



TravelSmart in Ipswich

Final Report on the Individualised Travel
Marketing Project in Ipswich (2010)

**Report for Suffolk County Council and Ipswich
Borough Council**

May 2011



EXECUTIVE SUMMARY

The TravelSmart® Individualised Travel Marketing (ITM) project in Ipswich was successful in increasing the use of sustainable and active travel modes, leading to significant reductions in car use. The project was conducted in 2010 with a target population of 17,000 households.

The project achieved increases in walking, cycling and bus use, leading to a relative reduction in car-as-driver trips of 11% and in car distance travelled for day-to-day trips of 11% (a net saving of 14.9 million car km per year among the target population). This level of behaviour change is in line with other UK TravelSmart projects.

The shift from car travel to walking, cycling and bus use also resulted in a 15% relative increase in average daily exposure to physically active forms of travel.

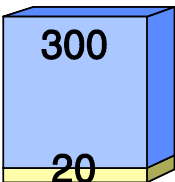
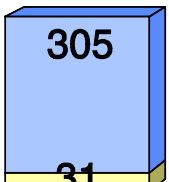
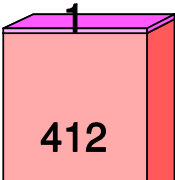
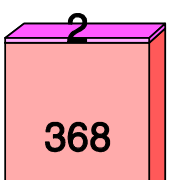
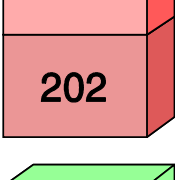
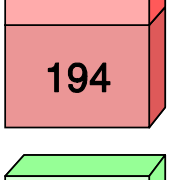
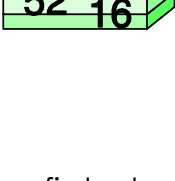
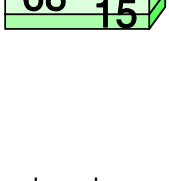
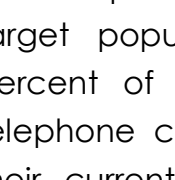
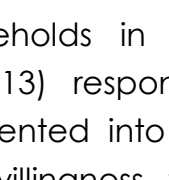
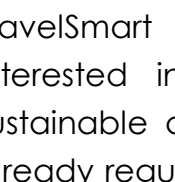
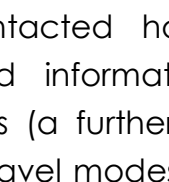


Changes in travel behaviour were measured by detailed surveys conducted before and after the ITM project across the entire target population. There was a separate control group drawn from areas of Ipswich that were not targeted for ITM: Whitehouse, Whitton, Holywells, Gainsborough, Priory Heath, St. John's and Bixley.

The Ipswich TravelSmart project was managed by a working group consisting of Sustrans, Socialdata, Suffolk County Council (SCC) and Ipswich Borough Council (IBC). The ITM project and evaluation activities were designed and implemented by Sustrans and Socialdata, with funding from Defra's Greener Living Fund and SCC. In addition, in-kind contributions were provided by SCC and IBC towards the development and supply of marketing materials and in staff time to support the project. Public transport test-tickets were provided by Ipswich Buses. The total cash cost of the project, including evaluation, was £474,098.

The changes in travel behaviour, measured in trips per person per year, are summarised in the figure below. This modal shift was achieved with minimal impact on daily mobility among the target population, and with only small increases in average daily travel time and distance. The surveys also showed that modal shift occurred throughout the day,

suggesting that TravelSmart contributed to reducing traffic and increasing active travel during both peak and off-peak periods.

Changes in trips by main mode (trips per person per year)

Without ITM	Trips per person per year	With ITM	Relative change
	Walking		+2%
	Bicycle		+55%
	Motorcycle		n.a.
	Car as driver		-11%
	Car as passenger		-4%
	Bus		+31%
	Other public transport		-6%

The first phase of the ITM project involved making contact with the target population of 17,000 households in Ipswich. Seventy-one percent of these households (12,013) responded to doorstep or telephone contact and were segmented into groups according to their current travel patterns and willingness to participate in the TravelSmart project. Of these contacted households, 67% were interested in receiving personalised information and advice on sustainable and active travel modes (a further seven percent were already regular users of sustainable travel modes with no need of help from the project).

A total of 83,826 rewards, incentives and items of travel information were packed and delivered to 6,927 households in the ITM target area. The most frequently requested items were the two new local travel maps (specifically developed for the project).

Households were also able to request TravelSmart further services in the form of home advice sessions and incentives to encourage greater use of sustainable and active travel modes (including test tickets for all household members to try Ipswich Buses services free of charge). A total of 39 home visits were conducted by trained Sustrans advisors (12 on public transport, 14 on cycling and 13 on walking).

TRAVELSMART IN IPSWICH
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1 INTRODUCTION

1.1 This report

This report reviews the implementation and outcomes of the TravelSmart Individualised Travel Marketing (ITM) project conducted in Ipswich in 2010. The project aimed to reduce levels of car use and encourage more environmentally-friendly forms of travel by promoting walking, cycling and use of public transport.

The report is intended primarily for Suffolk County Council (SCC) and Ipswich Borough Council (IBC). However rights to the use of this report and data contained herein will be shared by the client group, Sustrans and Socialdata for the purposes of further developing TravelSmart in the UK.

1.2 Report structure

Although the report should be taken as a whole, each main section is designed to provide readers with a stand-alone account of the project background, methodology or outcomes, as follows:

- Section 2 provides general background to TravelSmart, sets out the key elements of the ITM methodology and reviews the local context for the Ipswich TravelSmart project including its specific objectives, timetable and project management.
- Section 3 covers the work done by all project partners to prepare for the ITM project.
- Section 4 reviews the implementation of the project and provides a detailed account of responses at each stage.
- Section 5 reviews the methodology of the evaluation surveys and reports the behavioural changes associated with the TravelSmart project.
- Section 6 presents key conclusions based on the project outcomes.

2 PROJECT DESCRIPTION

2.1 Background

The Ipswich TravelSmart project was funded by the Defra's Greener Living Fund (GLF) and SCC. SCC and IBC both made important in-kind contributions to the project, which was managed by Sustrans and Socialdata.

The project was part of a portfolio delivered by eight charities, each funded by Defra through its GLF programme. Two new TravelSmart ITM projects were commissioned through the GLF, targeting 25,000 households in total (17,000 in Ipswich and 8,000 in Broxbourne, Hertfordshire).

In order to measure the outcomes of the TravelSmart project, part of the funding was used by Socialdata and Sustrans to conduct a programme of travel behaviour research.

2.2 Aims and objectives

The aim of the Ipswich TravelSmart project was:

- To reduce levels of car use among the target population by promoting walking, cycling and use of public transport.

The specific objectives were:

- To develop a package of information, incentives and other services to promote walking, cycling and public transport;
- To offer this package of information, incentives and other services to a target population of 17,000 households in Ipswich and to fulfil all requests using the TravelSmart ITM technique (see below); and
- To evaluate the effects of this intervention against a range of performance indicators relating mainly to personal travel behaviour.

2.3 The TravelSmart Individualised Travel Marketing process

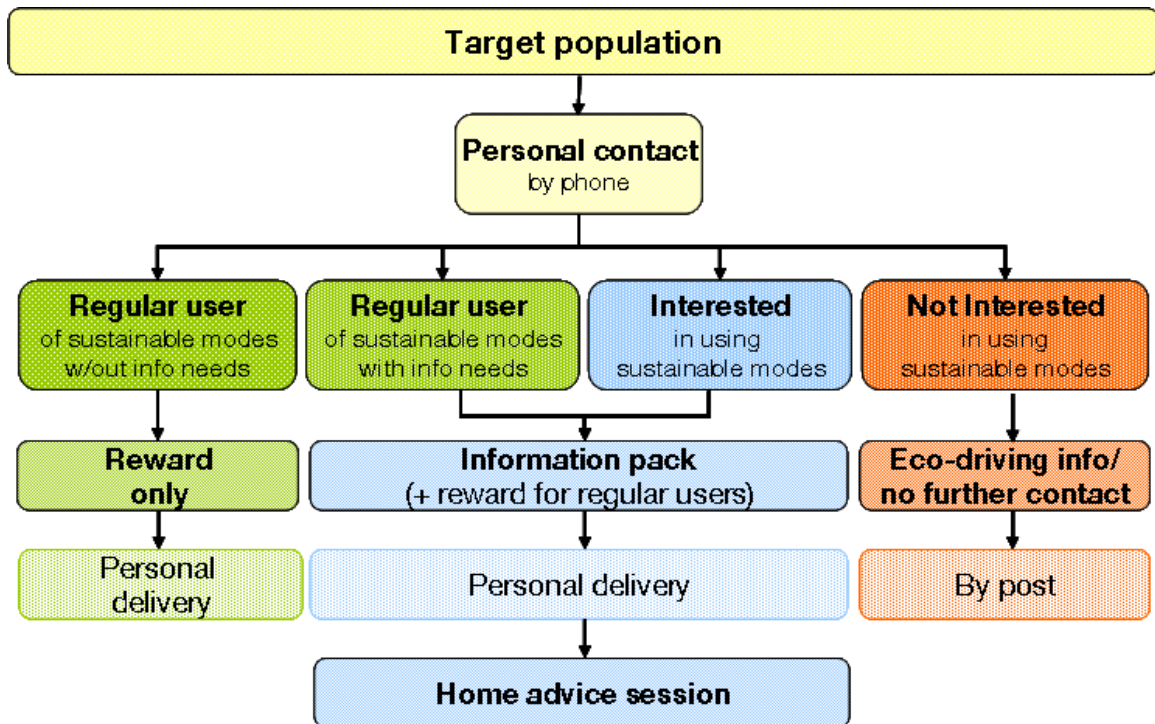
The TravelSmart ITM process has been developed and proven over many years as a highly successful tool for changing travel behaviour. Pioneered by Socialdata during the late 1980s, the technique has since been applied in more than 250 projects targeting a total of more than three million people world-wide. In the UK, the TravelSmart programme run by Sustrans and Socialdata has worked with almost 300,000 households to offer personalised travel information and support.

The ITM process was developed as a result of detailed research by Socialdata showing that poor information and lack of motivation were important barriers preventing greater use of walking, cycling and public transport as alternatives to car travel. It is now widely recognised that while good infrastructure is needed to provide better alternatives to the car, the full potential for modal shift towards more sustainable travel cannot be realised unless people are well-informed about the options and motivated to use them.

The TravelSmart ITM process, as illustrated in Figure 2.1, involves three key stages each based on personal contact with the households in the target area. The process involves dialogue which motivates people to consider and review their travel behaviour in the context of their lifestyles. People who are interested in changing are supported and encouraged, but the choice is always left to the individual. This process enables people to make voluntary individual changes which add up to make a substantial difference to community-wide travel patterns.

The same Individualised Marketing technique has been successfully applied by Socialdata in Australia to promote domestic water efficiency. Other TravelSmart programmes have included the use of health-related marketing materials and promoted other forms of physical activity alongside sustainable travel.

Figure 2.1 Individualised Travel Marketing process



2.4 Target area and population

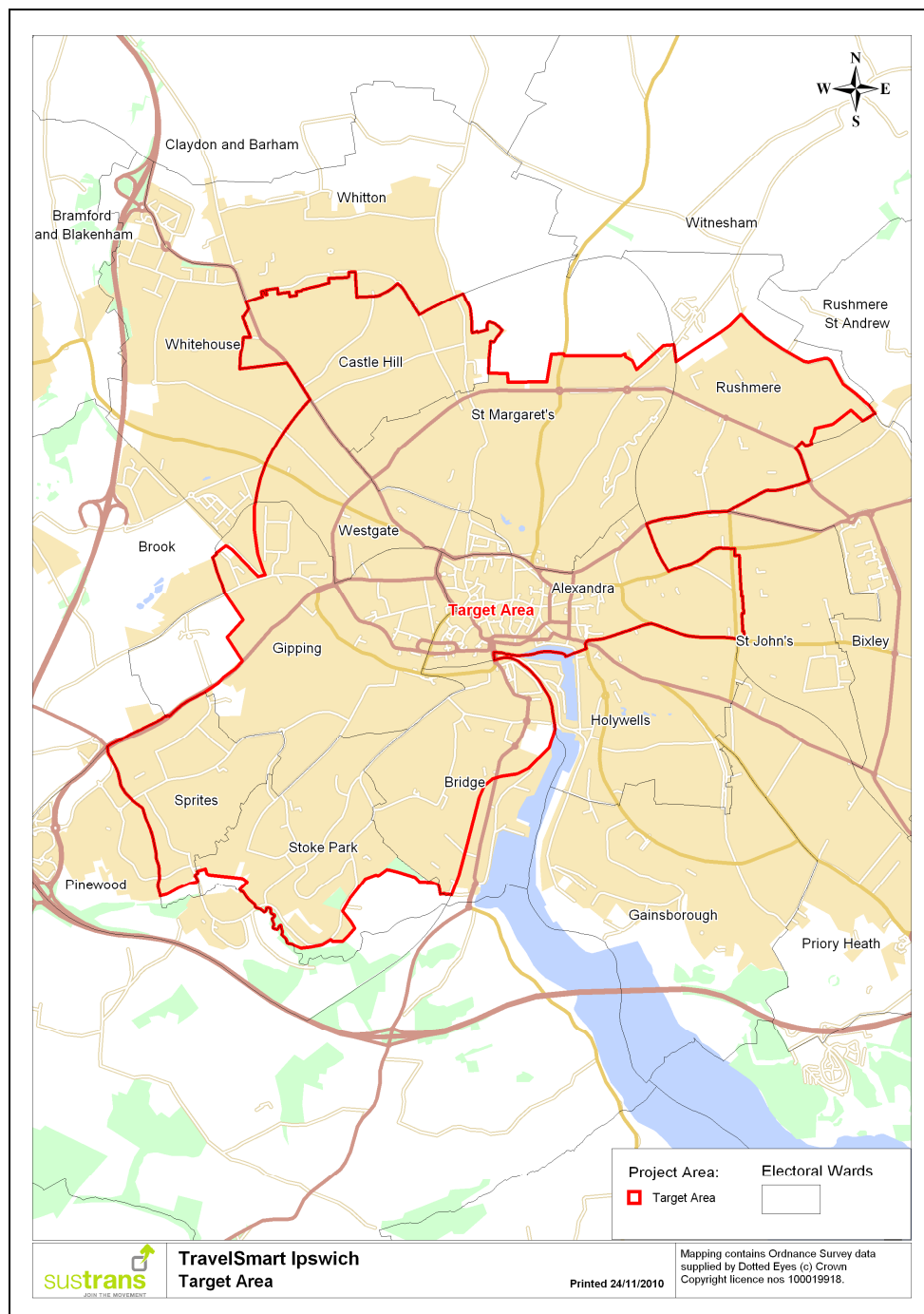
The target area for this TravelSmart project covered south east, central and north west Ipswich. The boundaries of the target area are shown in Figure 2.2.

This area was selected for a number of reasons:

- Good existing bus links linking the town centre and residential areas.
- An established network of walking and cycling routes.
- Proximity to the town centre and therefore access to its bus and rail stations.
- Local facilities and amenities reducing the need to travel into the town.
- Lack of changes to the transport system which may have affected people's travel choices during the project period.

The target population was drawn from this area at random using a commercially available address database. This process provided the total target population of 17,000 households.

Figure 2.2 Map of the target area



2.5 Project management

The project was co-ordinated by a working group which consisted of Sustrans, Socialdata, SCC and IBC. Meeting four to six times per year over the course of the project, this group was responsible for finalising the overall project design, developing the marketing package and reviewing progress with the fieldwork. Further inputs from SCC and IBC, in particular to the development of the marketing package, were sought as required.

Sustrans, with support from Socialdata, was responsible for day-to-day project management and reporting, as well as development of the marketing package. Sustrans also managed the local ITM fieldwork, including delivery of information packs and co-ordination of home visits. Implementation of the travel surveys, preparation of databases, ITM telephone contact and mailing operations were managed by Socialdata.

SCC and IBC supplied many local travel information materials on public transport, walking and cycling. Local bus operator, Ipswich Buses, supplied a number of bus service timetables. Materials were also sourced from a number of other organisations, including National Express trains and coaches, Wombat Car Club and the Ramblers.

2.6 Costs and funding

The cost of the Ipswich TravelSmart ITM project (including evaluation) was £474,098. Of this, £274,098 was provided by Defra and £200,000 by SCC. In addition, in-kind contributions to a value of £52,353 were provided by SCC and IBC towards the development and supply of marketing materials and in staff time to support the project. Public transport test-tickets were provided by Ipswich Buses.

2.7 Timetable

The project was delivered according to the following timetable:

July 2009	Project inception
September – November 2009	Travel behaviour survey (before)
November 2009 – April 2010	Preparation of ITM project
April – August 2010	Implementation of ITM project
September – November 2010	Travel behaviour survey (after)
May 2011	Final reporting

3 PREPARATIONS FOR THE TRAVELSMART PROJECT

3.1 Introduction

The TravelSmart project offered households a wide range of high-quality information, advice and support on local options for using sustainable travel modes (walking, cycling and public transport).

With support from SCC, IBC and other local partners, Sustrans coordinated the assembly of a marketing package consisting of printed information materials, incentives and rewards, and personal advice sessions (home visits).

3.2 Information materials

A range of information materials was assembled on local options for walking, cycling and public transport. The principal sources of these materials were SCC, IBC, Sustrans and local public transport operators.

A checklist of available materials was developed and reviewed according to the following broad criteria:

- Relevance to local travel needs of households in the target area.
- Consistency with the overall aims of the TravelSmart project.
- Availability in the quantities required and within project timescale.

A complete list of all information materials offered during the TravelSmart project is given in Table 3.1. This table, reproduced from the field report provided in October 2010, also shows how many copies of each item were requested and delivered to participating households.

All of the materials selected for use in the ITM project were listed on a TravelSmart order form (see Annex A). The form included the offer of a small incentive (see following section) to encourage households to respond quickly.

Table 3.1 Information materials assembled and delivered

Type of material	Number delivered
General	
Local Travel Maps	4,829
Public transport	
Bus travel:	
Stop-specific bus timetables	3,335
Bus map and route summary	2,795
Ipswich area bus guides	2,124
Bus service timetables:	
5 & 11: Town Centre - Foxhall Road - Heath Road - Hospital (Circular)	1,059
7 & 15: Town Centre – Thorington Park – Maidenhall (Circular)	1,003
8 & 8B: Town Centre – ASDA (Circular)	531
9 & 10: Town Centre – Whitton – Castle Hill (Circular)	529
12: Town Centre – Cambridge Drive (Circular)	609
13	972
14 & 14A: Town Centre – Gippeswyk Park – Wallers Grove (Circular)	301
16: Town Centre – Fountains Road – Belstead Road (Circular)	513
19: Town Centre – Dale Hall – Castle Hill (Circular)	372
22: Town Centre – Brunswick Road – Chelsworth Ave.	313
Free Shuttle Service (38)	1,543
Free Guide to Explore Suffolk	1,817
Real Ale Runabout	936
Train timetables:	
12: Norwich – Ipswich – Colchester – Liverpool Street	2,118
13: Ipswich – Manningtree – Colchester – Witham – Chelmsford – Ingatestone	1,135
14: Peterborough – Cambridge – Bury St Edmunds – Needham Market	1,257
The East Suffolk Lines	1,590

Public transport personal journey planning	
Personal journey plan	192
Public transport guides	
Bus Service Information Straight to Your Phone	302
Explore Card	311
Get on Board! Catch the Bus or Take the Train	453
Ipswich Buses Fares and Discounts	1,063
National Express Discounted Coach Travel: Family	357
National Express Discounted Coach Travel: 16 - 26	205
National Express Discounted Coach Travel: Senior	858
National Free Travel Bus Pass	542
PLUSBUS	580
Railcards: Family and Friends	528
Railcards: 16 - 25	251
Railcards: Senior	628
Railcards: Disabled Persons	138
Walking	
Ipswich Guides	3,121
Ranger Events	2,595
Stepping Out in Suffolk	1,500
Get Walking, Keep Walking	1,181
Why Walk?	1,075
Cycling	
Green Bike Project	1,453
Ipswich Cycle Route Map	2,154
Suffolk Young Cyclists Training Course	416
Cycling by Train	481
Cycling with Children	630
Get Cycling	738
Why Cycle?	559
Related information	
A Guide to Accessible and Community Transport	585

Car Share	224
Let's Act on Climate Change Together	1,119
The Healthy Options – Take the Route to a Healthier Life	912
Wombat Car Club	249
Automatically included information	
Free Mobile Bus Test Ticket	3,121
Bus Tickets Direct to Your Mobile	2,358
Discover Suffolk Flyer	4,474
Healthy Ambitions Suffolk Flyer	4,470
Walkit.com	3,534
Discount card	
TravelSmart discount card	2,337
Incentives	
Free key ring	3,455

3.2.1 Local travel map

In partnership with SCC and IBC, Sustrans produced two local travel maps for the project area (North Ipswich and South Ipswich) showing integrated information on cycling, walking and public transport in and around the target area.

These maps can be accessed on [Sustrans' website](#).

3.2.2 Personal journey plan

The offer of a personal journey plan, downloaded from the Traveline journey planner, was included on the order form.

The back page of the order form was designed to capture the same information about the user's requirements as the Traveline internet journey planner.

3.2.3 Discount Card

When a household pledged to use environmentally-friendly travel options more often, they qualified for a TravelSmart Discount Card. The Discount Card enabled households to take advantage of discounts at cycle shops in Ipswich. These discounts were arranged by Sustrans with local retailers and included savings on servicing, accessories, new bikes and clothing.

The Discount Card also included a 20% discount on all orders placed by phone with the Sustrans shop.

3.3 Incentives and gifts

Sustrans sourced a range of incentives and gifts to support the ITM project:

- TravelSmart-branded calico shopping bags and folders in which to package materials and facilitate deliveries.

- TravelSmart-branded key rings to encourage a quick response to the order form.
- TravelSmart-branded recycled pens and notepads, to reward regular walkers, cyclists and public transport users to reinforce their sustainable travel behaviour.

Incentives offered as part of the further services are discussed separately in the following section.

3.4 Further Services

A package of 'further services' was developed and offered on the TravelSmart order form as a means of providing further support and encouragement to households with a particular interest in making greater use of sustainable travel modes. These services were provided in the form of a home advice session and were geared towards people currently making little or no use of the travel modes concerned. Households could receive a home visit from a local advisor on cycling, walking and/or public transport.

The TravelSmart order form¹ carried the following text to allow households to sign up for these further services:

“Your household may be eligible for a personal advice session with one of our local experts on public transport, cycling and/or walking in your area. Select one (or more) of the options below and we’ll be in touch to arrange a home visit to suit your needs. You’ll be surprised at the opportunities available!

- Choose the bus – get the most out of public transport with the help of one of our specialist advisors, including tips on all the best ticket deals and a chance to try out local services.
- Choose cycling – get going on two wheels with the help of one of our cycling consultants, including advice on the best local routes, a bike ‘health check’ and the limited offer of a free cycle trip computer.

¹ Only households that were not regular bus users were sent this version of the order form.

- Choose walking – put your best foot forward with the help of one of our walking experts, including advice on the best local routes, health information and the limited offer of a free pedometer.”

For *Choose public transport*, local bus operator Ipswich Buses agreed to offer free return vouchers for up to four household members to try out local bus services.

For *Choose cycling*, a local Sustrans cycling advisor was able to provide households with personal advice, a bike health check and the offer (and set-up) of a free cycle trip computer.

For *Choose walking*, households could receive personal advice and route planning from a local Sustrans walking advisor, as well as the offer (and set-up) of a free pedometer to help measure progress.

3.5 Local field office

Sustrans managed the door-to-door canvassing and packing and delivery of personalised information packs from a temporary field office. A team of local field office staff was recruited and trained for the project and led by a Project Officer. The team included walking, cycling and public transport home visit advisors using the field office as a base. The field office was based in SCC's St Edmund's House premises.

3.6 Call centre

Socialdata managed the telephone contact process, together with the mailing of all announcement letters, order forms and gift lists, from its office in Bristol. A team of dedicated staff carried out telephone contact and motivation throughout the project. Other specialist staff were called upon to book home visit sessions and carry out a thorough process of quality control.

4 IMPLEMENTATION OF THE TRAVELSMART PROJECT

4.1 Introduction

This section describes the implementation of the Ipswich TravelSmart project in its three main phases: 'Contact and Segmentation'; 'Service (Confirmation, Motivation and Information)'; and 'Convincing'.

4.2 Contact and Segmentation Phase

The aim of the Contact and Segmentation Phase was to make direct contact with as many private residential households as possible in the target population, and to segment them into groups for the later phases of the ITM process.

All households were sent an official announcement letter explaining the purpose of the project. A total of 12,013 households (71% of the initial 17,000 households) were successfully contacted. Based on their current use of sustainable travel modes and level of interest in receiving information on walking, cycling and/or public transport, they were segmented into Interested, Regular User and Not Interested ('I', 'R' and 'N') Groups (see Table 4.1).

Table 4.1 Contact and Segmentation Phase

	Households
Total Households	17,000
Contacted / segmented Households (total)	12,013
Contacted / segmented Households (%)	71%

Comprising:

Group 'I' households interested in receiving information (not including regular public transport users, but including regular walkers and cyclists)	5,303	44%
Group 'R with' households with at least one member regularly using public transport and with an information wish	2,792	23%
Group 'R without' households with at least one member regularly using sustainable modes, (public transport, walking or cycling) and without any information wish	770	7%
Group 'N' households which did not wish to participate in the project, or whose members were unable to use sustainable modes	3,148	26%

4.3 Service Phase: Confirmation, Motivation and Information

The aim of this phase was to offer information and support to households contacted during the ITM process according to their specific needs.

An order form of information on walking, cycling and public transport was sent to households in Groups 'I' and 'R with'. An offer of a small incentive (a key ring) was included on the order form to encourage households to return their requests promptly.

In the Confirmation Phase, all households in Group 'R' (with or without information needs) and those in Group 'I' that regularly walked or cycled were offered a TravelSmart-branded gift as a way of reinforcing (or 'confirming') their behaviour. This offer was made on a separate mail-back order form.

The outcomes of this Confirmation Phase are detailed in Tables 4.2 and 4.3. These show that a total of 4,996 rewards were delivered, 2,322 to households in Group 'I'², 2,196 to Group 'R with' and 478 to Group 'R without'.

Table 4.2 Confirmation Phase (Groups 'I' and 'R with')

	I	R with	Total
Total Households	5,303	2,792	8,095
Households with wish for reward	2,322	2,196	4,518
Households with no wish for reward	2,552	455	3,007
Total Response	4,874	2,651	7,525
Response Rate	92%	95%	93%

² Group 'I' includes households with regular users of walking and/or cycling, which are therefore eligible for a reward.

Table 4.3 Confirmation Phase (Group 'R without')

	R without
Total Households	770
Households with wish for reward	478
Households with no wish for reward	1
Total Response	479
Response Rate	62%

Motivation and Information activities were conducted using two methods, depending on the channel through which households were contacted:

- Households successfully segmented by telephone into Groups 'I' and 'R with' received order forms by post. Motivation phone calls were made by Socialdata's call centre to households not returning their forms within a specified time period.
- Households contacted on the doorstep that completed their order forms with assistance from staff were later segmented into Groups 'I' and 'R with'.

For both methods, the household's individualised information pack and/or incentive/reward was hand-delivered by Sustrans' delivery staff working from the local field office.

As shown in Table 4.4, a total of 8,095 households were included in Motivation and Information. Of these, 93% (7,525 households) responded by completing the order form and a total of 6,449 requested information.

Table 4.4 Motivation and Information Phase

	I	R with	Total
Total Households	5,303	2,792	8,095
Households with information wish	4,091	2,358	6,449
Households with no wish for information	783	293	1,076
Total Respondents	4,874	2,651	7,525
Response Rate	92%	95%	93%

Table 3.1, above, reviewed the quantities of information materials and incentives delivered during the TravelSmart ITM project. All items were included in personalised packs on the basis of requests made via the order form. These packs, together with the rewards for regular users, were delivered almost entirely by bike and on foot, with a small proportion by post. The local travel maps were the most popular items of information.

Alongside the main Service Phase, a pack of information materials on responsible driving was sent to 496 households in Group 'N'. This pack consisted of the relevant local travel map and the following leaflets: *Get on Board – Catch the bus or take the train*; *Car Share – Share the drive, Share the cost*; *Wombat Car Club*; *Let's act on climate change together*; *Ten tips for greener, stress-free driving*; and *Speed: know your limits*. The remaining households in Group 'N' were not sent this information because their responses to the Contact Phase suggested that this service would be inappropriate (e.g. households with strong data confidentiality concerns; very elderly and/or housebound occupants).

As an additional incentive to encourage people to use public transport more often, Ipswich Buses generously offered a free trial mobile bus ticket to all households which requested any public transport information but whose members were not already regular users of

public transport. In total 3,121 tickets were issued, allowing the households up to 14 days' free travel for up to four household members.

Regular users of public transport were sent a leaflet explaining how the mobile phone ticketing system worked in order to encourage wider take-up of paperless ticketing. A total of 2,358 of these leaflets were distributed.

This offer was made possible due to the efforts of Ipswich Bus to promote this new ticketing service. It shows how effectively TravelSmart projects can assist in the promotion of new public transport initiatives. We look forward to receiving information on the initial success and further use of this service.

4.4 Convincing Phase

4.4.1 Overview

The Convincing Phase aimed to further encourage people to make more frequent sustainable travel choices by offering additional individualised advice and support. These services were included on the order form under the heading 'TravelSmart Plus'.

A total of 150 households expressed an interest in TravelSmart Plus (Table 2.6). These households were telephoned to explain the offer of a home visit conducted by an advisor on walking, cycling and/or public transport³. As a result, 33 households booked a total of 55 home visits and 39 were successfully conducted⁴.

³ Households already using public transport regularly were not offered a public transport home visit.

⁴ A number of booked home visits were not completed due to cancellation by the household or the household not being in at the agreed time when the advisor called. Subsequent attempts to re-book these appointments proved unsuccessful.

Table 4.5 Further service requests and home visits

	I	R with	Total
Total households	5,303	2,792	8,095
Households interested in TravelSmart Plus	150	102	252
Number of potential home visits by type:			
<i>Public Transport</i>	119	-	119
<i>Cycling</i>	98	102	200
<i>Walking</i>	39	102	141
Households booking one or more home visits	21	12	33
Number of booked home visits:			
<i>Public Transport</i>	16	-	16
<i>Cycling</i>	12	9	21
<i>Walking</i>	8	10	18
Number of conducted home visits:			
<i>Public Transport</i>	12	-	12
<i>Cycling</i>	8	6	14
<i>Walking</i>	7	6	13

4.4.2 TravelSmart Plus: Public transport

Households whose members wanted to use public transport more often and who were not already using the bus regularly were offered a home visit from a Sustrans advisor. The visit included the offer of a number of free test tickets on Ipswich Buses for up to four household members.

Households expressing an interest were contacted by phone to schedule a home visit. In total, 16 households booked an appointment and 12 of these took place. The record forms completed by the adviser after each visit rated all the visits as either successful or very successful.

4.4.3 TravelSmart Plus: Cycling

Households interested in further support on cycling were offered a home visit including personal advice, a bike health check and the offer and set-up of a free cycle trip computer.

Following phone contact, 21 cycling home visits were booked. Of these, 14 were subsequently completed.

Of the households receiving a home visit, the most frequently stated reasons for wanting to cycle more were exercise, convenience, reduced journey time, and because it is an environmentally-friendly travel choice. The most frequently stated barriers to cycling were concern over roads being unsafe for children, lack of bikes, and the hilliness of the local area.

Among the home visits conducted, seven households also took advantage of the free cycle trip computer. Typically visits lasted between 45 and 60 minutes. All the visits were rated by advisers as either successful or very successful.

4.4.4 TravelSmart Plus: Walking

Households interested in further support on walking were offered a home visit including personal advice and route planning, as well as the offer and set-up of a free pedometer to help measure their progress.

Following phone contact, 18 walking home visits were booked and 13 were subsequently completed.

During the visits, the most frequently stated reasons for wanting to walk more were exercise, because it is an environmentally-friendly travel choice and family/social reasons. The most frequently stated barrier to walking more was lack of information and not knowing where to find information.

Advisors provided information and general advice, discussed the health benefits of walking, offered personalised route planning and discussed equipment and clothing. Typically visits lasted between 45 and 60 minutes. All the visits were rated by advisers as either successful or very successful.

4.5 Summary of requests and deliveries

The requests received and deliveries made during the project are summarised in Tables 4.6 and 4.7, below. In total, deliveries containing 83,826 rewards, incentives and items of travel information were made to a total of 6,927 households. Each delivery was packed in a project-branded bag with information materials held in a TravelSmart folder.

Table 4.6 Total requests

	I	R with	R without	Total
Total requested rewards	2,322	2,196	478	4,996
Total requested information materials	51,301	27,529	-	78,830
Total requested further services	256	204	-	460
Total requests	53,879	29,929	478	84,286

Table 4.7 Households receiving deliveries

	I	R with	R without	Total
Reward only	-	-	478	478
Information only	1,769	162	-	1,931
Information and reward	2,322	2,196	-	4,518
Total deliveries	4,091	2,358	478	6,927

4.6 Quality control

In line with the TravelSmart Customer Service Charter, a sample of households receiving information was telephoned to check safe receipt of their information pack, whether all items had been included, and whether they were satisfied with the contents⁵.

⁵ This applies only to households with which telephone contact was made during the project.

Socialdata contacted 1,319 households, or 53% of the 2,472 households with available telephone details that received information during the project. The key findings⁶ were as follows:

- 97% said they had received their information pack.
- Of those having received their pack, 99% said it contained all the items requested; and
- 99% of households were fully satisfied with the contents of their pack.

Subsequent investigation of the 35 reported cases of failed delivery found that all packs had been recorded as delivered. Nonetheless, all households that indicated they had not received the delivery were sent a new pack.

Nine households indicated there were items missing from their pack, including walking information, train information, local travel maps, a key-ring, community transport information, a personal journey plan, cycle training information and bus timetables. In all cases these items were redelivered.

Of the seven households not satisfied with their pack, three said it contained no information of which they were not already aware, one felt that the information did not apply to them, one said that too much information required them to have internet access in order to fully utilise it, and two referred to non-delivery or missing materials, all of which were subsequently redelivered.

⁶ Net of non-respondents to each question.

5 EVALUATION

5.1 Introduction

The Ipswich TravelSmart project was evaluated against a range of performance indicators focusing mainly on changes in personal travel behaviour.

In common with most other TravelSmart projects, the key component of monitoring and evaluation was a set of detailed travel behaviour surveys, conducted by Socialdata before and after the ITM project.

As well as results from these surveys, a number of additional outputs have been provided to SCC and IBC as further feedback. These include:

- A detailed Field Report summarising the implementation of the ITM project and responses from the target population (reproduced as Section 4 of this report).
- Quote of the Day Booklets, containing comments collected from households during the ITM project.
- Quality control checks, where a sample of households receiving information from the ITM project were telephoned to check safe receipt of their information pack, whether all items had been included and whether they were satisfied with the contents.

The remainder of section 5 focuses on the objectives, methodology and analysis of the travel behaviour surveys.

5.2 Travel behaviour surveys

5.2.1 Objectives

The key objective of these surveys was to provide a robust measure of the changes in travel behaviour associated with the TravelSmart project in Ipswich. In particular, the surveys were designed to evaluate

the effects of the ITM project on mode choice, car use and average daily participation in walking and cycling as modes of travel.

5.2.2 Method and implementation

The New KONTIV® survey method has been developed over many years by Socialdata and applied successfully in travel behaviour research and the evaluation of ITM programmes in more than 15 countries, including most previous UK TravelSmart projects.

For each household, the survey consists of a household questionnaire and an individual travel diary for each member, for a nominated day of the week. The survey sample includes households completing travel diaries for all seven days of the week. To ensure a high response rate a pre-paid return envelope is provided with the survey and in cases where surveys are not returned Socialdata provides further motivation by post and telephone.

The survey aims to collect information on all trips⁷ to all out-of-home destinations on a nominated travel day for each respondent. The customer focus of the questionnaire design and individualised approach in the introductory mailing and subsequent motivation ensures high response rates and reliable results.

Surveys were conducted before and after the ITM project to evaluate changes in key mobility indicators over the project period. The key elements of the survey design were as follows:

- Separate samples were drawn from the ITM target population and from areas of Ipswich which were not targeted: Whitehouse, Whitton, Holywells, Gainsborough, Priory Heath, St. John's and Bixley (as a control group). This allowed the analysis to take into account any external influences on travel behaviour across the town (e.g. changes in the weather including seasonal effects: major events affecting the highway network).

⁷ The subsequent analysis of day-to-day mobility excludes trips of more than 100km (a very small percentage of personal trips) to avoid skewing any distance-related indicators.

- All samples were drawn at random from residential households. To further ensure that results were representative of the whole ITM target population, the target group sample for the after survey included a proportional share of households which chose not to participate in the ITM project.
- Minimum sample sizes for both target and control groups (i.e. the number of complete survey responses) were designed to provide statistically significant results⁸. For the before and after surveys, the required sample size was set at 1,000 persons net for the target group and 500 persons net for the control group.

The before survey was implemented by Socialdata with support from Sustrans during September to November 2009, and the after survey during September to November 2010. The procedure for each of the surveys was as follows:

- i) Mailing of an official announcement letter to all households in the gross sample;
- ii) Mailing of survey forms and official covering letter to all households in the gross sample;
- iii) Mailing of an official reminder letter to all households from whom a response had not been received after one week;
- iv) Mailing of a second reminder letter (on Socialdata headed paper and signed by the Socialdata project manager) to non-responding households a further week later; and
- v) Reminder telephone calls to non-responding households each week to offer support in completing the forms and to motivate returns.

The sample sizes and response rates achieved are summarised in Tables 5.1 to 5.4, below.

⁸ The statistical tests used in analysing the survey data are explained in Annex B.

Table 5.1 Survey sample sizes (persons) and response rates (%) – Before survey, target area

Contract requirements: 1,000 persons net

Period of implementation: September 21st to November 15th 2009

	TOTAL	With Telephone	Without Telephone
Mail-out Gross	2,100	900	1,200
Sample loss ¹⁾	207	95	112
Adjusted gross sample	1,893	805	1,088
Returns persons	1,135	580	555
Response rate in %	60%	72%	51%
(Contract persons)	1,000		

¹⁾ Sample loss: Moved away, deceased, etc.

Table 5.2 Survey sample sizes (persons) and response rates (%) – Before survey, control area

Contract requirements: 500 persons net

Period of implementation: September 21st to November 15th 2009

	TOTAL	With Telephone	Without Telephone
Mail-out Gross	1,000	450	550
Sample loss ¹⁾	167	88	79
Adjusted gross sample	833	362	471
Returns persons	530	274	256
Response rate in %	64%	76%	54%
(Contract persons)	500		

¹⁾ Sample loss: Moved away, deceased, etc.

Table 5.3 Survey sample sizes (persons) and response rates (%) – After survey, target area

Contract requirements: 1,000 persons net

Period of implementation: September 13th to November 14th 2010

	TOTAL	With Telephone	Without Telephone
Mail-out Gross	2,100	900	1,200
Sample loss ¹⁾	210	116	94
Adjusted gross sample	1,890	784	1,106
Returns persons	1,035	542	493
Response rate in %	55%	69%	45%
(Contract persons)	1,000		

¹⁾ Sample loss: Moved away; deceased etc.

Table 5.4 Survey sample sizes (persons) and response rates (%) – After survey, control area

Contract requirements: 500 persons net

Period of implementation: September 13th to November 14th 2010

	TOTAL	With Telephone	Without Telephone
Mail-out Gross	1,000	450	550
Sample loss ¹⁾	109	60	49
Adjusted gross sample	891	390	501
Returns persons	508	282	226
Response rate in %	57%	72%	45%
(Contract persons)	500		

¹⁾ Sample loss: Moved away; deceased etc.

5.2.3 Analysis

The analysis of the before and after surveys was designed to show changes in key mobility indicators associated with the TravelSmart project. This involved a comparison of behavioural data from the target and control groups in the before and after surveys. A summary of this methodology, including the statistical procedures used to account for changes in the data due to sampling factors or external influences, is shown in Annex B.

The basic measure used for this analysis was the average number of trips per person per year. This gives the best overall picture of personal travel behaviour, as opposed, for example, to average distances per person per year, the results for which would be skewed by the very small number of long trips.

The main indicators selected for the evaluation were as follows:

- Trips per person per year by main mode.⁹
- Personal daily mobility (including trip rates, distances travelled and trip purposes).
- Time spent travelling per person per day by main mode, and total daily exposure to walking and cycling.
- Car use measured by actual usage, number of trips, travel time, distance travelled and average occupancy per private car per day.

A series of other indicators are also used to show changes in mode choice by trip purpose, time of day, gender and age group.

For the purposes of this evaluation, a trip is defined as a one-way course of travel having a single main activity as its purpose. The number of trips per person per year was calculated on the standard

⁹ The main mode of a trip is determined according to the following ranking: public transport; motorised private modes (car or motorbike); non-motorised modes (bicycle, walking).

formula that on average, a person will spend 341 days of the year at home. This takes into account the days that a person travels away, for example on holiday or business.

The charts which begin overleaf use 'Without ITM' and 'With ITM' to represent the changes in the ITM target group 'before' and 'after' the implementation of the TravelSmart programme, taking into account the effects of external influences measured across the rest of the town (control group).

It is important to note that the following results show the changes in travel behaviour that were achieved across the whole target population including those in the 'N' ('Not Interested') group and non-respondent households.

5.2.4 Changes in travel behaviour

Figure 5.1 shows the percentage of trips by main mode (i.e. ‘mode share’) with and without TravelSmart, as measured by a comparison of the after survey (‘With ITM’) with the before survey (‘Without ITM’). This comparison takes into account changes measured in the control group that did not receive TravelSmart. The share of car-as-driver trips was reduced from 41% to 37%, with corresponding increases in walking, cycling and bus use. There was no change in mode share for other public transport when rounded to the nearest percentage point.

Figure 5.1 Changes in percentage of trips by main mode

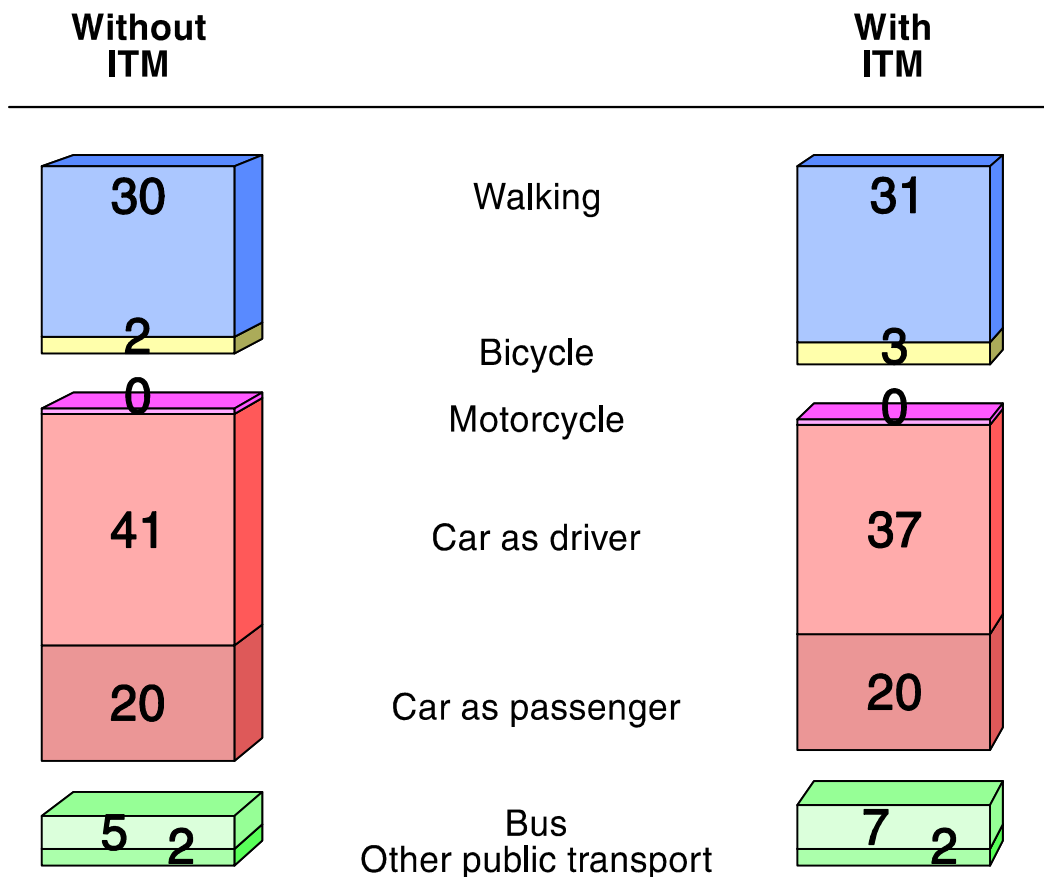
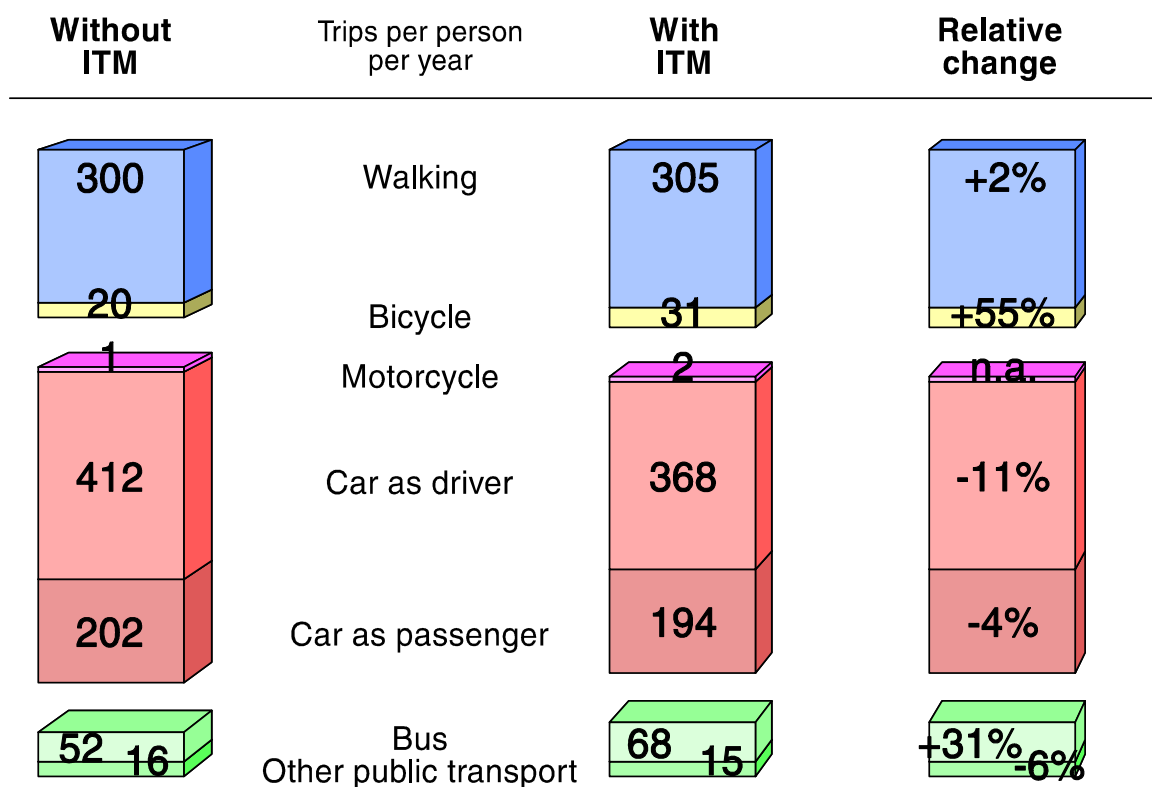


Figure 5.2 expresses the changes in mode choice in terms of trips per person per year and shows the relative changes associated with the TravelSmart project. It shows that the 11% relative reduction in car-as-driver trips was achieved by switching 44 trips per person per year to other modes (i.e. an average across the target population of just under one return journey¹⁰ per person every two weeks).

Among the sustainable travel modes, bus saw the biggest gains in absolute terms with an additional 16 trips per person per year being made this way, a relative increase of 31%. However cycling also gained 11 trips per person per year (a relative increase of 55%). There was a modest increase in walking trips, and a small fall in trips by other public transport.

Figure 5.2 Changes in trips by main mode (trips per person/year)



¹⁰ Each return journey being made up of two one-way trips.

As shown in Figure 5.3, there was little change in personal daily mobility between the two surveys. There were only slight increases in average daily travel time and distance (total across all modes) and a slight reduction in the average number of activities per person per day. This suggests that while TravelSmart influenced how people travel, it did not have any large impact on the number of activities they undertook on a daily basis, or their daily travel demand (measured by distances travelled).

Figure 5.3 Changes in personal mobility (per person/day)

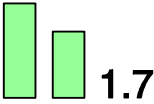
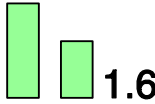


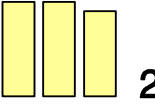
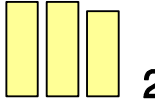


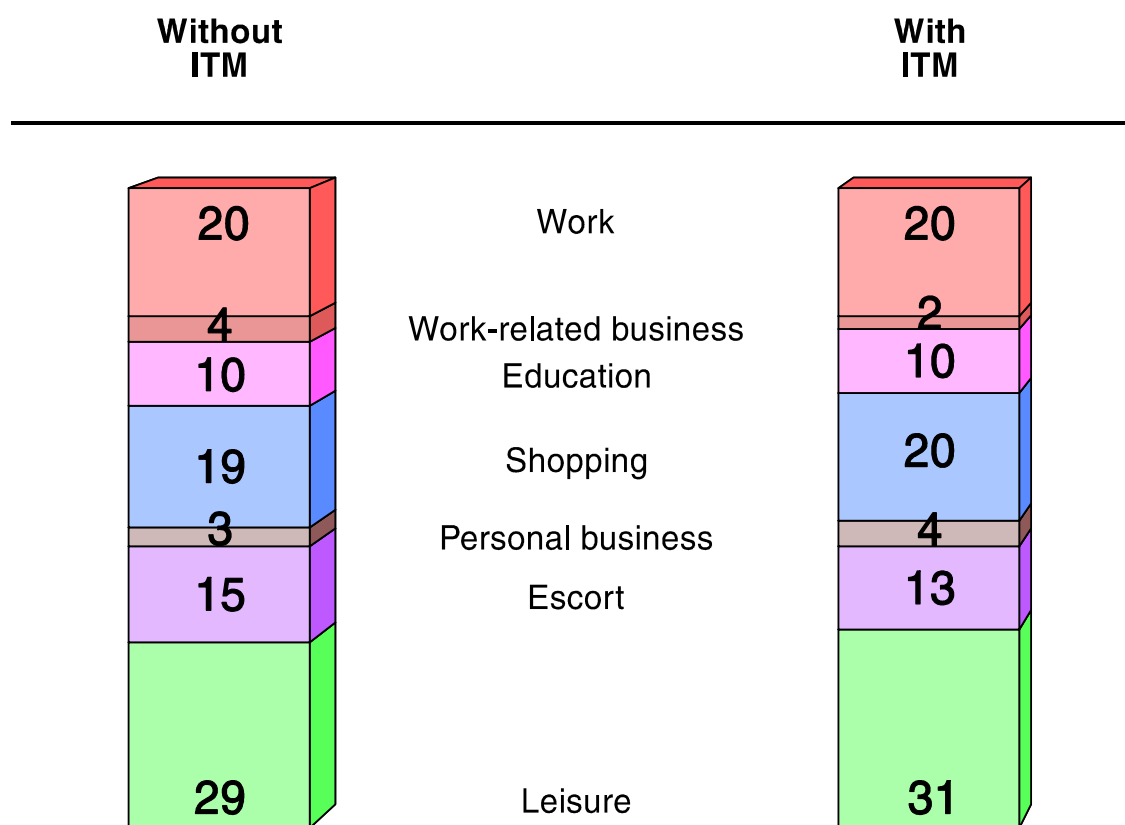
Without ITM	Per person/day	With ITM
 1.7	ACTIVITIES	 1.6
 54'	TRAVEL TIME (min)	 58'
 2.9	TRIPS	 2.9
 20	DISTANCE (km)	 22

Figure 5.4 provides an analysis of trips by purpose, with and without ITM. This shows that on the whole there was little change in the types of trips being undertaken by residents in the Ipswich target population between the two surveys. The proportion of commuting trips stayed at one fifth, although there was a two percentage point drop in work-related business trips. Leisure remained the largest trip generator, increasing slightly and eventually accounting for just under a third of all trips. There were also small increases for shopping and personal business, and a small decrease for escort trips.

Figure 5.4 Changes in trip purpose (%)



The changes in car use for day-to-day trips shown in Figure 5.5 reflect the reduction in car-as-driver trips. There were reductions in the share of cars used each day (from 71% to 66%), average trips per car per day (from 2.3 to 2.2), average duration of use per car per day (from 36 to 33 minutes), and average distance travelled per car per day (from 24.1 to 22.2 km). A slight increase in average car occupancy was measured, from 1.5 to 1.6 people per trip.

Figure 5.5 Changes in car usage (per car/day)

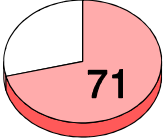
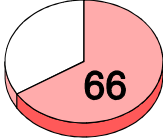
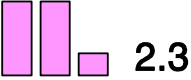
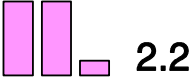




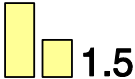
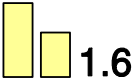
Without ITM	Per (private) car/day	With ITM
	USAGE (%)	
	TRIPS	
	DURATION (min)	
	DISTANCE (km)	
	OCCUPANCY (per trip)	

Figure 5.6 shows changes in car distances at the population level. The number of cars owned by households across Ipswich fell slightly from 17,000 to 16,500, and the distance travelled per car per day for day-to-day trips¹¹ fell from 24.1km to 22.2km, resulting in a net saving of 14.9 million car km per year, a relative reduction of 11%.

Figure 5.6 Changes in car distances travelled

Without ITM		With ITM
17,000	(Private) Cars in total	16,500
24.1	Kilometres per car per day (everyday mobility)	22.2
139.7 m	Total kilometres per year (341 days)	124.8 m
	Reduction (kilometres per year)	-14.9 m
	Relative reduction	-11%

Using Defra's standard CO₂ emissions factor¹², this equates to annual emissions reductions of around 3,000 metric tons CO₂ compared to pre-project levels. (This assumes that the average car is used on 341 days per year, taking account of holidays etc).

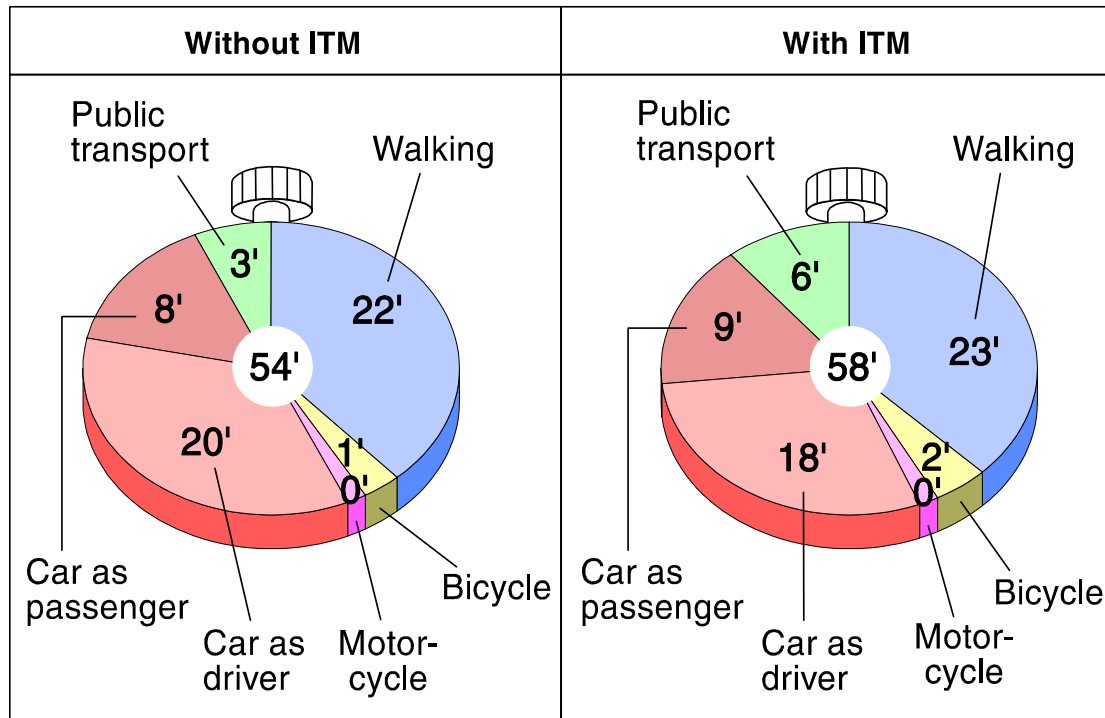
¹¹ As stated earlier, this analysis excludes the small proportion of trips over 100km.

¹² Based on a fleet average emissions factor of 202.8g CO₂ per vehicle km, from Defra's (2009) *Guidelines to GHG Conversion Factors for Company Reporting*.

Figure 5.7 shows the total time spent travelling per person per day by mode, with and without ITM. This analysis includes all trip stages (e.g. walking to a bus stop or from a car park to the final destination). It shows an increase in the average time per person per day spent walking from 22 to 23 minutes. Average time spent cycling doubled from one to two minutes per person per day. The greatest absolute change was in time spent using public transport, which doubled from three to six minutes per person per day on average.

Figure 5.7 Changes in travel time by mode

Per person/day (minutes); trip-legs



Over the course of a year, the effect of ITM would be to increase the total exposure to active travel from 121 to 139 hours per person (Figure 5.8). This 15% relative increase could make a significant contribution to increasing overall levels of physical activity amongst the target population, particularly among those starting from a low baseline.

Figure 5.8 Changes in total active travel time (per person/year in hours)

	Without ITM	With ITM	Change	Relative change
Hours per person/year	121	139	+18	+15%

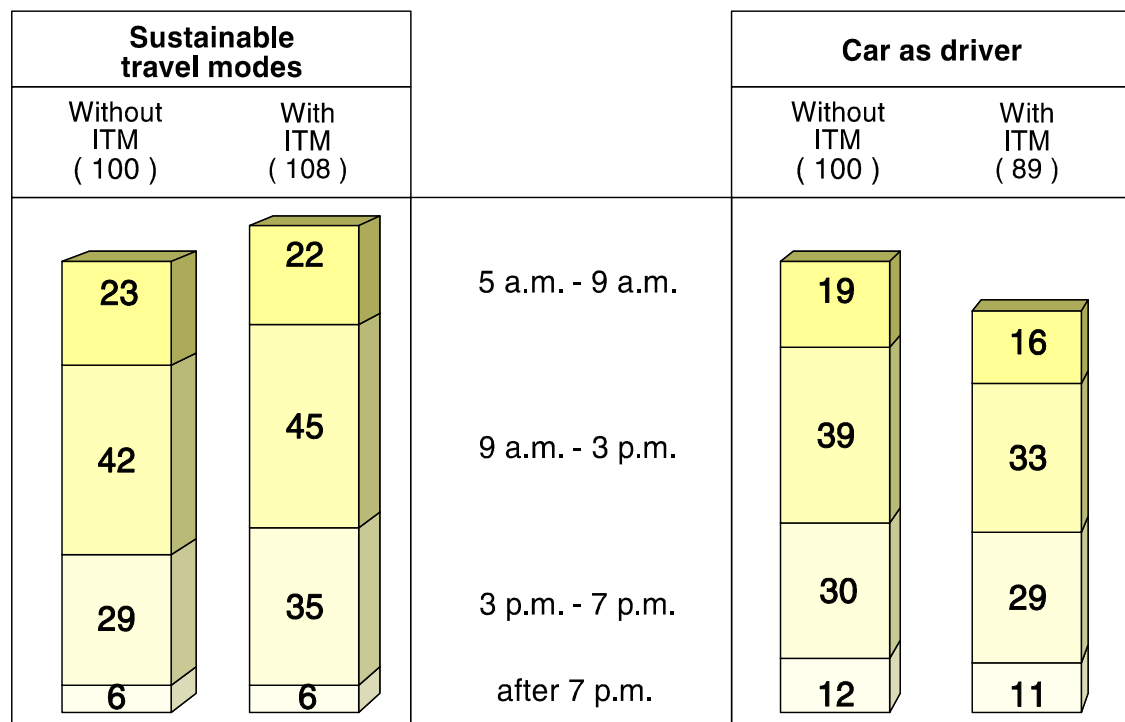
Walking, cycling and access / egress to public transport or car (parked)

The next three figures show how the increases in use of sustainable travel modes and the reductions in car-as-driver trips associated with TravelSmart were distributed by time of day, age and gender, and by trip purpose. For this analysis, trips by sustainable travel modes (walking, cycling and public transport) are aggregated and compared with car-as-driver trips. There was an overall eight percent relative increase in use of sustainable travel modes for all trip purposes (increasing from a baseline index of 100 to 108). The relative reduction in car-as-driver trips of 11% is shown by the change from a baseline index of 100 to an index of 89.

Figure 5.9 shows that the use of sustainable travel modes increased between 5am and 7pm, with the greatest relative increase occurring between 3pm and 7pm. Trips made by sustainable modes remained unchanged overnight, between 7pm and 5am.

The greatest relative reductions in car-as-driver trips occurred between 5am and 9am, and 9am and 3pm. There smaller reductions at all other times of day. Overall this analysis suggests that TravelSmart contributed to increasing active travel the most at peak periods of the day, and reducing car trips slightly more during off-peak periods, however there were also reductions during peak periods.

Figure 5.9 Changes in mode choice by time of day (%)



The distribution of travel behaviour change by age and gender is shown in Figure 5.10. Increases in walking, cycling and use of public transport were measured across the different age and gender groups, with the exception of females aged 20-59. The most notable (absolute and relative) increase was observed among males aged 20-59. The greatest absolute reduction in car-as-driver trips was seen among females aged 20-59, although reductions were measured for all groups.

Figure 5.10 Changes in mode choice by age and gender (%)

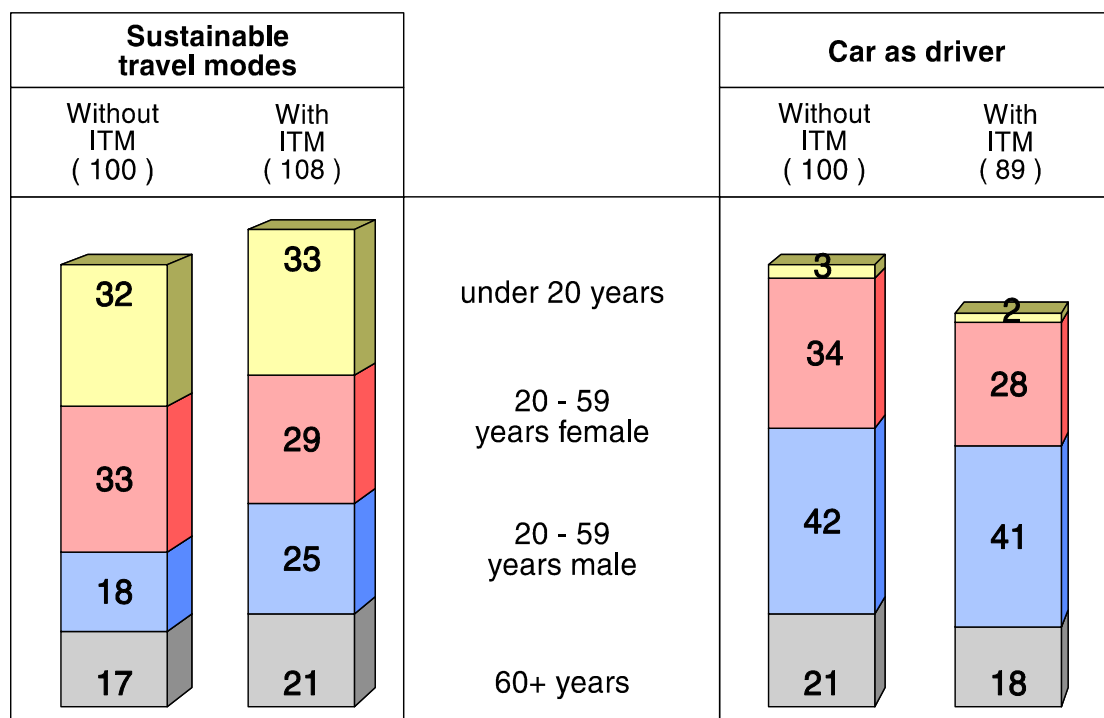
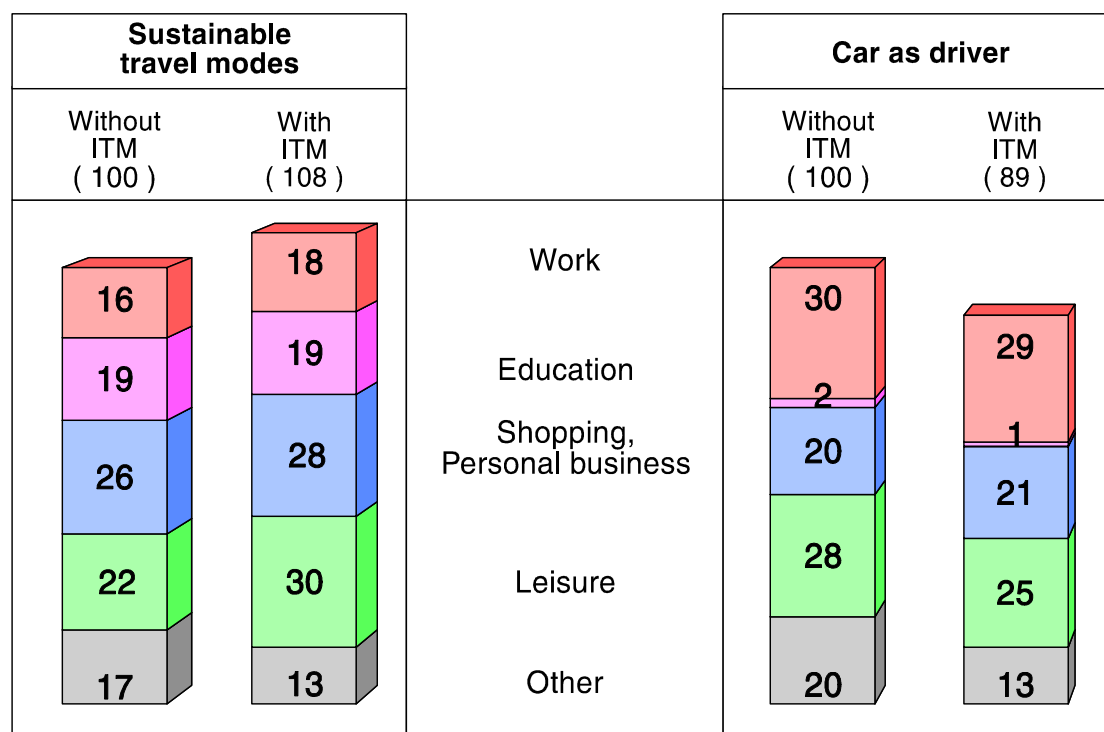


Figure 5.11 shows changes in mode choice for different types of trips. Increases in use of sustainable travel modes were apparent for all trip purposes except 'other'. The greatest absolute and relative increase was for leisure trips. The greatest relative and absolute reduction in car-as-driver trips was for 'other' trips (suggesting fewer trips of this type being made by any mode).

Figure 5.11 Changes in mode choice by trip purpose (%)



6 CONCLUSIONS

6.1 Introduction

The aim of the TravelSmart project in Ipswich was to promote greater use of sustainable and active travel modes (walking, cycling and public transport) as alternatives to car travel among a target population of 17,000 households.

In order to achieve this aim, the following components were put in place:

- The design of a coherent and attractive marketing offer consisting of local sustainable transport information.
- The identification of key individuals and project partners to ensure relevance, supply and shelf-life of marketing materials.
- The recruitment of local staff to implement the fieldwork, providing an effective knowledge base and adding value as a community initiative.
- The application of the proven TravelSmart ITM technique, with supporting project management systems, adapted where appropriate to local conditions.

The success of the project in achieving its aim is measured ultimately by the responses of the target population, in particular the willingness of households to participate in the TravelSmart project; the volume of information and other services requested; and, critically, the changes in travel behaviour.

The following sub-sections review the key outcomes of the Ipswich TravelSmart project under these broad headings.

6.2 Key outcomes

6.2.1 Travel behaviour change

The travel behaviour surveys conducted before and after the TravelSmart project show substantial increases in levels of walking, cycling and use of public transport as modes of day-to-day travel, leading to notable reductions in car use. The key indicators, measured across the whole target population (i.e. not only those who actively participated in TravelSmart), are:

- Growth in trips by sustainable and active travel modes, with relative increases in walking (two percent), cycling (55%) and bus use (31%), although there was a small reduction in trips by other types of public transport (minus six percent);
- A relative increase of 15% in daily exposure to active forms of travel (i.e. time spent per person per day participating in walking and cycling as modes of transport);
- A relative reduction in car-as-driver trips of 11%, generating an 11% reduction in car distances travelled, a net saving of 14.9 million car km per year on pre-project levels, and an estimated annual CO₂ saving of 3,000 tonnes.

The evaluation suggests that the greatest modal shift occurred from car-as-driver trips (which declined by 44 trips per person per year) to bus use (which gained 16 trips). Cycling transport also gained 11 trips per person per year (a relative increase of 55%), while walking saw a modest two percent relative growth, albeit from a much higher baseline level than other sustainable modes.

These changes are broadly in line with those measured in other recent TravelSmart projects (as shown in Table 6.1 below).

Table 6.1 Summary of recent TravelSmart project outcomes

Location	Project dates	Target population (households)	Relative change in mode share				
			Walking	Bicycle	Car-as-driver	Car-as-passenger	Public transport
Peterborough	2005-07	30,006	+9%	+36%	-11%	-5%	+33%
Worcester	2005-07	23,504	+15%	+19%	-10%	-5%	+30%
Preston	2006-07	25,231	+11%	+35%	-10%	+3%	+9%
Lancaster & Morecambe	2006-07	25,001	+18%	+69%	-14%	+10%	+7%
Inverness	2007	1,500	+22%	+27%	-13%	+1%	+11%
Weston-super-Mare	2008	2,078	+15%	+36%	-12%	+5%	+10%
Exeter	2008-09	25,001	+18%	+33%	-12%	-6%	+13%
Lowestoft	2008-09	25,000	+19%	+19%	-13%	-2%	+37%
Watford	2008-09	25,009	+20%	+33%	-13%	+5%	+13%
Ipswich	2010	17,000	+2%	+55%	-11%	-4%	+22%

Further analysis of the travel survey data for TravelSmart in Ipswich shows that:

- The changes in mode choice were achieved with little effect on daily mobility (i.e. activities, number of trips, distances travelled) among the target population;
- Although there was markedly increased use of sustainable travel modes, there was only a small change in daily time spent travelling among the target population;
- The increases in use of sustainable modes and reductions in car use occurred between at peak and off-peak travel times;
- Leisure remained the largest trip generator after TravelSmart, accounting together for just under a third of all trips; and
- Growth in the use of sustainable and active travel modes was seen across most age and gender groups, with the most significant

growth occurring in males aged 20-59. Females in this age range actually showed a reduction in their trips by sustainable modes, although they also exhibited reduced car-as-driver trips.

6.2.2 Participation in the ITM project

The ITM process resulted in high participation rates among the target population of 17,000 households. This demonstrates a positive response to the personalised TravelSmart approach, and suggests a previously unmet demand for information on local transport options.

- Seventy-one percent of households in the target population responded to the initial contact phase.
- Of these, 67% were interested in receiving information through the TravelSmart project and a further seven percent were already regular users of sustainable travel modes who did not request additional information.
- Ninety-three percent of those initially interested in receiving information then responded to the offer of information and advice by completing a TravelSmart order form, either in their own time at home, over the phone or on the doorstep.
- A total of 6,927 personalised TravelSmart packages were hand-delivered to participating households (including 478 containing only rewards for regular users).

6.2.3 Demand for information and advice

The profile of requests received during the TravelSmart project indicates a high demand for information and advice on local transport.

- 83,826 items of information, incentives and rewards were requested during the TravelSmart project.
- Of the information materials on offer, the new local travel maps (developed specifically for the TravelSmart project) were the most popular items.

- A total of 252 households requested further personal advice on walking, cycling and/or public transport. Thirty-nine sessions were successfully completed at people's homes and included the offer of a sustainable travel incentive.

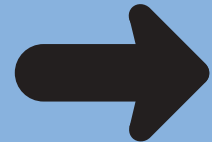
**ANNEX A:
TRAVELSMART ORDER FORM**

TravelSmart

Ipswich

Please fill in
and return this form
to order your
free personal
information pack

Help us to **help you!**



Help us to ensure prompt delivery of your
materials – please fill in your contact details below

Name: _____

Address: _____

Tel. No. _____

Day: _____

Evening: _____

TravelSmart How can we help you? Please tick the

Bus travel

- **Bus stop timetables:** unique timetables showing the frequency and destination of buses using the stop(s) nearest to your home.
- **Bus map and route summary:** map and timetable for major bus routes in Ipswich.
- **Ipswich area bus guides:** timetables and maps for the north, south, east and west of Ipswich.
- **Bus service timetables:** times and route information for bus service(s) of your choice in and around Ipswich:
 - **5 & 11** Town Centre – Foxhall Road – Heath Road Hospital (circular)
 - **7 & 15** Town Centre – Thorington Park – Maidenhall (circular)
 - **8 & 8B** Town Centre – ASDA (circular)
 - **9 & 10** Town Centre – Whitton – Castle Hill (circular)
 - **12** Town Centre – Cambridge Drive (circular)
 - **13** Town Centre – Chantry Tesco (circular)
 - **14 & 14A** Town Centre – Gippeswyk Park – Wallers Grove (circular)
 - **16** Town Centre – Fountains Road – Belstead Road (circular)
 - **19** Town Centre – Dale Hall – Castle Hill (circular)
 - **22** Town Centre – Brunswick Road – Chelworth Ave
- **Free Shuttle Service (38):** Ipswich town centre circular route, running every 20 minutes.
- **Free Guide to Explore Suffolk:** bus routes and destinations throughout the county.
- **Real Ale Runabout:** fortnightly service visiting various pubs in the area.

Train travel

Timetables

- **12** Norwich – Ipswich – Colchester – Liverpool Street
- **13** Ipswich – Manningtree – Colchester – Witham – Chelmsford – Ingatstone
- **14** Peterborough – Cambridge – Bury St. Edmund's – Needham Market (with connecting services to and from Ipswich)
- **The East Suffolk Lines:** Felixstowe – Ipswich, Lowestoft – Ipswich – London.

New local travel maps



Two new and exclusive TravelSmart maps for north and south Ipswich, showing walking routes, cycle paths, bus routes and local places of interest.

Public transport guides

- **Bus service information straight to your phone:** text messaging service for departure information from any bus stop in the region.
- **Explore card:** young persons discount card for local bus and train travel.
- **Get on Board! Catch the bus or take the train:** the benefits of using public transport.
- **Ipswich Buses fares and discounts:** ticket options and discount schemes.
- **National Express Discounted Coach Travel:**
Family 16-26 Senior
- **National free travel bus pass:** free off-peak travel on local buses anywhere in England for over-60s and eligible disabled people.
- **PLUSBUS:** ticket options for combining bus and train travel.
- **Railcards:** details on discounted travel:
Family & Friends 16-25
Senior Disabled Persons

Walking

- **Ipswich guides:** walking in and around your local area.
- **Ranger Events:** list of park ranger events in 2010 with a map of your local green spaces.
- **Stepping out in Suffolk:** a programme of led walks to help improve your health.
- **Get Walking, Keep Walking:** tips to help you get started and a 12-week plan to track your progress.
- **Why walk?:** find out how to step your way to a happy, healthy lifestyle.

boxes below to order your personal travel information pack

Cycling

- **Green Bike Project:** local scheme offering bikes for hire, Bikeability training, cycle repair workshops and more.
- **Ipswich Cycle Route Map:** map to help you get around Ipswich by bike, showing official cycle routes, cycle parking and bike shops.
- **Suffolk Young Cyclists Training Course:** course details and how to find out whether your child can get involved.
- **Cycling by train:** find out how easy it is to take your bike on a train.
- **Cycling with children:** advice on buying the right bike for your child and handy tips for family trips.
- **Get cycling:** an indispensable guide to buying, riding and maintaining your bike.
- **Why cycle?:** find out for yourself what's making more and more people take to two wheels.

Related information

- **A guide to accessible and community transport:** door-to-door transport, accessible buses and coaches and other concessionary travel services.
- **Car Share:** Suffolk's car share scheme, the benefits and how to get involved.
- **Let's act on climate change together:** top tips to help you reduce your carbon emissions, including useful contact numbers.
- **The healthy options – take the route to a healthier life!:** the health and environmental benefits of cycling and walking.
- **Wombat Car Club:** local scheme offering an alternative to owning your own car.

Discount card

The TravelSmart Discount Card offers savings on accessories, bikes and servicing at local cycle shops.

TravelSmart PLUS

Your household may be eligible for a personal advice session with one of our local experts on public transport, cycling and/or walking in your area. Select one (or more) of the options below and we'll be in touch to arrange a home visit to suit your needs. You'll be surprised at the opportunities available!

- **Choose the bus** – get the most out of public transport with the help of one of our specialist advisors, including tips on all the best ticket deals and a chance to try out local services
- **Choose cycling** – get going on two wheels with the help of one of our cycling consultants, including advice on the best local routes, a bike 'health check' and the limited offer of a free cycle trip computer
- **Choose walking** – get out and about on foot with the help of one of our walking experts, including advice on the best local routes, health information and the limited offer of a free pedometer.

Free gift

On prompt return of this order form, you can receive this **FREE** keyring with 5 years membership of a lost key recovery service (value up to £25). Limited numbers available.



Please tick the box to accept this offer.

See back page for your personal journey plan order form



Your order form for a personal journey plan

Please tell us about the journey you wish to make by public transport.

In order for us to provide you with the most useful information, please complete **ALL** sections of this form. Please note that we may not be able to process your journey plan without **exact locations with correct postcodes**.

Journey plans are available for travel starting in Ipswich going to any location in the UK.

From: (please give exact location with postcode)

House number/name:

Street:

Town/City:

Postcode:

To: (please give exact location with postcode)

House number/name:

Street:

Town/City:

Postcode:

Outward journey:

I need to depart / arrive (delete as appropriate)

on (day of the week) _____ at (time) _____ am / pm

Return journey:

I need to depart / arrive (delete as appropriate)

on (day of the week) _____ at (time) _____ am / pm

Means of travel:

I am prepared to travel part/all of the way by: Bus Coach Rail Any mode

Sustrans registered Charity No. 326550 (England and Wales) SC039263 (Scotland).

TravelSmart

Project enquiries:

Socialdata 

PO Box 536, Bristol BS99 3UX
Freephone 0800 58 78 029

Thank you for taking part in TravelSmart

ANNEX B: CONCEPT OF EVALUATION

ANNEX B: CONCEPT OF EVALUATION

1 Travel behaviour surveys

To demonstrate the effects of the TravelSmart ITM programme in Ipswich, surveys were conducted to measure changes in travel behaviour. The surveys used the New KONTIV®-design, a self-administered mail-back survey technique with follow-up by post and telephone.

The survey concept was planned as ‘before’ and ‘after’ surveys, each approaching the ITM target group and a control group not approached in the marketing intervention. The ‘after’ surveys were cross-sectional surveys based on independent randomly drawn samples of households from the same areas as the ‘before’ survey.

Table A1 shows the dates, response rates and net sample sizes for each of the surveys.

Table B1: Survey Response Rates

	Survey date	Response rate	Net sample
			Persons
BASELINE SURVEY			
Target area	Sep - Nov 2009	60%	1,135
Control area		64%	530
AFTER SURVEY			
Target area	Sep - Nov 2010	55%	1,035
Control area		57%	508

The survey samples ensure an acceptable level of statistical significance in the key outcomes presented (see Section 3 of this Annex). However the evaluation also includes a weighting procedure

to ensure the response behaviour of the target group sample is representative of that found in the ITM target population as a whole. To provide the correct basis for comparison, the distribution of the ITM groups ('I', 'R' and 'N' and non-respondents) in the 'after' survey sample is adjusted to match that found during the contact phase of the ITM project. Furthermore a weighting (based on gender, age and with/out telephone, to reflect local demographics) was applied for both surveys.

2 Control group effects

Changes in mode choice are the central indicators of the success (or otherwise) of an ITM project. To separate the effect of ITM from other influences, a survey design with a control group was applied. Both the target group and the control group were surveyed before and after the project.

Table A2 shows the before and after results for the target group. Before the ITM project, 30% of all trips were made (exclusively) on foot, 3% by bicycle, 1% by motorcycle, 38% by car as driver, 20% by car as passenger and 8% by public transport. After the project the share of walking had risen to 31%, whereas the share of car-as-driver trips decreased to 37%. Bicycle trips remained at 3% and public transport trips rose from 8% to 9%.

Table A2: Mode Choice (%) – Target Group

	TARGET GROUP	
	Before %	After %
Walking	30	31
Bicycle	3	3
Motorcycle	1	0*)
Car-as-driver	38	37
Car-as-passenger	20	20
Bus	6	7
Other public transport	2	2
TOTAL	100	100

*) less than 0.5%

Mode choice can also be shown in trips per person per year. An average person in the target group undertook in the before survey 1004 trips per year (on 341 days at place of residence). 305 out of these trips were made on foot, 30 with a bicycle, etc. (see Table A3).

Table A3: Mode Choice (trips per person per year) – Target Group

	TARGET GROUP	
	Before	After
	Trips per person per year	
Walking	305	305
Bicycle	30	31
Motorcycle	10	2
Car-as-driver	384	368
Car-as-passenger	202	194
Bus	59	68
Other public transport	14	15
TOTAL	1004	983

However the changes between the 'before' and 'after' surveys are not necessarily the effects of the ITM project. To determine other influencing factors (seasonal and external influences), a control group which was not exposed to ITM was used.

Before the ITM project in the control group (Table A4), 23% of all trips were made (exclusively) on foot, 38% by car-as-driver and 22% by car-as-passenger. Public transport accounted for 10% and cycling for 2% of all trips. After the ITM project, there was an increase in car-as-driver trips (+4 % point) and an increase in car as passenger trips (+1% point). Bicycle and public transport trips experienced a decrease of trips.

Table A4: Mode Choice (trips per person per year) – Control Group

	CONTROL GROUP	
	Before %	After %
Walking	23	23
Bicycle	5	3
Motorcycle	2	0*)
Car-as-driver	38	42
Car-as-passenger	22	23
Bus	9	8
Other public transport	1	1
TOTAL	100	100

*) less than 0.5 %

These changes in the control group have to be taken into account when the reference for the situation 'with ITM' is established. The observed changes for the control group between the 'before' and 'after' surveys would also be expected in the target group. Comparing 'before' and 'after' on the basis of trips per person per year for the control group, a 'transfer factor' is derived (Table A5), and with this transfer factor the before figures for the target group are adapted (Table A6). On this basis, the 'before' situation in the target group *corrected by control group effects* forms the baseline against which change is measured.

Table A5: Mode Choice (trips per person per year) – Control Group

	CONTROL GROUP		Transfer Factor
	Before	After	
Walking	234	230	0.983
Bicycle	49	33	0.674
Motorcycle	16	1	0.063
Car-as-driver	385	413	1.073
Car-as-passenger	225	225	1.000
Bus	93	81	0.871
Other public transport	12	14	1.167
TOTAL	1,014	997	

Table A6: Mode Choice (trips per person per year) – Target Group

	TARGET GROUP		
	Before	Transfer factor	Without ITM
Walking	305	0.983	300
Bicycle	30	0.674	20
Motorcycle	10	0.063	1
Car-as-driver	384	1.073	412
Car-as-passenger	202	1.000	202
Bus	59	0.871	52
Other public transport	14	1.167	16
TOTAL	975		946

This shows that following the after survey there would have been, on average, 300 walking trips per person per year 'without ITM', 20 bicycle trips, 412 car-as-driver trips, 202 car-as-passenger trips, and 68 public transport trips. The changes associated with ITM can be measured on this basis.

Table A7 shows the findings of the after survey ('with ITM') for the target group. In this group 31% of all trips were now made (exclusively) on foot, 3% by bicycle, 37% by car as driver, 20% by car as passenger and 9% by public transport.

Compared to 'without ITM', the share of walking trips had risen from 30% to 31%, cycling trips from 2% to 3%, and public transport trips from 7% to 9%. The share of car-as-driver trips decreased from 41% to 37%.

Table A7: Mode Choice – Target group

	Without ITM	With ITM
	%	%
Walking	30	31
Bicycle	2	3
Motorcycle	0*)	0*)
Car-as-driver	41	37
Car-as-passenger	20	20
Bus	5	7
Other public transport	2	2
TOTAL	100	100

*) less than 0.5 %

Again, mode choice can also be shown in trips per person per year. At the time of the after survey an average person undertook 1003 trips per year 'without ITM' and 983 trips 'with ITM'.

Walking was the means of transport for 300 trips 'without ITM' compared to 305 trips 'with ITM'. Cycling increased from 20 to 31 trips per person per year, public transport from 68 to 83 trips. Car-as-driver trips decreased from 412 to 368, while car-as-passenger trips dropped slightly from 202 to 194 per person per year (see Table A8).

Table A8: Mode Choice (trips per person per year) – Target Group

Trips per person per year	Without ITM	With ITM
Walking	300	305
Bicycle	20	31
Motorcycle	1	2
Car-as-driver	412	368
Car-as-passenger	202	194
Bus	52	68
Other public transport	16	15
TOTAL	1003	983

This can also be expressed as relative change, as shown in Table A9.

Table A9: Mode Choice – Relative Change

Change in trips per person per year		Relative change %
+5	Walking	+2
+11	Bicycle	+55
+1	Motorcycle	n/a
-44	Car-as-driver	-11
-8	Car-as-passenger	-4

+16	Bus	+31
-1	Other public transport	-6

Walking trips per person per year increased by 5 (a relative increase of 2%). Cycling increased by 11 trips per person per year (+55%) and public transport by +15 (+22%).

There was a decrease of 44 car-as-driver trips per person per year (-11%).

This evidence suggests that the TravelSmart Ipswich ITM project reduced car use by 11% and increased the share of sustainable travel modes: walking (+2%); cycling (+55%); and public transport (+22%).

3 Statistical Significance of the Changes in Mode Choice

Concerning the statistical significance of the changes in mode choice, expert opinions differ whether this test should be based on persons or trips. For that reason the following test was implemented for both persons and trips. The statistical significance of change in mode choice is located between the results of these two tests. Bases for the test are persons in independent samples 'before' and 'after'.

Share of car-as-driver

Persons

The following test can be performed. The zero-hypothesis and the alternative-hypothesis are:

$$H_0: P_1 \leq P_2$$

$$H_1: P_1 > P_2$$

P_1 = share of car-as-driver 'without ITM'

P_2 = share of car-as-driver 'with ITM'

The zero-hypothesis states that the share of car-as-driver trips 'with ITM' is not lower than 'without ITM'. If this zero-hypothesis can be rejected, there is an impact from the ITM on the reduction in car use.

The calculation is done as *t-test* for independent samples. The share of car-as-driver 'without ITM' (41%) and 'with ITM' (37%) and the number of observed persons are the inputs (before: $n_1 = 1,135$; after: $n_2 = 1,035$).

For the test value the following formula exists:

$$T = \frac{P_1 - P_2}{\sqrt{\frac{P_1(1-P_1)}{n_1} + \frac{P_2(1-P_2)}{n_2}}} =$$

$$= \frac{0.036}{\sqrt{0.0004}} = 1.7168$$

Test-decision:

$$\varphi(y, y) = \begin{cases} 1 & \text{if } T < z_a \\ 0 & \text{other} \end{cases}$$

$$z_{0.05} = 1.645 \text{ (critical value for a level of significance of 95 \%)}.$$

It follows that based on this test the zero-hypothesis (no decrease of the share of car-as-driver 'with ITM') can be rejected with a probability of over 95%.

Trips

For testing on the basis of trips, the same test can be performed.

The zero-hypothesis and the alternative-hypothesis are:

$$H_0: P_1 \leq P_2$$

$$H_1: P_1 > P_2$$

P_1 = share of car-as-driver 'without ITM'

P_2 = share of car-as-driver 'with ITM'

The zero-hypothesis states that the share of car-as-driver trips 'with ITM' is not lower than 'without ITM'. If this zero-hypothesis can be rejected, there is an impact from the ITM on the reduction in car use.

The calculation is done as *t-test* for independent samples. The share of car-as-driver 'without ITM' (41%) and 'with ITM' (37%) and the number of observed trips are the inputs (before: $n_1 = 3,341$; after: $n_2 = 2,645$).

For the test value the following formula exists:

$$T = \frac{P_1 - P_2}{\sqrt{\frac{P_1(1-P_1)}{n_1} + \frac{P_2(1-P_2)}{n_2}}} =$$

$$= \frac{0.036}{\sqrt{0.00016}} = 2.8366$$

Test-decision:

$$\varphi(y, y) = \begin{cases} 1 & \text{if } T < z_\alpha \\ 0 & \text{other} \end{cases}$$

$z_{0.01} = 2.326$ (critical value for a level of significance of 99 %).

It follows that the zero-hypothesis (no decrease of the share of car-as-driver 'with ITM') can be rejected with a probability of more than 99%. The reduction in car-as-driver trips achieved by the ITM project in the target area is therefore statistically highly significant.

Table A10: Overview of significance tests for car as driver reduction

	Persons	Trips
Level of significance	> 95%	> 99%

These values enable us to say with great confidence that the observed changes in mode choice among the ITM target population did not occur by chance.

Share of environmentally friendly modes

The statistical significance of the changes in mode choice was also tested for the achieved increase of the share of environmentally friendly modes (EFM = walking, cycling, public transport).

Persons

The following test can be performed. The zero-hypothesis and the alternative-hypothesis are:

$$H_0: P_1 \geq P_2$$

$$H_1: P_1 > P_2$$

$$P_1 = \text{share of EFM 'without ITM'}$$

$$P_2 = \text{share of EFM 'with ITM'}$$

The zero-hypothesis states that the EFM share 'without ITM' is larger than or equal to the EFM share 'with ITM'. If this zero-hypothesis can be rejected, there is an impact from the ITM on the increase in EFM use.

The calculation is done as a *t*-test for independent samples. The share of EFM 'without ITM' (39%) and 'with ITM' (43%) and the number of observed persons are the inputs (before: $n_1 = 1,135$; after: $n_2 = 1,035$).

For the test value the following formula exists:

$$T = \frac{P_1 - P_2}{\sqrt{\frac{P_1(1-P_1)}{n_1} + \frac{P_2(1-P_2)}{n_2}}} =$$

$$= \frac{-0.039}{\sqrt{0.00045}} = -1.8482$$

Test-decision:

$$\varphi(y, y) = \begin{cases} 1 & \text{if } T > z_\alpha \\ 0 & \text{other} \end{cases}$$

$z_{0.05} = -1.645$ (critical value for a level of significance of 95 %).

It follows that based on this test the zero-hypothesis (no increase of the share of EFM 'with ITM') can be rejected with a probability of over 95%. The increase in EFM usage achieved by the ITM project is statistically significant.

Trips

For testing on the basis of trips, the same test can be performed. The zero-hypothesis and the alternative-hypothesis are:

$$H_0: P_1 \geq P_2$$

$$H_1: P_1 > P_2$$

P_1 = share of EFM 'without' ITM

P_2 = share of EFM 'with' ITM

The zero-hypothesis states that the EFM share 'without ITM' is larger than or equal to the EFM share 'with ITM'. If this zero-hypothesis can be rejected, there is an impact from the ITM on the increase in EFM share.

The calculation is done as *t*-test for independent samples. The share of EFM 'without ITM' (39%) and 'with ITM' (43%) and the number of observed trips are the inputs (before: $n_1 = 3,341$; after: $n_2 = 2,645$).

For the test value the following formula exists:

$$T = \frac{P_1 - P_2}{\sqrt{\frac{P_1(1-P_1)}{n_1} + \frac{P_2(1-P_2)}{n_2}}} = \frac{-0.039}{\sqrt{0.00016}} = -3.0505$$

Test-decision:

$$\varphi(y, y) = \begin{cases} 1 & \text{if } T > z_a \\ 0 & \text{other} \end{cases}$$

$z_{0.01} = -2.326$ (critical value for a level of significance of 99 %).

It follows that the zero-hypothesis (no increase in the share of EFM 'with ITM') can be rejected with a probability of at least 99%. The increase of EFM usage in the ITM target area is highly statistically significant.

Table 11: Overview of significance tests for EFM increase

	Persons	Trips
Level of significance	> 95%	> 99%

These values enable us to say with great confidence that the observed changes in mode choice did not occur by chance.

In case of any queries regarding this report, please contact:

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