

Stepchange in Scotland

Don Nutt
Steer Davies Gleave

Crawford McGhie
East Dunbartonshire Council

1. INTRODUCTION

1.1 Background

Stepchange is a new initiative for Scotland with the aim of promoting greater car efficiency and encouraging alternative forms of transport, through a personalised and targeted approach, applying a variety of interventionist tools. Now in its second year, the project is grant aided by the Scottish Executive under Section 70 of the Transport (Scotland) Act 2001. Year 2 has seen some maintenance of **stepchange** in the original pilot areas and the extension into five new areas.

1.2 Objectives

The four key objectives, developed and agreed by the steering group in year one, are to:

- promote travel choice, and reduce car use;
- develop a Scottish voluntary behaviour change model to reduce car use;
- evaluate pilot project outcomes; and
- disseminate knowledge and examples of good practice.

1.3 Pilot Projects

In year 1, three pilot projects were undertaken in diverse communities across Scotland – Inverurie in Aberdeenshire, Bishopbriggs in East Dunbartonshire and Paisley in Renfrewshire. The second year of pilots focused on areas of higher car ownership, which was found to be more effective in year 1, as well as importantly including a city environment. The four pilots were undertaken in Aberdeen City, Bearsden and Inverurie in East Dunbartonshire and East Kilbride in South Lanarkshire.

1.4 Partners

Behind **stepchange** is a diverse range of organisations and individuals with different skills and experiences. This has added strength, depth and quality to the project. The Scottish Executive is the primary sponsor. Six local

authorities (Aberdeenshire, East Dunbartonshire, Renfrewshire, South Lanarkshire, City of Aberdeen and the City of Edinburgh Council) contributed local knowledge and accessibility to local stakeholders, as well as considerable in-kind contribution of staff resources.

The transport consultants on the pilot programme are Steer Davies Gleave who implemented the behavioural change programme on the ground. Allied to SDG are public affairs consultants PPS, whose primary task is the media and awareness raising aspects of **stepchange**. The Scottish Institute of Sustainable Technology (SISTech) is overall Project Manager, and has responsibility for conducting the project evaluation.

2. OVERVIEW OF THE APPROACH

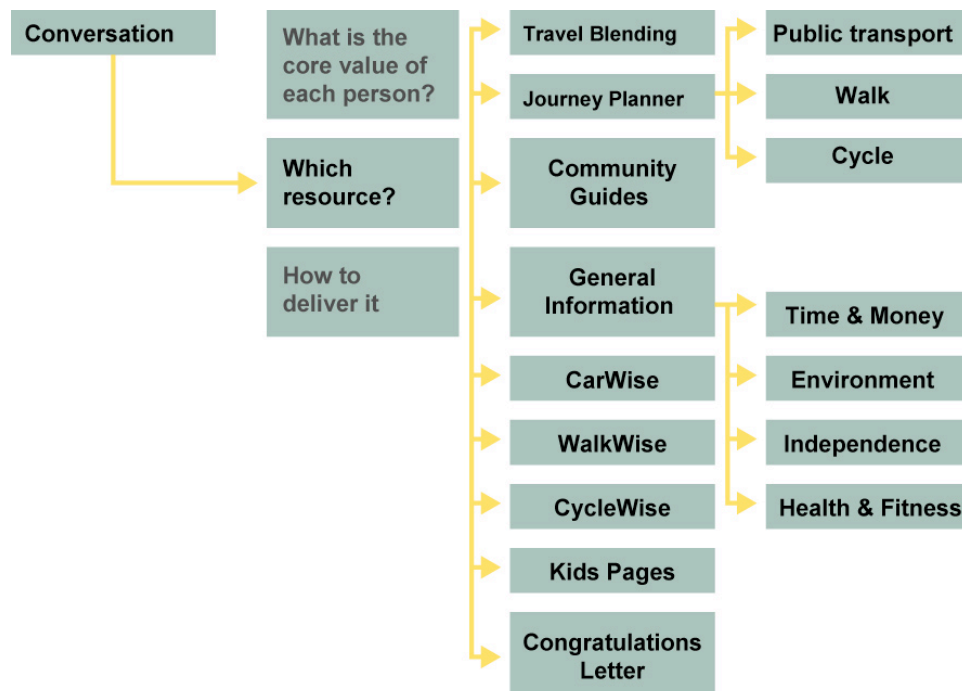
2.1 Personal Approaches

The core work of **stepchange** involves personal approaches to people in schools, workplaces and in their homes, work with community groups and attendance at local events. The aim of this is to create opportunities to speak with people about the way they travel and to identify any frustrations and concerns they may have in relation to travel. From these discussions the **stepchange** team endeavours (wherever possible) to help people generate ideas and strategies about how their frustrations and concerns might be addressed in ways that will make travel more sustainable and healthy.

The **stepchange** intervention phase is run from specially equipped project offices, and involves a trained local team that works to contact residents in each selected community. The team utilises a range of interventions and written materials.

At the heart of the **stepchange** approach is a conversation with individual participants that is conducted by the project “conversationalists”. Contact with people in their homes is made on a household-by-household basis, either over the phone or, where telephone numbers are not available, on the doorstep. A schedule is drawn up for door-knocking and phoning so as to spread the set number of attempts to find someone at home over different times of the day and days of the week in order to maximise the chance of speaking to people. Figure 1.1 illustrates the key stages in the conversation and the resources offered.

FIGURE 1.1 KEY STAGES IN THE CONVERSATION



Schools and workplaces in the project areas are approached and invited to participate in **stepchange** activities tailored to their needs. For schools, for example, this can range from a parents evening to traffic counts or setting up a Walking Bus. For workplaces this could include developing a travel plan, conducting a sustainable transport event or preparing personalised journey plans for staff.

Wherever possible, staff attend community group meetings with the aim of informing group members about **stepchange**. In some cases group members become active participants in the project through visits like this. In addition, the **stepchange** team can also run community events and activities that are designed to inform members of the target communities about the project and to offer an opportunity for them to participate in the project.

An external evaluation is used in the form of a before and after survey to pick up on any post-intervention travel behaviour change. A control group is also used to smooth out external influences on travel patterns.

2.2 Tailored Resources to Encourage Travel Behaviour Change

The following resources were used the Year 2 projects.

- **Community Guide:** a booklet containing a description of local facilities and community resources within each target community.
- **Journey Plans:** a tailor made booklet describing a specific journey by a specific mode (or modes) of transport that has been requested by someone during the engagement process.
- **Travel Blending®:** a diary-based system for tracking travel behaviour over a set period of time. Diary entries are analysed, and feedback is generated that offers householders very specific ideas and tips on how they could use their cars more efficiently. Includes an optional second diary process that enables householders to compare their first results with the second, and therefore, to see what changes have been made as a result of implementing the tips.
- **Walkwise:** a generic booklet describing the benefits of walking more frequently as well as some of the key points for those who are not used to walking to consider.
- **CarWise:** a generic booklet providing tips on efficient car-use.
- **CycleWise:** a generic booklet describing some of the key things for new cyclists (or anyone who has not used a bike for some time) to consider.
- **Congratulations:** a purpose-written letter offering positive reinforcement to people who are already making serious efforts to travel more sustainably more often.
- **Ideas:** a purpose-written letter that summarises a conversation that has led to an idea that will enable a householder (or household) to travel more sustainably. These letters are designed

to reinforce the outcomes of the conversation and encourage the person/s to follow through with their action plan.

- **General Information – Environment:** a leaflet describing the environmental impacts associated with high levels of car use and offering general tips on how to reduce these impacts.
- **General Information – Health:** a leaflet describing the health benefits of using active forms of transport more often.
- **General Information - Time/Money:** a leaflet summarising how to achieve time and money savings by using cars more efficiently.
- **General Information - Young/Independent:** a leaflet highlighting the benefits of having independent mobility and describing how alternative modes of transport can support independent mobility.
- **Kids' Pages:** a set of 4 age-specific booklets designed to give younger householders the opportunity to get involved in the Stepchange project.

3. RESULTS AND OUTCOMES

3.1 Participating Households

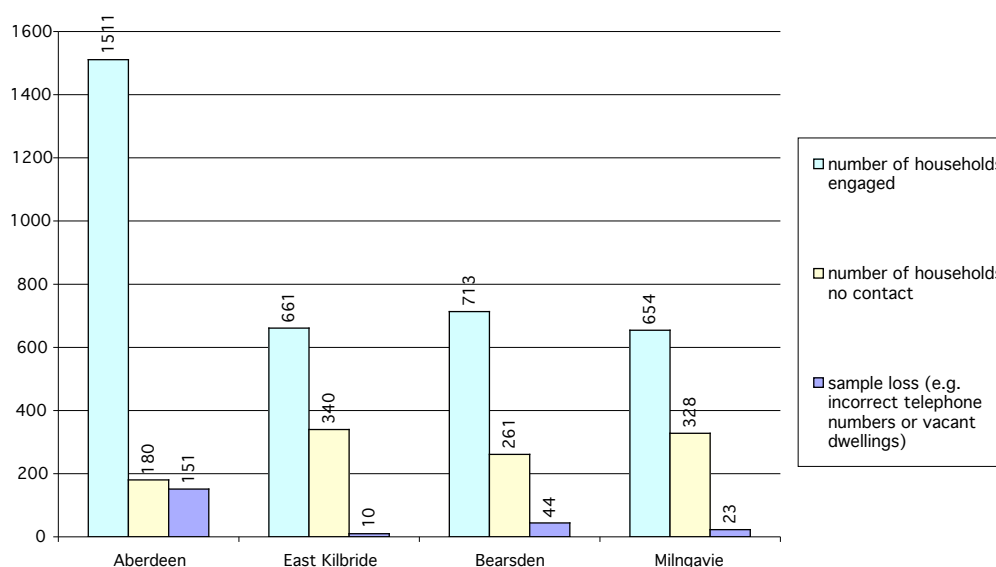
In Year 2 in total, attempts were made to reach 7,035 households in four project areas by either telephone (33%) or door knocking (67%). A total of 3,539 households were engaged in conversation, and a total of 2,611 households chose to participate in the project by receiving one or more resources. This represented a significant increase in household contact from year 1 as Table 3.1 shows.

TABLE 3.1 HOUSEHOLD ENGAGEMENT: COMPARISON OF YEAR 1 AND YEAR 2

	Year 1 Number of Households	Year 2 Number of Households	% Increase
Target Households	3,139	7,035	124%
Engaged Households	1,745	3,539	103%
Participating Households	916	2,611	185%

The number of households targeted was 124% higher than in year 1, with 103% more households being engaged. However the number of participating households (those who chose to receive one or more resources) rose by 185% with nearly three times as many households receiving resources than in year 1. Figures 3.1 and 3.2 show the breakdown of engaged households and participating households, respectively, by project area.

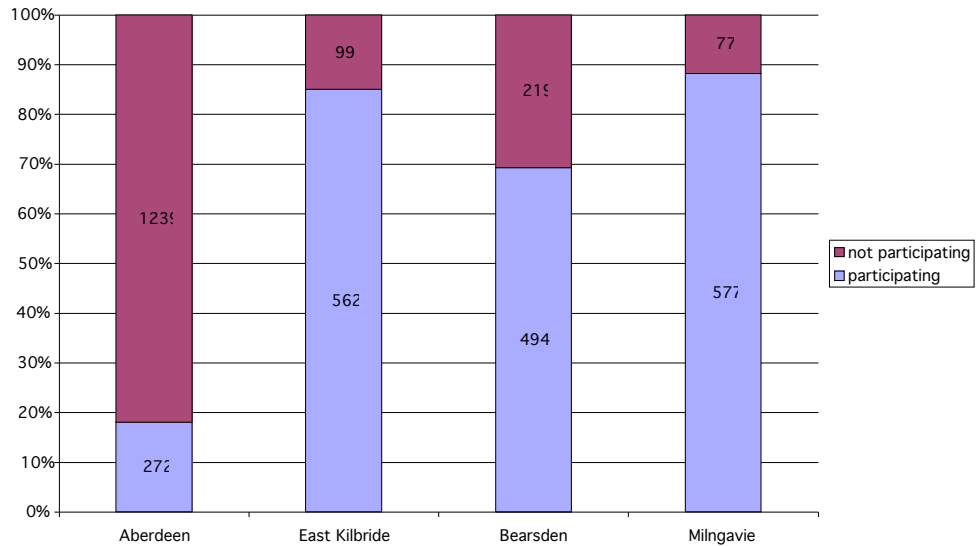
FIGURE 3.1 ENGAGED HOUSEHOLDS BY PROJECT AREA



It is important to note that approximately half of the target households in the Aberdeen project remained *potential* at the end of the intervention period. In other words, they did not receive the full allocation of 6 telephone calls or 3/4 door knocks that the stepchange methodology calls for, and a conversation

was not held with them. The implications of this will be apparent when considering the rates for participation in **stepchange**. It is prudent to bear this in mind throughout this results section.

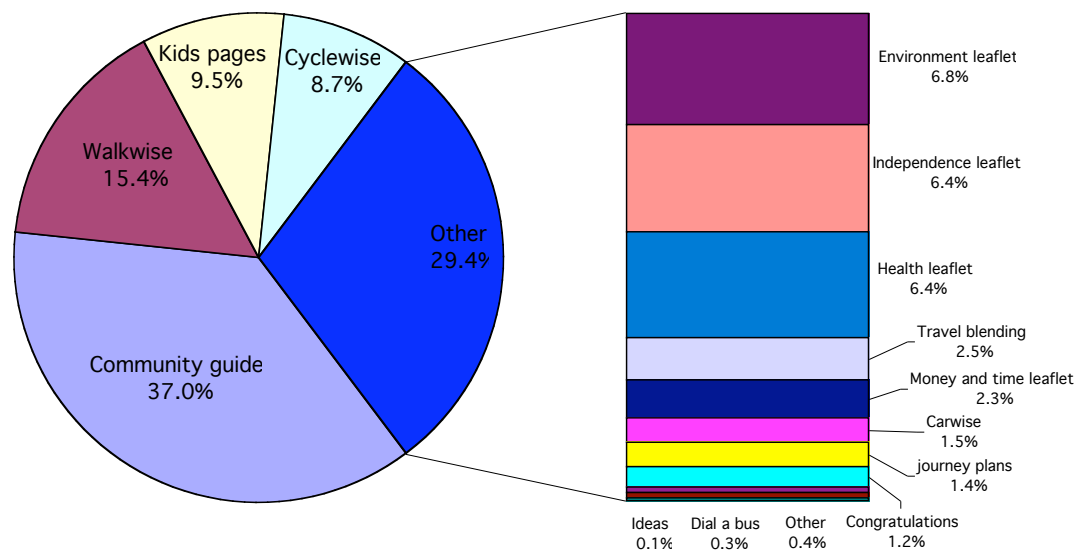
FIGURE 3.2 PARTICIPATING HOUSEHOLDS BY PROJECT AREA



3.2 Resource Take Up

Figure 3.3 shows the distribution of all **stepchange** resources that were issued as part of the Year 2 projects. The most popularly issued resource was the community guide, followed by walkwise, kids pages and cyclewise resources.

FIGURE 3.3 STEPCHANGE RESOURCES DISTRIBUTED TO HOUSEHOLDS



3.3 Internal Evaluation

An independent evaluation was carried out by SISTech and the results are presented in section 4. However, the **stepchange** implementation team also carried out an internal evaluation in order to better understand the effects of different elements of the **stepchange** methodology, and to enable the team to constantly improve on the techniques applied.

Follow up Calls to Participating Households

After completion of the contact phase in all four project areas, the **stepchange** project teams made follow up calls to a 10% random sample of participating households (households that had agreed to take one or more resources). This follow up aimed to:

- Establish the usefulness of the received resources;
- Gauge what the impact of the conversation was on awareness raising; and
- Probe whether the conversation and the resources led to travel behaviour change.

Table 3.3 presents the feedback from this exercise.

TABLE 3.3 USEFULNESS AND IMPACT OF STEPCHANGE CONVERSATION

	Aberdeen (38 hholds)	Bearsden (56 hholds)	East Kilbride (41 hholds)	Milngavie (51 hholds)
Found conversation useful	75%	46%	40%	48%
Thought about conversation afterwards	53%	39%	51%	37%
Told others about conversation	72%	53%	68%	31%
Conversation/resources led to personal travel behaviour change	35%	17%	12%	24%
Conversation/resources led to travel behaviour change for other household members	11%	10%	13%	12%
Understood the merit of small travel behaviour change, even if carried out occasionally	84%	52%	35%	41%

Notably, 75% of participating households in Aberdeen, contacted for feedback, found the **stepchange** conversation useful in thinking around travel issues and possible small changes, this proportion was lower for Bearsden (46%), East Kilbride (40%) and Milngavie (48%).

In both Aberdeen and East Kilbride, at least half of these households said that they had thought about the conversation afterwards and, encouragingly, over two-thirds said that they told others about the conversation, thereby spreading the **stepchange** message.

35% of respondents in Aberdeen stated that the **stepchange** conversation and associated resources led to a personal travel behaviour change, whilst figures for Bearsden and East Kilbride were around half this, and for Milngavie somewhere between. That the **stepchange** conversation had resulted in a travel behaviour change for other household members was reported by around 1 in 10 of participants contacted for feedback.

84% of Aberdeen households contacted for the evaluation stated that they understood the merits of just a small travel behaviour change. In Bearsden around half and in East Kilbride around a third of all respondents stated so too. In Milngavie around 1 in 4 households stated they understood the merits of even a small travel behaviour change.

4. INDEPENDENT EVALUATION

4.1 Methodology

The Cults area in Aberdeen was the target for the independent evaluation by SISTech. The results presented are therefore for the Aberdeen project only.

A combination of a postal questionnaire and follow-up telephone interviews were conducted. The evaluation questionnaire was sent to the entire population of households, targeted for **stepchange** intervention, in the Cults project area (“study” group). A control group was selected on the basis of similarity to the study group, as determined by the relevant Local Authority, to remove the effects of background “noise” such as weather, major traffic disruptions and other variable factors.

A four-page questionnaire was sent out at the end of May 2004 to 2,635 households in the study and control areas of Aberdeen, to gather baseline data prior to intervention by the **stepchange** team. Respondents were asked to record travel modes for all trips made by members of the household in the previous 7 days. A repeat questionnaire was sent out at the end of October 2004, to the same households, immediately after intervention, with additional questions on awareness of **stepchange**.

4.2 Survey Response

A total of 1055 questionnaires were returned and analysed. Average survey response rate was 23% in the study area and 12% in the control area, compared with an average of less than 9% in year one. This was achieved by a combination of freepost return envelopes, a shortened questionnaire and telephone follow-up interviews. The better timing may also have had an effect.

One hundred and twenty-four responses (28% of the study group) in the second survey – “after” **stepchange** – were from households that had been contacted successfully by conversationalists during the **stepchange** intervention, as reported by the implementation team.

Some 232 questionnaires were received from “repeat” respondents in the study area – 55% of the total pre-implementation survey – and these households can be pair-matched. Of these, 72 returns (31 % of all repeats) were from households that had been contacted successfully during the **stepchange** intervention.

4.3 Awareness of stepchange

In the “after” survey, a total of 214 returns (48%) from the study area were from households that answered “Yes” to the question “Have you heard of **stepchange**?” (in this paper these are called “**stepchange** aware”). 113 of

repeat respondents answered yes to this question (49% of all repeats). 5% of the control group also answered “yes”.

Of the 326 responding households in the study area that had *not* been directly contacted by the implementation team, 125 households (38%) claim to recollect the **stepchange** name or concept, i.e. they answered “yes” to whether they had heard of **stepchange**. These households, along with **stepchange** aware households in the control group, will include those that heard of **stepchange** indirectly: from media coverage, at work or in discussion with friends or family. This indirect awareness appears much greater in the study area than in the control area.

4.4 Modal Split before and after stepchange

To detect overall changes in travel patterns the average modal split was calculated. Comparisons between before and after (**stepchange**) modes of travel were carried out on:

- full returns in each of the sample populations,
- matched sample populations, (i.e. same households before and after),
- **stepchange** aware and **stepchange** unaware households

To enable comparison between different sample sizes, household data is presented in terms of the number of journeys per household, per week, and modal split as the percentage of total journeys. Individual data is presented as number of journeys per person, per week. A breakdown of results is shown in Appendix II.

The following sections summarise the findings and, for clarity, all data are given as percentages only. For our purpose (identifying reduction in car-use, in favour of more sustainable transport modes), the tables combine the major sustainable modes but, out of interest, public transport is also shown separately. Use of “Other” modes – such as motor-cycle and taxi – is relatively very small and is not included in this summary.

Modal Split: Study Group versus Control Group

The first task was to identify the overall modal split in each population, before and after the intervention of **stepchange**. Table 4.1 summarises the results.

TABLE 4.1 MODAL SPLIT ALL HOUSEHOLDS

		Car	Sustainable*	Public transport
Study Group	Before	71.9%	26.6%	6.9%
	After	73.5%	25.1%	7.1%
Control Group	Before	63.3%	35.4%	10.3%
	After	72.7%	24.9%	13.7%

*the sum of walking, cycling, public transport and getting lift from other households

This indicates that, overall, the percentage of car journeys increased in both groups, but by rather less in the study area than in the control area. Use of sustainable modes was reduced in both groups but by less in the study group. Use of public transport appears to be higher in the control area than the study area.

The main focus of the evaluation was to identify household travel behaviour, but data was also captured from over 800 individuals. These individual responses form a sub-set of the household data, and the results more likely to represent adult behaviour. And, because it asked individuals to report only their own travel behaviour, it could be argued to be more accurate than overall household data. Table 4.2 shows that the individual data is reasonably consistent with whole household data.

TABLE 4.2 MODAL SPLIT ALL INDIVIDUALS

		Car	Sustainable*	Public transport
Study Group	Before	69.9%	21.1%	6.2%
	After	72.2%	19.4%	6.0%
Control Group	Before	58.8%	33.3%	10.7%
	After	67.6%	22.6%	11.7%

Data was further analysed using only matched pairs (i.e. those repeat respondents), and this is shown in table 4.3. Matched pairs form a large (circa 50%) sub-set of the whole population, and results show a true comparison of before and after reported travel behaviour for those households.

TABLE 4.3 MODAL SPLIT MATCHED HOUSEHOLDS

		Car	Sustainable*	Public transport
Study Group	Before	69.0%	29.4%	7.5%
	After	71.4%	27.3%	8.0%
Control Group	Before	60.2%	36.7%	9.9%
	After	63.7%	33.8%	16.9%

Overall trends are consistent here although the changes in the control group behaviour are not as marked as shown above. However, as the analysis “drills down”, sample size becomes smaller and outliers have a greater effect. An unusually high, and inexplicable, jump in reported public transport use in the control group may have distorted these overall figures.

Seasonality

Due to project timing restraints, the before and after surveys were conducted in the same year, 5 months apart. As a result, one function of the control group was to highlight any effects of weather and / or seasonality. As noted above, the control group showed the most marked increase in car-use between the before and after surveys, and a corresponding reduction in sustainable modes – could this have been due to seasonality? It seems reasonable to assume that walking and cycling would be influenced by weather and could be less prevalent in cooler weather in the autumn, causing an increased tendency to use the car.

According to the most recent study on the effects of seasonality on Scottish households’ travel behaviour in terms of walking and cycling (Scottish Executive, 2002)¹, people tend to walk and cycle less in the 4th quarter (Oct-Dec).

Conversely, seasonal data extracted from the Scottish Transport Statistics², on the frequency of driving for people aged 17+, showed a tendency in recent years to greater car-use (at least once per week) in the fourth quarter.

4.5 Conclusions

Considering these results, and further analysis undertaken by SISTech, the following points were concluded:

- In all groups, there appears to be an increased use of the car as a mode of transport in October/November than in May/June (as a percentage of all journeys);

¹ Statistical Bulletin: Transport Series (Trn / 2002/ 4), May, 2002, Scottish Executive, Chart G, pp14

² Pers. comm. Scottish Executive, February 2005

- That increase appears less marked in the population in the study area;
- Use of public transport in the study area increased between May/June and October/ November (as a percentage of all journeys) in households that had heard of **stepchange**;
- Individuals that have heard of **stepchange** appear to use car 4% less and sustainable modes 6% more, in October/ November, than their neighbours that have not heard of **stepchange**;
- Awareness of **stepchange** in households that had *not* been directly contacted by the implementation team was >3 times greater in the study area than in the control area;
- Over 40% of all households demonstrated a negative modal shift between May/June and October/November, regardless of **stepchange**;
- The greatest *positive* modal shift (42%) was found in the group that had heard of **stepchange**, some 7-9% higher than other (control) groups;
- This same group is less disposed to make no change in behaviour (15%) compared with controls (23-24%).

The data gathered in the independent evaluation is consistent with the proposition that **stepchange** does influence travel behaviour.

5. LINKS TO OTHER LOCAL AUTHORITY ACTIVITIES

The **Stepchange** project, because of the focus on implementation of “on the ground” activities has proven to be a very useful resource to many other areas of local authority policy delivery. Interaction between **Stepchange** staff and other Officers has been most noticeable in East Dunbartonshire because of this Council’s role as host authority. The following provides an overview of where partnership working has been most prominent.

East Dunbartonshire Council is currently in year 2 of a three year Scottish Executive funded Walking and Cycling infrastructure improvement programme. Part of this project focuses on personalised promotion and marketing of the new infrastructure once it has been established. The Council’s Partnership Officer – Travel Awareness is responsible for leading on these aspects of the project and has become fully involved with the **Stepchange** team in order to learn the basic methodologies. Conversely, during their conversations with residents and schools in Bearsden and Milngavie, the **Stepchange** team have highlighted the new infrastructure to appropriate project participants.

The **Stepchange** community guides produced in East Dunbartonshire for Bishopbriggs, Bearsden and Milngavie have been extremely popular. These guides have been promoted through the Town Centre Steering Groups which are co-ordinated by a Council Officer. The Council has also used additional funding from WESTRANS to produce, in partnership with **Stepchange**, community guides for other settlements within the local authority area. These guides encourage a reduction in travel through promotion of local facilities and also highlight walking, cycling and public transport journey opportunities. Using the same WESTRANS funding East Dunbartonshire Council also produced a Comprehensive Public Transport Guide which was nominated for a Scottish Transport Award in 2004. It is proposed that this guide will be updated and redistributed to all East Dunbartonshire residents this year.

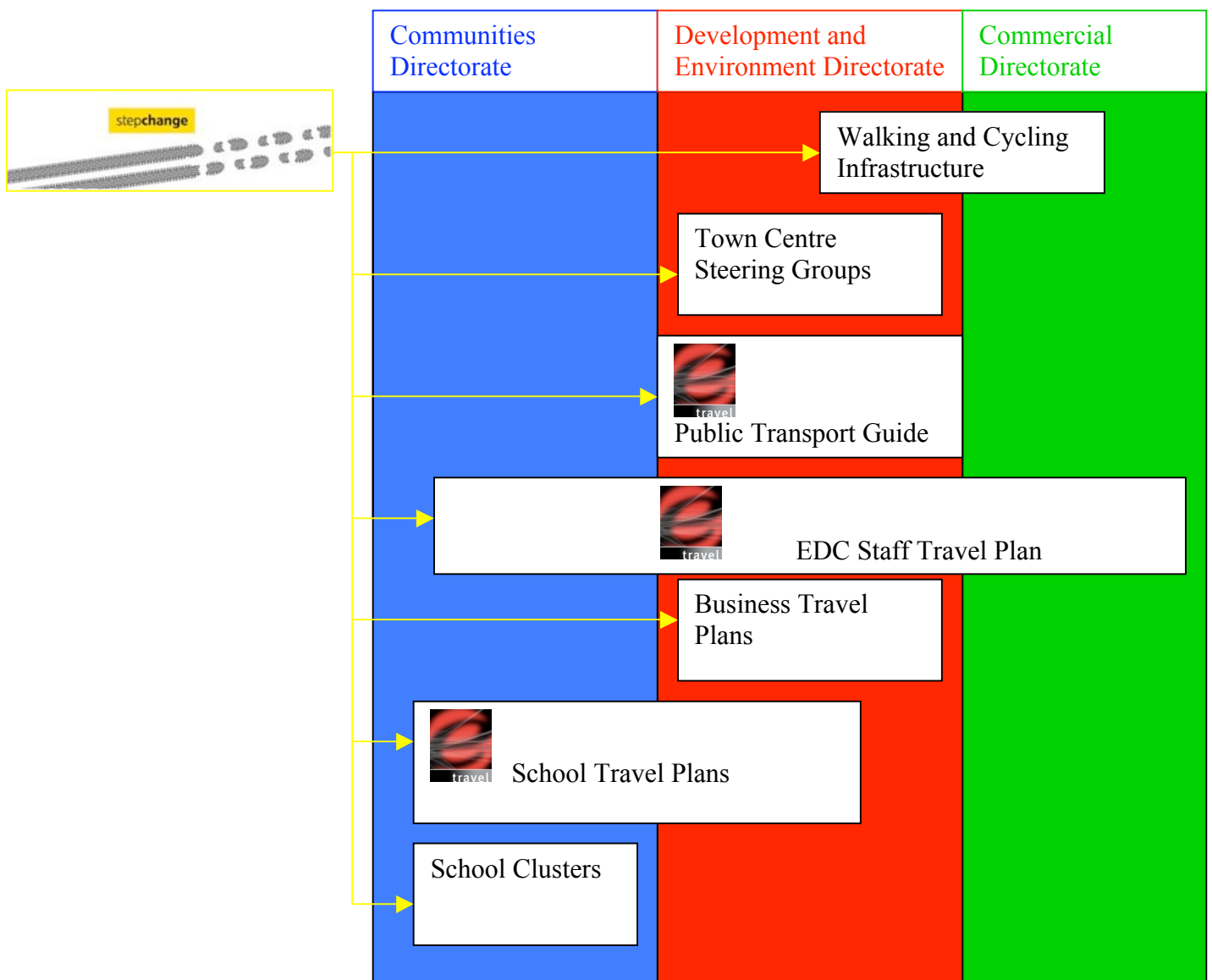
East Dunbartonshire Council is involved in Travel Plan development for businesses and schools. Leading by example is important to this process and the Council’s own staff travel plan, e-travel was the first of any local authority in the West of Scotland. The Council has also developed a travel plan framework to assist existing business and new developments create appropriate travel plans. Similar to other local authorities East Dunbartonshire is also implementing School Travel Plans through a co-ordinator funded by the Scottish Executive.

Stepchange has been an excellent support tool to all these travel plan initiatives. In particular, the schools involved in **Stepchange** have been some of the first to develop school travel plans. **Stepchange** has also been involved in the preparation of journey plans for employees of the Council and large

organisations such as Harper Collins.

Other initiatives taking place in East Dunbartonshire are the development of Health Action Plans and Physical Activity Plans for different school clusters. These programmes include encouraging schoolchildren to walk or cycle to school as opposed to getting dropped off by car. Stepchange has recently prepared walking distance maps for the schools and individual route plans for the pupils in one cluster where this scheme is being piloted.

This section has highlighted some of the main examples of how Stepchange has integrated with other projects being delivered by East Dunbartonshire Council. The following diagram demonstrates the linkages.



Similar examples of new ideas and projects being delivered through partnership working in other local authority areas involved in Stepchange are

also available. All the projects demonstrate the added value of **Stepchange** and have influenced the type of activity which has been proposed for expansion of Stepchange in the future.