Involving Local Communities in Mobility Management - The TravelSmart Lessons in Perth, Australia

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1. Introduction

This paper provides a brief outline of the TravelSmart Individualised Marketing programme undertaken in Perth Western Australia. The information is embedded within a campaign framework that the programme was sold to key decision makers. The most up to date results of the latest large scale application are also presented.

Readers of this paper are encouraged to visit the TravelSmart website at www.dpi.wa.gov.au/travelsmart to obtain more depth and spread of information across the whole TravelSmart programme.

2. Barriers to Soft Options

The dependence on the car in everyday travel has increased enormously since the 1950's and has provided the community, many would argue, with a better quality of life. The external impacts of this growing dependency has however growing negative consequences for the environment and health and for many communities affected by road traffic. Transport planners are caught between the individual's life styles built on car dependency and the growing societal consequences of this dependency.

Prof Phil Goodwin has for some time questioning the ability the current transport policy and transport planning tools to provide a solution to this dilemma. The present discussion about ways of influencing people's choice of transportation tends to be dominated by proposals concerning infrastructure (new tramways, bicycle tracks etc.), behavioural control (road pricing, parking fees etc.) and/or restrictions (no-parking zones, speed limits etc.). In all of this, it is assumed that people have to be influenced 'from the outside' because they are not willing to adopt a pattern of sustainable mobility by themselves. An indicator of this 'from the outside view' is the little, if any, understanding by transport planners of people's travel behaviour.

The result is that soft policies that deliver simple behavioural changes in travel behaviour are often considered to be so radical that any attempt to initiate them is as a waste of money. The

development of transport policy in Perth, Western Australia, mirrors this dilemma and a widespread 'blind spot' in terms of seeing behaviour change as a viable policy option.

The following sections of this paper outline approach taken to remove the 'blind spot' and mainstream voluntary behaviour change as a normal policy intervention.

3. The Perth Campaign

The principles applied for the Perth campaign are based around the need to achieve confluence of three factors, as defined by Professor Hermann 'Dutch' Leonard[1]. As shown in Figure 1, the factors are:

Figure 1: Campaign Framework

1. Quantification of public value of the programme to the community, government and private sector.
2. Gather community support.
3. Build capacity to deliver the program.
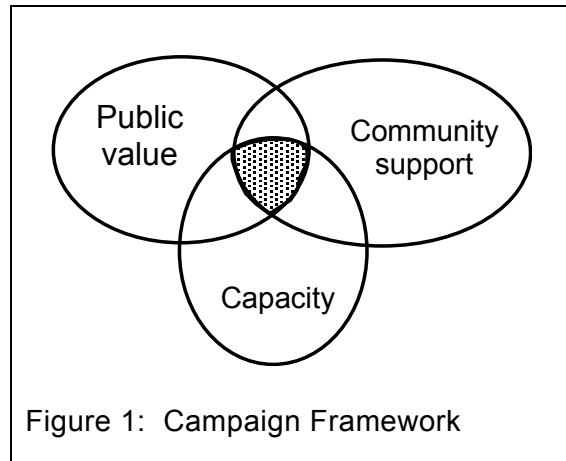
Within these three factors, the principles used are described.

Public Value

There are three fundamental questions that had to be answered to quantify public value:

1. Will people change their behaviour and by how much ?
2. If they change their behaviour, how long will it last ?
3. Could it be done without a negative community reaction ?

The measurement of change is essential to construct business cases for resources. The measure of success is the extent of people's behaviour change rather than differences in people's knowledge and attitudes. The other quantification has been the change in car use; the primary measure being changes in overall vehicle kilometres travelled. This measure of change in people's travel behaviour and car use has been fundamental in attracting sufficient resources.

Community Support

To build community support, a "campaign"[2] approach was adopted. This meant the development and implementation of strategies aimed at key decision makers. This ran concurrently with the collection of evidence as per the public value principle.

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[1] This concept were introduced by Professor Leonard, Dean for Teaching programs and Baker Professor of Public Management, John F Kennedy School of Government, Harvard University, at a public seminar in Perth, Western Australia on 22nd May, 2000.

[2] The term campaign is used in the context of influencing decision makers and not a social marketing campaign with mass media marketing.

The key aspects of the campaign to build community support were use of appropriate language, evidenced argument derived from research, stakeholder empowerment and garnering inter-sectoral support.

The use of appropriate language is important to build community support. The term Travel Demand Management or Mobility Management is difficult to understand and the word management implies constrained mobility. The branding "TravelSmart: Its how you get there that counts" was adopted to overcome this negative perception. It will not be used for regulation or other interventions that are likely to constrain mobility, therefore changing people's understanding of what the brand means.

Research is fundamental to the whole TravelSmart approach. The objective of the research was to build arguments for change based on evidence rather than ideology. The two primary research instruments were household travel surveys, to measure behaviour before and after the interventions, and a face to face indepth household survey to ascertain attitudes and perceptions and quantify the potential for behaviour change. The indepth surveys are of sub-samples of the household travel surveys.

Principles of empowerment used entail concepts of community learning, partnerships and providing people with skills. In the case of centralised programmes to deliver voluntary behaviour change, it is not about telling people to change but giving people the information, skills and motivation to choose the alternative modes to the car to suit their unique circumstances.

A key principle of the empowerment approach is for key opinion leaders and decision makers to realise that the sum of small travel behaviour changes each person makes delivers large effects. This results in:

1. People realising they don't have to sell their car or change their lifestyle.
2. Empowering people so that they know they can contribute to community good as well as gain personal benefits.
3. Local opinion leaders learning that there are many realistic opportunities for people in their community to change car trips to walking, cycling and public transport trips.

Identification of the beneficiaries and building cross-sectoral support is important to any campaign. This was added by quantifying the benefits in the different sectors. A proactive strategy was implemented to expose the potential for and effectiveness of behaviour change techniques to the following sectors:

1. public transport planners and providers,
2. cycling planners and advocates,
3. walking interests,
4. physical health advocates,
5. environmentalists, and
6. road planners and advocates.

These stakeholders were presented the results of the research by a series of presentations over a couple of years following the completion of milestones in the pilot project and research. An example was a presentation made to politicians of all parties of how the project works followed by a visit to the telephone room during the first large scale Individualised Marketing project.

Capacity.

Having the capacity to deliver programmes is as fundamental as having proven public value and built community support. Implementing travel behaviour change using voluntary measures is a new activity in the transport sector.

This has meant the need to pick and enhance proven programmes, such as Individualised Marketing developed in Germany for public transport and Safe Routes-to-School developed in the United Kingdom. These have been enhanced through continuous improvement after each application of the intervention.

The capacity issue is applicable for not only the Department for Planning and Infrastructure but also the private sector, local government and organisations (responsible for managing major trip attractors). This also links closely to empowerment of these organisations.

4. Potential for Behaviour Change

The indepth household surveys identified strong community support for programmes favouring more walking, cycling and public transport. This became a crucial starting point to enlist the interest of political decision makers. Use of an indepth research technique developed and applied by Socialdata Australia was able to quantify the theoretical potential for behaviour change (Brög, Erl, Funke and James, 1999).

The indepth research was able to identify that for 55% of trips (see Figure 2), people had no option but to continue using either the motor car or environmentally friendly modes (walking, cycling and public transport). The reasons include having to carry luggage, lack of a driver's licence, or it is too far to walk.

Conversely for the other 45% of trips, people had the option of using the environmentally friendly modes or using a motor car as a driver or passenger. The size of this "choice market" is available without having to provide additional public transport services or cycling and walking infrastructure. In Perth they chose the motor car for 78% of the "choice market" trips. The objective of TravelSmart is to increase the choice market share for the environmentally friendly mode trips (as shown by the arrow).
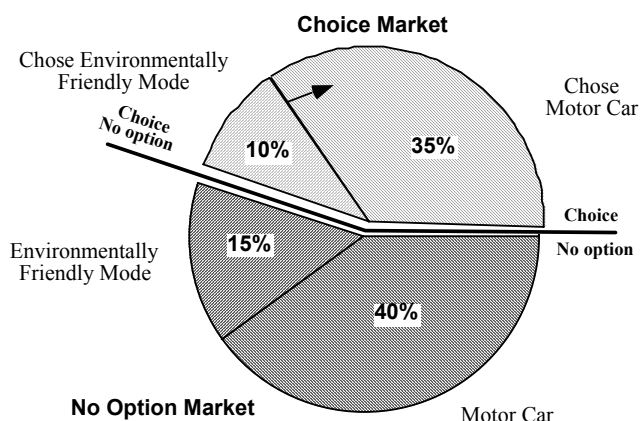

Figure 2: Potential for Behaviour Change

The key take-out message from this research is the debate shifts from whether people can change their behaviour to which technique to use. It also recognises that for many trips people have no option other than using their cars.

5. Achieving Behaviour Change

Positive answers to the three public value questions was the key criteria for the developing and testing of the various TravelSmart initiatives, especially the Individualised Marketing intervention. The results presented in this paper apply to the whole population rather than just the 'Interested' or 'Regular User' groups.

The main programme designed to deliver behaviour change on a large scale is the use of a dialogue marketing technique called Individualised Marketing. This is a customer friendly empowerment programme that combines informing, skilling and motivating people to change some of their car trips to walking, cycling and public transport trips.

Figure 3 is an outline of how the technique works. The following description uses the results of the large scale application.

The intervention begins by reaching all households by telephone, where it is possible to match name, telephone number and address, being telephoned. In the case of the Cities of South Perth and Cambridge, this added up to 24,700 households in a population of 59,000 people. Ninety four per cent of the households were reached and through a series of questions, each household was segmented into the following three categories:

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┌─────────────────────────────────────────────────────┐
│                  Before Benchmark                   │
│              Random sample travel survey            │
└─────────────────────────────────────────────────────┘
                        │
               ┌────────────────┐
               │ Direct Contact │──────── 7% not contactable
               └────────────────┘
                        │
┌─────────────────────────────────────────────────────┐
│                     Selection                        │
└─────────────────────────────────────────────────────┘
        │                  │                   │
     ( 16% )            ( 37% )             ( 40% )
        │                  │                   │
┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│ Regular user │   │  Interested  │   │Not Interested│
│  of public   │   │   in using   │   │   in using   │
│ transport and│   │an alternative│   │an alternative│
│   cycling    │   │mode to the car│  │mode to the car│
└──────────────┘   └──────────────┘   └──────────────┘
        │                  │                   │
        │          ┌──────────────┐            │
        │          │  Motivation  │            │
        │          │Direct contact│            │
        │          └──────────────┘            │
        │                  │                   │
        │     ┌────────────────────────────┐   │
        │     │        Information         │   │
        │     │Public transport  Stop specific timetables│
        │     │Bicycle           Cycle brochures         │
        │     │Walking           Local walking guide      │
        │     └────────────────────────────┘   │
        │                  │                   │
        │     ┌────────────────────────────┐   │
        │     │     System Experience      │   │
        │     │Home visit for public transport│ │
        │     │(incl test ticket) and cycling │ │
        │     └────────────────────────────┘   │
        │                  │                   │
┌─────────────────────────────────────────────────────┐
│                    Evaluation                        │
│  Random or panel travel survey tomeasure behaviour change │
└─────────────────────────────────────────────────────┘
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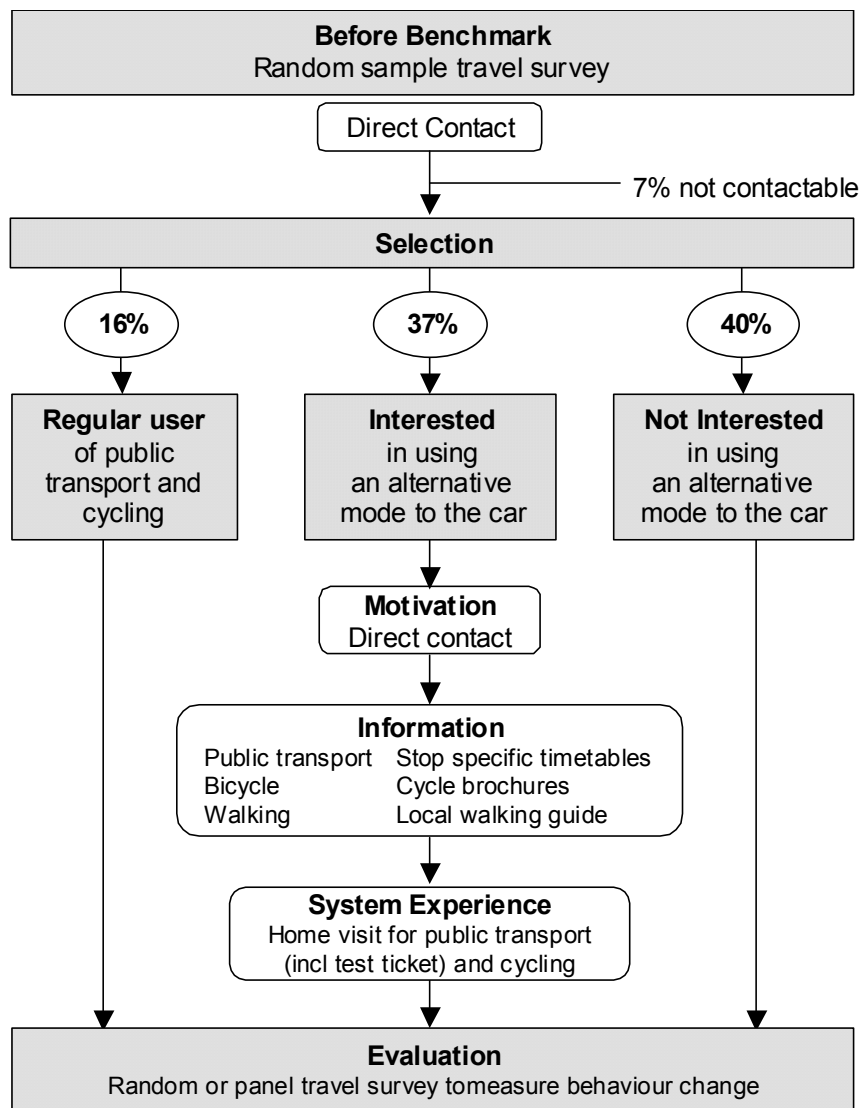
Figure 3: Individualised Marketing process.

Households with a strong interest in using public transport but are not regular users are offered a home visit by bus drivers from the local public transport bus operator. In this circumstance, households may be offered a test ticket allowing them free use of public transport for a period of time. The principle applied is that people can also change their behaviour through experience.

On completion of the intervention and after the test tickets have expired, a random sample of households in all three segments complete a one day travel diary. In future programmes it is planned to also use a panel sample selection to allow clearer identification of which population groups change their behaviour.

Category	Attributes	Action
Regular user	Already walk, cycle and use public transport on a regular basis (15%).	Provide requested information and a reward for their current behaviour.
Not interested	Not interested in using alternative modes to the car (39%).	Leave alone. This is important as it minimises a negative response from elements of the community to the programme.
Interested	Interested in using alternative modes t the car (40%).	These households are offered a range of information materials. For public transport it includes a local route map and pocket timetable for the bus stop nearest their house. For cycling a series of brochures on cycling issues (eg cycling and the law) and a local cycling route map were offered. For walking a "Heart Movers" kit developed by the Heart Foundation.

Pilot Test

A pilot test was undertaken to find out if the Individualised Marketing technique would work in the Perth context. Prior to the pilot test, there was extensive evidence on the success of the technique in Germany in increasing public transport patronage.

The pilot test showed a 10% decrease in car driver trips through a 90% increase in cycling trips, 20% increase in public transport trips and a 16% increase in walking trips. The level of mobility measured by the number of trips people made (3.4 per day) and the number of places they went to remained constant. People on average increased their daily physical activity through walking and cycling by 4 minutes per day. These results apply to the whole community, including those who chose not to participate in the programme.

Survey work has shown that this behaviour change was sustained two years after the pilot project was completed. The results are shown in Table 1.

A number of control groups were used to ascertain if there were any changes in travel behaviour over the two years due to external affects. For the November 1997 after survey a control group with a sample size of 153 households were also surveyed. A control group with a sample size of 207 households was used for the November 1998 after survey. In both cases there were no external changes in travel behaviour detected. The control group samples were randomly selected from households within the City of South Perth.

The February 2000 sample raised the issue of seasonal effects. To deal with this, a previous continuous travel survey over a twelve month period in Perth was used. The only available survey of this nature was undertaken in 1986. The February 2000 results were adjusted accordingly. A control group survey was not undertaken for the February 2000 survey.

Table 1: Behaviour change achieved by the Pilot Test

Base Sept 97	Main Mode	After Pilot Test		
		Nov 97	Nov 98	Feb 2000
12%	Walking	14%	15%	14%
2%	Cycling	4%	4%	4%
60%	Car as driver	54%	53%	54%
20%	Car passenger	21%	21%	21%
6%	Public transport	7%	7%	7%
3.4	Trips per person per day	3.4	3.4	3.4
n = 383	Sample size - households	n =172	n = 206	n = 145

First Large Scale Application

A large scale application of this project to the 15,300 households achieved a better result than the pilot project. The large scale results are shown in Table 2.

Table 2: Behaviour change achieved by the First Large Scale Application.

Base Sept 97	Main Mode	After Evaluation Survey		
		Oct 2000		October 2001
		Mode Share	Extent of change	Mode Share
12%	Walking	16%	+35%	16%
2%	Cycling	3%	+61%	4%
60%	Car as driver	52%	-14%	52%
20%	Car passenger	22%	+9%	21%
6%	Public transport	7%	+17%	7%
3.4	Trips per person per day	3.4	3.4	3.4
n = 383	Sample size - households	n = 706		N = 798

The electronic public transport ticketing system covering those routes that operate within the City of South Perth were also interrogated. The previous year was compared with the years after the intervention. The change in patronage for initial boardings, that require the payment of a fare and excludes transfers, is shown in Figure 4.
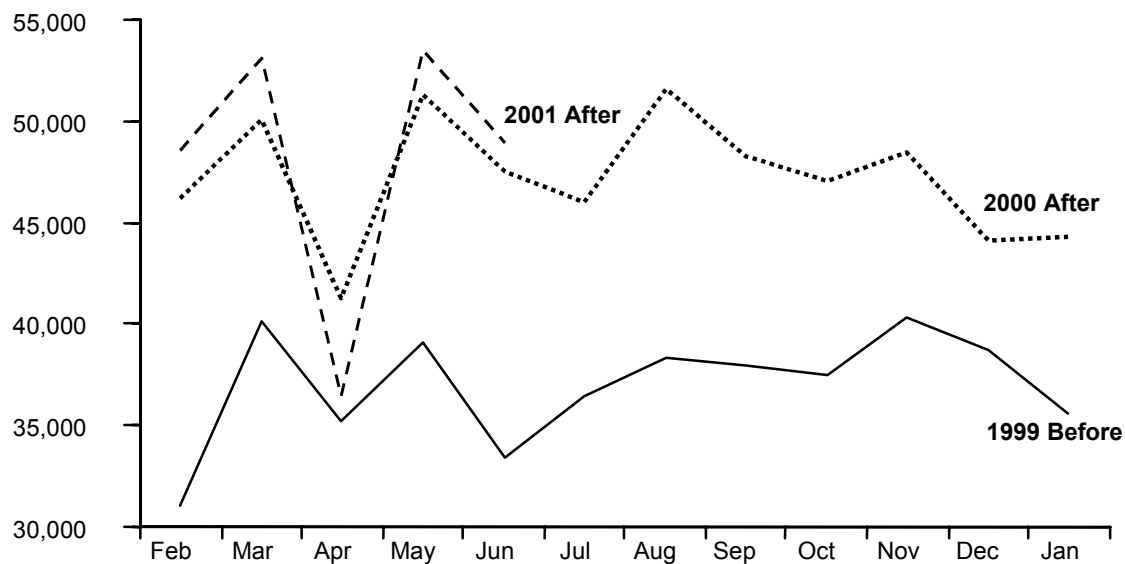
Figure 4: Public Transport (Bus) Initial Boardings for South Perth

The relative increase shown in the graph is a relative increase of 24%. However about 17% of this is claimed to be due to the Individualised Marketing project and the other 7% due to an improvement in inter-peak frequency.

Second Large Scale Application

The second large scale application has been delivered to the City of Cambridge the 9,400 households. The large scale results are shown in Table 3.

Table 3: Behaviour change achieved by the Second Large Scale Application.

Base Dec 2001	Main Mode	After Evaluation Survey	
		Oct 2002	
		Mode Share	Extent of change
10%	Walking	11%	+11%
2%	Cycling	3%	+67%
60%	Car as driver	56%	-7%
25%	Car passenger	20%	-7%
3%	Public transport	4%	+24%
3.83	Trips per person per day	3.73	
n = 1,394	Sample size - people	n = n/a	

The assessment of the bus patronage for the routes through Cambridge, as shown in Figure 5, shows an increase of 11% from April 2002 to January 2003.
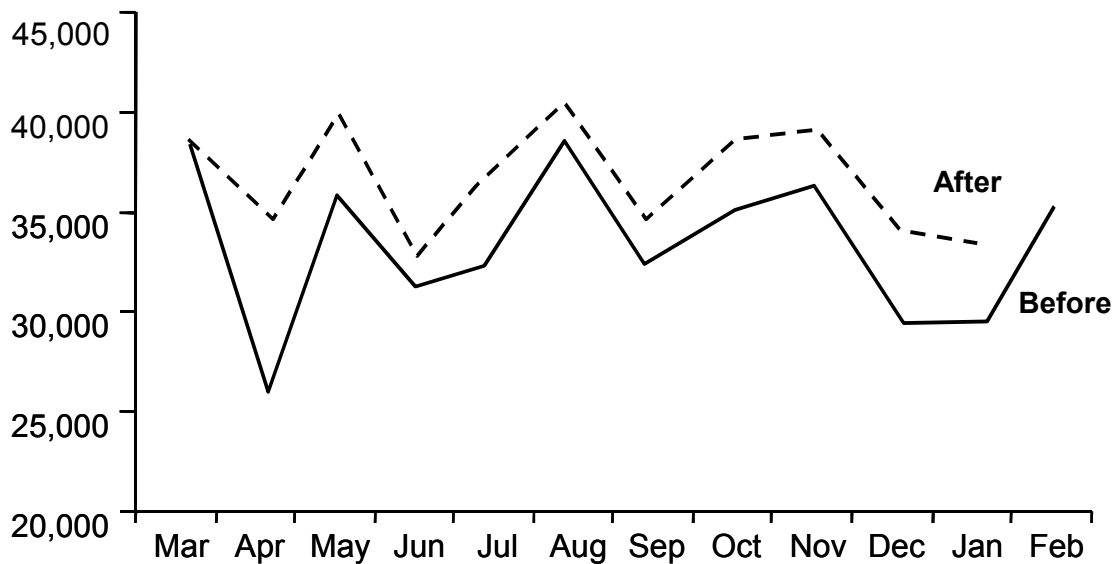
Figure 5: Public Transport (Bus) Initial Boardings for Town of Cambridge

6. Future Programme

The programme has been delivered to the suburb of Marangaroo (10,000 people), City of Subiaco (15,000 people) and is currently being delivered to parts of the Cities of Melville and Fremantle (40,000 people).

The remaining challenge is to use the results of the indepth and observed behaviour change and build it into traditional four stage transport models that are used to predict public transport patronage and road traffic volumes. When this is achieved, soft policy options can be tested as stand alone interventions or in conjunction with major public transport projects.

7. Local Government Programme

A parallel programme has been undertaken with local government authorities in the individualised marketing programme. The before surveys for the individualised marketing interventions provides valuable information on the travel behaviour of constituents in the local authorities where the surveys were undertaken. This information was used in a community development approach with these communities.

The community development approach entailed the following components:

1. Information on the travel patterns of the community which was used to inform the local community.
2. Identification and involvement of key opinion leaders in a community planning group.
3. The development of an action plan by the community planning group and the local authority.

One of the valuable experiences learnt was the follow up to ensure the effective delivery of the action plan and new council decisions being consistent with the objectives of the action plan. This is in part due to the need for local authorities to undertake an organisation cultural change process that is requires an ongoing process over two or more

years. The provision of funding to employ local TravelSmart officers was developed to address this issue.

Copies of completed action plans and local travel survey resource booklets are available on the TravelSmart website.

8. Conclusions

The work undertaken to mainstream an effective soft policy intervention in Perth, Western Australia has achieved widespread recognition. The work was embedded within a campaign framework to convince decision makers that it is an effective and worthwhile programme. The emphasis has been on argument built on evidence rather than ideology or an existing faith that 'if you build it, they will come'.

References

[1]   Brög, W., Erl, E., Funke, S. and James, B, 1999, "Potential for Increased Public Transport, Cycling and Walking Trips", 23rd Australasian Transport Research Forum, Perth, Western Australia, pp 257-302.