

“Vehicle Test Station”

SWEDEN

DEFINITION OF THE PROBLEM

During the last 7-8 years Gävle has been working intensively to make people change their travel behaviour, use bikes more often and use private car less. A number of very successful campaigns have been run with great impact on companies, media and the public.

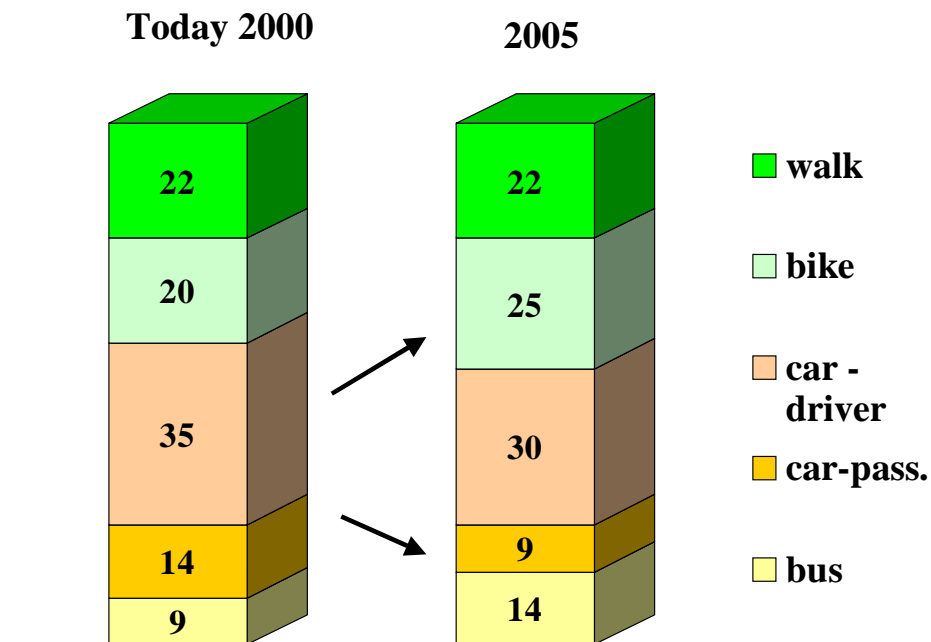
The city of Gävle was the first city in Sweden that tried to convince people to bike more and reduce the use of car. The project started in the mid nineties and the work carried out was a mix between physical and psychological activities.

Why promote biking in Gävle? One reason was that the City had already a very good infrastructure of biking paths: the network was approximately 200 km, in comparison with the network for roads, which is 400 km. It is easy to bike in Gävle as it is a flat city and also many of the neighbourhoods are closer than 5 km to the city centre.

Overall goals – city of Gävle

For all the trips taken in Gävle today, the market share for the environmental modes is 51%. The market share for car traffic is 49% (35% of drivers and 14% of passengers). The overall goal is to increase the use of environmental modes market share by 10 %, from today's 51% to 61%. As a result of that, the use of private cars has to decrease by 10%, from 49% to 39%.

Strategic policy objectives



Facts and perceptions

All registered motor vehicles and trailers in Sweden that are more than three years old must be inspected periodically to ensure that they are roadworthy. The inspection of the car is done by an organisation called “Svensk bilprovning” (translated to English as “Vehicle test”).

Usually when the car owners come to the vehicle test station they are worried that there will be something wrong with their car, and in the worst case, they will have to go back to the test station to have a new test. This procedure could be quite expensive as the owner has to go to a car repair shop first and then back to have a new vehicle test, for which he or she has to pay as well.

Our hypothesis was that the car owners who visit the test centre are more “open” and responsive for information about how they can save money by taking better care of their car.

As a next step, the technical office in the city of Gävle, together with the vehicle test centre in Gävle, developed a brochure giving advice on how to take better care of cars by changing travel behaviour. The brochure was distributed personally, at the vehicle test centre, to the car owner by the technician who was responsible for the test.

Short description – “Svensk bilprovning”

The company is a field organisation supported by a central head office. The field organisation consists of 16 districts, varying in size between 5-15 inspection stations. Altogether the company’s network includes 179 inspection stations and a staff of more than 2000 people. A total of about 125 people work at the head office and in the subsidiary companies.

The stations are located according to the distribution of the population - over 97 % of Swedish vehicle owners are located less than 30 km from an inspection station, and almost 99 % less than 60 km. The inspection stations, headed by a station manager, vary in size from one-lane stations up to 12-lane inspection stations.

Technical staff with good theoretical technical background and some years of experience in the vehicle repair field are recruited to work at the inspection stations. They are trained on internal courses conducted by the training unit of the head office and together with the station managers they are responsible for both basic and further training. At the end of each course the trainees have to pass both a theoretical and a practical test. Besides the training courses, they have to spend a number of months on an in-service practice under the guidance of a tutor (a senior inspector) before they are authorised as vehicle inspectors.

To ensure that the inspection is performed in a correct way, the Swedish laws and regulations regarding technical and environmental requirements on vehicles, and also the European requirements in different EC directives and ECE regulations, are important parts of the theoretical education of all the technical personnel.

METHOD CHOSEN TO ADDRESS THE PROBLEM

Objectives and target group

The objective of this particular campaign was to give the car owner specific information about the car and general information about mobility. The main purpose of the campaign was to find out if the vehicle test centre (Svensk Bilprovning) is a **good or bad arena** to influence car owners to use their car less, especially on short trips up to 5 kilometres. An interesting aspect of this campaign was that the car owners would be reached in a context where the car was in focus (the annual vehicle test).

The target group was private car owners in Gävle. Car owners (inhabitants) outside Gävle were not included in the study as people living outside Gävle, in more remote areas, have fewer alternatives to travel to and from the city.

Another important target group was the employees at the vehicle test centre in Gävle. If they do not get information and have a negative attitude to the project and to environmentally friendly modes, the possibilities for a successful campaign are much smaller.

Specific Campaign Objectives

- Increase the car owner's awareness and attitudes in a more positive way towards alternatives modes for shorter trips.
- Decrease the number of private car trips, specially those less than 5km.

Process and reason for choice



The “vehicle test man” (the car technician) is an expert on cars and specifically on finding problems and faults in a car. The customer always relies on the technician and also perceives him as an authority. The technician also has the power to decide if the car needs expensive repairs.

How do you make a positive and reliable brochure aimed at changing people’s behaviour to drive less with their private car? We felt that the right answer on that question was - by involving the technicians at the Gävle test centre and designing the brochure in a way that the car owners feel almost as though they are receiving personal information from the technicians.

Leaders and partners

The campaign would not be possible without the positive involvement of the employees at the vehicle test centre. They had to agree about the content in the brochure and they had to distribute the brochure in a positive way (“with their hearts”).

Figure – a technician at the test centre who contributed to the brochure



In the beginning the project manager put a lot of effort into giving information about the local project, and also about the role of the city of Gävle in the whole EU project TAPESTRY.

One key person is the local manager at the vehicle test centre. If he does not like the project it would not be possible to do it. During the Tapestry project there was some “turbulence” around the local station and the organisation, which resulted in the replacement of the top manager at the station four times. All new managers were visited by the project manager and they were fully informed about the Tapestry project and the idea behind the local campaign.

To increase the car technicians’ involvement in the project, bikes were given out as a present to them if they promised to use them for all the trips between their home and work during a year instead of their cars. Approximately half of all the employees (six employees) agreed to do that. During the year a nurse did several health checks on them.

Details

Timescales

Activity	Date / date
Overall planning and Preparation of the Tapestry campaign, <ul style="list-style-type: none"> ○ First meeting with the local manager – vehicle test station ○ First meeting with the employees - vehicle test station ○ New meetings and a discussion about free bikes ○ Free bikes and health control for six employees ○ More meetings with <u>new</u> managers (for more details se process) 	2000-2002 March Nov Oct – Dec. May 2001
Campaign	Nov - Dec 2002 (During two weeks)
After study and analysis of results <ul style="list-style-type: none"> ○ Preparation after study ○ After study ○ Analyses 	Jan – July 2003 Jan Feb Feb- July

Funding

The Technical office funded the campaign with co-funding from the EU Commission, under the TAPESTRY project.

Explanation of campaign message and campaign tools

A brochure with the main message “Try to find alternative modes for your shorter car trips. Fifty percent (50 %) of all the car trips in Gävle are shorter than 5 km”.

In the brochure there was also some good advice – about how car owners could take better care of their car and save money. The advice was on the front page and it was given to the car owner by the employees at the Vehicle test station.

The brochure was personally handed over from the technician to the customer, and it was the only written information the car owner received during the campaign.

The car owners also received ‘before’ and ‘after’ questionnaires, which of course also had some kind of impact on the target group. The ‘before’ questionnaires were sent out approximately three weeks before the appointment at the vehicle test station, the first week in December 2002.

Main text – in the brochure

Get a head start by letting your car live a healthier life now. That way you will have a greater chance of passing inspection next time around. I would like to take the opportunity to share with you a little of what I have learned as an automobile inspector. One thing is sure - a large number of short trips wear out your car earlier than otherwise.

Imagine that you step out into the cold weather every day - direct from bed - and run with all your might to work. Then you sit there, at first sweaty and after a while cold, throughout the rest of the day. Then it all starts again with another marathon home. Do you treat your car this way?

A car's motor does not have enough time to warm up completely during a short trip, which leads to a high level of fuel consumption. That's money you have to part with in the short run. But on top of that, your car is subjected to lots of wear and tear and it will age at a faster pace if you drive short distances every day. This involves large sums of money in the long run.

1. Take your exhaust system for example. I see many rusty exhaust systems on cars that do not have a lot of mileage. The difference in temperature that comes about from driving shorter distances leads to condensation, which leads to rusting. Did you know that taxis, which are used continuously throughout the day, are less prone to rust problems than automobiles used to drive to and from work?
2. Have you contemplated how differently you drive when you take short trips as opposed to longer ones? You brake more often and the car rolls less on the shorter trip. This, of course, wears more on the brakes . . .
3. ... and the clutch. You need to shift and use the clutch more frequently in heavy traffic due to the increased number of crossings, traffic lights and traffic jams.
4. Rusting becomes a larger problem for the entire automobile when it's subjected to temperature differences. The car may also be parked outdoors the entire day and thus it is subjected to wind and weather.
5. The tyres wear out faster when you have to brake and accelerate more often.

Well, I'll assume that you have understood my message. Your car will do better if it is not continually subjected to short trips. One of the pros is that you will get more exercise if you choose to walk or take your bike instead of your car. Another pro is that you will feel less nervous during your car inspection if you know ahead of time that you have done everything in your power to keep your car in shape.

Fact:

Did you know that every other car trip in Gävle is less than 5 km?

Campaign size

In a normal week, about 500 cars are tested. About a month in advance – the campaign manager has all the registration numbers of the cars from the booking list for that particular week.

Car registrations, names and addresses for all these 500 vehicles were taken from the national road administration (NRA).

IMPLEMENTATION OF CAMPAIGN

Responsibilities

The following participated in the study:

- Technical office – the department that was responsible for the whole campaign and the funding of the project.
- The vehicle test station in Gävle (Bilprovningen)
- Car owners that had an appointment at the test station during week 50.

Process

The project manager who was responsible for the project documented the process as follows:

March 2000

Project manager's first visit to the local office of the vehicle test station. He provided information about the Tapestry project and the ideas of working together in a local project.

April 2000

A new visit to the local manager's office. During this meeting the vehicle test station said - yes to cooperate.

August 2000

The project manager visited again the local manager's office because a new manager had started to work, in order to inform him .

September 2000

New information concerning the Tapestry project. The new managers agree to participate!

November 2000

Meeting with all the employees at the test station.

January 2001

A new visit – the reason is that a new manager has started. Information about the Tapestry project is given. We are back to Square One.

February 2001:

New information concerning the Tapestry project is given. This top manager also agrees to participate!

April 2001

A new meeting with all the employees at the test station. During this meeting the bicycle offer is presented. The aim of the offer is to increase the car technicians' involvement in the project.

May 2001

Approximately one third of all employees (six employees) responded to the offer.

June 2001

The six employees receive their bikes and the nurse does a health check.

October 2001

The project manager interviews the employees about the most common problems on cars that are caused by "too many short trips".

December 2002

A first draft of the brochure. A new meeting is set up to check its content.

February 2002

The project managers visited again the local manager's office because a new manager has started to work. Information is given "from the beginning".

March 2002

Luckily for the project – this top manager also agrees to participate!

April 2002

A visit to the test station with a negative purpose. One of the six people who received a bike has not fulfilled his part of the agreement (bike to work instead of using the car). The project manager takes the bicycle back because otherwise the other five guys will be irritated and the other ones who did not get a bike, because they knew that they were not going to use it, will be even more irritated.

June 2002

The employees at the test station do final checks on the manuscript of the brochure.

Sept 2002

The project manager and the new manager settle the final schedule for the campaign and the deliverable of the brochures.

Sept 2002

Photos of the employees are taken. The pictures will be in the brochure.

Oct 2002

The brochure is printed.

Oct 2002

The project manager receives the addresses of the car owners who have an appointment in the first week of December.

The 'before' study is conducted.

Nov 2002

A meeting with all the employees at the test station about the importance of handing over the brochure to the people that are visiting the station during the week.

Dec 2002

A final meeting, the project manager creates a "kick off" feeling and also gives the employees a Christmas gift in advance: a free ticket to the movie of their choice.

The brochure is delivered during week 50.

Figure - A customer at the test vehicle station receives a brochure



Jan-Feb 2003
'After' survey

Input and output (costs)

The campaign manager has spent in total 293 man-hours split between planning (143 h) and implementing the study (150 h).

Output	Costs
Bicycles for six employees at the vehicle test station	26.400 SEK (sept 01)
Nurse who tested the health of the cycling personnel at the vehicle test station	1.200 SEK (june 02)
Nurse who tested the health of the cycling personnel at the vehicle test station	3.484 SEK (oct 02)
Photos for the brochure	2.185 SEK (oct 02)
T-shirts for the employees (22) at the vehicle test station	1.675 SEK (sept 02)
Printing addresses for the control group in vehicle test station	900 SEK (Nov 02)
Printing cost for the brochure (5,000) for the vehicle test station	8.500 SEK (Des 02)
Cinema tickets to the employees (22) at the vehicle test station (Christmas present for their involvement)	3.840 SEK (Des 02)
Total sum	48.184 SEK

(Note: 100 SEK = 10.84 Euros in August 2003)

Campaign management.

The project group consisted of two people: the case study manager and the campaign manager. The case study manager was not directly involved in the activities in Gävle. The case study manager was in close cooperation with the campaign manager to discuss and design both the surveys and the campaign activities.

The campaign manager was responsible for all the activities taken by the staff at the vehicle test station. The campaign manager approached the management and had meetings with the employees.

CAMPAIGN ASSESSMENT

Methodology

The TAPESTRY survey questionnaires were based on the core questions of the TAPESTRY Common Assessment Framework (CAF) and covered the following issues:

- Demographics (gender, place of residence)
- Mobility patterns (mode split – car owners' trips to work)
- Awareness of problem of car use.
- Accepting responsibility
- Perception of options in transport system performance
- Perception of options due to social cultural influences
- Evaluation of option in transport system performance
- Intended changes in travel behaviour
- Observed changes in travel behaviour
- Campaign recall

The car owners answered the questionnaires.

Target groups / sampling methodology / sample size / etc

The survey

The 'before' study was carried out 2-3 weeks before the car owner had their appointment at the test vehicle station. (About a month in advance, the project manager knew from the booking list all the registration numbers of the cars for that week.)

Car registrations, names and addresses for all these 500 vehicles and car owners were taken from the national road administration (NRA).

In the control group, 700 more car owners in Gävle were added in a random sample. The 'before' study consisted of 350 car owners in Gävle and in the 'after' study, 350 new addresses were chosen. The project management group decided that if the same group of people was included in both the 'before' and 'after' study the response rate would be very low.

500 questionnaires were given to the target group, people who were going to do their annual car test, and 350 questionnaires to the control group, which was a random sample of car owners in the municipality of Gävle.

The 'after' study

500 questionnaires were distributed to the target group, the same people as in the 'before' study, who had received the brochure at the vehicle test station.

350 questionnaires were sent out to the control group, which was a new random sample of car owners in the municipality of Gävle.

External help was provided from a market research company. The market research company was responsible for:

- Sending out questionnaires by post
- Sending out reminders
- Collecting the questionnaires
- For the second reminder the answers were collected by telephone.

With the questionnaires a letter was attached as an introduction to the car owners.

Response rate:	Target group	Control group
Before	254 answered / 500 = 51%	177 / 350 = 50 %
After	256 / 300 = 51 %	176 / 300 = 50 %

Comparison of before and after results

The results are presented in two tables on the next page. The campaign resulted in some minor awareness changing: perception of the car became more negative. When the target group was broken down into, e.g. people who read the brochure carefully, "reliability" had also changed in a positive way for the campaign (the image of the car as being reliable had decreased).

The overall campaign effect on the target mode – the bus – was that the car owners became more negative towards it.

Campaign message analysis

(See tables below)

Most of the people, who read the brochure found it "interesting" and "well designed" and did also "agree with the content".

Gävle vehicle test centre <i>(continued on next page...)</i>		arbetande	arbetande som läste broschyren	arbetande med 5 x riktig	arbetande som läste broschyren och 5 x riktig	arbetande (90%)	arbetande som läste broschyren (90%)						
sample size		94	38	52	38	94	38						
control group		yes	yes	yes	yes	yes	yes						
[A] "How serious a problem do you think that traffic congestion is in [xxx]?"													
[B] "Something needs to be done to reduce the number of cars in [xxx]"													
[C] "I am contributing to air pollution when I use my car for [xxx]"													
[D] "Most people would ... [use target mode] ... if other people did the same"													
Block [F] Perception of car	(1) gets me to [xxx] quickly												
	(2) does not cost very much												
	(3) is reliable												
	(4) is convenient door-to-door												
	(5) allows me to travel when I want to												
	(6) is comfortable												
	(7) is safe in traffic												
	(8) offers good personal security												
	(9) has a good image												
	(10) is an enjoyable way to travel												
	(11) helps the environment												
Block [G] Perception of target mode	(1) gets me to [xxx] quickly												
	(2) does not cost very much												
	(3) is reliable												
	(4) is convenient door-to-door												
	(5) allows me to travel when I want to												
	(6) is comfortable												
	(7) is safe in traffic												
	(8) offers good personal security												
	(9) has a good image												
	(10) is an enjoyable way to travel												
	(11) helps the environment												
[J1] Frequency of car use													
[J2] Frequency of target mode use													
[E] "For my next journey ... I intend to [use target mode]"													

... continuation of Table 3: Cross-site comparison at 95% confidence level (continued on next page...)		arbetande	arbetanda som läste broschyren	arbetande med 5 x riktig	arbetande som läste broschyren och 5 x riktig	arbetande (90%)	arbetande som läste broschyren (90%)						
Block [H] Importance of features	(1) gets me to [xxx] quickly												
	(2) does not cost very much												
	(3) is reliable												
	(4) is convenient door-to-door												
	(5) allows me to travel when I want to												
	(6) is comfortable												
	(7) is safe in traffic												
	(8) offers good personal security												
	(9) has a good image												
	(10) is an enjoyable way to travel												
	(11) helps the environment												
Campaign efficiencies	Total cost of campaign delivery (Euro)												
	Total target audience												
	Cost per target member												
"Do you recall hearing about a campaign... Block [K] Campaign recall ('after')	(1) ... in last X months?"	49	38	29	23	49	38						
	(2) ... longer ago than last X months?"	0	0	0	0	0	0						
	(3) ... not sure?"	0	0	0	0	0	0						
	(4) ... definitely not?"	41	0	22	0	41	0						
& 'false' recall 'before'	(1) ... in last X months?"												
Block [L] Messages ticked ('after')	(1) ONLY correct messages ticked	55.3%	60.5%	100.0%	100.0%	55.3%	60.5%						
	(2) Only INCORRECT messages ticked	1.1%	0.0%	0.0%	0.0%	1.1%	0.0%						
	(3) Mixture messages ticked	42.6%	36.8%	0.0%	0.0%	42.6%	36.8%						
	(4) Ticked NO messages	1.1%	2.6%	0.0%	0.0%	1.1%	2.6%						

& 'false' recall 'before'		(1) ONLY correct messages ticked													
Block [M] Assessment of campaign materials	(1) "Interesting"	33.0%		81.6%		32.7%		73.9%		33.0%		81.6%			
	(2) "Well designed"	30.9%		76.3%		30.8%		69.6%		30.9%		76.3%			
	(3) "Directly relevant"	24.5%		60.5%		23.1%		52.2%		24.5%		60.5%			
	(4) "Made me think"	9.6%		23.7%		13.5%		30.4%		9.6%		23.7%			
	(5) "Agreed with content"	33.0%		81.6%		32.7%		73.9%		33.0%		81.6%			
	(6) "Seemed irrelevant"	7.4%		18.4%		7.7%		17.4%		7.4%		18.4%			
	(7) "No effect at all"	8.5%		21.1%		7.7%		17.4%		8.5%		21.1%			
	(8) "Found it irritating"	0.0%		0.0%		0.0%		0.0%		0.0%		0.0%			

CONCLUSIONS

The campaign was a very different one compared to what has often been done in both Sweden and other countries in Europe. Instead of telling people the negative effects of car use, the project aimed to help car owners save money and take better care of the household's car by changing their behaviours and using the car less for short trips up to 5 kilometres.

The brochure was well received by the car owners and no negative feedback was given at all from either the car owners or the employees at the vehicle test station.

40 % of the people in the target group read the brochure, and almost everybody found it interesting and 80% agreed with the content.

The brochure is still being delivered every day during the year. In a year all the car owners with cars older than 2 years will have received the brochure. If 40% still read the brochure every year about 10,000 car owners will be positive and start to think about using the car less for shorter trips. And also in the long run the ongoing campaign will be cheap.

Changes in awareness were achieved but we think that the project would have had a more positive result if the study had taken place in the spring or similar period instead of the middle of winter. If the bike had been promoted instead of the bus and the project had a longer campaign period the results would have been more successful.