Both the city and the county councils place importance on the integration of land use planning and transport and Nottingham is deemed a relatively compact city.
- A very good dialogue with the business sector has been built up through Greater Nottingham Transport Partnership, Commuter Planners Club and now the Big Wheel.
- Information and marketing in the city is helped by the fact that there are few bus operators.

Scalability

Staffing and budget

No significant changes are planned in the budgets of the city council, Nottingham City Transport or for the Big Wheel. Although the Big Wheel was initially due to run for three years, it is almost certain to be continued, with a possible extension of funding from the county council. If further significant changes take place to the bus network, the promotional budget will expand accordingly in each agency.

Future scale of the initiative under currently planned resources

The city council is beginning to embark on a number of specific initiatives such as travel planning for job seekers and specific maps for the hospital trusts. They are also concentrating on the development of real time information for the bus network.

Nottingham City Transport will be promoting its remaining Go2 services and its text messaging service and will start putting out information about reliability and service rates.

Priorities for the Big Wheel include the development of the Travelwise website, bus quality promotion, social exclusion and travel project launch and an emphasis on creating further joint offers with the Evening Post and Nottingham City Transport to capitalise on previous success. They also hope to develop work with the county and Trent Barton bus company. The main challenge is to maintain momentum and build on the previous messages and influence it has had so far.

Future scale of the initiative if resources were greater
Andy Gibbons believes that the effect of a doubling of current resources would
depend on where they were concentrated. If he had an additional £35,000, he would
develop some specific niche projects to further simplify the network for certain
sectors such as school, health and leisure travel. He believes, for example, that the
beginning of term is an opportunity missed for promoting the various options for
school travel.

However, he believes the future lies in electronic information resources. If the money
was concentrated on personalised journey planning (web based), a more definite
effect could probably be measured. He believes that there are never enough resources
devoted to this element of information provision despite the fact that if resources were
doubled here, it would probably have more than double the effect on travel behaviour
given the many different uses to which the information could be put. He believes that
individualised marketing is not feasible without the development of electronic
resources to back it up and maintain up-to-date information for participants. However,
he claims that more than £35,000 is needed to develop the databases and electronic
systems 'once and for all' instead of the dimensions of these projects being
continually changed. He believes that two members of staff working permanently on
an electronic database (£50,000) would be sufficient as there is little capital
expenditure involved. The data collection and the GIS input are the most costly
elements.

Nicola Tidy believes that a doubling of resources would have less than double the
impact due to the current issues and improvements still to be made in the city. She
believes that the structure of the whole transport network needs to be in place in order
to be able to deliver any further promises to her customers. She believes that this will
not quite be the case by 2006, but by 2010 it should be. As a result, the maximum
effect if resources were unconstrained would continue to be a steady 1.5% growth as
this is a very slow process.

Monitoring plans
Nottingham carries out a personal travel survey every two years. The next is due
2005.

Nottingham City Transport carries out customer satisfaction surveys at the travel
centres. In addition, a TAS report to monitor customer response is carried out every
year. This is supplemented by very specific market research and attitudinal surveys,
including focus groups of existing users and non-users.

Key issues for scaling up

• **Nottingham City Council**
Since the formation of the unitary authority, the city/ county relationship has
presented some problems. Each authority serves very diverse geographical areas
where the issues are different, but nevertheless shared to some extent. Furthermore,
neither authority covers the journey to work area. A 'half way house' in terms of the
type of information and the messages used is of no use to either party. In addition,
there are many other organisations involved in transport in the city – bus companies,
hospitals, Commuter Planners Club, the Greater Nottingham Transport Partnership,

the tram, and trying to knit this all together into something that the public can understand, has been difficult. This will hopefully be less of a problem in the future due to the Big Wheel. However, the Big Wheel is still primarily a city initiative and can still cause some confusion with the public. It may have been better to have one unit covering the journey to work area set up as a distinct group of people.

Andy Gibbons feels that the national Transport Direct/ Traveline initiative is positive but deals with too big a scale. It has moved away from local transport to regional transport, but without an adequate database. The databases are not sufficiently developed in order to deal with the dynamism of local services. He feels that this is best dealt with at the local level, until problems have been resolved.

National government could also do more in terms of national awareness campaigning. In particular, Andy Gibbons feels that it is noticeable that national campaigns neglect bus travel, despite the fact that it is actually more important than rail in terms of passenger numbers.

The experience in Nottingham may be unique to some extent given the fact that it is a relatively small city, but with the network density of a major city. In addition, there are only two main bus operators and competition between them is fairly limited. Even though many people travel in from outside the city boundary, travel to work by train is limited so there is a high emphasis on buses and this may not translate to equivalent sized cities. The workplace parking levy is also providing a relatively unique impetus and a 'stick'. Nevertheless, the concept of the Big Wheel with its idea of 'selling' an integrated set of measures in a local transport plan is transferable.

- **Nottingham City Transport**
The biggest barrier to the expansion and promotion of bus services in the city is the issue of driver shortage. Despite the fact that Nottingham City Transport drivers are 'the third best paid in the country', recruitment is very difficult. Nottingham is a buoyant city and jobs with more sociable hours and without the perceived 'dangers' can be secured for the same wage. There is a problem of vandalism and anti-social behaviour towards drivers. In addition, the job has a relatively low status in society. Every new bus is fitted with CCTV, and every bus is being retrofitted with screens. The problem is more one of recruitment than retention. As a result, the company are working very hard at recruitment, customer relations training and staff liaison. Because this issue can cause disruption to services, it makes the promotion of services more difficult.

Nottingham City Transport was very complimentary about the support it receives from the council. However, its main complaint is the inadequacy of current bus priority measures. Nicola said that 'if the city is really serious about bus priority, it will have to grasp the nettle and at pinch points extend the bus lanes as this is where they are needed the most'. In addition, the authority needs to be able to secure the powers for bus lane enforcement.

On a national level, Nicola believes that more joined up thinking is necessary. She also believes the traffic commissioner's targets are not realistic; that integration between buses and trains needs to be supported and that more funding is needed for socially necessary services.

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Case study author: Jillian Anable

Nottingham City Council

Workplace travel plans

Interviewee: Jeremy Prince, Transport Partnership Officer, Nottingham City Council

Nottingham can be considered a pioneer of the workplace travel planning concept, with the introduction of its first plans in the early 1990s. In 2003, 25 'active' travel plans (35 in the LTP area as a whole) are underway. These represent around 50, 000 employees (about 25% of workforce). A Commuter Planners Club with a regular attendance of 50 individuals meets quarterly to exchange ideas and become informed about transport issues in the city. There is little monitoring data, but the transport partnership officer estimates that commuting alone as a car driver has declined by about 10-15% in those organisations with the most active travel plans. Peak hour traffic levels have declined very slightly into the City over past year. An increase of 2.6 million bus passenger journeys (=increase of 3.5%) has been experienced over the past two years (LTP area). A workplace parking levy looks likely to be introduced from 2005 and is already providing an incentive for employers to invest in travel plans. If resources were doubled, the transport partnership officer believes it would be best to work even more closely with the current 25 large organisations and not necessarily target new companies due to the diminishing returns that would be experienced.

Case study location and main actors

A unitary authority was formed five years ago comprising the city of Nottingham and some surrounding built up districts (population 266,988). The area of the City of Nottingham is 7,461 ha, which is a population density of 3,579 people per square kilometre. The Greater Nottingham Local Transport Plan has been jointly produced by Nottingham City Council and Nottinghamshire County Council (population of approximately 650,000 in the plan area). The journey to work area goes beyond the county boundaries as many travel in from adjacent counties such as Derbyshire. Nottingham City Council won Transport Authority of the Year last year.

Nottingham city has a very buoyant economy, with declining unemployment and a vibrant retail and nightlife. However, there are also a number of deprived areas in the city with social problems. The city can be described as relatively compact and has a large number of bus services per head of population compared to cities of equivalent size.

Nottingham City Transport (NCT) is the major bus operator for the Greater Nottingham area (with Trent and Barton running services mainly beyond the built up area). This was a City Council owned company and is now a municipal limited company.

Greater Nottingham Transport Partnership (GNTP) is a public-private partnership that advises the councils on strategic transport issues across the conurbation. It has mainly business membership of around 20 with a wider forum of around 700 organisations.

There is political representation from local authorities and it meets every six weeks. The Big Wheel campaign is project managed by Nottingham Business Enterprise. The campaign applies to the whole of the LTP area but is inevitably focused on the Nottingham conurbation.

Main activities

Nottingham pioneered the workplace travel plan concept in the UK. The first plans were introduced in the area as early as 1992 (for the County Council itself) and Boots in 1996. The Commuter Planners Club (CPC) was set up in conjunction with the County Council in 1995 as a network to encourage employers to develop commuter plans and exchange ideas. This forum meets quarterly. A different company hosts each meeting where experience is shared and support for ideas is generated. However, different subjects being discussed command different levels of attendance. The typical attendance is around 40-50 company representatives, although the membership currently stands at around 300. The core '50' individuals are made up of representatives of the 25 companies with travel plans, approximately 10 others who are considering plans and representatives of bus companies and consultants from the city.

The Transport Partnership Officer, Jeremy Prince, sees his role as customer relations with all the major employers in the city. Transport is a sensitive issue in the city because of all the changes that have taken place, the disruption caused by the construction of the tram network (due to open late 2003) and the possible introduction of the workplace parking levy in 2005. He claims that their success can be attributed to the decision to concentrate on translating the green arguments into good business sense. His role is therefore to sell the 'business case' for workplace travel plans. This includes employment retention, equality issues, green credentials, 'good neighbourliness' and PR benefits and the potential to cut costs.

So far, the approach has been to intensively target larger employers and key traffic generators. Most energy and resources have been allocated to hospitals and universities. This has always been the case and probably will continue to be so. In essence, however, the CPC appears to allow the council to work with a broader number of organisations on a less intensive level.

A greater emphasis is now being placed on targeting business parks to develop area travel plans for clusters of smaller companies. Two city centre based sub-groups of the CPC were set up in 1999 (South Side and North Side Employers Groups). The aim was to bring together geographically related companies to see if there are issues of common interest which can be tackled together. For example, those near to the train station have worked with Central Trains on promotions. One of the largest companies in this group (Capital One) now has over 15% of its workforce arriving by train.

The city council attempts to avoid securing travel plans through the development process. They prefer that travel plans are entered into voluntarily on the basis of 'business benefits' as they feel that plans entered into voluntarily will command more dedication and success. Where the development control process is used, the council tends to make a minimal requirement and then work in partnership with developers

and employers to minimise the travel impacts. Often the companies are already carrying out WTP activities. Seven of the current 25 plans have been secured this way, although most had 'already been doing good work'. For these seven plans, the agreements were generally made in order to link the commuter plan actions to land use planning. For example, the expansion of buildings on car parks may be permitted if a travel plan is agreed to, or the extension of a car park can be linked to proof that car parking per employee is being reduced. A development control policy stipulates that new organisations with a greater than 50 parking spaces should have a travel plan and these are referred to Jeremy.

A series of promotional materials, including the Business Commuter Express have been produced to target larger organisations wishing to adopt their own travel plans. Much promotion is carried out by the county council. A guidance booklet 'Your Guide to company travel plans in Nottinghamshire' was published and adopted by other local authorities.

Two years ago Nottingham City Council, in conjunction with Nottinghamshire County Council, devised a grant scheme to encourage small and medium sized enterprises to develop commuter plans (TransACT). Nottinghamshire Chamber of Commerce & Industry fronts this and the Councils pay for a member of staff there (from May 2002). In addition, Business Link Nottinghamshire helps to promote the scheme.

The scheme is open to businesses meeting certain criteria:
- 20-250 employees (FT equivalent)
- less than £25 million annual turnover
- located in Nottingham City (for city funded initiatives) or Nottinghamshire County Council Area (for county funded initiatives)
- Have no more than 25% of capital or voting rights owned by another enterprise
- Are not carrying out a travel plan as part of a planning agreement (for county funded businesses. Nottingham City Council do not require this).

Businesses meeting these criteria are invited to a workshop which equips them to complete an 'action plan'. The action plan comprises a statement of intent, a site audit, targets, consultant objectives and a timetable. If this is approved, the companies receive up to £20,000 to fund works arising from travel plans. From each grant, £2000 is for consultancy advice. A TransACT transport consultant is designated to each applicant. The initiative funds cycling facilities (including showers, lockers, secure storage, electric pool vehicles and cycles, fleet management scheduling and IT homeworking equipment. No companies have utilised funding to develop a car-sharing scheme using a car-share database to date, though a number have introduced this measure on a less formal basis. Flexitime is also encouraged. Each applicant conducts an evaluation six months after the measures have been installed or introduced, and submits its findings to the council which funded the solutions. Applicants are then expected to monitor the improvements in staff travel on an ongoing basis.

At the moment all targets and literature for all mobility management initiatives are being reviewed and updated in the light of the pending consultation on the workplace parking levy.

Jeremy commented that the most important lessons learnt have been that incentives are needed for a successful travel plan policy and that it is necessary to concentrate on outcomes and define what makes a good travel plan. Travel plans often 'go dormant' mid-life as key players in the individual organisations leave. Jeremy commented that: 'travel plans are about people. It is not about processes, systems, how much money you put in, or how big your car park is. It is about people and whether they have got the will to do it.' He would like to see a quantifiable way of recording how active the travel plans are, which ones are dormant etc. He hopes to come up with a number of factors to measure activity and benchmark progress in time for the introduction of the workplace parking levy.

Staffing and costs

Staffing

In terms of members of staff dedicated to the generation externally of workplace travel plans, there is only one full-time post, the Transport Partnership officer Jeremy Prince. There is also an internal travel plan coordinator responsible for the council's travel plan (14000 people). In addition, there is a 'virtual' team made up of, for example, road safety and cycling officers to support the travel planning work. Originally (at the beginning of the 1990s), the internal and external work were both carried out by one member of staff.

There is also a member of staff based at the Chamber of Commerce who administers the TransACT grant scheme to encourage small and medium sized enterprises to develop commuter plans. The scheme uses consultants to carry out travel surveys and devise travel plans, and these are paid for from the grant allocations.

There is some joint working with the county where there is one external and one internal workplace travel plan officer. Joint working particularly takes place with respect to hospital travel plans.

Costs and benefits

The budget for commuter planning comes from the general transport strategy pot. A specific annual budget is not assigned. Each company that is worked with may involve a package of measures which also requires highway improvements etc.

In total, around £200,000 per annum is allocated to the commuter planning work. This includes the funding of the full time Transport Partnership officer, the internal travel plan coordinator and the TransACT coordinator, the £100,000 grant for TransACT and further promotion and materials costs.

The total transport expenditure for the authority was £18.7m. Of this, there is a category entitled 'travel demand management' which includes the expenditure shown in table 1.

Table 1: Nottingham city and county council expenditure on travel demand management

	City Expenditure £000	County Expenditure £000
Awareness/ Education	0	42
Traffic Management	497	959
UTC	24	93
Commuter Plans	0	105
Air Quality	10	0
Freight Quality Partnerships	50	0

Source APR 2002/3 Table 4.1, p58. Figures are for expenditure, not allocation.

The TransACT scheme has a set budget allocation each year in order to provide up to £20,000 grants to companies for travel planning work. Up to £2000 of each grant is set aside for consultancy advice. In reality, the scheme has turned into 'contributory' funding as the full grant is rarely allocated to a business in order that more businesses can be reached in total. The Chamber of Commerce provides office space and administrative and promotional support. Business Link Nottingham also provides promotional support. The city council and the county council allocate separate budgets to fund initiatives in their respective areas. For 2002/03 the city council supported this scheme with £100,000, coming from workplace parking levy advanced funding. Neither council has confirmed whether they will be able to allocate in 2003/04, though demand from businesses is there and increasing.

The total transport revenue budget for the city council is approximately £5 million (this includes concessionary fares and tendered bus services but does not include educational or social services transport).

Additional revenue is provided by two hospital trusts which support and run their own bus services (two services at the moment, will increase to four); and employers through the Commuters Planners Club where their own material is produced.

Scale of the scheme

Number of people affected by the initiative
The 2003 APR cites the following statistics for the number of organisations in the Greater Nottingham LTP area that are actively implementing commuter plans:

City   = 25
County   = 10
LTP area   = 35 (up from 28 in 2000/1)

There are approximately 188,000 employees in the Nottingham City Council area, and 6500-7000 employers (including self employed). 20% of these employers have 80% of the parking spaces in the City. The 25 organisations with active travel plans in the city represent approximately 50,000 employees, about 25% of the workforce. Jeremy classifies the figure of '25' as being the 'top 25' and the companies that they have 'good customer relations' with. All of these 25 companies have introduced some form of parking management alongside their travel plan. Out of the 25 companies, those that are in close proximity geographically have pulled together to form 'area'

travel plans. Approximately another 10 companies regularly attend the commuter planners club and are thinking of implementing a plan. These companies together represent around 2,000 employees, indicating that the largest employers in the area are already engaged with on travel planning.

At the start (1995) there were 10 organisations representing 10,000-15,000 staff in the Commuters Club. These were basically 'cherry picked' and represented some of the largest organisations in the city. Now, all of the 25 companies with travel plans are regular attendees, in addition to approximately 10 others who are considering implementing a plan. The club also attracts representatives of the bus companies and academics and consultants with an interest in transport in the city. Table 1 summarises the number of firms and staff engaged with travel plans.

Table 1: Engagement in travel planning

	Engaged with on travel planning	Based in the area
Number of employers	25 + 10	7,000
Number of employees	50,000 + 2,000	188,000

The 25 companies with 'fully fledged' plans include seven public sector organisations: the city council; four educational institutions and two from the health sector.

Jeremy made the point that there is a distinction to be made between 'sites' and companies. For example, the council have one travel plan but up to 800 sites (e.g. including libraries, leisure centres etc …!). Also, for some organisations it is the number of students, patients or customers that is most relevant. The hospital has 250,000 outpatient appointments and 75,000 day cases a year.

Jeremy made the comment that statistics on travel plans are not useful in themselves due to the need to clarify what a travel plan actually is. They are currently doing some work on how to define a travel plan using the Department for Transport's evaluation tool, for use with the workplace parking levy. Table 2 shows the level of involvement of the different employers, although Jeremy felt that it was very difficult to categorise companies in this way.

Table 2: Number of employees affected by travel plans at different stages

	Number of employers / organisations	Number of employees affected
Fully fledged travel plan including parking management	25 – all have parking management	50,000 (14,000 at council alone)
Travel work with various travel initiatives (but not parking management)	0	0
Considering a travel plan, or just starting implementation	10 (plus another 265 CPC member organisations)	2000
TOTAL	**35**	**52,000**

Table 3 shows the number of businesses reached by TransACT since the beginning of the initiative. In addition, there are four businesses in the city waiting to get started, but the funding is not there at the moment. There are three in North Nottinghamshire waiting to be approved and two more in Greater Nottingham just starting with the consultancy work.

Table 3: Number of businesses reached by TransACT

	Completed	Almost completed
Nottingham City	4	4
North Nottinghamshire	4	1
Greater Nottingham	1	4

Targeting

Large employers and organisations located near congestion hotspots, particularly to the west of the city around the ring road, have been the focus of most attention. In addition, area wide travel plans are being completed in which smaller companies are grouped (e.g. Lenton Lane and Business Parks). One of these, Nottingham Business Park, is included in the 25 companies cited above.

Jeremy claims that concentrating on the larger organisations with the greatest problems is the most effective use of resources as he is the only dedicated member of staff. About a fifth of organisations have 80% of parking spaces, so it is better to focus on them. There is no plan to change this. Indeed, with the introduction of the workplace parking levy, targeting large employers with lots of car parking will be even more effective.

Effects of the initiative

Effect on car use within targeted population

Many different individual travel plans exist, each with their own aspirational targets/ budgets etc. Likewise, each individual organisation has its own style of reporting back information. Problems in data collection are confounded by the fact that there is likely to be an element of 'spin' in the reported figures as the coordinators may be trying to protect their budgets/ job. Jeremy claims that no company has ever reported a bad result. Also, the council cannot force the companies to provide the information, let alone the 'right' information. Progress reports are requested, often after three years. As a result, there is no aggregated data, just separate reports on individual companies. The workplace parking levy is forcing the council to devise a standard way of reporting results.

Jeremy claims that the typical modal shift in successful travel plans means that commuting alone as a car driver has declined by about 10-15%. He considers travel plans have been one of the contributors to the measured results that have been achieved in keeping traffic flow levels constant in the city over the past few years.

Travel to work surveys are carried out annually in the town centre. Ideally the city council would like to get to a point where it can assess the contribution that travel plans are making to the traffic situation, but Jeremy remarked on the problem of

singling out the travel plan contribution from all the other factors. 'A travel plan is only a package of measures within another package of measures'.

Examples of specific initiatives

Several Nottingham organisations were included as case studies in the Department for Transport (2002) study, Making Travel Plans Work.

Nottingham City Hospital NHS Trust entered into a section 106 agreement in 1997. Ring fenced funding from parking charges has enabled the Trust to develop a number of on-site facilities to improve security, pedestrian and cycling provision and measures to enhance public transport. There are now regular bus services entering the site. The trust has developed a relationship with the University of Nottingham so that students have undertaken travel surveys. These surveys reveal that solo car use declined from 72% to 55% (17 %-point reduction) while car sharing rose from 2% to 11% and bus use rose from 11% to 19% between 1997 and 2000. The hospital has 3500 full-time equivalent staff.

At Boots, plans in 1995 for extension meant that it was asked to produce a travel plan as part of a section 106 agreement. It has a state of the art car share scheme, high quality cycle facilities, formal contracts with bus operators and subsidised buses. During the course of the plan, staff numbers increased by 25% to 7500, whilst cars arriving in the morning peak only increased by 20%. Bus use has declined, but this is attributable to a rise in walking, cycling and car sharing. DfT (2002) concluded from various monitoring surveys that the number of cars per 100 staff fell from 65 before the travel plan was implemented to 62 afterwards.

Government Office for the East Midlands is a relatively small employer (245 employees) situated in the heart of the city with good transport links. A travel plan has been in place since 1999. The organisation has achieved a 7 %-point reduction in car use journeys (from 45% to 38%). Over 6% more staff have started to use the bus, and 9% of staff regularly walk to work.

Overall levels of traffic

The context for Nottingham's travel plan efforts is one of relatively stable traffic levels. Targets to reduce vehicle kilometres travelled per day are ahead of target. The original target aimed to restrict traffic growth to 7% between 2000 and 2006 within the LTP area, but because of good progress so far, this has been revised to restricting traffic growth to 5% between 2000 and 2006. Table 4 shows traffic flows crossing the inner area cordon.

Table 4: Inner Traffic Area Cordon October Monday – Friday Average 9 hour flows

	2000	**2001**	**2002**	**% change 2000 - 2002**
Cars	184,600	190,900	187,500	+1.6
Light vans	28,500	28,750	29,000	+1.8
Heavy goods vehicles	8,100	7,900	7,750	-4.3
Buses	6,350	5,900	5,500	-13.4
Motor cycles	1,700	2,250	2,000	+17.6

All motor vehicles (excl cars)	44,650	44,800	44,250	-0.9
All motor vehicles	**229,250**	**235,700**	**231,750**	**+1.1**

APR 2002/3 Annexes of Supporting Data Table A1, p(A) vi

A target to increase car occupancy rates by 10% between 2000 and 2011 is not on track, however, even though this is a key objective of workplace travel plans.

Congestion appears to be worsening slightly. Peak speeds fell by 2 mph and off peak speeds increased slightly between 1999/00 and 2002. One response to congestion has been peak period spreading with high rates of growth on the 'shoulders' of the peak hour.

The 2002/3 APR sets a target to raise the non-motorised share of journeys to work by 4% by 2001. The non-motorised share in the city was 14.8% in 2001 and 17.4% in 2003, although the change is not statistically significant. The 2002/3APR also sets a target to increase cycling to work to 20% by 2011 for businesses adopting commuter plans (baseline data = 3% for 2000/01). In the 2002/3 APR there is no clear evidence to report any change, but data will be available annually after the workplace parking levy is introduced.

Table 5 shows mode share data for the journey to work in Nottingham drawn from two sources: the 2001 census (with comparison figures for 1991) and a travel survey carried out in 2003.

Table 5: Nottingham mode share data for the journey to work

	Census Data Usual mode of travel to work City Area		Personal Travel Survey 2003 LTP Area	
	1991	**2001**	**All Journeys**	**Work**
All people aged 16-74 in employment who usually travel to work by:	*96,830*	*101,697*		
car driver	43.4%	44.7%	32.4%	50.8%
car passenger	7.4%	6.2%	9.3%	6.5%
bus + tram	24.8%	21.5%	18.6%	19.1%
train	0.5%	0.7%	0.7%	2.1%
cycle	2.9%	3.7%	2.7%	2.8%
walk	13.8%	14.7%	31.7%	14.6%
other	3.9%	1.2%	1.7%	0.9%
working from home	3.2%	6.7%	N/a	N/a

Census Data are drawn from a 10% sample of the census in 1991 and 2001. Figures are for persons aged 16 and over – employees and self-employed. Figures are not entirely comparable due to boundary changes between 1991 and 2001.
Personal Travel Survey: 2001 people interviewed, of which 1194 were in the city and 807 in the county.

Other effects within targeted population
Some wider, non traffic related effects of commuter plans were reported:

- The process improves the green credentials of companies and can therefore be 'good PR'.
- It cannot be assumed that everyone *can* to get a workplace by car and so one aim is social inclusion and equality. At the council itself, a car sharing scheme and discounted season tickets have been introduced to reduce the cost of travel.
- For those experiencing problems commuting to work, a travel plan can contribute to recruitment and retention.
- More efficient traffic flows helps freight distribution in the city.
- A more efficient use of land contributes to estate management.
- Walking and cycling strategies have improved road safety.
- Car park management is good for security and reducing the fear of crime.
- Tele-working and the promotion of flexible working patterns can address childcare arrangements.
- There are health benefits of cycling and walking.

Travel plans are being done in the wider context of all the changes that are taking place in the city. These include a radical change in the bus network and disruptions due to the tram. The instability of the situation makes it difficult to convince people about the benefits of reduced car use when the alternatives are not yet there. It is necessary to promote 'sensible' car journeys and not concentrate on the environmental case for changing behaviour.

Synergy with wider policies and strategy

Synergy with 'hard' measures
Nottingham has undergone and is continuing to experience some step changes in the provision of transport infrastructure in the city:
- Construction of the first phase of the tram (NET line 1)
- Total reorganisation of the bus network in September 2001
- The City Centre Integrated Transport Major Scheme ('City Centre Major') is a programme of work in the City Centre making greater priority for buses and clearer and easier interchange. It started with making the central core a Clear Zone Area (second phase completed in February 2002), changing the direction of traffic flow movements and imposing restrictions on driving between 08.00 and 18.00hrs everyday for non essential traffic.
- Bus lane construction
- Parking management changes in the last 18 months, including parking meters in the city centre and gradually spreading out to the wider city centre and decriminalised parking from October 2002.
- Railway station master-plan including interchange facilities.

There is to be a formal consultation on the workplace parking levy in autumn 2003. This has become the focal point for all mobility management issues and the context around which new policies are introduced and soft measures attached. Jeremy believes 'carrots' have their limitations and that, to get any real change, the sticks need to exist alongside the soft measures. The workplace parking levy acts as a 'potent weapon' even during the consultation stage and it is 'strongly' likely that the policy will be implemented (in 2005).

The introduction of the workplace parking levy is a challenge. Many employees feel that they are already doing a lot in terms of commuter travel plans. However, the commuter plans are now being used an incentive to employers to be able to benefit after the introduction of the levy. The city has proposed that expenditure on approved commuter plan measures will be discounted from the levy. The council is considering a 100% rebate if an organisation spends the equivalent of the workplace parking levy on travel planning where an approved travel plan meets certain criteria (not yet defined).

An integrated parking management scheme, funded in advance from some of the money from the workplace parking levy, has also benefited the commuter planning process. A significant amount has been spent at Nottingham Trent University on smart card technology and integration with car park management as a demonstration project. Jeremy claims that the hallmark of a good travel plan is car park management, and so this could be important for workplace travel planning for the larger employers in the area.

Line 1 of the Nottingham Express Transit (NET)has a target of 11 million passengers by 2004/5.

The major changes to the Nottingham City Transport bus network in September 2001 have also had an impact on the workplace travel plan process. The 'image' of the bus is changing and faster, more modern services may have an effect on commuting.

Synergy with other 'soft' measures
The city council's work on travel plans is supported indirectly by the 'Big Wheel' campaign designed to market the local transport strategy and commissioned by the Greater Nottingham Transport Partnership. Awareness raising and the sense that Nottingham is moving towards this integrated transport system in the city have made people more aware of the 'big picture' and the vision for the city. Jeremy said 'the Big Wheel has really helped me and our mission because it has made transport more accessible, it has given it a brand and people are more aware of the direction we are going in. It has been a brilliant way of selling our local transport plan.' The Big Wheel has also specifically targeted commuting.

Travel plan work with schools has increased in the last couple of years, particularly since the appointment of a DfT bursary post. The 2002/3 APR reports that in 2000/1, four schools in the city had a travel plan, and in 2002/3 this had increased to 12 schools. A school travel pack supports schools in the city with the development of a travel plan and uses Big Wheel branding. A flyer promoting the pack was sent to 147 schools in Nottingham (4 LEA nursery schools; 101 LEA primary schools; 20 LEA secondary schools and 16 independent). In 2002/3 40 schools (27%) requested a copy and so are considered to have taken the first step toward development of a school travel plan.

The City Council runs a WorkWise project to assist people from the Meadows area, which has a high level of unemployment. This is supported by the EU under its MMOST programme. Workwise provides personalised travel information, tickets to attend interviews and assistance with a first monthly bus pass or the loan of a bicycle to long term unemployed people. During 2002/3, 57 people have used the service.

Follow up surveys have shown that 29 people have sustained employment (APR 2002/3 p95).

A teleworking pilot project was undertaken by the City Council assisted by Nottingham Development Enterprise and funded by the workplace parking levy advanced payment (APR 2002/3 p14).

Perception of the importance of the initiative

Soft measures are a high priority in the authority. Nottingham realised early that it cannot build its way out of congestion. Travel plans are well established here and there is a realisation that changing attitudes is a long term option but also a cheaper option than engineering solutions.

Factors contributing to success

The political will has consistently been evident in Nottingham. Nottingham has always had progressive, forward thinking politicians. Jeremy believes that because there is not a PTE and because the city has a major stake in the bus company, they are more influential in decision making and opinion forming. Major investment such as the tram network is making people stand up and realise that transport really is a big thing. Because it has to compete with other towns such as Derby and Leicester, Nottingham has tried to establish itself as a key retail and service centre and concentrates on revitalisation and regeneration. Transport is a key to this.

More specifically, as far as workplace travel plans are concerned, interest was built in the early 1990s when a scholarship was won to travel to the USA to study commuter planning. Ideas were brought back from this and applied by this 'champion' of such approaches.

Currently, the pending introduction of the workplace parking levy provides a sense of purpose and seems to instil an optimism and dynamism in the team.

The progressive vision and political stability enjoyed by Nottingham was mentioned on several occasions by all the interviewees across the initiatives.

Scalability

Staffing and budget

In terms of staffing and budgets, Jeremy commented that 'at worst' they will stay as they are. However, as the workplace parking levy comes on board there will be a separate workplace parking levy unit with its own team. Under these circumstances, the promotion of commuter plans will be even more of a priority and so more resources will be put in to it. The workplace parking levy will create a revenue stream for this and a better capacity to resource all soft options.

Future scale of the initiative under currently planned resources

Jeremy could provide no specific plans to scale up workplace travel planning other than the LTP target to increase the organisations 'actively' implementing commuter plans by 10% by 2006. However, this may also change under the workplace parking levy given increased priority to commuting issues and greater resources. As the

potential scale of commuter travel plans is partly dependent on the willingness of organisations to develop plans, the introduction of the workplace parking levy should improve this potential.

Future scale of the initiative if resources were greater
If resources were increased substantially, the commuter planning work would be able to be scaled up. However, a doubling of resources would have less than double the impact as there are diminishing returns given that the key businesses are already active. There will be a threshold at which no more added value will be gained from increasing the resources. Jeremy could not give figures for the potential number of employers/ employees that could be reached with substantially increased resources. However, he believes that the point of diminishing returns will be reached 'quite soon', implying that the council is already quite far in to the maximum number of employers that it could get on board. Consequently, if resources were doubled, Jeremy believes it would be best to work even more closely on each of the 25 large companies which already have travel plans and not necessarily target new companies.

Certain employers will never (or can never) change their travel patterns and the authority still has to support car travel and provide infrastructure for this. This means that there is a ceiling on how many companies will become involved.

Monitoring plans
An external consultant has been recruited to try and uniform the benchmarking for the workplace parking levy discount procedure. This will then command regular monitoring for each active travel plan in order to secure concessions.

Key issues for scaling up

Within the city council
Support for travel plans may have dropped a little as it used to be 'flavour of the month' when it was still new and Nottingham were seen as forerunners. But Nottingham City Council won Transport Authority of the Year last year and the commuter planning work contributed to this. The most important thing is to establish a clear way of gathering and reporting results.

Jeremy would like to see a closer relationship with developers, development control and with highway engineers as he believes that he is often informed too late.

Other organisations
- Senior management support within organisations is the key ingredient for a travel plan.
- Getting companies to work together on area travel plans requires local business champions.
- Getting bus companies to work together on smart cards and integrated ticketing and other employer led promotional activity.

From central government
- Setting a level playing field by getting rid of taxes on commuter plan financial incentives.
- Guidance from the government on how to define and record 'activity' and measure performance of travel plans – there is more guidance coming out now and from ACT which should help.
- The authority has been given autonomy with the workplace parking levy but it can be quite a risky business and more government support and guidelines would be helpful.

With respect to transferability, Jeremy asserted that it is important to share the mistakes as well as the successes. In particular, the Nottingham experience suggests that the main ingredient for success is not the system in place, but the personalities involved and key user groups that shape the agenda. Car parking management is another key. In addition, it is not about number of plans in place, but about the right quality of workplace travel plans.

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Case study author: Jillian Anable

Sustrans

Individualised Marketing

Interviewee: James Ryle, TravelSmart Project Director, Sustrans

This note reports additional information about individualised marketing from an interview with James Ryle of Sustrans.

Staffing and costs

Staffing

Within Sustrans, the staff costs for a pilot individualised marketing project involving 600 people would be about 4-5 person weeks. This includes staff time in head office and regionally. The amount of staff time required for larger projects would be greater, but would not rise in direct proportion to the number of people targeted. This is because currently Sustrans' main roles are management and preparation of marketing materials, and these functions require a similar amount of time whether the number of people targeted is 600 or 6000. Information is not available on staff time within Socialdata.

Effects of the initiative

Effect on car use within targeted population

- **Peak / off-peak travel and journey purpose**

In Gloucester, changes in travel patterns occurred during both peak and off-peak periods. Looking at Frome and Gloucester together, James Ryle suggested that although it is not clear-cut, there is a tendency for travel behaviour change to be more evident at off-peak times and for shopping and leisure journeys.

- **Public acceptability**

According to Socialdata surveys in other countries, satisfaction with bus services increases following individualised marketing. In general, feedback from people receiving information and materials through individualised marketing is very positive.

Other effects within targeted population

James Ryle suggested individualised marketing has delivered other benefits as follows:

- It has catalysed improvements in travel information. In particular, neighbourhood travel maps have been very popular, and some local authorities now have plans to produce these maps for other areas. It has also demonstrated what improvements in bus stop information are possible, and encouraged bus operators to do better.
- It has encouraged more joined up thinking between modes within local government.
- It has led to a broader and deeper understanding of travel behaviour.

- There is anecdotal evidence that individualised marketing leads people to talk about their travel choices with each other. Heightened awareness may lead to further behaviour change in future, for example when changing jobs or schools.

Synergy with wider policies and strategy

In Hartcliffe, Bristol, individualised marketing took place on one section of a bus corridor where bus services were also improved. Bus patronage was found to have increased on another section of the corridor, but patronage increase amongst the group offered individualised marketing was more than double.

James Ryle feels this bears out the experience of Socialdata elsewhere, that it is possible to more than double the increase in patronage arising from public transport improvements if they are combined with individualised marketing.

There is no firm evidence of individualised marketing increasing the effectiveness or acceptability of other measures, but James Ryle says: 'It is intuitively common sense that by establishing the dialogue we do, people will be more likely to become receptive to other measures.'

Factors contributing to success
James Ryle suggested that contextual factors likely to increase the effectiveness of individualised marketing might include:
- A general recognition in the local community that there are traffic problems
- A fairly discrete and self-contained community, with reasonable local services and facilities (not just a dormitory or satellite suburb)
- A reasonable level of public transport (and ideally, some recent improvements in services)
- Some excess capacity on public transport
- A supportive local authority, and some indication that other key partners, especially public transport operators, can be brought in.

James Ryle felt there were further success factors inherent in the Individualised Marketing process itself, as implemented by Sustrans and Socialdata, including:
- Direct, personal contact with households (eg telephone, deliveries by hand, home visits etc)
- Quick response times to all communications, information requests etc
- A personalised service offering 'bespoke' packages of information, advice etc to meet individual household needs
- A strong, coherent brand identity eg TravelSmart, consistent with the aims of the project
- An emphasis throughout on informing travel choices rather than selling alternative transport modes

This is not to say that individualised marketing is a waste of time in areas that do not meet all the contextual criteria. James Ryle pointed out that 'we managed it in Frome, which in retrospect did not meet some of these criteria.' Once the current round of DfT-supported personalised travel planning projects is over, there will be more information on success factors.

James Ryle was asked whether there are technical difficulties with generating bus travel information specific to individual stops. He felt that local authorities have quite good information about the location of bus stops. The main difficulty is that bus operators are reluctant to specify times for individual stops, preferring to work to a 'timing point' level.

Scalability

Relationship between spending and impact
The cost-effectiveness of individualised marketing depends on how long its effects last, and how often they have to be topped up. James Ryle pointed out that there are two types of 'refreshment':

- Providing new information to people who have already been contacted – for example when bus services change. This is fairly simple to achieve, as there is already contact with the households and it is known what they are interested in.
- Providing information to households as they move into an area where individualised marketing has previously taken place. How this can be done has not yet been explored.

James Ryle felt that it would not be necessary or appropriate to 'go back two or three years later and do the whole thing again'. In other words, it should not be assumed that the full costs of individualised marketing will be incurred again every 3-4 years in order to maintain its effect.

Future scale of the initiative if resources were greater
James Ryle felt that it will be important to work out where individualised marketing works best, and that it would not be appropriate to roll it out 'across the whole of England'. It would be appropriate to prioritise individualised marketing in those areas which meet most success criteria. The technique might be applied across whole towns, or only in certain neighbourhoods within towns, or particularly on public transport corridors. It is impossible to say at this stage whether one might sensibly target a quarter, or a third, or a half of the population. More evidence is still needed on when and where individualised marketing works best.

There is potential to integrate individualised marketing with services offered by Traveline and Transport Direct. More of the delivery of information might be electronic, although personal contact is likely to remain important in engaging with and enthusing people.

Potential constraints on the effectiveness of large-scale individualised marketing are:
- The need for good information materials in each local area
- Reasonable quality alternative means of transport
- Organisational capacity to deliver programmes
- Lower speeds and a more 'friendly' street-scene to make possible a shift to walking and cycling for short trips.

Organisational capacity to deliver programmes
James Ryle commented that it would be relatively straightforward to scale up from a pilot programme to a large-scale rolling programme in a particular city, so long as the programme was phased. For example, he commented: 'if we were asked tomorrow to do a programme involving half a million people in London, we would prefer to phase it over three to five years'.

The greater challenge is to deliver many individual projects in different cities. However, in future it is likely that individualised marketing might be streamlined (as described above), which will increase the capacity to deliver such programmes.

Key issues for scaling up
Funding for individualised marketing remains an issue. James Ryle commented: 'There's the old chestnut of whether capital funds can be released for individualised marketing. Developer contributions are all very well, but only for new residential areas. Revenue budgets are not enough. Money will have to be diverted from other capital schemes if we are to exploit the effectiveness of individualised marketing to the full.'

Government can help increase the use and effectiveness of individualised marketing by:
- Tackling the funding issue
- Placing more stringent requirements on bus companies to produce good bus stop information
- Giving strong guidance that personalised travel planning / individualised marketing is a legitimate and powerful tool, and capital funds can be used for it. This will be particularly important at the end of the current DfT funded projects.
- Supporting training in soft measures and travel behaviour for local authority officers, regulatory bodies and civil servants and politicians.

Case study author: Lynn Sloman

South Yorkshire Passenger Transport Executive (SYPTE)

Public transport information and marketing

Interviewee: John Ansari, Information Development Manager, SYPTE

Within SYPTE the Information Development team is responsible for marketing and promotion, including the Travel Options Planning Service (TOPS) managed by the PTE in partnership with the four district councils. TOPS was developed two years ago with initial funding from the European Regional Development Fund. Its specific remit is to attract new users onto public transport (as opposed to providing information for existing users). An original team of four people, now expanded to seven, undertake a range of 'proactive' marketing activities associated with travel training and awareness. The budget for TOPS is just over £130,000 per year, plus two externally funded members of staff. The travel advisors are specifically recruited with marketing and communication skills. In particular, personalised journey planners are offered to employees and members of the public, with around 1300 of these provided so far. Monitoring of behavioural impacts is limited but follow up surveys from the personalised journey planners indicate an 18% increase in bus usage amongst participants. In addition, at least £150,000 in season ticket sales can be directly attributed to TOPS.

Case study location and main actors

South Yorkshire PTE covers the predominantly urbanised area of South Yorkshire comprising the three metropolitan borough councils of Barnsley, Doncaster and Rotherham, and Sheffield City Council. The area is geographically and topographically diverse therefore travel patterns are varied. The urban centres are the main centres for employment and services.

SYPTE has joint working agreements with the district authorities with respect to travel plans. The district authorities deal with the planning side and condition organisations to have a travel plan and it is then the PTE's responsibility to provide advice and assistance to those organisations to help them through the process.

Joint working arrangements, such as partnership agreements, are in place in South Yorkshire with operators for specific bus quality corridors and development areas and include SYPTE, the districts and the bus operators.

Main activities

The SYPTE Business Plan (2002-2004) identifies information as one of a set of themes (alongside network development, ticketing, customer service and infrastructure development and planning), for the effective delivery of public transport in South Yorkshire. The Information Development Team is situated within

the Commercial Services Department of the PTE and is also home to the Travel Options Planning Service (TOPS) team.

The Passenger Information Strategy (published in autumn 2001, updated April 2003) sets out the requirements for the provision of information and outlines the following main areas of activity, of which TOPS is one key element:

Traveline: Linked to the PTI Yorkshire regional partners and part of the National Traveline Network, this call centre based telephone support service provides information about all local public transport services. It receives an average of 12,000 calls per week.

Web based journey planner: This incorporates Yorkshire regional bus and tram data, local and national rail and coach data. It receives about 1600 hits per week.

Printed leaflets and guides and paper service timetables: These are provided for every service (221 individual leaflets); 1.6 million are distributed per annum to 463 different outlets. These include tram and local rail services.

Stop timetables: 89% of bus stops show specific information.

On-street help points: Provision of help points at key locations including interchanges (40 in 2001/02).

Interchange display screens: at all interchanges and managed locations.

Travel information centres: nine centres are provided where required by public and economically viable.

Travelogue: four publications a year distributed to all households. This is a newsletter on public transport issues, timed to coincide with the four agreed service change dates a year.

SafeMark: developed 4-5 years ago and available to all secondary schools in South Yorkshire developing safe routes to school and school safety. By June 2003, 60 secondary schools had signed up and 11 had achieved an award. In order to qualify for a SafeMark award, a school has to draw up and implement appropriate policies and activities regarding pupil transport, with an agreed timetable of actions, which will be regularly monitored. The scheme is to be extended to all primary schools in South Yorkshire (17 already joined). Any school can join whether or not they have a public transport action plan. A few school travel plans have been carried out by the district councils, but there is no current plan to extend these.

TOPS travel advice: including the production of area travel guides (see below).

The Passenger Information Strategy identifies information 'gaps' by breaking down the public transport journey into nine decision stages and analysing the information requirements at each stage. It proposes that although there is an information gap for attracting new passengers, the first barrier is the perceived lack of services - (54% of people who believed that their journey could not be made by bus were wrong). As a

result, the strategy distinguishes between *existing* public transport users (where the aim is to maintain and increase current public transport usage by supporting and improving existing information) and *potential* passengers (where the aim is to encourage public transport use through proactive communication of travel alternatives). The strategy advocates growing the market through proactive communication to target misperceptions by marketing public transport as a viable and acceptable choice and providing detailed information about travel choices for specific travel needs.

Travel Options Planning Service (TOPS)
TOPS is central to the PTE's efforts to promote modal shift. TOPS was developed in 2001 with ERDF funding allocated to promote modal shift and regeneration in the region. The service can be distinguished from the other elements of public transport information and marketing within the PTE by three main characteristics:

- A remit to attract *new* passengers onto public transport (most other elements of information provision are geared towards *existing* passengers e.g. information at bus stops, standard timetables etc).
- A focus on *personalised*, tailored advice to individuals, community groups, public and private sector organisations in South Yorkshire.
- The specific recruitment of travel advisors with *sales and marketing*, not public transport, experience.

Research within the department identified three themes which contributed directly to the initial TOPS concept:

- Internal research found that the PTE was doing very little to encourage new people to use public transport and, as a result, this was the market to be specifically targeted by TOPS.
- Internal market research found that public transport promotion could be hindered by being associated with a council, bus company or the PTE. Consequently, TOPS was conceived as a way of 'branding' future campaigns in the most neutral way possible.
- Analysis of European research on modal shift suggested that general travel awareness campaigns were much less effective at achieving behavioural change than tailored, personalised campaigns targeted at individuals and groups of individuals to directly highlight the availability of public transport options.

Despite clearly identifying personalised journey planning as the TOPS approach, the initial objectives were loosely defined. What was clear was that it 'wasn't simply to 'do' travel plans' but to provide personalised marketing to actually 'make a difference'. Indeed, SYPTE do not focus on workplace travel plans – these are the responsibility of the district authorities through statutory and planning processes. The PTE, through TOPS, assists the district councils by providing advice and assistance to those organisations to help them through the process.

Hence, Travel Advisors have been appointed to liaise with public and private sector organisations and voluntary and community groups throughout the region in addition to assisting with the travel plan process. A tailored consultation service is offered whereby advisors are available to discuss with organisations their specific travel and transport problems and work out proposals which are flexible enough to cope with

any future changes and needs of the business. The scheme offers staff travel surveys and analysis, advice on services and routes for workers, tailored discounted ticket offers and individual, personalised travel plans for employees. This involves close collaboration with other agencies such as the bus operators to assist identifying gaps in service provision and ticketing types.

This service supports some elements of workplace travel plans where they exist within client organisations. However, John Ansari believes that 'the main hindrance is defining and communicating what is achievable and expected of client organisations. Many organisations perceive they have just one specific problem that they need help with (e.g. car parking congestion). If we continue to be fixated in achieving travel plans, we will scare a lot of organisations away'. As a result he would encourage more flexibility in the role and objectives of travel plan coordinators. Of public transport marketing and information strategy in general, he said 'we seem to have gone from a shotgun approach with broad and fuzzy messages to a very specific approach involving the need to have a travel plan. We need to be more flexible, just focusing on solving people's travel problems.'

The TOPS approach involves developing many different types of resources and tailored promotional and informational materials:

Personalised journey planners
These plans comprise a tailored solution for an individual's travel to work or business travel needs designed to answer the question 'how do I get to x from y at these times'. They are carried out for whole organisations, for new starters only, for individuals on request (both within and outside client organisations) and are being rolled out to job centres for interviews and children moving up to secondary school. They are kept up to date for an annual subscription of £1.50 (to be increased in 2004). Just over 1300 planners have been provided so far. 1034 are updated ones. Company personalised journey planners are updated initially for one year, but these can be renewed by individuals.

Discounted ticket schemes
Many different ticket offers have been created as a result of TOPS in its attempt to offer ticket deals according to what clients need. An agreement was made with bus operators that the TOPS team can offer a blanket discount of between 5% and 15% to TOPS participants without referring back to the operators. Offers have included the 'Flexi Master' ticket offering 3 days travel in 7 to facilitate part time working; simplified fares on the Bradfield network; discounted Travelmaster tickets to Jobseekers and the 'Eventmaster' where tickets can be bought in bulk for specific events. Thirty-four organisations are providing ticketing products to their employees, 32 of which are using specialised products or discounted tickets. The other two just issue standard tickets.

Full staff travel surveys and analysis
Although the PTE itself does not produce travel plans, the district councils delegate the responsibility to them to provide advice about the production of a travel plan and to carry out travel surveys using a standard format throughout South Yorkshire from 2002. The PTE carry out the survey and produce a report. The translation of this into a travel plan is the company's responsibility. More than 35,000 individual travel

surveys have been carried out in 34 organisations including local authorities and hospitals covering approximately 70,000 employees. (The standard survey has only been used for the last six organisations surveyed. Effectively the surveys comprise the before data, but after surveys have not been carried out yet. Non-standard forms were used before this and it is not possible to aggregate the data.)

Area travel guides

These differ from standard timetables in that they are location-specific and provide a list of all the travel opportunities to and from a location by all public transport operators. They are designed to answer the question 'where can I go to from this location?' and to target new users of public transport. Standard timetables are thought to be used primarily by existing users of services but the area guides are conceived more as a marketing tool to show that it is possible to make journeys by public transport. Due to the frequency with which services change, the aim was to produce something cheaply that could be photocopied. Several versions have been produced experimentally until a standard format was adopted. They are not being produced in conjunction with the bus operators and are relatively labour intensive. They are used by companies, hospitals, job centres, community groups, resource centres and estate agents etc. So far, about a third of all the areas have been covered and more will be produced upon request, including requests by specific employers.

TOPS travel shows

These consist of a stand manned by travel advisers offering individual, face to face travel advice to individuals at recruitment fares, company staff meetings, community centres, university freshers' week etc. In addition, display leaflets are provided for notice boards in the workplace.

Travel awareness training

This is a new initiative to provide specialised training on how to use public transport for people with learning difficulties, or who have impaired mobility or are blind or partially sighted plus, in future, training for drivers and operators on how to assist these groups.

Dedicated telephone line support

In addition to the Traveline service, TOPS also has a dedicated telephone enquiry service specifically for people who are part of TOPS and operated by the TOPS travel advisors.

New services

In cases where TOPS has been able to establish new demand in business areas currently not serviced, bus operators have agreed to divert services or provide new transport links on a commercial basis. Where this is not possible TOPS can bring together partnerships to provide the required services. For example, the Manvers Shuttle opened in 2000 to help transport thousands of staff working at the employment sites on former coalfields, as well as some of the 3,000 students who attend Dearne Valley College. The shuttle, which runs every 20 minutes, has a flat fare of just 20p for workers and students and has been supported by cash contributions from local employers who help subsidise its running. Another shuttle service, the A1 Sheffield Airport Shuttle, began running in July 2003 and is funded through employer and Yorkshire Forward contributions.

The TOPS service works with a number of partners to carry out its promotional work:
- Bus operators: cooperation with the ticketing initiatives is very important. The blanket discount agreement provides an effective negotiating tool with organisations.
- Community groups in regeneration areas: the TOPS team will work with community forums to look at transport links and barriers to work (for example in Kendray, a run-down area of Barnsley with perceived problems getting jobs).
- Target 2: SYPTE is part of this EU Mobility Management study and is particularly influential in the development of automated survey techniques.
- Job centres: TOPS works through the employment service to reduce social exclusion in employment.
- Travelwise: this serves as a forum for discussion between the PTE and the local authorities to extend ideas to the rest of the region such as West Yorkshire PTE.
- District planning departments and local travel plan coordinators.

Since its inception, TOPS has refined its techniques through experimentation and being open to feedback whilst at the same time branching out to more and more sectors. At the outset, the emphasis was on public and private sector organisations and travel to work, in support of workplace travel planning. This dictated an emphasis on larger employees implementing a travel plan. However, the 'sales and marketing' approach of the TOPS travel advisers has resulted in the development of the techniques and products in situ whilst working with clients. This responsive and flexible approach, together with 'word of mouth' and 'cold calling' techniques has meant that the team now work with more and more diverse areas such as the social exclusion unit, disability forums, estate agents, community groups, job centres etc. The 'cold calling' techniques employed are seen as a direct way to 'grow the market' and provide information and advice by removing barriers, designing new initiatives and new marketing material and continually evolving offers.

The deliberate policy to recruit travel advisors with a sales and marketing background, not public transport, has been successful. 'We have got plenty of people who know about public transport. We have no intention of changing this strategy'.

In addition, TOPS has developed its own identity to become a 'brand' used within the PTE to link its information and promotion work to a variety of initiatives promoting public transport use.

In the future, the following sectors will be targeted:
- Links with school travel planning and the development of joint 'cradle to grave' strategies. John Ansari made the comment that SafeMark targets children whilst they are at school and TOPS works with people once they are at work, but the transition is not dealt with well. A pilot scheme has been carried out at Willowgarth School in Barnsley for children on Trident work experience, providing personalised journey planners and discount ticketing. It is hoped to roll out this scheme across the county.
- Job centre work. The team now has someone seconded with neighbourhood renewal funding to work with Job Centre Plus and the 'Read In Partnership Training Agency' in Doncaster to develop measures to prevent travel being a barrier to getting jobs. Starting in July 2003, a travel advice desk is being provided

at the Job Centre Plus offices in Doncaster, at the Community Job Shops and at the Reed offices once a week.

- Community based partnerships: TOPS is now looking at transport-related issues within specific communities.   These may be lack of transport links or lack of understanding of the links (work is being done with Penistone Town Council), access to shopping, especially healthy food shopping (a map is being produced for Barnsley), employment links and other social inclusion issues.   Car parking/residents parking schemes are also a factor (work with Sheffield University).

In summary, John Ansari noted '[TOPS] seems to be extending and extending. I say that most things have a transport element and it is finding that element and seeing how you can help. But I think because of the way we are actually approaching it we have got the flexibility to come up with a new way of doing it. The traditional approach is to give them a timetable leaflet and tell them to go away!'

In addition, there are plans for the way in which TOPS services are delivered. In essence, the focus is on the development of systems that enable the organisations to carry out some of the work themselves as this is the only way to continue to meet the growth in demand without having to take on more people. For example:

- Automation of the travel survey and personalised journey planning process (e.g. electronic survey form and e-mailing direct to a database). In time the personalised journey planning process could become 'self service'.
- Development of a standard follow-up survey which specifically looks at capturing the performance measures set and analyses the extent of behavioural change.
- This is linked to a fundamental refocusing of information within the PTE as a whole towards electronic media (Real Time information, web based access, development of Traveline, GIS mapping). The information strategy highlights clear gaps in information provision compared to passenger requirements such as real time travel information, information about the locations of bus stops, on-vehicle location and next stop information.
- Sharing processes, methods and marketing materials across authorities. The shared use of branded materials is planned by December 2003 with an aim to further develop the TOPS brand in partnership with the districts.

At the outset, no targets were set for TOPS. However, now that the service has developed, a business plan has been devised for the period of 2002-2004, in which the following targets have been set:

- Public transport patronage: 5%-point change in modal share to be achieved within client organisations (after two years). The benchmark is set by the initial survey and progress measured by annual follow up surveys.
- Ticket sales: 5% increase in discounted ticketing use to be achieved by sales within client organisations.
- Number of community, public and private sector organisations adopting travel options measures: increase of 20 organisations per annum.
- Travel surveys: Carry out travel surveys for 50 small or medium sized enterprises (15 surveys carried out per annum). So far no surveys have been carried out. It was felt that the price of the survey (£1 per employee) might be proving a barrier to such organisations.

- Social exclusion: 5% reduction in those seeking employment citing lack of transport as a barrier to accessing work; to be achieved by reducing the barriers to work caused by transport.
- Quality: 10% improvement in the perception of the availability and reliability and punctuality of public transport to be achieved/ measured by the perception of public transport within client organisations.
- Satisfaction with the availability, reliability and punctuality of public transport: 5% improvement in customer satisfaction to be achieved by satisfaction within client organisations.
- Satisfaction with the cost of public transport services: 5% improvement to be measured by satisfaction within client organisations.

At the end of the first year, a series of performance measures for TOPS was developed. These generally comprise the number of services taken up by clients as well as other indicators such as public transport season ticket sales to staff of client organisations and calls to the help line. Table 1 shows the progress from 2000/1 to 2002/03

Table 1: Travel Options measures carried out in 2001/2 and 2002/3

Type of Measure	Total number of organisations in 2001/2	Cumulative number of organisations in 2002/3	Change from 2001/2002 to 2002/03
SOFT MEASURES~			
Staff travel survey and report	11	34	+23
Management presentations	91	153	+85
Travel issues consultation	131	183	+52
Travel awareness roadshows	32	48	+16
Tailored promotions	4	5	+1
Ticketing information provision	96	220	+124
Timetable leaflets	97	153	+56
HARD MEASURES~			
Ticketing agency	23	34	+11
Park and ride deals/ discounts	7	8	+1
Organisation specific travel guides	59	101	+42
Personalised journey planners for staff and new starters (number of organisations offering them)	20	33	+13
Dedicated phone service to Traveline*	8	9	+1
Modifications to existing services	13	12	-1
Dedicated shuttle bus services	11	13	+2
Company travel plans**	2	17	+15
Special ticketing products	-	32	+32
Restricted parking/ car park charges	-	7	+7
Improved pedestrian routes	-	1	+1

~ Soft measures include information and provision of advice (things controlled and 'owned' exclusively by the PTE). Hard measures are things that the PTE must proactively organise in conjunction with other services and organisations.
* This is a hash number on the company phone or a single button press that links the caller direct to Traveline.
** Companies that have produced travel plans as a result of TOPS assistance.

Staffing and costs

Staffing

TOPS has a clear structure within the Information and Development Team. At the outset there were four members dedicated to the TOPS team (25% funded through ERDF. Funding ran out in March 2002.). These included a travel officer/ manager and three travel advisors (one for Rotherham and Doncaster, one for Sheffield and one for Barnsley and the Dearne Valley). The team now consists of seven full time members of staff. The additional three posts are:

- Information analyst – providing support to the team in terms of analysis of information, timetable design and a source of advice on the services and ticketing initiatives that are currently available.
- Travel plan marketing coordinator (DfT bursary post) – promoting better coordination and promotion of the TOPS brand and its products and providing support to the South Yorkshire local authority travel plan coordinators. The main objective of the post was to coordinate the information provision and other promotional material for all workplace travel plan related projects across South Yorkshire, including those managed by the four South Yorkshire local authorities.
- Travel advisor (employment) – seconded to job centres in Doncaster (funded by Neighbourhood Renewal Fund until end of March 2004.)

In addition, the information team within which TOPS is located comprise four other people producing in-house marketing, new timetable and leaflet products, databases, electronic information systems and process automation. This is in addition to the staffing of the Traveline call-centre, travel information centres and interchanges etc. There are also staff dedicated to public transport promotion in the districts. One of these (Sheffield) is a DfT bursary post.

Costs and benefits

The total budget for information and promotion (£3.5 million) is approximately 4% of SYPTE revenue expenditure in 2002/3. Of this, £136,000 is allocated to TOPs, broken down into the categories in table 2. There is also additional external funding for two of the TOPS staff.

Table 2: SYPTE revenue expenditure 2002/3

2002/3	Gross £000's	Income £000's	Net £000's	% of total (gross)
Total PTA/PTE REVENUE expenditure	**96,204**	31,855	64,617	-
Of which:				
Total information budget*	**3,512**	368	3,144	3.6%
Of which:				
Traveline/ TIC's/ Administration	1,806	365	1,441	1.8%
Information and communications	1,706	3	1,703	1.7%
Of which:				
TOPS total budget**	**136**	30	106	<1% of total PTE revenue budget/ 3.8% of information budget

Of which:				
Staff***	98			
Transport (hire of vehicles etc)	5			
Admin – printing, advertising, telephone	33			

* Note that some capital expenditure is also allocated to information initiatives such as £30,000 for information at interchanges, £1 million for real time information and £50,000 for smart ticketing
** Income is generated from surveys and personalised journey planners - estimate £30,000 this year.
*** This does not include two TOPS members of staff: the DfT bursary post and the Job Centre Secondment (funded by neighbourhood renewal funding) – this means that an additional £40,000 must be added to the £136,000

Relative to the start of TOPS, this budget is roughly twice the size, largely due to the increase in staff numbers. ERDF funding was 25% of four travel advisors (around £25,000 per annum). This ran out in March 2002 and these posts are now funded internally.

The TOPS business plan outlines a target to develop external funding sources and income streams to the tune of approximately £30,000 per annum (that is £15,000 through development of external funding sources and £15,000 through revenue generation from ticketing systems and survey work).

Other than two externally funded members of staff, no other organisations are putting in significant resources. There is an agreement with the local authorities to pool resources to achieve common promotional aims. Indeed, the PTE is carrying out much of the generalised and personalised marketing on behalf of the local authorities.

In terms of increases in revenue from ticket sales, the 2001/2 business plan claims that approximately £150,000 worth of ticket sales per annum could be directly attributable to TOPS activities. However, John Ansari believes this to be an underestimate 'because realistically this is what we could hand on heart justify, but there is actually somewhat more that is to do with TOPS. This is only the sales through organisations that are "agents" or receiving special discounts. It doesn't count those people who have purchased tickets under their own steam after receiving information from us and realising that they can save money. Nevertheless, it is clear that a considerable amount of ticket revenue is being generated and has contributed to the development of constructive relationships with the operators enabling new ticket offers to be designed.

Scale of the scheme

Number of people affected by the initiative
The total number of organisations that have utilised the various elements of the TOPS service (see table 1 above for the extent of each service) is 225[6] (up 70 from last year) of which:

Local authorities: 4
Hospitals/ health sector: 13

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[6] It is not possible to relate this to a number of employees very easily.

Universities/ education: 7
Others: 201

In the 34 organisations completing travel surveys in total over two years, (see table 1 above), 35,000 people were surveyed, out of a possible number of approximately 70,000. The response rate of the surveys varies between 30% and 90%. This includes all the hospitals, local authorities and a university, and therefore, this is probably 'as big as it is going to get' in any one year given that these comprise almost all of the major employers in the area. This can be related to the 500,000 people employed in South Yorkshire who do not work mainly from home (2001 census).

In total, just over 1300 personalised journey plans have been carried out in public and private sector organisations, as well as for private individuals. This allocation can be seen in table 3.

Table 3: The number of personalised journey plans completed

	2001/2002	2002/3
Hospitals		
Barnsley District General Hospital (just started)		3
Royal Hallamshire Hospital	199	3
Northern General Hospital	246	184
University		
Sheffield Hallam University	25	10
Local Authorities		
Rotherham MBC	25	10
Doncaster MBC	42	13
Private Sector		
Dixons	67	52
Longcross Group	-	37
Direct Line Group (Green Flag)	-	113
Individuals (not companies)		
Individual customers – subscription	1	4
Individual customers – one off	202	128
TOTAL	**782**	**551***

* figure fell due to withdrawal by Royal Hallamshire Hospital.
Meadowhall gave employees (and visitors) internet access to the TOPS Journey Planner and is not included in the table.
Sheffield University was putting its travel plan in place and had not yet taken up the personalised journey planners.
The nine organisations in this table represent those organisations that fund personalised journey planners for their staff on a subscription basis. In other cases, plans are provided to individual staff on a one-off basis, frequently free of charge.

Targeting
The following areas have been targeted:
- Regeneration areas: in order to facilitate recruitment and accessibility in development areas, the TOPS team have targeted job fairs and have worked with operators and businesses to develop new services between centres of population and newly developing employment centres.
- Travel to work – concentration on this purpose is deemed to have the greatest impact because 'we know where they are and where they are going to'.

- Large organisations – it was a deliberate policy to target the largest organisations first (local authorities, universities, hospitals etc) in order to provide momentum and to enable the systems to be developed.

In general, it appears that small and medium sized businesses are very difficult to reach unless they have very specific requirements. The four local authorities have jointly set themselves a target to offer free surveys to 50 small to medium sized businesses in South Yorkshire. However, a year later none have taken it up. Passive advertising, such as through the Chambers of Commerce, had little effect. As a result, more proactive campaigning using telemarketing (out-sourced) will be used to contact the companies directly and offer them the service of a travel advisor.

In the future, the following areas will be pursued:
- Those seeking and starting employment
- Travel to school
- Those with mobility difficulties.

Effects of the initiative

Monitoring of the TOPS initiatives has been limited so far. Most of the figures derive from the personalised journey planning process as a follow up survey form is sent to participants when the plan is updated for them (about 750 so far). However, the follow up survey procedure is being updated and automated. Previous surveys did not investigate car use, whereas future ones will do so, including timing and lengths of journeys.

The SYPTE Business Plan notes that the first evaluations against measures defined in the plan are to be completed by December 2003.

Effect on car use within targeted population
The most specific data relates to 750 personal travel plans that have been updated with a follow up survey to date (out of 782). The following modal shift effects (percentage change from previous stated use) were observed:
- 18% increase in bus usage (the frequency of using this mode)
- 10% increase in train usage
- 12% increase in tram usage.

Some anecdotal information was also quoted in relation to Meadowhall where a 19% shift from car to bus was reported amongst its 250 management staff.

When questioned as to whether or not this was actual modal shift, the answer was unclear. Some of the new bus passengers will have originated as car passengers, in addition to a movement between public transport services. John Ansari stated that 'some of this is modal shift but some of it is actually improvement in the way people travel'.

In addition, where existing services have been promoted, increases in bus usage are measurable such as one service[7] which was promoted to companies along the route and reported a 23% increase in patronage and has subsequently had its frequency increased. In the case of new services, such as the Manvers shuttle, the 4000 journeys a week are reported to be entirely 'new' journeys, mainly to the call centres (with ample car parking) in the area.

The concentration of the TOPs activities on businesses and their employees suggests that any modal shift that has taken place has been in the weekday peak periods. However, it must be noted that the organisations worked with so far represent a relatively high proportion of shift and weekend working such as in hospitals and call centres.

In addition, over 300 of the personalised journey plans that have been provided over the past two years have been to private individuals. There is however, no data specifically analysing to the types of journeys these relate to.

Induced traffic effects

There is no hard evidence on induced traffic effects. John Ansari stated that because the main target of the initiatives are employees generally travelling in and out on radial routes, and most of the work is carried out outside of the main city centre, the effects of induced traffic is lessened due to the fact that the road network in these areas is not at full capacity to start with. So far, no specific corridors have been targeted. However, there may be some unintended effects. For example at Meadowhall, the parking spaces vacated by staff will free up parking space for shoppers. In the Dearne Valley, it is plausible that the new shuttle service has abstracted passengers from other routes.

Other effects within targeted population

It would appear that the TOPS initiatives have made a clear contribution to accessibility and social inclusion. As John Ansari stated 'I would say that the main effects have been accessibility rather than effect on car trips. People can actually get to places that they didn't know they could get to before'. The regeneration of the Dearne Valley and the Kendray initiative are specific examples. Here, car ownership is low and the new bus services have enabled people to reach places of employment otherwise out of their reach.

In addition, TOPS has developed specific products for school leavers, job seekers, the mobility impaired, single parents, asylum seekers and the probation service.

Other statistics collected in relation to the personalised journey planners demonstrate an improvement in the attitudes and understanding of the participants:
- calls to the telephone enquiry service increased by 15% after personalised journey planners
- 86% stated personalised journey planner was easy to use
- 50% did not realise how reliable the service is
- 60% did not realise frequency

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[7] The bus operator will not allow name/ number of the service to be published. This is to do with the on-going negotiations on the value and usefulness of discounts and information provision.

- 20% did not realise how convenient it is.

However, the SYPTE Business Plan stated that satisfaction with public transport information in general has declined 13.4% in the 12 months ending March 2003 (from 64.1% to 55.5%).

The initiative is also helping increase the viability and sustainability of services, because of the increased ticket sales it has generated.

Wider context for the initiative
In terms of the general South Yorkshire context, although rail patronage has held steady and tram patronage has risen slightly, there has been a further decline in bus patronage. Between 1997/98 and 2001/02 the estimated number of bus passengers in South Yorkshire fell from 144 million to 128 million, an overall drop of 11%. Between 2000/01 and 2001/02 there was a 2% fall. However, figure 1 suggests that the rate of decline is slowing. (Note this is contrary to the situation reported in the 2002 APR. This is because 'erroneous' figures were used and have now been recalculated in the light of more accurate information).

Figure 1: Bus passenger journeys in South Yorkshire
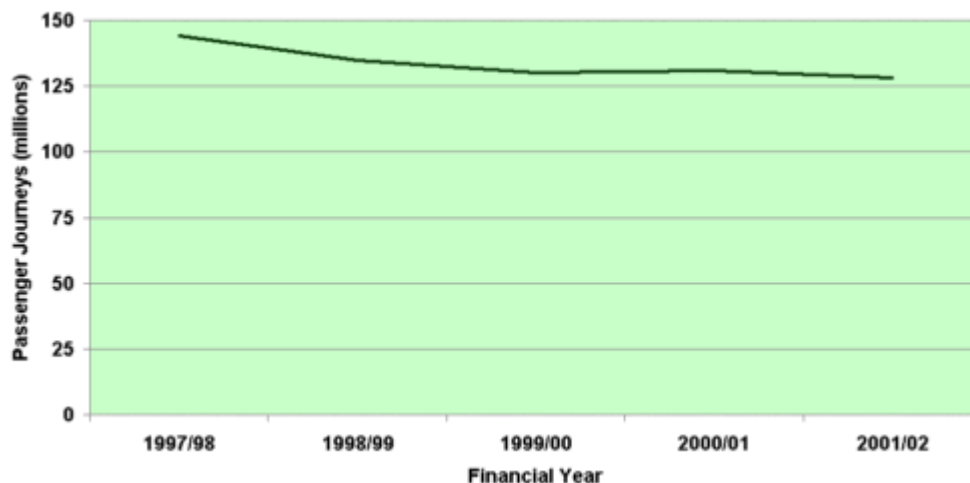
The revised public transport patronage figures are summarised in table 4.

Table 4: Public transport patronage in South Yorkshire

	01/02	02/03	Target 05/06
Local bus services – passenger journeys per year	128m	125m	145m
Local bus services – annual passenger journeys per 100,000 people	10.1m	9.9m	11.2m
Local bus services – vehicle kms per year	86.2m	N/a	N/a
Local bus services – annual vehicle kms per 100,000 people	6.6m	N/a	

Source: SYPTE Business Plan 2003/4 to 2007/8

On the tram, between 1997/98 and 2001/02 patronage increased from 9.2 million to
11.4 million, a rise of 24%. Between 2000/01 and 2001/02, there was an increase of
3%.

Modal share data for the region is only collected biennially and has not been collected
in 2002/3. In the 12 months ending March 2002, the modal share of public transport
was 12.7% (bus + tram + train) The LTP outlines a target to reduce the level of car
use as a proportion of all journeys made from baseline (2001/2): in urban areas from
56% to 46%, rural areas from 68% to 63% and coalfield areas from 48% to 43%.

Mode share for the journey to work is summarised in table 5.

Table 5: South Yorkshire mode split for travel to work (census data)

	Census Data Usual mode of travel to work	
	1991 City of Sheffield	2001
All people aged 16-74 in employment who usually travel to work by:	*513,234*	*532,106*
car driver + motorcycle	53.1%	57.6%
car passenger	6.5%	7.6%
bus + tram	20.6%	14.5%
train	0.7%	1.0%
cycle	1.1%	1.4%
walk	10.4%	10.0%
other	0.7%	0.7%
working from home	7.0%	7.2%

Census Data are drawn from a 10% sample of the census in 1991 and 2001. Figures are for persons
aged 16 and over, employees and self-employed. Figures are not entirely comparable due to boundary
changes between 1991 and 2001.

Synergy with wider policies and strategy

Synergy with 'hard' measures
John Ansari felt that in general, South Yorkshire benefits from a relatively good
public transport network and as a result, the main challenge is to inform people of
their options. Where a need for specific services has been identified, attempts have
been made to persuade operators to modify existing services. This has involved in
some cases adding entirely new services such as in the Dearne Valley.

In terms of wider transportation policies within the region, only car parking policies
were cited as having a specific impact with the information and marketing campaigns.
A few firms have implemented car parking charges prior to or in conjunction with the
travel plan process. In addition, the TOPS service has been helpful in the smooth
implementation of residents' parking schemes such as around Sheffield University
and Royal Hallamshire hospital.

Other than parking initiatives, the marketing and promotional material has not been
used to specifically aid the acceptability of any 'hard' initiatives. Instead, the TOPS

approach is to promote the business case for travel planning, not necessarily the wider benefits of any changes in behaviour, such as environmental gain.

Synergy with other 'soft' measures
Travelwise was the only soft measure cited as having any synergy with TOPS or the other promotional activities within the PTE. This operates on both a South Yorkshire and a regional level, with monthly meetings attended by all the regional travel coordinators. Whilst the general awareness campaigning of Travelwise is not seen to have an impact on TOPS per se, it acts as a good forum and network to share ideas. In South Yorkshire workplace and school travel plans are done under the umbrella of Travelwise staff in local authorities when/if they are not done by TOPS.

Perception of the importance of the initiative
Public transport promotion is a high priority within the PTE. However, the view was expressed that whilst it is worth publicising the network, the priority is to invest in the infrastructure in the first instance to make sure it is there to promote.

Factors contributing to success
The initial ERDF funding was crucial in getting the TOPS initiative off the ground. Subsequently, the bursary posts (including those in the local authorities) have contributed to the success of the service. However, essentially, the success of the scheme has meant that the PTE has recognised the value of the initiative and has opted to fund the initiative internally.

Scalability

Staffing and budget
A target for TOPS is to increase the number of clients, products and services without requiring an increase in the current number of staff. This will be achieved through automation of services to facilitate an increase in business with less staff input. The exception is if the demand for services were to increase enough to generate enough revenue to sustain another member of staff. However, SYPTE see the bursary post as vital to the success of their promotional work. If DfT funding were not available, a strong argument would be put internally to find the funding for this post. However, budgetary problems means that this is uncertain and keeping staff is hard. If they couldn't fund the post internally, attempts will be made to find European or other funding.

Due to the uncertainty over the bursary post positions (i.e not just the SYPTE post but also those in the districts) John Ansari felt that it was impossible to make projections about future staffing levels. This is the reason for the TOPS business plan covering the period to 2004 only.

The budget for TOPS is expected to remain the same year on year (plus inflation). However, the TOPS team have a target to secure £15,000 from external grant funding plus a further £15,000 through commission and survey work to contribute to sustaining the service.

Relationship between spending and impact

Analysis has not been carried out between the spend and impact of the TOPS service. However, the comment was made that having effectively secured permanent contracts and internal funding for most of the travel advisors, the PTE has accepted the business case for the work. The service is seen as a key part of the overall strategy to improve public transport in the region.

Future scale of the initiative under currently planned resources

The TOPS target is to increase the number of client organisations using any of the products on offer by 20 per annum and a 5% increase in discount ticket use. The extent to which current staffing and resources is sufficient to meet this target is dependent on the nature of these organisations and how this translates into the number of personal journey planners.

TOPS has just started with two other hospitals in the region so the number of personalised journey planners should increase to around 1000 per year by the end of 2003.

In addition to staffing, meeting these targets is dependent on three key things:
- the level of interest in client organisations
- the development of self service personalised planning and the automation of key processes
- sustained interest by the local authorities and the bus operators.

Future scale of the initiative if resources were greater

The future scale of the TOPS service is as dependent on the level of interest from client organisations as the level of resources. In other words, there is a limit as to the number of organisations that will be receptive to travel advice. Small and medium sized organisations have proven very difficult to reach.

However, where resources are increased and dedicated to specific initiatives such as schools, community work or hospitals, the impact could be proportionately greater than the resources put in. This is because the resources can be focused and the member of staff does not have to learn about each sector in turn. In this case, if resources were doubled, it would have more than double the impact. This assessment is based on the appointment of the travel advisor dedicated to working with Job Centres whose impact has been proportionately greater than the other advisers. 'This is down to the fact that there is in effect a captive audience of people who are statistically (and actually) more likely to have transport problems. The same kind of thing applies to hospitals (where car parking is always a big issue) and universities.' However, John Ansari felt that the maximum number of staff needed to reach the maximum number of clients in the region would be twice the current level (+ twice the publicity budget). Any more would be a 'waste' given the finite level of interest from client organisations. With twice the staff and twice the publicity budget, John Ansari guesses they could 'easily' more than double sales.

Monitoring plans

The TOPS business plan has a target to develop long term evaluation methods to measure the effectiveness of schemes in promoting modal shift. The first evaluations against the measures defined in the business plan are to be completed by December

2003. Specifically, two page follow up personalised journey planning surveys are currently being developed in line with the performance indicators in the SYPTE business plan. These will be implemented in the next 6-12 months.

Key issues for scaling up

The TOPS business plan identifies the following potential (but not necessarily likely) barriers to meeting the stated targets:

- Lack of uptake from client organisations
- Lack of cooperation from operators
- Local authorities may not be able to identify 50 enterprises who need surveying and firms may be reluctant to cooperate
- Lack of senior management commitment could prevent effective implementation
- No agreement on standard survey format with districts
- Unsuccessful bids for funding.

In order to generate interest amongst the business sector, different ways of marketing, including telemarketing, are seen as a possible option. The 'green' message, however, will not be used to encourage participation. Travelwise is seen as a forum for bringing together local authorities and sharing best practice.

A concern was also raised about the lack of influence SYPTE had with bus operators and the frequency with which services change. In order to maintain cooperation with bus operators, partnership agreements are encouraged, including bus quality partnerships and service agreements. However, although SYPTE has voluntary agreements for four changes a year, services are still changed, introduced and withdrawn at short notice and on different dates. Central government legislation on the provision of 'sensible' ticketing arrangements in order that negotiations with operators are not necessary, would be helpful. The lack of a zonal ticketing system in the region has been an obstacle to marketing efforts. SYPTE claim that they have only achieved what they have by forming good relationships with the operators.

In addition, a greater understanding of outcomes and measures would aid the promotional work being undertaken. Currently, too much emphasis is placed by government on producing travel plans and making contact with organisations rather than assessing the potential outcomes of these initiatives, such as the reduction of car use. The fact that businesses can develop a travel plan but not be required to act upon it, is seen to hinder public transport promotion efforts. Central government has a role to play in improving the planning consent process which can require the production of travel plans but is not able to enforce specific outcomes. Guidelines on how to ensure that organisations are required to implement travel plans through the planning process and meet targets set in LTPs would be helpful. Hospital trusts and universities, however, are very constructive as they tend to set their own targets for behavioural change.

Support for the TOPS initiative has grown within the PTE as it has refined its objectives and systemised its approach. The fact that it has developed from a grant funded part of the organisation with temporary staff and an unclear remit, to a formal part of the organisation with a budget, permanent staff, an identity and a clear perceptions of what it stands for, is testimony to the fact that it has become a core part

of the organisation and is well supported. There is also a lot of cooperation with the district authorities, although public transport promotion work in many local authorities can often be left to a member of the highways department who often has difficulty in allocating time to this.

Overall, the TOPS approach is almost completely transferable to other areas. The assertion was made that 'nothing that has been done is that complex'. The main problem to be overcome is the resourcing of such an initiative as the method is very labour/revenue intensive. A lack of skills is not a problem as the idea is to recruit a sales and marketing force.

References

South Yorkshire PTA (2003) The Business Plan 2003/4 to 2007/8

South Yorkshire PTA (2003) Passenger Transport Information Strategy

South Yorkshire PTA (2002) Annual Progress Report

South Yorkshire PTA, Commercial Services Department (2002) TOPS Business Plan 2002 - 2004

Case study author: Jillian Anable

City of York Council

School travel plans

Interviewee: Catherine Elliott (now Heinemeyer), School Travel Plan Co-ordinator. Some information used in this case study is from Daniel Johnson, Principal Transport Planner, Mobility Management, who was interviewed for a separate York case study on marketing travel awareness.

York's work on school travel plans is complemented by parallel but separately delivered programmes on safe routes to school, school safety zones, cycle parking and pedestrian and cycle road safety training. A city-wide survey, carried out in 1999 and 2002, provides monitoring data on travel to school. This seems to show that primary schools with school travel plans or new cycle parking have achieved an average car use reduction. The introduction of school safety zones around primary schools does not appear to have affected car use, although it has been effective at halving the number of self-reported accidents amongst 8 and 9 year olds. For secondary schools, it seems that school travel plans and safe routes to school initiatives may have been successful at achieving small reductions in car use, or stabilising it, although the introduction of cycle parking has been less effective. However, their smaller number, at the time of the survey, makes their results less meaningful. Overall, car use reductions seem to have been achieved at seven secondary schools and 15 primaries.

Case study location and main actors

The City of York Council is a Unitary Authority with a population of 181,094 (at 2001 Census). The council was awarded the status of Centre of Excellence in transport by the Government in March 2001, in recognition of its work in promoting cycling and developing park and ride services. The promotion of school travel plans is led by the Mobility Management team in the authority's Transport Planning Unit. Parallel initiatives related to school travel are led by Road Safety.

Main activities

The council promotes and facilitates the development of school travel plans at primary and secondary schools across the city. In addition, the authority has four other strands of work that are closely related:
- the creation of safe routes to school (SRS) and school safety zones (SSZ) (zones are engineering safety measures in the immediate vicinity of the school such as 20mph restrictions, gateway features and speed bumps);
- a road safety pedestrian and cycling training programme;
- installation of cycle parking at schools;
- road safety education and campaigns, including a twice-yearly Walk to School Week

Work on school travel plans has been undertaken since December 1998, and on SRS and SSZ since 1995. The role of the current School Travel Plan Co-ordinator is to engage schools in the process, persuade them to start initiatives and to finally draw up a travel plan. She produces a newsletter to keep schools informed and has generated press coverage for school travel plan work. Interested schools receive advice and help in setting up working groups and support with developing initiatives. The co-ordinator becomes involved in classroom activities, parents' evenings and schools councils, spending up to a fifth of her time with pupils and parents. She organises events and puts schools in touch with potential sponsors and others who can help take plans forward, such as local cycle retailers.

York defines a school travel plan as a package of measures and initiatives aiming to reduce the impact of the 'school run' on pollution and congestion levels, through:
- curriculum based activities;
- walking and cycling initiatives such as 'walking buses';
- special events like 'walk to school week';
- parking and traffic management;
- linking in with road safety training, cycle parking and traffic calming measures.

Historically SRS, SSZ, installation of cycle parking, cycle and pedestrian training and school travel plans have proceeded, to a large extent, independently and it has not always been possible to link them together. Now where a school has a new safe routes scheme or safety zone, effort is made to introduce a travel plan. Conversely, where there is a travel plan the authority increasingly makes an explicit link to engineering measures, and a travel plan is a requirement for cycle parking to be funded. Previously, when a SRS scheme was introduced, there were awareness measures and consultation, but not a full travel plan.

New developments in 2003-4 include an expansion in the installation of cycle parking and the involvement of many more schools in school travel plans.

New measures planned for the future include:
- individualised journey planners for children starting secondary school;
- a cycle maintenance training project in schools – which will enable school students to become resident cycle mechanics for their peers;
- direct marketing of cycling to parents and children – using a booklet that addresses parents' concerns, a cycling road show, a cycling route map and other promotional materials;
- a GIS system to enable more efficient action upon schools' suggestions for improvements to the cycle and pedestrian networks.

Other possibilities for the future are a special funding pot for isolated emergency measures to support school travel plans, the extension of sustainable transport work to youth leisure groups and closer involvement with school councils.

While the approach has generally been intensive it is now becoming more 'broad brush', since the council is doing some work with most schools. This is because there

are many initiatives going on and some approaches suit some schools better than others. The council also uses the planning process to secure school travel plans.

York has modal split targets for the school journey as shown in table 1.

Table 1: Modal split targets for school journey (2006)

Year	Walk	Cycle	School bus	Other bus	Train	Car	Other
Primary	65.5	4.8	1.8	0.6	0.1	26.9	0.4
Secondary	51.3	10.6	18.1	11.7	0.2	8.5	0.1
All schools	59.6	7.2	8.5	5.2	0.1	19.0	0.2

In addition, there is a local public service agreement (PSA)[8] stretched target, to increase the number of children who normally cycle to school in year groups 6-9, from 5.8% (travel to school survey December 1999) to 10.3% by December 2005 with an interim target of a 9.3% increase by December 2004. Expected performance without the PSA is a 7.6% increase by December 2005.

A total of £70,000 (over two years) additional funding has been made available to meet this target (of which grant funding totals £50,901). To fulfil the target the city needs to achieve 328 new cyclists and maintain the existing popularity of cycling.

The strategy for doing so includes installation of additional new cycle parking and further development of the cycle training programme (eg. free cycle permits for 'graduates', professional development of cycle trainers), besides the marketing measures already outlined above.

Children's travel to school has been monitored through two city-wide surveys in 1999 and 2002. A report of the results concludes that, except for cycling, the council is not yet on track to achieve the target modal split stated in the local transport plan, but that the continuing programme of school travel plans, combined with cycle training and new cycle parking where needed is the best way to achieve it.

Additional support/resources for school travel work comes from the following partners:
- Sustrans provide advice and occasional training to school travel plan co-ordinator, organise events and produce free resources for schools;
- cycle retailers offer discounts and pool bikes and prizes for competitions on an ad hoc basis;
- cycling paramedics (a part of the ambulance service) and the cycling police unit in the city centre support travel plans by taking part in events to promote cycling and cycle security;
- the Department for Transport has made £3,189 available through the cycling projects fund, for the cycle maintenance training scheme, which was increased

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[8] A Local Public Service Agreement is an agreement between an individual local authority and the Government which sets out the authority's commitment to deliver specific improvements in performance, and the Government's commitment to reward these improvements.

to £7,713 with matched funding from North Yorkshire Police and Weldtite Products Ltd;

- First York, the main bus company, offers discounted bus tickets to sixth form bus monitors (who manage and monitor the behaviour of other children on the bus). First York also supports a bus training scheme by providing special 'duplicate services' for a school lesson (cost not known);
- Until recently, the Healthy School Co-ordinator in the Primary Care Trust was able to help promote physical activity, although she did not contribute directly to school travel plans. (Her post has recently been transferred to the Education Department, and physical activity now forms a much smaller part of her brief).

Within the council, Highways Development Control liaises with the School Travel Plan Co-ordinator in order to secure travel plans for proposed school developments.

Staffing and costs

Staffing

There is now one full time member of staff – the School Travel Plan Co-ordinator - whose work is dedicated to promoting and facilitating school travel plans. Her post was created in 2001.

In addition, the SRS and SSZ schemes take up the time of three full time engineers. A Transport Strategy Officer devotes around one third of a full time post to cycle parking. In addition a team of road safety trainers provides around 4,000 hours of cycling and pedestrian training annually, equivalent to approximately 2.5 full time staff. There is also a further small contribution from the road safety team. This brings the total amount of staff time spent on school travel to the equivalent of approximately 7 full time staff.

When the council first became involved in this kind of work, school travel plans took around a third of one officer's time – with the other two thirds spent on workplace travel and travel awareness marketing. At this time, the time spent on cycle training was around half of the present level, i.e. 2,000 hours, while the time spent on safer routes and school safety zones would have been much the same as now (3 fte) and the time spent on cycle parking was negligible. This implies that the total amount of staff time spent on school travel work was approximately equivalent to 4.6 full time staff.

Costs and benefits

Funding for the SRS, SSZ, cycle parking and road safety training all come out of the authority's capital programme. This includes engineer time and road safety trainers' time as these are seen as adding value to the capital spent on hard measures.

The current budget for 03/04 therefore breaks down as:

School safety zones	£270,000
Safe routes to school	£230,000
Cycle parking	£82,000
Road safety training	£40,000

School travel plan budget
(includes newsletter production)   £6,000

Total from capital programme: £628,000

Plus
Transport strategy officer for
cycle parking (1/3rd fte)   £6,833
School travel plan co-ordinator
salary costs including training
(funded by DfT bursary)   £20,796
Additional PSA funding   £35,000

Total from revenue funding: £62,629

Total annual funding: £690,629

The PSA funding covers cycle training development, marketing and overspend on these and smaller projects. In 1998/9 when work on school travel plans started, the initial budget for the Travelwise post was £10,000 for six months (including £8,000 salary) making the annual budget £20,000 (including £16,000 salary). On the basis that around one third of these costs were allocated to promoting workplace travel plans, the annual budget for school travel plans at the outset was approximately £7,000 (not including any additional overhead costs).

The co-ordinator says school safety zones and safe routes were funded at a similar level to the present. Funding on cycle parking for schools was negligible while the road safety training programme is now roughly double what it was then. This implies that the total capital spend was approximately £520,000.

The total spend on transport in York including revenue and capital in 2002/03 was £17.3 million. Nearly £9m was spent on the transport capital programme in 2002/03 of which the transport capital allocation from central government was £6.9million. This includes the full LTP allocation of £6.1million plus £0.8million carried over from the previous year. Items listed under actual LTP expenditure for 2002/03 are park and ride; rail; Metro bus network; bus priorities, public transport infrastructure, buses for subsidised services, TCMS, local safety schemes, safe routes to school, speed management schemes, traffic management, pedestrians, cyclists, structural maintenance, lighting, bridges, tourism signing, lorry park, travel awareness campaign and capital programme marketing. Items listed under transport and highways revenue expenditure 2002/03 include social bus services and highways maintenance. (Source of figures: APR 2003)

Scale of the scheme

Number of people affected by the initiative
The following tables show the number of schools and school students involved in school travel plans and their level of involvement in school travel planning.

Table 2: Schools and students engaged in school travel work

	Engaged with about school travel	Based in the area
Number of primary schools	32	58
Number of primary school pupils	9003	14,784
Number of secondary schools	11	15
Number of secondary school students	8,606	11,395

Table 3: Schools at different levels of involvement in school travel plans

		Primary	Secondary	Number of pupils/ students affected
Number of schools with …				
	An active school travel plan, plus engineering work to provide safe routes to school	3	2	2677
	School travel plan agreed and / or some or many school travel initiatives in place	13	6	9477
	School contacted and starting to develop school travel work	16	3	5465

Eight schools have been involved in travel planning via the planning process.

There are currently about 48 primary schools and 5 or 6 secondary schools with school safety zones. About 6 secondary schools with safe routes schemes. No primaries have safe routes, but two will be the end of the year.

Changes over time
Two years ago the School Travel Plan Co-ordinator was working with about 5 schools and in December 1999 3 – 4 schools were involved in travel planning including an FE college.

Targeting
York has a prioritisation system for engineering measures for schools which has implications for travel plans. Schools are prioritised on the basis of :
- % of participation in survey on modal split, which is taken as an indicator of effort;
- accident rates;
- % of pupils driven to school;
- % of pupils on free school meals.

The last two criteria tend to cancel one another out.

In working on school travel plans and cycle parking, the council prioritises schools where the interest from the school is promising. However, the co-ordinator thinks this is because they are in the early stages. She anticipates that they may run out of interested schools and have to target the uninterested ones. At the moment however,

interest is growing because people see real benefits, for example, new cycle parking, positive press coverage and traffic reduction at the gate. Catherine considers their strategy has been successful. If they were targeting in other ways she thinks they should target socially excluded schools and may do so in future.

Effects of the initiative

Effect on car use within targeted population
The best data available on the overall effects of York's school travel work comes from two city-wide surveys of school travel in 1999 and 2002. Both surveys were carried out in December. Questionnaires are designed for four age groups and piloted on children of council employees. Primary students are given assistance in completing the forms by members of the council's road safety team while secondary schools are sent surveys and asked to organise their own data collection. In 2002, the response rate was 88.7% of primary and 54.7% of secondary. In 1999 it was slightly lower.

The average results are shown in table 4.

Table 4: Unweighted average results for schools in York

		Walk	Cycle	Bus	Car	Other
All schools	1999	54.6	5.2	13.8	26.1	0.4
	2002	51.8	7.0	11.4	28.6	1.2
LEA primaries (43)*	1999	57.7	2.8	3.2	35.4	1.5
	2002	54.6	3.3	3.1	37.9	1.2
Independent primaries(2)*	1999	21.2	1.1	18.9	57.2	1.8
	2002	13.4	5.6	1.9	78.1	1.1
LEA secondaries(10)*	1999	52.9	8.3	23.2	14.9	0.8
	2002	49.3	10.9	22.9	15.2	1.6
Independent secondaries (5)*	1999	21.9	5.7	9.0	58.9	4.4
	2002	21.6	6.4	8.1	60.6	3.4

*Numbers in brackets indicate the number of schools that replied to both the 1999 and 2002 survey.

These results show that there has been an increase in cycling to all types of school. However, overall, car use has increased (from 26.1% to 28.6%), with declines in walking and bus use. Car use increases have been greater at primary schools than secondary schools, and at independent schools compared to local authority schools.

Using the data from the 60 schools which replied to both surveys implies that the weighted average change in car use at all primary schools has been from 34.5% to 38.6%, whilst the weighted change in car use at all secondary schools has been from 22.6% to 22.7%.

The council has also looked at the impact of school travel measures and initiatives, in each case making comparisons between schools which had particular measures introduced between 1999 and 2002, and all other schools. The average %-point modal shift per school is calculated for each group, weighted according to the size of the school. Primary and secondary schools are considered separately.

The summary of the impacts of the school travel work on car use are shown in table 5.

Table 5: Impacts of specific school travel initiatives

	% point change in car use at schools (weighted average)		
	Travel plans	New cycle parking	School safety zones or safe routes to school work*
Primary schools with…	-1.2 (10 schools)	-3.8 (5 schools)	+4.6 (?? schools)
Primary schools without…	+4.7 (35 schools)	+4.2 (40 schools)	+3.8 (?? Schools)
Secondary schools with…	0 (4 schools)	+2.6 (3 schools)	-0.8 (3 schools)
Secondary schools without…	+0.8 (11 schools)	+0.4 (12 schools)	+1.2 (12 schools)

* School safety zones have been implemented at primary schools whilst safe routes work has been undertaken at secondary schools.

These figures provide some indications about the impacts of the work. In particular, school travel plans and new cycle parking at primary schools, and safer routes work at secondary schools appear to be contributing to positive modal shift. In contrast, school safety zones at primary schools do not appear to be affecting modal shift (although they appear to be making an important contribution to safety, as discussed in the next section). School travel plans and cycle parking at secondaries are also not having an obviously beneficial effect, in terms of reducing car use.

The scale of the changes reported here seems relatively small, however this is probably because the results are expressed as percentage points and the differences between the categories are not highlighted. Given that the (weighted average) proportion of travel to primary schools by car was 34.5% in 1999, a -1.2 %-point shift at primary schools with travel plans, compared to a +4.7%-point shift at primary schools without travel plans implies that the car use at primary schools with travel plans was 15.1% lower than it would otherwise have been. Similar calculations would suggest that primary schools with new cycle parking have levels of car use which are 20.7% lower than they would otherwise have been. For secondary schools, the (weighted average) proportion of journeys made to school by car in 1999 was 22.6%, so similar calculations suggest that car use at these schools was potentially 8.4% lower than it would otherwise have been. (These calculations are approximate, since we do not have the figures to undertake calculations using the actual initial levels of car use at the schools with and without particular measures.)

Moreover, there are some other problems with interpreting the results. In particular, the council considers that the small number of secondary schools makes the results for these schools less meaningful. For example, in the case of cycle parking, two schools had seen increases in cycling since the new facility was installed, but figures were affected by poor results from a third. Another factor which may be affecting the results could be that schools were participating in these initiatives because they had a particular problem with rising car use. This type of analysis also does not allow for the effects of particular *combinations* of measures. Nonetheless, the results do suggest that the school travel work (particularly at primary schools) is having some effect.

The survey also provides insights into the achievements of individual schools. There were 60 schools which participated in both surveys, including 15 secondaries and 45 primaries. Of these, 7 of the secondary schools and 15 of the primary schools had achieved reductions in car use. However, it was difficult to link changes in car use with what had actually been done at the schools. This was because, although the council has records about schools which have received new cycle parking, safety work and/or have an official travel plan in place, these measures do not necessarily provide sufficient indicators of the extent or depth of work taking place at the schools. Specifically, at the time of the second survey, few schools had an official travel plan in place, however many of the schools had started work. Some had introduced their own cycle parking, some had received traffic calming as part of other schemes (rather than as part of school travel work) and there was a range of involvement in other initiatives that might also have been expected to have an effect on travel choices, such as cycle training. These issues highlight the difficulties of classifying school involvement in school travel work. The council also believes that the impacts of such measures may be relatively long term, so that the links between initiatives and results are likely to become clearer in the future.

Other effects within targeted population
School safety zones have considerable benefits for children's safety. In the York school travel survey results, a comparison of self reported accidents in primary schools with SSZ compared to all primaries shows that accident rates on the way to and from school were nearly halved, compared with figures for all primaries, as shown in Table 6.

Table 6: Self-reported accidents at primary schools with SSZ and all primaries

	School with SSZ	All primaries
No. of respondents in Years 5 + 6	3,569	10,971
Number of accidents	41	205
% of Year 5/6s involved in accidents	3.56	6.02
% of accidents needing medical attention	36.6	28.8
% resulting in days off school	34.1	27.3
Average no. days missed per accident	1.94	1.74
	Mode of travel when involved in accident	
Car (%)	14 (34.1)	81 (39.5)
Walk (%)	11 (26.8)	43 (21.0)
Cycle (%)	5 (12.2)	34 (16.6)
Other (%)	0 (0)	7 (3.4)
None given (%)	11 (26.8)	40 (19.5)

The STP Co-ordinator says travel plan initiatives have had many positive effects on the targeted population, in some cases addressing social exclusion. For example, one school is in an area that has pockets of deprivation. The immediate area has become less congested thanks to remote parking and walking to the school and a new cycle/walking path. Safe routes have improved access for two colleges whose catchment areas include more socially excluded students. The cycle maintenance training project is being run in the four most deprived secondary schools of York.

The co-ordinator sees travel plans as offering an opportunity for community empowerment: 'It is a really live project for schools to be engaged in active citizenship.' Schools carry out very intensive work towards healthy schools awards and gain valuable experiences as a result. Progress toward cycling targets has health benefits for children.

There is also good anecdotal evidence that school travel plans can affect parents' journeys to work. At one primary school a new cycling path has provided a link to two main arterial routes and good off-road cycle routes. The school reports that many parents are cycling with their families and carrying on to work in town, saving themselves the hassle and expense of parking.

Wider effects of the initiative
Catherine says that the work on school travel has increased the acceptability for initiatives that promote more sustainable travel in the area. She comments that 'Walking buses are like a mascot for it all.' Attractive cycle parking at school is extremely popular and a very visible reward: 'It is just something to peg your ideas of sustainable travel on to'.

Synergy with wider policies and strategy

Synergy with 'hard' measures
School travel work has been complemented by the expansion of cycle and pedestrian networks, new park and ride sites, village safety schemes and speed management generally. The cycle and pedestrian network is seen as being critical to the success of these schemes.

The co-ordinator says that in the context of school safety zones or safe routes to school, people are more inclined to support traffic calming or the extension of cycle paths where they might otherwise oppose them.

Synergy with other 'soft' measures
Other 'soft' initiatives led by the council include promotion of workplace travel plans, the travel awareness marketing campaign, a bus quality partnership which includes improvements to public transport information, an individual travel advice project called Intelligent Travel, a car sharing scheme and council promotion of teleworking on a trial basis. These initiatives are outlined in the City of York case study on travel awareness marketing.

Catherine says they contribute to a general awareness in the community that helps to support her work. The cycle road show for adults has provided her with contacts with parents and governors.

Also of particular relevance to school travel is the road safety education and marketing, in support of a PSA stretched target to reduce road casualties. The council has identified psychological types of road driver likely to be involved in accidents and is targeting them through a marketing campaign. Walk to School week is run jointly between the Mobility Management team and Road Safety. Some 95% of schools participate and the initiative may encourage school travel plan work.

Perception of the importance of the initiative
School travel is considered a priority within the authority. The council is now under Lib Dem control and the initiative fits with Lib Dem concern for local issues. Catherine adds that children's safety is a political priority since no party wants to be seen to be putting children at risk. Transport is a high priority within the authority – since York is a Centre of Excellence for Transport.

Factors contributing to success
Catherine believes that the culture of the city contributes to the success of the initiative: 'York is an area where more people tend to get involved. Although there are pockets of deprivation it is not a city of great socio-economic tensions. It is a city that is proud of its appearance and environment, a traditional walking and cycling city, a well patrolled space.' There is a Quaker history and York people see themselves as socially responsible.

Scalability

Staffing and budget
When the DfT bursary runs out (in 2004) there will be attempts made to find funding for the post. The co-ordinator expects the funding to be sustained until 2006, but has no idea what the funding might be in 2011. She hopes that by then plans are 'so embedded' that the authority will not be approaching this in the same way. By then she anticipates that most children would have a safe route to school

Relationship between spending and impact
No work has been done on the relationship between spending and the impact of the initiative on car use. However, there is clearly an expectation that the additional £70,000 spent over two years to achieve the stretched target for Year 6-9 children cycling to school will deliver a quantifiable increase in modal shift. Without the PSA target, this is expected to be from 5.8% (December 99) to 7.6% (December 2005). With the PSA it is expected to reach 10.3% (December 2005). Thus the £70,000 is expected to realise a 2.7% additional share of cycling (though this will not all necessarily be at the expense of car use). The strategy for achieving the target is based on experience from working with York schools. This shows that the greatest increases in cycling are achieved at schools where new or upgraded cycle parking is accompanied by cycle training and other events and educational initiatives to stimulate cycling as part of a school travel plan. The strategy predicts 15 new cyclists at each primary and 30 at each secondary that follows such a programme.

Future scale of the initiative under currently planned resources
The co-ordinator predicts that by 2006, 75% of schools will have STPs and 15 out of 73 schools will have safe routes. By 2011, 100% of schools will have STPs, 75% will have safe routes. She considers these targets to be quite realistic given sustained funding and expectations of a growing level of environmental awareness/education in schools. As awareness of the issues grows, new initiatives are likely to require less marginal effort. This does however rely on political support for this type of work, both nationally and locally. Environmental scares and growing health concerns are likely to contribute to this.

Future scale of the initiative if resources were greater
The co-ordinator considers that if resources were doubled by 2006 the impact would also be doubled. If resources were unconstrained, she estimates that the council would be working with the same number of schools as suggested earlier, but would be able to offer a higher quality of intervention for each school and also to extend their work to youth services. Under the current programme, one school has nearly halved car use. Catherine considers that with unconstrained resources it would be possible to achieve a similar result at half of schools or more, and with half of the school population. This estimate is made on the basis of the proportion of schools and communities that have the interest and capacity to become involved in the initiative. It takes into account the fact that some neighbourhoods have very little 'social capital' making it difficult for them to take on such schemes.

To reach this maximum, she considers that the council would need three full time staff working on school travel plans (3 x current full time post) and twice the number of engineers working on safe routes (6 fte all together). More capital would be needed, perhaps double.

Monitoring plans
The city-wide travel to school survey was carried out in 1999 and 2002, and there are plans to carry it out every two years in the future. In 1999, the survey only asked children how they travelled to school today, whereas in the 2002 survey, they also asked children how they usually travelled to school, as this is less vulnerable to weather. The plan is to continue with this approach in the future. Schools with cycle parking do monthly cycle counts. Catherine would ideally like to do more 'hands up' surveys directly after new initiatives have been implemented to get feedback on their immediate effect.

Key issues for scaling up
Apart from staffing or budgets, key barriers to making the initiative more effective and extensive are a lack of long term political will to take more radical measures and reallocate space to pedestrians and cyclists, together with the constraints faced by schools which often mean they do not have the time and energy to be fully involved.

To address resistance to more radical measures, the authority is carrying out special training to encourage teams to come up with new ideas and to create an environment where this happens. Transport planning staff have all taken part. To overcome the constraints on schools the co-ordinator will be looking for ways to enable teachers to take on school travel plans through existing opportunities in the curriculum.

Support for school travel plans within the authority is increasing as awareness increases. The success of one school, which won an award, was seen as a big step and this has also helped.

To increase the effectiveness of school travel work, the council could provide more school buses and extend cheap transport to more pupils including those over 16. A greater awareness among more staff in Education Planning would also be helpful, as would an end to talk of road building within the authority.

Central Government could help by giving councils firm guidance to implement sticks as well as carrots, for example, rationing the right to road space and reallocating space to pedestrians, cyclists and public transport; parking restraint and removal of cars from city centres. There needs to be a stronger and more explicit emphasis on modal shift and a clear expectation of stronger measures so that soft measures seem 'moderate and fluffy in comparison'.

The Advertising Standards Authority could help by stopping advertising based on the school run, together with ads that denigrate cyclists, and give unrealistic glamour to car use.

Catherine believes the experience of school travel plans in York is transferable to other areas.

References

City of York Council (August 2002*) Policies into Action, Local Transport Plan Second Annual Progress Report* and Annexes, City of York Council, York.

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Case study author: Carey Newson

City of York Council

Travel awareness marketing and campaigns

Interviewees: Daniel Johnson, Principal Transport Planner, Mobility Management, and Anne Skelton, Travelwise Officer

York's ongoing travel awareness campaign work is allocated 1% of the city's capital budget for the local transport plan. This has enabled the authority to run a series of campaigns for walking and cycling using a wide variety of media. Evidence from an awareness survey indicates that the 2001 walking campaign has contributed to York's success in increasing the modal share of walking, exceeding their original target. The authority faces a major challenge in increasing cycling, and particularly in turning around a long term decline in cycling to work. Recent campaigns have focused on cycling but have not yet been evaluated. The fact that walking and cycling are good for health is a core campaign message.

Case study location and main actors

The City of York Council is a Unitary Authority with a population of 181,094 (according to the 2001 Census). The boundary of the authority is 3-4 miles outside the city's outer ring road, encompassing some villages, while the area within the ring road is largely built up. The council was awarded the status of Centre of Excellence in transport by the Government in March 2001 in recognition of its work in promoting cycling and developing park and ride services. Promotional campaigns for travel awareness have been led by the Mobility Management team in the local authority's Transport Planning Unit.

Main activities

The council has been involved in work on marketing travel awareness since December 1998, when Daniel Johnson was first appointed on a temporary basis as the council's first Travelwise Officer. Daniel is now Principal Transport Planner, Mobility Management, while Anne Skelton is the current Travelwise Officer. Both are part of the council's Mobility Management team, as are the School Travel Plan Co-ordinator and the Travel Plan Promotions Officer. Anne develops campaigns with the support of the council's marketing department. Both Anne and Daniel have a background in marketing. The council's approach is to run sustained campaigns rather than the short bursts of events such as 'bike to work' day that are commonly run by other authorities. They argue that it takes time to re-enforce a message, but that by using different sources it is possible to build that message over a long period in order to effect sustained modal shift.

To run campaigns the council buys media space that they believe car drivers will see: for example, on the back of buses, on the back of city centre parking tickets and at the motor show. They have advertised on the local radio station – because car drivers

frequently tune into this - and at out-of-town cinemas. More recently they have produced coasters and beer mats that can be distributed to local pubs and employers.

Using these media the council has run the following specific campaigns:

- 2001: a walking campaign using eight different images. The main message was that walking is healthy, but there were other subsequent messages about congestion and climate change. The main target was car drivers. Pictures showed shoes with strap-lines such as: 'Enhance your business credentials…. Arrive in comfort and style by walking to work'; 'With sporty looks and powerful pavement handling… Walking is the healthiest way to travel';

- 2001/02: a cycling campaign using the slogan 'How far will you go?' was designed to make cycling exciting to a younger audience. It set out to evoke a sense of freedom and the idea that cycling and using the cycling network could offer a better quality of life. It showed images of couples on the cycling network and strap-lines such as 'How far will you go.. for a fitter body?'; 'How far will you go… to get closer to nature?'. An academic study had found that in York the age of cyclists was much higher than in Cardiff and Bristol. York was also dealing with declining levels of cycling. The target group was 18-25 year olds;

- 2003 (ongoing): a campaign with the two slogans: 'Walk on by' and 'Ride on by' is designed to encourage both walking and cycling and is aimed at a young professional audience of people going to work. This has emphasised the health message, e.g.: 'Walk on by… bypass the traffic with a healthy way to travel… choose walking'. This is the first campaign to make use of coasters/beer mats in local pubs.

The council has gone on to develop the cycling side of this campaign and now has a new cycling road show which is being used around town, at fairs, events and businesses. This is an attended display with give-away promotional materials such as a cycle route map and promotional snap-on cycle clips. This is continuing into the summer and may also be developed for use in schools. It is used city-wide and helps to create the context for work on travel plans.

The council recently produced a guide to buses for Norwich Union which was specific to this workplace. Regarded as a pilot, it has been very well received and there are plans to extend the idea to other employers.

The general approach to travel awareness marketing has been refined over time. Campaigns are now being tried out on focus groups. The messages used also evolve: whereas the first messages focused mainly on telling people 'why' to choose sustainable travel, there is now also information to tell them 'how', so that, for example, they are currently providing advice to help people overcome the barriers to cycling, covering issues of safety, training and security.

The intention is to sustain the current approach if possible, though the officers are aware that the recent change from being a Labour controlled council for 18 years to being under Lib Dem control may result in change.

One feature of the council's current approach is that, because the Travelwise budget comes from capital funding from the local transport plan, campaigns are linked to specific infrastructure improvements. For example, the 'How far will you go campaign' was linked to the opening of a specific cycle route, from the urban area to a rural village, while the 'Walk on by' campaign was linked to the walking route between the station and the city centre. The new version of the cycle route map was launched in conjunction with the opening of an important piece of the cycle network, contributing to a route across the city. Making these links has been necessary to satisfy the district auditor, and to some extent the Mobility Management team regards this as an unwelcome constraint. Daniel argues that the infrastructure scheme is not the issue for the consumer, and that the restriction forces them to use a 'producer focus'. Ideally they would like this to change. (They do however stress the importance of having a good network to promote.)

The council has a target to increase awareness of the Travelwise campaign and is making progress on this (outlined below). However, the officers would like to drop the awareness target, since people can be 'aware but not convinced'. They prefer to see all their work as contributing to the city's targets for modal shift.

The modal shift targets are generally seen as being achievable, despite the sense that the council's resources for promoting sustainable travel are dwarfed by the huge advertising budgets of the car industry. The target for walking to the city centre in the morning peak has already been surpassed and the 2001 walking campaign is seen as having contributed to this.

Partners in the initiative (besides the council's marketing department) include the primary care trust, who co-sponsor campaigns and offer their expertise and some staff time, though it is hard to say how much. Expertise is also available from colleagues in leisure services, the pedestrian group Living Streets and partners in universities. However the city council is the very much the lead partner and steers the campaigns.

Staffing and costs

Staffing
When the council first became involved in this kind of work, general campaigns to promote travel awareness took up around a third of one officer's time – with the other two thirds spent on workplace travel and school travel. There is now one full time member of staff whose work is dedicated to marketing travel awareness, with support from the council's marketing department, and this is the current Travelwise Officer.

Costs and benefits
The initial budget for this post was £10,000 for six months (including £8,000 salary) making the annual budget £20,000 (including £16,000 salary). On the basis that one third of this was spent on the travel awareness promotion work, the annual budget at the outset was approximately £7,000. This does not include salary overheads.

The Travelwise budget is now calculated as 1% of the budget allocated to the integrated transport plan This amounts to £66,000 which is top sliced from the

integrated transport capital budget. The officer's salary (not including any 'on costs')
is additional to this and brings the whole budget to £88,000.

The total spend on transport in York including revenue and capital in 2002/03 was
£17.3 million. Nearly £9m was spent on the transport capital programme in 2002/03
of which the transport capital allocation from central government was £6.9million.
This includes the full LTP allocation of £6.1million plus £0.8million carried over
from the previous year[9]. Items listed under actual LTP expenditure for 2002/03 are
park and ride; rail; Metro bus network; bus priorities, public transport infrastructure,
buses for subsidised services, TCMS, local safety schemes, safe routes to school,
speed management schemes, traffic management, pedestrians, cyclists, structural
maintenance, lighting, bridges, tourism signing, lorry park, travel awareness campaign
and capital programme marketing. Items listed under transport and highways revenue
expenditure 2002/03 include social bus services and highways maintenance. (Source:
APR 2003)

In terms of benefits, the campaigns are seen to be integral to the council's strategy for
achieving modal shift and traffic reduction, as Daniel explains: 'The thinking has
been if you build a sustainable transport structure people will use it. But we've got
plenty of evidence to show that if you build a cycle track there will be people who
still don't use it. The infrastructure itself isn't enough.' The APR 2002 recognises the
role of the walking campaign in contributing to an increase in walking. There are also
beneficial synergies between Travelwise marketing and activities on workplace travel
and school travel, which are discussed below. The fact that walking and cycling are
good for health is a core message of the Travelwise campaign and the officers see the
health benefits of their work as being very important.

Scale of the scheme

Number of people affected by the initiative
One of the council's targets is for 50% of residents to be aware of the Travelwise
campaign by 2006. It follows that the number people who could potentially be
affected by the initiative, in terms of awareness at least, is the number of residents in
York (population of 181,094 according to the 2001 Census). A particular target for
the Travelwise awareness campaigns is car drivers. The census figures show York
has a total of 76,920 households of which 21,008 are without a car.

Changes over time
It is clear that more people are being reached by this initiative as time goes on.
Progress towards the awareness target was measured in residents surveys carried out
on the streets. By 1999 they had achieved 10% awareness, by 2000 18% awareness
and by February 2002 – following the walking campaign – 32% awareness.

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[9] £66,000 is clearly only approximately 1% of £6.9million. This is because some items in the transport
capital allocation are not included in the integrated transport budget, due to slight differences in how
items are allocated.

Targeting

As outlined above, the council's Travelwise campaigns have been specifically aimed at:

- car drivers generally;
- 18 – 25 year olds;
- young professionals.

The council is now interested in identifying drivers who are 'time poor' as a new target, since there is evidence that people generally feel that there is pressure on their time and that congestion wastes their time (ICM Observer Precious Time Poll, 2003). Forty-two per cent of people regularly work more than 48 hours a week and 51% say they work longer hours than five years ago.

The campaigns are not focused on a specific geographical area, but on the whole of York.

Effects of the initiative

Effect on car use within targeted population

The best evidence for the effectiveness of the travel awareness promotional activities on car use is the increase in pedestrian trips into the city centre, coupled with the results of surveys of awareness of the Travelwise campaign, including reported changes in behaviour.

Pedestrian trips into the centre have been monitored by Inner Cordon Surveys which are based on manual counts of people by mode of transport as they cross the cordon just outside the Inner Ring Road.

Figures are available for 2000, 2001 and 2002 (though data for 2001 is suspect due to a bias in the sample of bus occupancy, which is believed to have led to bus use being overstated. This means all other figures should be slightly higher). The relevant tables appear in the APR as shown in tables 1 and 2.

Table 1: Modal split to/from city centre – 12 hour

	People			Target 2006
Mode	2000	2001	2002	
Car/taxi/LGV	46.2%	44.4%	43.7%	40.1%
Car passenger**	14.4%	14.4%	14.6%	13.5%
Pedal cycle	3.8%	3.6%	3.7%	5.9%
Walk	10.9%	13.5%	14.1%	12.1%***
Motor cycle	0.8%	0.6%	0.7%	1.1%
Bus*	14.4%	14.5%	14.1%	17.2%
Train	7.9%	7.0%	6.9%	8.5%
MGV/HGV	1.6%	2.0%	2.1%	1.6%
Total	100%	100%	100%	100%

    *   Includes park and ride
    **   Includes Taxi passengers
    *** New stretched target has since been introduced

Table 2: Modal split to city centre – AM peak hour

Mode	People			Target 2006
	2000	2001	2002	
Car/taxi/LGV	42.6%	36.4%	37.0%	36.4%
Car passenger**	13.0%	12.5%	11.3%	12.0%
Pedal cycle	5.6%	5.8%	6.6%	7.6%
Walk	12.5%	16.0%	18.3%	13.8%***
Motor cycle	1.2%	0.5%	0.6%	1.3%
Bus*	17.3%	19.9%	18.1%	19.9%
Train	6.4%	7.2%	6.6%	7.5%
MGV/HGV	1.4%	1.7%	1.5%	1.4%
Total	100%	100%	100%	100%

* Includes park and ride
** Includes Taxi passengers
*** New stretched target has since been introduced

Walking has increased in both the 12 hour period – from 10.9% in 2000 to 14.1% in 2002 – and in the AM Peak Hour - from 12.5% in 2000 to 18.3% in 2002.

The same counts show a slight decrease in car use (car/taxi/LGV). Again this is both in the 12 hour period – from 46.2% in 2000 to 43.7% in 2002 – and in the AM Peak Hour – from 42.6% in 2000 to 37.0% in 2002.

This increase in walking is believed to be due to a combination of pedestrian improvements and travel awareness promotion, also helped by travel planning. In terms of infrastructure changes, an additional street had been added to the pedestrian part of the city centre, work had started to widen the pedestrian route from the station and dropped crossings had been put in across the city.

The success in increasing walking means that the authority has exceeded its original target, which was for walking to the city centre to represent 13.8% of all modes by 2006 in the morning peak. In 2002 walking accounted for 18.3% of trips to the city centre and so a new stretched target has been set at 20%.

To evaluate the role of the travel awareness walking campaign in achieving modal shift it is helpful to look at the walking campaign evaluation survey carried out in February 2002.

For this, there were interviews with 500 York residents aged 16 and over, carried out on the street at eight different locations around the city.

The evaluation found that the walking campaign achieved a 32% level of recognition. Among the key target audience, drivers who mostly use their car to get around York, one third (33%) recalled seeing at least one of the eight posters produced as part of the campaign.

Respondents from households with a car (35%) were more likely to recall the posters than those without (21%). (Percentages refer to recall of posters.)

Another finding in the report that is interesting from the point of view of the Soft Factors research, is that there was a high level of support for the council's involvement in promoting walking, cycling and public transport: 47% 'strongly supporting' and 41% 'tending to support'. Only 2% of respondents opposed the council's involvement in this activity.

In relation to the impact of the campaign, the evaluation report cautions that it is not possible to measure the specific impact of promotional advertising used in campaigns like this. They go on to say:

"Very pleasingly, 45% of respondents said that they walk places more now than they did say a year ago. However, one in three respondents said this wasn't the case and as many as one in four felt unable to give a view either way. As to whether this positive finding can be attributed in any way to the walking campaign, the problems with this kind of 'cause and effect' analysis have already been highlighted. But, for the record, the survey found no difference between those who recalled seeing the posters and those who did not: in both instances the same proportion of people (45%) said they now walked more.

"The issue of the limits of publicity is further highlighted by the fact that only a minority of respondents, though a fairly sizeable one (34%), believed that all the publicity about the effects of cars has made them try to use their car less. As many as half the respondents disagreed with this proposition. (But that is not to say that it hasn't had an effect on them, but rather that they choose not to think it has.) Interestingly, analysis by social group found that AB respondents, a target audience for this campaign, were the group most likely to say that publicity had made them try to use their car less (44%)."

Also of interest, in terms of the effect of the campaign on its target group, is an extra set of tables, produced by the market researchers providing additional analysis of car users.

This shows that among a base of 206 car users, (the base given is different for different questions) 68 (33% of responding car users) agreed with the statement 'I walk places more now than I did say a year ago'. Eighty-eight disagreed while 50 neither agreed nor disagreed.

Of the 69 car users that recalled the campaign, 28 agreed with the statement 'I walk more places now than I did a year ago' - this is 41%. Of the 135 car users that did not recall the campaign, 40 agreed with the statement 'I walk more places now than I did a year ago' - this is 30%.

Although the figures are quite small it is interesting, because it seems to indicate that among the drivers, those that recalled the campaign were more likely to agree with the statement.

There are also tables showing the same kind of data for other questions that could be relevant. For example:-

Agree/disagree: All the publicity about the effects of cars has made me try to use my car less.

The base for this is 226, of which 74 recalled the posters and 150 did not, while 2 didn't know.

Out of the 226 responding base, 70 agreed, 129 disagreed and 27 didn't know. Among the 74 car users that recalled the campaign 28 agreed (38%) with the statement and 41 disagreed (55%). Among the 150 car users that did not recall the posters, 42 agreed (28%) while 87 disagreed (58%).

Again, this could be seen as an indication that the publicity was beneficial in altering the habits of car users.

There are break downs for a number of other questions e.g." I try to avoid using my car for short journeys and walk or cycle instead," but the differences are generally less pronounced. i.e. for this question, car users who recall the posters 68% agree while car users that don't recall the posters 63% agree.

Evidence for the effect of the 2001/02 Travelwise campaign is less clear cut because there has not been the same follow-up awareness survey. However, this campaign promoted cycling and it can be seen from the tables above that the share of cycling into the city centre has increased at the AM Peak Hour, and has been more or less maintained over the 12 hour period.

The 2002 APR says cycle usage was also recorded using automatic cycle counters and bridge and boundary traffic counts. This gives a more mixed picture, with many automatic cycle counters showing a drop, thought to be partly due to the re-routing of cyclists along the new Millennium Bridge. There has also been a drop in cycles parked in the city centre though the APR comments that this may be partly due to increased provision of workplace cycle parking.

Other effects within targeted population
Marketing cycling and walking for their health benefits is seen as helping to address social exclusion. This is because poor communities tend to have poorer health and also have less access to gyms and walking by contrast is free and inexpensive. The health benefits of the project are seen as being very important and officers have seen a shift in the attitudes of the leisure industry. Where there was previously a culture among the profession that people don't want to cycle and walk, there is now more openness to working with the council on promoting this kind of activity.

Wider effects of the initiative
The APR reports an overall reduction of 4.6% reduction in traffic between 1999 and 2002 (this refers to vehicle kms on all roads inside the outer ring road over a 12 hour period).

The following table appears in the APR.

Table 3: Change in vehicle kilometres 1999 to 2001

	Main roads	Secondary roads	All roads
AM Peak Hour	4.7%	-14.2%	-4.3%
PM Peak Hour	5.5%	-12.4%	-2.8%
Off Peak Hour	-1.5%	0.3%	-0.8%
12 Hour	-1.5%	-8.1%	-4.5%
Saturday Peak Hour	2.4%	11.1%	5.9%

During AM and PM peak hours there has been an increase in traffic using main roads, while the traffic on secondary roads have reduced significantly. The APR reports that part of the increase in main road traffic has been due to major on-going road works on the outer ring road of York which has caused some temporary re-routing onto roads within the ring road.

The increase in walking is likely to have contributed to this reduction in traffic. The Mobility Management team believes that the travel awareness campaign is contributing to reductions in traffic, but don't at present have specific evidence of traffic reduction at times tying in with travel awareness work. Nor do they have evidence of traffic reduction offset by induced traffic. However, the fact that the current campaign has focused on young professionals going to work, suggests that the predicted modal shift would be apparent in information about the AM peak hour trips. Future data on travel to work is also likely be available from employer travel surveys.

Synergy with wider policies and strategy

Synergy with 'hard' measures
As explained above, the nature of the funding is such that the council has to link its promotional campaigns to specific 'hard' measures, such as a new cycle route or pedestrian improvements. While campaigns are generally focused on new developments they promote the cycling and walking network in its entirety, so it is important that it is of high quality, and that cyclists feel they can travel in safety. Other policies, such as parking restraint, the public transport strategy and effective land use planning (to ensure that travelling distances are realistic for walking and cycling) are all seen as critical to the success of promotional initiatives.

Conversely, travel awareness campaigns are seen as helping to increase the effectiveness of 'hard' measures. The walking campaign was considered effective in this way and next year the Travelwise Officer will be working on the promotional launch of a new park and ride site. At the same time the officers stress that they cannot effectively market 'the wrong product'. For example, in one case they were asked by others in the council to promote an overnight lorry park (designed to keep lorries out of the city centre) to lorry drivers. The team responded that the 'product' was wrong because the lorry park was in the wrong location and lacked facilities such as a café. Promotion has now been delayed to allow for improvements.

Synergy with other 'soft' measures
The council is working on a considerable range of 'soft' measures besides the travel
awareness campaign. Work on workplace travel plans and school travel is covered in
separate case studies. In addition the council is leading the following initiatives:

- A web based car sharing scheme was set up in March 03, This is particularly
  promoted to staff at the hospital, the University of York, the College of St John
  and the council itself, but is also available city-wide. Although branded as a York
  site it is powered by Liftshare. The site mainly deals with journeys to work but
  can be used for any journey. In the first three months 150 people registered
  through the site. There are no figures yet on the level of active use;

- The council has a Quality Bus Partnership involving the main bus operator, (First)
  and three smaller operators. This has involved an increase in bus frequency on
  major routes and investment of £12m in new low-floor, low-emission vehicles,
  but also a number of promotional and information related improvements. There is
  a journey planner available through the internet and travel information from a
  local call centre which is also part of National Traveline. The council has taken
  responsibility for the timetables at bus stops in the city centre and has developed a
  real time information system called 'BLISS' (Bus Location Information Sub
  System). The buses have been re-branded and there was heavy marketing with the
  launch of the upgraded service. This initiative has led to an overall rise in bus use
  with 14% growth on new routes since September 2001 (and a 5% increase in
  overall bus use in 2001/02);

- The council is preparing a project on individualised marketing called 'intelligent
  travel' in partnership with Norwich Union, First and Halfords. Two different
  approaches are being tried and evaluated. Both involve targeting rural households,
  suburban households and a socially excluded area. In the first trial households will
  be contacted and asked if they travel sustainably. If they don't they will be offered
  a visit to talk about travel alternatives. A travel consultant will talk through the
  benefits and offer incentives, including six months of free travel, free cycle
  training, discounts at Halfords and a walking map showing calories burnt. In the
  second trial different households in the same areas will be sent a survey. Those
  that usually travel by car will be contacted by phone and asked whether they are
  interested in travelling more sustainably. If so they will be offered similar
  incentives to the first group, with the exception that they will be sent the materials
  by post. Both approaches will be evaluated six months later to assess travel
  change. Norwich Union are providing the call centre free of charge;

- The council is running a trial of teleworking with its own staff.

There is no council-led teleshopping scheme or car club.

These initiatives are seen as being complementary and as re-enforcing one another.
The Mobility Management team says that it helps to get the sustainable travel
message across from different sources. Some synergies are more specific. For
example, the Travelwise Officer is producing materials for use with companies
developing travel plans, and a guide on cycling for parents that can be used by the

school travel plan co-ordinator. Some schools have expressed an interest in being involved in the car sharing scheme, for example, using a password-prohibited section of the car share database. Officers feel it is not possible to quantify these benefits.

Perception of the importance of the initiative
Travel awareness marketing is currently given the same importance as other areas of transport policy and transport is generally seen as a high priority of huge importance.

Daniel says that a crucial factor has been the role of Councillor Dave Merrett, first as deputy leader and then as leader of the council, during the last 18 years. This leadership, personal commitment and expert knowledge, coupled with the Government's Ten Year Plan and the broader change in the transport policy agenda, have all helped.

Factors contributing to success
The priority and support given to transport within the authority, as outlined above, is seen as an important factor in the success of the travel awareness initiative.

Scalability

Staffing and budget
There are no plans to change the staff and budget allocated to travel awareness marketing. In 2006 the budget for campaigns will still be 1% of the integrated transport budget. No decision has been made about spending in 2011.

Relationship between spending and impact
There is no data on the relationship between spend and impact.

Future scale of the initiative under currently planned resources
Officers say that the 2006 targets for modal shift seem realistic and achievable and by 2006 the officers think that the Travelwise campaigns will have contributed to these.

Targets for modal split of journeys into the city centre in the AM peak hour and over 12 hours have already been given in an earlier table. For example: there is an local transport plan target for 7.6% of all journeys to the city centre to be made by bicycle in the morning peak and a new stretched target for 20% of journeys to the city centre to be made by walking in the morning peak.

There are also modal split targets for the journey to work in York as follows:

Table 4: Modal split targets for the journey to work

Main mode	2006 Target
Car & car passenger	44.3%
Pedal cycle	21.7%
Walk	18.2%
Motor cycle	3.8%
Bus	6.9%
Park and ride	2.0%
Train	1.5%

Taxi	1.5%
Total	100%

The council also has 2006 modal split targets for the journey to school and these are as follows:

Table 5: Targets for the journey to school

Age	Walk	Cycle	School bus	Other bus	Train	Car	Other
Primary	65.5%	4.8%	1.8%	0.6%	0.1%	26.9%	0.4%
Secondary	51.3%	10.6%	18.1%	11.7%	0.2%	8.5%	0.1%
All schools	59.6%	7.2%	8.5%	5.2%	0.1%	19.0%	0.2%

In addition there is a local public service agreement to increase the number of children cycling to school in year groups 6 – 9. The target is to increase the percentage of children who normally cycle to school from 5.8% (travel to school survey December 1999) to 10.3% by December 2005, with an interim target of a 9.3% increase by December 2004. Expected performance without the PSA is a 7.6% increase by December 2005.

Progress on these targets is covered in the school travel case study, but promotional materials produced by the Travelwise Officer are expected to contribute towards this.

Officers say that to achieving these targets relies on supportive messages from central Government – expansion in the roads programme does not help - and local political support for travel awareness work.

Future scale of the initiative if resources were greater
The officers consider that given double the budget they could more than double the impact of their work, achieving 'a significant modal shift' Bigger budgets would also make it possible to refine the work, doing more focus group work and evaluation before targeting specific initiatives. If the budget were unconstrained, officers say they would achieve measurable modal shift through campaigning work, but are unwilling to hazard a guess as to how much. Limited resources mean they have never really considered this. Anne adds that to get the real impact of a message across, there needs to be a big national campaign that would complement local initiatives. Generally the team considers the staff resource is adequate but the Travelwise Officer could spend a lot more money very effectively.

Monitoring plans
The council has not yet evaluated the effect of the current 'Ride on By' campaign, but will be doing so, and would like to do this with focus groups in addition to carrying out a further street survey of residents.

Key issues for scaling up
The officers consider that their work is readily transferable to other areas and have been asked to make presentations to other authorities. But Daniel adds 'York is ahead of the game because it has a good cycle network, a good bus network, good park and

ride, good pedestrian network, and they are all there ready to promote.' A different approach would be needed in places facing different issues, such as large rural areas.

References

City of York Council (August 2002*) Policies into Action, Local Transport Plan Second Annual Progress Report* and Annexes, City of York Council, York

City of York Council Marketing and Communications Group (2002), *Walking Campaign: Evaluation Survey*, together with *Car Users Additional Analysis* (paper reports provided by the council).

Case study author: Carey Newson

City of York Council

Workplace travel plans

Interviewee: Helene Vergereau, Travel Plans Promotion Officer. Some information used in this case study is from Daniel Johnson, Principal Transport Planner, Mobility Management who was interviewed for a separate case study on marketing travel awareness.

Although the council has only had a dedicated workplace travel co-ordinator for six months, 30 York employers are engaged in travel planning at some level, covering 29% of employees. Of these, more than half have full travel plans (though not necessarily including parking management). There is particular synergy with work to market travel awareness that also targets the commuter journey. Effectiveness is difficult to assess because only one organisation has comparable before and after data about travel patterns. However, an overall reduction in car use at peak times is encouraging. The Travel Plan Promotion Officer considers that potential for 'scaling up' the initiative is constrained by the pace at which individual employers are prepared to develop travel plans. She estimates that, without additional means of enforcement, the maximum impact would be achieved with double the resources.

Case study location and main actors

The City of York Council is a Unitary Authority with a population of 181,094 (at 2001 Census). The council was awarded the status of Centre of Excellence in transport by the Government in March 2001 in recognition of its work in promoting cycling and developing park and ride services. The promotion of workplace travel plans is led by the Mobility Management team in the authority's Transport Planning Unit. The number of people in employment has grown steadily over the years and there were 87,000 employees in 2001 (figure from Annual Progress Report).

Main activities

The council has been involved in work to promote travel plans since December 1998, when Daniel Johnson was appointed on a temporary basis as the council's first Travelwise officer. Daniel is now Principal Transport Planner, Mobility Management and manages the Mobility Management team, which includes the Travel Plan Promotions Officer. Work on travel plans increased in 2000, but there has only been a dedicated officer since Helene Vergereau was appointed, in early 2003.

Helene promotes travel planning to employers across York. She typically starts by arranging an appointment to discuss the idea. At an initial meeting she will provide an introductory pack and go through the support that the council can offer. This includes carrying out staff travel surveys, including analysis and postcode mapping. The service is free of charge unless the travel plan is required as part of a planning application. In these circumstances the council plans to charge the employer at cost at

a rate of 50p - £1 per employee depending on the maps required and the type of survey used.

The officer gives feedback to the employer on the survey results and advice on the best initiatives to start with. She assists them in drawing up a plan and will help them get in touch with other partners such as First York, the main bus operator, to improve services. Her support includes help with obtaining grants – for example, from the DfT cycle fund, and taking part in travel plan events at the workplace. The council will carry out a follow-up survey and currently runs a yearly 'travel plan exchange' event for all employers where there are speakers from companies with travel plans as well as a newsletter.

Several of the travel awareness marketing initiatives (described in a separate case study) have focused specifically on the journey to work and employers can make use of free promotional materials, including a cycle road show. The council has produced a leaflet providing site specific public transport information for Norwich Union sites. There are plans to produce software for individual journey planners, through a regional initiative. There is a city-wide car sharing scheme (described in the York travel awareness case study).

Travel plans are also promoted and secured through the planning system. Helene checks planning applications every week and if they are of interest she will contact Highways Development Control setting out, in some detail, what she wants covered in the planning condition and giving directions to the consultants about what should be inserted in the travel plan when it is submitted with the planning application. Helene estimates that she spends around 10 – 15% of her time developing travel plans at the planning application stage, or 20 – 25% including the enforcement of travel plans secured in old planning permissions.

Key external partners in promoting workplace travel plans are:
- the chamber of commerce – which may in future facilitate meetings with smaller companies;
- the Energy Savings Trust which is also working with companies (e.g. on heating and air conditioning) giving opportunities for mutual promotion;
- South Yorkshire and West Yorkshire Passenger Transport Executives which will be helping with the development of software for personal journey planners and staff surveys;
- First York, the leading bus company which offers discounts to employees, for example, a six month free bus pass for commuters that give up driving to work (by handing in a parking pass);
- the Clifton Moor Business Association which has helped to facilitate the council's work at a large out-of-town business and shopping centre.

Because the travel plan work has received funding from the European Union's 'TARGET' project (see Costs and Benefits, below) there is also liaison with European partners to facilitate the exchange of best practice.

The Regional Development Agency, Yorkshire Forward, has allocated £30,000 to a future regional initiative related to workplace travel plans which is yet to be determined.

The city's approach to travel plan promotion is seen as being relatively intensive, because of the time spent in developing relationships with individual employers. Given a limited budget, this is seen as the best use of resources. However, having initially targeted larger employers the council is now moving on to target smaller businesses as well as business parks, and this may lead to a more 'broad brush' strategy. Over time the approach has generally become more focused and organised. There is also a move to give more emphasis to 'health and lifestyle' and to use more individual advice, such as journey planners for employees.

The council has a target that by 2006 it will have travel plans in place for all organisations employing at least 300 staff and for at least 35% of York's economically active population. The kind of travel plans envisaged are those with a full package of initiatives but not necessarily parking management measures.

The year by year target for travel plans is set out in table 1.

Table 1: Year by year targets for travel plans

Year	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06
No. of travel plans	5 (actual)	12 (actual)	15	18	24	30

The council also has specific journey to work targets for travel plans which are summarised in table 2.

Table 2: Modal split targets for travel plans

Main mode	2006 Target
Car and car passenger	44.3%
Pedal Cycle	21.7%
Walk	18.2%
Motor cycle	3.8%
Bus	6.9%
Park and Ride	2.0%
Train	1.5%
Taxi	1.5%
Total	100%

Staffing and costs

Staffing
At the outset of the scheme a third of a full time post was allocated to workplace travel, since the officer's time was split between travel awareness campaigns, school travel plans and workplace travel plans. There is now one full time person whose post is dedicated to promoting travel plans and approximately half a full time equivalent in staff time spent on mapping, surveys and the council's travel plan for its own

employees (it is the biggest employer in York). Additional support comes from travel awareness marketing initiatives and the council's marketing department. Work on travel plans increased in 2000 but there has only been a full time member of staff dedicated to this for the last six months.

Costs and benefits
The current annual budget for promoting workplace travel plans is £52,000. This includes the salary of the Travel Plans Promotion Officer, staff time spent on liaison with European partners and project co-ordination, plus staff time for maps and surveys. Staff time and resources are funded through a European project (the TARGET[10] project) with the exception of that staff time spent on maps and surveys. (All general travel awareness promotion materials come from the Travelwise budget.)

Back in December 1998, the initial budget for the Travelwise post (which formerly included work on workplace travel) was £10,000 for six months (including £8,000 salary) making the annual budget £20,000 (including £16,000 salary). On the basis that around one third of this time was spent on promoting workplace travel plans, the annual budget at the outset was approximately £7,000.

The total spent on transport in York including revenue and capital in 2002/03 was £17.3 million. Nearly £9 million was spent on the transport capital programme in 2002/03 of which the transport capital allocation from central government was £6.9 million. This includes the full LTP allocation of £6.1million plus £0.8 million carried over from the previous year. Items listed under actual LTP expenditure for 2002/03 are park and ride; rail; Metro bus network; bus priorities, public transport infrastructure, buses for subsidised services, TCMS, local safety schemes, safe routes to school, speed management schemes, traffic management, pedestrians, cyclists, structural maintenance, lighting, bridges, tourism signing, lorry park, travel awareness campaign and capital programme marketing. Items listed under transport and highways revenue expenditure 2002/03 include social bus services and highways maintenance (source: APR 2003).

Scale of the scheme

Number of people affected by the initiative
Tables 3 and 4 show the number of employers and employees affected by workplace travel plans. Around five organisations have been involved in travel planning via the planning process.

Table 5 shows the level of involvement of different employers in travel planning (the interviewee has chosen to sub-divide the middle category).

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[10] **TARGET** (Travel Awareness Regional Groups for Environmental Transport) is a European funded project set up to encourage the use of alternative transport modes.

Table 3: Engagement in travel planning

	Engaged with on travel planning	Based in the area
Number of employers	30	5,000 (ball park figure)
Number of employees	26,187 (29%)	90,000 (ball park figure)

Table 4: Engagement of different types of organisation in travel planning

	Number of employers that council is working with on travel plans	Total number of each type of employer in the area
Local authority	1	1
Further / higher education	3*	10 FE establishments**
Health (excl GP surgeries)	6	9
GP surgeries	0***	60 (ball park figure)
Other public sector or voluntary organisations	7	not known
Private sector <300 staff	5	not known
Private sector >300 staff	8	22 (estimate)
TOTAL	**30**	**5,000**

*   Does not include 3 schools offering further education that have school travel plans
**   Does include 3 schools offering further education
*** *None directly engaged by council, though some may be engaged in relevant initiatives by Primary Care Trust.*

Table 5: Level of involvement of York employers in travel planning

	Number of employers / organisations	Number of employees affected
Fully fledged travel plan including parking management	4	8750 approx
Travel work with various travel initiatives (but not parking management)	4	291 approx
Full travel plan but without parking management	13	4,931 approx
Considering a travel plan, or just starting implementation	9	12,125 approx
TOTAL	**30**	**26,097 approx**

Changes over time

The Annual Progress Report (APR) 2002 says that in 2000 there were 5 employers with travel plans up and running and 16 with travel plans in development. By 2002 there were 12 employers with travel plans up and running and 11 with travel plans in development. At this point almost 2,500 employees worked for organisations with plans in operation, while the travel plan at the university covered 8,000 students. Employers with plans either in development or up and running between them covered approximately 24,000 staff, representing over 27% of all employees (APR 2002 percentage).

Targeting
The council has targeted large public organisations as, in some cases – for example, government organisations and hospitals – these are required to have travel plans. More recently they have targeted employers of 300 employees or more and business parks, in line with the local transport plan target. Large employers are seen as providing a better cost/benefit ratio and it is also easier to find the right person to work with. Large employers are more likely to have problems related to recruiting or parking, which can be addressed through travel plans. The size of the workforce means they are likely to have more effect on modal shift.

The Travel Plan Promotion Officer believes this approach has been successful because a lot of companies without a travel plan are now thinking of implementing one. Although continuing in this vein she is now planning to target business parks and to reach smaller companies through workshops.

Effects of the initiative

Effect on car use within targeted population
Only one employer has comparable before and after data on travel to work. This is the Local Government Ombudsman which has data for 1998 and 2002 (table 6). There are around 85 employees. The survey received 57 replies in 2002, and 59 replies in 1998. (The university has data from 2001 and 2002, but in 2001 they surveyed employees only while in 2002 employees and students took part.) The plan is categorised by Helene as having travel work, with various travel initiatives, but no parking management.

Table 6: Travel to work at the Local Government Ombudsman

	1998	2002
Travelling by car	78%	74%
Travelling by car on own	73%	68%
Cycling	11%	12%
Walking	9%	10%

(There are no frequent bus services available at the site, and bus use was consequently counted with other modes such as taxi.)

In view of the small but positive modal shift, it is interesting to note that the survey showed staff at the Local Government Ombudsman are travelling further. In 2002 12% lived less than 2 miles away from work compared to 22% in 1998. More people live over 20 miles away with percentages increasing from 17% in 1998 to 23% in 2002. Time taken for the journey to work is increasing: in 1998 24% took 31 – 60 minutes to arrive and 30% took less than 15 minutes. In 2002 46% took 31 – 60 minutes to arrive, while only 12% took less than 15 minutes.

Results of more follow up surveys are expected soon from DEFRA, probably from the council itself and possibly from Norwich Union.

Other effects within targeted population
Some of the initiatives resulting from travel plans have facilitated social interaction –
for example, Bicycle User Groups and car share schemes. Norwich Union has gained
positive company PR from sponsoring a bus service. Corus Rail and Portakabin have
both used their travel plan work in the context of environmental monitoring systems
gaining positive PR in the process.

The Travel Plan Promotion Officer is not able to point to specific benefits for socially
excluded groups. Employers have improved cycle facilities and the council has
improved cycle routes, but Helene is unable to say whether socially excluded
employees are cycling.

Wider effects of the initiative
York has seen a reduction in traffic, particularly in the peak hour period. As in the
case study of York's travel awareness marketing initiative, it is not possible to say
conclusively how far the workplace travel initiative has contributed to this, though the
general trend is encouraging.

Overall, the APR 2002 reports that park and ride patronage, bus use and pedestrian
trips have all increased dramatically, while the city continues to sustain high levels of
cycling.

Changes in vehicle kilometres are shown in table 7, taken from the APR. Between
1999 and 2001 AM peak hour vehicle kms reduced by 4.3%, and PM Peak hour by
2.8%. The reduction was on secondary roads, while there was an increase in main
road traffic. Part of this increase has been due to major on-going road works on the
Outer Ring Road of York, which have caused some temporary re-routing onto roads
within the Ring Road.

Table 7: Change in Vehicle Kilometres 1999 to 2001

	Main roads	Secondary roads	All roads
AM Peak Hour	4.7%	-14.2%	-4.3%
PM Peak Hour	5.5%	-12.4%	-2.8%
Off Peak Hour	-1.5%	0.3%	-0.8%
12 Hour	-1.5%	-8.1%	-4.5%
Saturday Peak Hour	2.4%	11.1%	5.9%

The modal split of people arriving in the city centre has been monitored by Inner
Cordon Surveys, which are based on manual counts of people by mode of transport as
they cross the cordon just outside the Inner Ring Road.

Figures are available for 2000, 2001 and 2002 (tables 8 and 9). The APR notes that
data for 2001 (and to a lesser extent 2000) is suspect due to a bias in the sample of bus
occupancy, which is believed to have led to bus use being overstated, meaning all
other figures should be slightly higher. The APR says that bus usage in 2001 probably
fell compared with 2000. Most bus companies are reporting increases in 2002.

Table 8: Modal split to/from city centre – 12 hour

	People			Target 2006
Mode	2000	2001	2002	
Car/taxi/LGV	46.2%	44.4%	43.7%	40.1%
Car passenger**	14.4%	14.4%	14.6%	13.5%
Pedal cycle	3.8%	3.6%	3.7%	5.9%
Walk	10.9%	13.5%	14.1%	12.1%***
Motor cycle	0.8%	0.6%	0.7%	1.1%
Bus*	14.4%	14.5%	14.1%	17.2%
Train	7.9%	7.0%	6.9%	8.5%
MGV/HGV	1.6%	2.0%	2.1%	1.6%
Total	100%	100%	100%	100%

    *   Includes park and ride
    **   Includes Taxi passengers
    *** Replaced by provisional stretched target of 15%

Table 9: Modal split to city centre – AM peak hour

	People			Target 2006
Mode	2000	2001	2002	
Car/taxi/LGV	42.6%	36.4%	37.0%	36.4%
Car passenger**	13.0%	12.5%	11.3%	12.0%
Pedal cycle	5.6%	5.8%	6.6%	7.6%
Walk	12.5%	16.0%	18.3%	13.8%***
Motor cycle	1.2%	0.5%	0.6%	1.3%
Bus*	17.3%	19.9%	18.1%	19.9%
Train	6.4%	7.2%	6.6%	7.5%
MGV/HGV	1.4%	1.7%	1.5%	1.4%
Total	100%	100%	100%	100%

    *   Includes park and ride
    **   Includes Taxi passengers
    *** Replaced by provisional stretched target of 20%

Key statistics for modal split of people arriving in city centre are:
- Car/taxi/LGV use has fallen between 2000 and 2002 from 46.2% to 43.7% (in the 12 hour period);
- Car/taxi/LGV use in the AM peak hour has fallen from 42.6% to 37% between 2000 and 2002;
- Bicycle use has decreased, though only very slightly, in the 12 hour period. However, in the AM peak hour it has increased from 5.6% in 2000 to 6.6% in 2002;
- Walking has increased in both the 12 hour period – from 10.9% in 2000 to 14.1% in 2002 – and in the AM peak hour, from 12.5% in 2000 to 18.3% in 2002;
- Bus (including park and ride) and train use are also slightly up in the AM peak though slightly down in the 12 hour period.

The APR says the picture on cycling is mixed. Many automatic cycle counters show a drop. However, some of these were on riverside paths that were flooded for periods in 2000 and 2001. In addition, the opening of the millenium bridge in May 2001 has

altered cycle patterns and is thought to be responsible for most if not all of the reduction, as cyclists re-route away from traditional routes to make use of the new bridge. The APR notes that a university project interviewed users of the new bridge and found that some new cycling trips had been generated as a result of the bridge.

Monitoring of cycles crossing the three city centre bridges and millennium bridge in the AM Peak hour shows that cycles as a % of total traffic over city centre bridges have dropped from 17.3% in 1991, to 15.5% in 2001.

Table 10 shows the increase (or decrease) in cycles crossing the Inner Cordon from 2000 to 2002.

Table 10: Cycles crossing the Inner Cordon

	AM peak hour		PM peak hour		12 Hour	
	To city centre	From city centre	To city centre	From city centre	To city centre	From city centre
% increase 2000 – 2002	18.5%	-0.6%	-4.3%	-0.5%	-2.7%	10.8%

Cycle parking in city centre is monitored by manual counting twice a month. There has been a drop in cycle parking in and around the city centre but the APR comments that this could be the result of employers providing workplace cycle parking.

The APR reports that overall bus use in York rose by 5% (14% on 'Metro' routes) in 2001/02 reflecting the introduction of high frequency routes in September 2001 and a £12 million investment in new vehicles by the city's bus operators as part of a new bus quality partnership.

The APR also reports a year on year growth in use of park and ride since 1990.

Synergy with wider policies and strategy

Synergy with 'hard' measures
Work on workplace travel plans has been complemented by pedestrian improvements, cycle routes and public transport improvements. Helene says pedestrian improvements around the station have been important because people feel it is safer to take the train and walk to the city centre. The Clifton Moor business park has benefited from improved cycle routes in the immediate vicinity and a new traffic-free cycle route that runs through fields and links it to the town. Another new cycle route now being built will be helpful to employees of Nestle. A policy of parking restraint leading to a general lack of parking in town encourages people to leave the car behind. Many commuters make use of York's park and ride schemes and travel plans promote park and ride, with discounts for employees. These factors are regarded as critical but have not been quantified as yet.

Synergy with other 'soft' measures
Other 'soft' initiatives led by the council include promotion of school travel plans, the travel awareness marketing campaign, a bus quality partnership which includes improvements to public transport information, an individual travel advice project called Intelligent Travel, a car sharing scheme and council promotion of teleworking on a trial basis. These initiatives are outlined in the City of York case study on travel awareness marketing.

The travel awareness campaign has facilitated promotion of workplace travel plans by providing a lot of promotional materials including posters and cycle route maps.

The car share database provides another solution for employers.

A public transport information helpline is very useful for travel plans and there are plans to introduce software for personal journey planners. This has come out of the information technology used for buses, but the Mobility Management awareness team is making use of this and will be offering the service to businesses.

Workplace travel plan promotion has also helped to facilitate other soft measures. The council is planning to set up a new freight quality partnership and is following up on contacts with companies that were initially made through travel plan promotion.

Perception of the importance of the initiative
The fact that there is a full-time post indicates that workplace travel plans are considered important, although 'just one part of the picture alongside schools and leisure'. Concern about congestion, particularly in the peak hour, also helps to prioritise the work. Helene says transport is generally a high priority for the council because opinion surveys show that congestion is one of the top concerns for residents.

Factors contributing to success
Helene says pride in York as a historic city has helped build support for sustainable transport: 'All of the residents are really proud of their heritage. They don't want the Minster to be black with fumes of cars.' The city is flat and has a tradition of cycling and the existence of city gates makes people more aware of congestion.

Scalability

Staffing and budget
EU funding at the present level will last until 2006. There are no plans to increase funding for the initiative before then or subsequently.

Relationship between spending and impact
There has been no analysis of the relationship between spending on travel plans and their impact (although Helene thinks this would be a good idea).

Future scale of the initiative under currently planned resources
The Travel Plan Promotion Officer predicts that by 2006 there will be full travel plans for 30 organisations and maybe 20 at an earlier stage or involved in work related to travel such as health initiatives. Consequently, the council will be in line with the

target of covering 35% of the economically active population (31,500 people). Reaching this target relies on ongoing improvements in infrastructure (which are council led), such as bus lanes, cycle routes, cycle parking and 'park and cycle' (a project not yet in place). The Travel Plan Promotion officer can influence this but cannot fully decide it.

Future scale of the initiative if resources were greater
Helene considers that if resources were doubled it would be possible to approach more companies and to work with more small ones, so increasing the number of companies that are preparing a travel plan. They could also offer more 'carrots' such as grants for cycle parking. However, the extent to which it would be possible to speed up the preparation of individual travel plans, is constrained by the pace of the organisations developing them. Moreover the council is already working with the city's big companies. For these reasons she thinks that if resources were doubled the impact would be less than doubled, and that to double the results would need more radical mechanisms - 'more stick' – for example, a requirement for companies to increase the cost of workplace parking or buy pool cars. Although more stick measures might potentially be implemented through the planning process there is nervousness about this. She adds these measures might alternatively come about through environmental management systems, if certification required them and big companies refused to use other companies without certification.

If resources were unconstrained, the council could extend travel plan work to more small organisations – perhaps covering 45 organisations and 40% of employees with full travel plans (though not always with parking management) by 2006. Perhaps 13 – 14% of employees would have parking management.

By 2011 the coverage would not be much higher – perhaps 40% of employees with travel plans, but 20% with parking management. The barrier to progress would be companies refusing to implement travel plans, companies implementing other travel initiatives without going for a travel plan, and 'other ideas becoming fashionable' instead.

To reach this maximum Helene considers that they would need at least one more staff, possibly one and a half, and double the existing budget. She adds that she thinks they will reach this goal anyway (i.e. on current resources) but not before 2010.

Monitoring plans
There are plans to monitor the impact of workplace travel plans through follow up travel surveys.

Key issues for scaling up
The main barriers faced now in making travel planning more extensive or effective are lack of cycle parking, lack of the right bus services and gaps in the hard measures. There is also 'a bit of resistance to change' from some officers within the council itself and from employees and employers, for example, not being open to electric bikes or LPG cars. Tax barriers are seen as a problem, with a need for more differentiation within the tax system between greener and more polluting transport.

Helene plans to overcome these barriers by exchanging best practice, including European best practice, and running some pilot projects, for example, on the use of personalised travel information. The council is working on improving infrastructure. Helene will be pushing concerns about tax through the Travelwise group.

Over time understanding about travel plans has grown within the council, particularly in Planning and in Economic Services. Until a few months ago planning officers were sanctioning much less demanding travel plans than now. Having a dedicated post has made a difference and employers in York now have someone to talk to about their transport problems.

It would be help in making the initiative more effective if the Mobility Management team could call on a budget to meet urgent requests from employers for measures such as a link to the cycle network or a cycle crossing.

The Government Office could help by supporting the council in the enforcement of effective planning conditions. Central Government could help with further tax changes and a repeat of the cycle fund but also a walking fund, since these schemes are effective in motivating employers.

It would also be helpful for an outside organisation, independent of the council, such as the Regional Development Agency to run a travel plan award scheme or grant scheme.

In general Helene believes that the work she does is transferable, and while the historic dimension in York is special, a lot of cities have this.

References

City of York Council (August 2002*) Policies into Action, Local Transport Plan Second Annual Progress Report* and Annexes

Case study author: Carey Newson