

*Measure title:* **9.5.O Creating alternative mobility options for owners of old cars in Odense**

*City:* **Odense**

*Project:* **MOBILIS**

*Measure number:* **9.5**

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## **A Introduction**

The mobility choice measure for marginal car owner and users provides a unique opportunity to demonstrate that personal mobility management together with integrated public transport services and use of services such as taxi and car sharing (car clubs) can remove older, polluting cars from the roads. Families in Odense will test the new ways of transport.

### **Objectives**

- To establish a viable, alternative mobility programme for marginal car owners/users (people who don't use their car on a daily basis).
- To reduce the number of old, polluting and energy inefficient motor cars in Odense.
- To transfer marginal car owners/users to more environmentally friendly transport modes.
- To design and execute necessary campaigns and personal contacts to the targeted car owner/user group to support a modal shift.

### **A2 Description**

To carry out the objectives a marketing plan and strategy for the campaign was developed in cooperation with a Public Relation Agency to attract families. Some 160 families joined the campaign. The families all received alternative transport possibilities to the car.

The families all received a campaign package consisting of:

- Travel free on local city busses for 1 month
- Membership of Odense's car sharing club
- Access to taxis paid in arrears on a monthly basis without interest
- 25% rebate on purchase of bicycle for own use
- A journal to register daily trips



Discount on bikes



Campaign material placed in the windshield of cars – with the words "Parking fine" in large letters to attract attention

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## B Measure implementation

## B1 Innovative aspects

In the belief that providing a personal service to marginal car owners/users can lead to modal shift, the measure – which is the first of its kind in Denmark - is innovative in the following ways:

### New conceptual approach

- Direct and qualified transport alternatives offered through direct and personal involvement of selected members of the public (families) in modal shift planning decisions.
- Involvement of the public in the mobility issue at a personal level – the public has been asked if personal planning makes the necessary difference to motivate change.
- Research results accumulated from a large scale trial with personal mobility management methods with adequate incentives (“Scientific value”).
- Through an innovative direct approach to mobility behaviour (“Demonstration value”).
- Cost benefit achieved through short-term investment in the use of public transport for long-term gain and popularity (“Political value”).
- Trials with combined mobility packages for individual families (“Integration value”).
- Demonstration of modal shift through dialog and incentives (“Trans-national value”)
- Cooperation between many public transport providers (“Organisational value”)

Aalborg University, the Odense Bus Company, Odense Mini Taxi, Odense Taxa and Hertz Car Sharing are the key actors necessary to provide the alternative services.

## B2 Situation before CIVITAS

Because of high vehicle taxation in Denmark (180%), the average age of motor cars is higher than the rest of Europe. These older cars pollute more and use more energy than newer ones. The oldest cars are often owned by lower income families or are used as a second car in more well off families. They are, therefore, typically underused, often on a seasonal basis with a low annual mileage. In optimal circumstances where mobility alternatives exist, these car owner/user types might be persuaded to choose an alternative mobility pattern.

In 1999 EU set a new norm for the emission of particles at 40 microgram particles/m<sup>3</sup>, which had to be fulfilled by the year 2005. This means that new cars are much cleaner and gives a lower risk of cancer for the citizens.

## B3 Actual implementation of the measure

The measure was implemented in the following stages:

### Stage 1: Marketing campaign – from February 2006 to March 2006:

We carried out a marketing campaign to attract target groups relevant for this measure. We put up large posters in the city, TV-coverage, press release and articles for different websites.



### **Stage 2: Carrying out the campaign – from March 2006 to September 2006:**

Some 160 families joined the campaign and all of them received a campaign package consisting of:

- Travel free on local city busses for 1 month
- Membership of Odense's car sharing club
- Access to taxis paid in arrears on a monthly basis without interest
- 25% rebate on purchase of bicycle for own use
- A journal to register daily trips

Participants weren't given detailed information on alternative transport options. The city has two very informative web-sites [www.cyclecity.dk](http://www.cyclecity.dk) and [www.fynbus.dk](http://www.fynbus.dk) which gives detailed informations. Other websites like [www.delebilen.dk](http://www.delebilen.dk) and [www.pendlernet.dk](http://www.pendlernet.dk) give useful information on carsharing and ridesharing. The main message was that alternative options were ready to be tried out.

All 160 participating families received a monthly newsletter informing about sustainable transport, ideas for travel and holidays on bicycle, the Civitas projects in Odense, health issues related to riding the bike etc.

Many of the participants were encouraged by the massive interest in the project from the local television. Local TV followed two families throughout the project period. The families shared their experiences, frustrations and successes with the new ways of transport that they tried out. The programs were good for the project in the sense that they covered a topic, which in many ways can be complex to promote to the citizens. By telling the story of “real people” the issue of changing transport habits became more present and easier to relate to.

**Stage 3: Ending the campaign – from September 2006 – December 2006:**

The families have sent the journals. Data has been collected and prepared for evaluation.

**B4 Deviations from the original plan**

The deviations from the original plan comprised:

- **Size of target group** – The size of the target group (originally 400 families) has been decreased to 163 families, to make good use of extensive free TV-coverage of this measure. The original plan was to have 100 families each year in 4 years.

**B5 Inter-relationships with other measures**

**1. Connection between space, transport mode and transport users**

The table illustrates how sites, transport forms and users fit together to target change at both zone and city level.

	6.10.O	8.7.O	9.5.O	11.10.O	11.11.O	11.12.O
Transport site	X	X				(X)
Transport form	X	X	X	X	X	X
Transport users	X	X	X	X	X	X

(X) County, city and zone level

**2. Connection between target groups and measures**

In order to create as much public and stakeholder interest in MOBILIS as possible, different demographic and social groups are targeted as follows:

	6.10.O	8.7.O	9.5.O	11.10.O	11.11.O	11.12.O
Target group	Residents	Economically weak citizens	Families	Children	Families	Everyone

**3. Connection between plan types and measures**

Within the fields of transport and traffic planning, many specialised plans often operate independently of each other. Odense’s MOBILIS project ensures that all relevant plan types are brought together within the project.

	6.10.O	8.7.O	9.5.O	11.10.O	11.11.O	11.12.O
Plan type	Speed Reduction Plan, Road safety Plan, Town Centre Plan, Traffic and Safety	Public Transport Plan, City Design Manual (bus	Public Transport Plan	Road Safety Plan, Plan for Safe Routes to School	Public Transport Plan, Cycle Plan	Regional Plan for Funen, Municipal Plan for Odense, Public Transport Plan, Harbour

	Plan for Odense City Centre	stops)				Development Plan. Plan for Ring Road 3
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**4. Connection between private and public transport firms and institutions**

The success of Odense’s MOBILIS project is dependent upon co-operation between firms and institutions responsible for the provision of transport in Odense.

	6.10.O	8.7.O	9.5.O	11.10.O	11.11.O	11.12.O
<b>Firm/institution</b>	Odense City Council, Copenhagen City Council, Haulage firms,	Odense City Council, Funen County Council, Private bus companies, Taxi companies, car sharing companies	Odense City Council, Taxi companies, Car sharing companies, Cycle manufacturers	Odense City Council (Technical Dept. + Schools Dept), MOBILIS partners	Odense City Council, Car sharing companies, Route planning web sites	Odense City Council, Funen County Council, Danish State Railways

## C Evaluation – methodology and results

### C1 Measurement methodology

#### C1.1 Impacts and Indicators

Table of Indicators. *Insert own table where available, use landscape layout as necessary*

No.	Impact	Indicator
1	To establish a viable, alternative mobility programme for marginal car owners/users	Number of participants
2	To transfer marginal car owners/users to more environmentally friendly transport modes.	Changes in transport modes

Detailed description of the indicator methodologies:

- **Indicator 1** (Number of participants) – The number of participant were counted as the number of families and the number of persons.
- **Indicator 2** (Changes in transport modes) – The change in transport modes was shown by the number of trips by each mean of transport and by the distance travelled. This information came from the participating families’ travel diaries.

#### C1.2 Establishing a baseline

It is very hard to motivate a control group of people to write their trips in a travel diary. Beside that the control group needs to be similar to the project target group in sense of income, residence etc. That’s why we chose to compare the travel habits for the target group in the first 2 months just before the summer with the 2 months just after the summer – May + June versus September + October.

#### C1.3 Building the business-as-usual scenario

There wasn’t set up a business-as-usual scenario for this measure.

### C2 Measure results

The results are presented under sub headings corresponding to the areas used for indicators – economy, energy, environment, society and transport.

#### C2.1 Economy

Every car trip saved gives economical benefits for the families. In this measure the main object was more to demonstrate to the rest of the population how families can

live more independently from private cars. If this reflects in lower car use among the whole population in Odense in the long term, there'll be great saving in the private and the public economy. To run a private medium car in Denmark easily costs € 5, - 12,000 per year depending of the millage and the age of the car.

## C2.2 Energy

Energy consumption has been slightly reduced but not exactly calculated. Compared to the first 2 months the families travelled 2,367 km less by car in the autumn. This is equivalent to around 200 liters of gasoline less that before.

## C2.3 Environment

The environmental impact of the measure wasn't calculated. But compared to the first 2 months the families travelled 2,367 km less by car in the autumn. This is equivalent to 426 kg CO<sub>2</sub>. For a whole year this would be a reduction of 2,556 kg CO<sub>2</sub>. This is just a tiny share of the overall emissions in the city, but if more people get to consider their use of the car for short trips the reduction could be quite important.

## C2.4 Transport

163 families signed up to the project, equivalent to 452 persons. Later on 132 of these families, continued as participants, equivalent to 370 persons. 6,602 trips covering 145,275 km were registered in May + June while 6,628 trips covering 150,705 km were registered in September + October.

The key results from the travel diaries showed this:

	May + June		September + October		
	% of trips	% of distance	% of trips	% of distance	
<b>Car</b>	30,7	54,6	31,8	51,1	
<b>Cycle</b>	57,1	17,0	56,4	16,9	
<b>Regional bus</b>	2,1	3,4	1,4	1,9	
<b>Car Club</b>	1,1	2,1	1,2	0,9	
<b>Train</b>	3,4	20,2	4,0	26,3	
<b>Local bus</b>	0,5	0,1	5,2	3,0	
<b>Taxi</b>	5,1	2,5	0,1	0,0	

Car traffic increased by numbers but decreased in distance. Public local transport increased both in numbers and in distance. The drop in taxies could be because the participants had a free ride on their taxi cards to begin with.

Other changes aren't significant.

25 families continued as members' of the car club after the measure finished.



## C2.5 Society

The measure was targeting a minor group of private families to demonstrate how people easily can live depending less on the private car as a means of transport. That is why the appointment with the local television was crucial to get a broad dissemination of the participants daily lives.

The participants were asked about their weight before and after. Their Body Mass Index was reduced from 24.18 to 23.80 and the trend was equal to men and women. According to their own well being the participants improved by 9% on a scale from 1 to 5.

## C3 Achievement of quantifiable targets

No.	Target	Rating
1	To transfer marginal car owners/users to more environmentally friendly transport modes – 400 families	*
	To reduce the number of old, polluting and energy inefficient motor cars in Odense.	* longterm
	To transfer marginal car owners/users to more environmentally friendly transport modes.	* longterm
	To design and execute necessary campaigns and personal contacts to the targeted car owner/user group to support a modal shift.	*
NA = Not Assessed    0 = Not achieved    * = Substantially achieved (at least 50%) ** = Achieved in full    *** = Exceeded		

## C4 Up-scaling of results

Up-scaling is not relevant since the measure is just meant to demonstrate how the participant can live more independent of the private car. In Odense it would only be relevant to repeat the project yearly. If the project got a national perspective it could be up-scaled in a broader context.

## C5 Appraisal of evaluation approach

Evaluation on the whole population in Odense is very difficult to manage, especially because changes take very long time and because a long list of other initiatives targeting the same goals is running locally and nationally.

If the activity was to be repeated, we would use electronic diaries instead of written ones. Also, we believe that a way to keep the participants motivated throughout the campaign period would be to introduce prizes along the way.

There should also be a better plan on how to communicate to the participants as a group and not only as single families. Somehow they should be given a common

sense of identity as “the selected ones” participating in something in their city, which can inspire others to follow their good example. For instance, this could be social events which both reward them in some fun way but also gives the participants new knowledge and inspiration about sustainable transport.

Further more it could be considered to narrow the number of participants and then instead have a more dedicated group of citizens who would be willing to try out more drastic changes in transportation – getting rid of the car for instance.

## C6 Summary of evaluation results

The key results are as follows:

- **Key result 1** – Implementation of the pilot group was successful but in a smaller scale than planned.
- **Key result 2** – Reduction of the car use among the participants wasn't as effective as expected - one reason could be that changes in car use takes longer time.

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## D Lessons learned

### D1 Barriers and drivers

#### D1.1 Barriers

- **Barrier 1** – The project was marketed and published as ‘Car Free Families’. But this wasn’t to be understood in the sense that people should live without cars, only use them less. This could be misunderstood by some and perhaps keep them from wanting to join the project.
- **Barrier 2** – The real results can come several years after the measure ended because it is a matter of changing your personal views on transport choices.

#### D1.2 Drivers

- **Driver 1** – Many citizens found the measure to be a very fine initiative because people themselves should be the driving force to change the city qualities. New free options and discounts can attract many people.
- **Driver 2** – Local television gave a very informative and personal description of the initiative and how this could be relevant for all of us. This agreement with the TV station was easy to create because ordinary people's lives always are a relevant subject to the media.

- **Driver 3** - Private companies are often willing to give discounts as it's a cheap way of marketing. Just to be mentioned on local television fully pays back the costs - such broad exposure would otherwise be much more expensive. This meant that the Taxi company found it attractive to participate in the project by offering discounts on rides to the participating families.
- **Driver 4** - Odense has a lot of experience concerning how to make people try out alternative mobility, mainly cycling. This gave the idea for this project.

**Velkommen til Familien BilFri**  
 Familien BilFri er et projekt for dig, der vil ændre transportvaner og prøve andre måder at komme frem og tilbage på. Vær med i 6 måneder og se, om du og din familie kan blive mindre afhængig af bilen. Vi søger 400 familier i Odense til at deltage i projektet med start fra 1. april.  
 Som projektdeltager får du en pakke af gode tilbud, så du kan afprøve alternative transportformer til bilen. Bilen er blevet en naturlig del af mange menneskers liv og god til nogle ture. Men i mange tilfælde kan man faktisk lade bilen stå og snuppe cyklen, bussen, delebilen eller en taxi i stedet.

For at vi kan se effekten af projektet, skal familien føre en simpel køredagbog.

**Forside**  
 Om Familien BilFri  
 Ansøgning  
 Nyttige links

**Vil du være med?**  
 Send din ansøgning her!

Få rabat på nye cykler til familien. [Læs mere](#)

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Gratis medlemskab af Delebilen. [Læs mere](#)

ODENSE KOMMUNE | CiViTAS | ODENSE | THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

Campaign website

## D2 Participation of stakeholders

- **Stakeholder 1** – FynBus, the local public transport body - provide free service for the participants and to extract experiences in future marketing.
- **Stakeholder 2** – Hertz Delebilen, the local car club - to give free membership for the participants.
- **Stakeholder 3** – The 2 taxi companies - to provide discount for the participants and to reflect on options in cooperation with other means of transport.
- **Stakeholder 4** – Kildemoes – a local cycle manufactory - to provide discount for participants and to start marketing in cooperation with other means of transport.

All stakeholders supported the measure as planned which provided a very fine offer for the participants.

### D3 Recommendations

- **Recommendation 1** – The project can easily be repeated in Odense and in many other cities in the EU. A close cooperation with the local media is highly recommended and crucial for the success.
- **Recommendation 2** - If people could choose to lock their car keys away for a few days this could make the media interest higher. Another possibility is to reward the participants if they reduce their car use by eg. 30%.

### D4 Future activities relating to the measure

The measure has given useful inspiration for the traffic department and the coming plan for traffic and mobility will focus very much on how the individual citizens can make a change to contribute to a liveable city.

At the moment Odense has no plans on doing similar initiatives towards owners of old cars.