Odense – the National Cycle City of Denmark

Work Package:
WP2

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Background and Objectives:
The city of Odense (placed in the middle of Denmark) wanted to:
Change short car-trips to walk- or bicycle trips. Generate knowledge on how. Increase security for bicyclists. Campaigns for raising the image of cycling.

Implementation:
Form:
A series of campaigns with different target groups.

Activities:
- Salt on the streets instead of gravel (which gives more punctures)
- Lanes for bikes where cars must give way
- Lanes for bicyclists where they don’t have to stop for red light but can continue
- Lending of bicycle trailers for kids
- Lending of powered bicycles
- Lending of tandem bikes
- The police exchanging fines for driving without light, to bicycle lights
- The Cyclist of the year
- Exhibition for Better Bikes and possibility of having the bike checked (to get ready for the summer biking season)
- Campaign: We are biking to work – distribution of badges to people participating in the campaign
- Providing drinking water and bicycle pumps several places in Odense
- Cycle barometers (speed and amount of cyclists passing each day)
- Etc.

Conclusions:
For evaluation of the project, read the English summary.

Links:
Evaluation of “Odense – the National Cycle City of Denmark” (in Danish but summary in English)
http://www.cykelby.dk/maal_og_resultater.asp

Website for Cycle city Odense (in Danish)
www.cykelby.dk

EIE/07/291/Sl2.466803
Summary in english:
From “Evaluation of Odense – the National Cycle City of Denmark” at http://www.cykelby.dk/maal_og_resultater.asp

From 1999 to 2002 Odense was the official National Cycle City of Denmark. The Municipality of Odense was allocated half the total budget of DKK 20 million as a subsidy from the Ministry of Transport and the National Road Directorate.

The goals of the project were:
• The citizens of Odense were to consciously feel an improvement in well-being.
• The number of journeys by bicycle in Odense was to be increased by 20 per cent by the end of 2002, compared to the years 1996-1997. During the same period the number of people who use a bicycle more than three times a week was also to increase by 20 per cent.
• The number of cyclists killed or injured in accidents involving more than one party was to be reduced by 20 per cent in the same period.
• The citizens of the Municipality of Odense were to consciously feel that the city has become a better place in which to cycle. The budget was spread over four years, and targeted for a number of new initiatives aimed at promoting cycling in Odense. The reason for concentrating on the Cycle City project was to gather experience and new knowledge about bicycle traffic in one place in Denmark. During the four years of the overall project, 50 projects were developed and implemented in Odense. The project included physical improvements, changes in regulations and campaigns.

The projects had various degrees of success. The most important aspect was that Odense tested and gathered new knowledge about how to market cycling, and was adopted as the city of bicycles. The results from the Cycle City project were more than just the gathering of new knowledge. It was equally important that Cycle City disseminated its messages to the inhabitants of the city. The cycling laboratory had to be brought alive. Not just in Odense, but also in other municipalities in Denmark. A permanent project leader was allocated to the Cycle City project, who, with the help of several communications consultants developed and implemented the project. Many new ideas were developed because of the project, and these parts became the objects of special attention. The Cycle City project was distinguished by the willingness to try out new options and initiatives in terms of planning the cycling infrastructure. We discovered that there was a shortage of new initiatives in several areas. At the start of the project a certain amount of knowledge already existed regarding traditional cycling infrastructure. This applied to the areas of planning, cyclists’ safety and the dimensioning of the infrastructure. The infrastructure elements of the project thus required new developments in several areas, as some of the solutions were not in place at the beginning. Developing new products made the process harder. On the other hand, it made it possible to present cyclists with exactly the type of solution that was envisaged at the start. Also, new products give off a powerful signal, giving cyclists the feeling that a special effort is being made.

We discovered that there was a shortage of new initiatives in several areas:
• Access for cyclists
• Better and safer parking for bicycles
• Image building activities
• Action-based activities aimed at children and adults
• Focus on operational quality
• Focus on the behaviour of cyclists in traffic

The Cycle City project has made it easier for cyclists to cross traffic lights and junctions. On commuter routes, several of the improvements were implemented on the same stretch, and the first green waves (a flow system) for cyclists were established. The time savings for cyclists were small, but there was a strong feeling of improved accessibility. The cyclists now have a well-constructed homepage and an interactive planner as well as a wide selection of maps of cycle paths. The project has also increased the operational quality of the cycle paths, and both users and the administration have placed a considerable focus on the area. Parking facilities for bicycles in the city centre, at bus stops and the railway station have been significantly improved. A special focus here was on design and protection against theft. Extra services such as providing drinking water and bicycle pumps for the city’s cyclists have been introduced.

The cycle barometer and 20 new census stations kept up awareness about the bicycle traffic of the future. Regarding the campaigns, existing knowledge mainly concerned of safety campaigns. There was very little experience with activities intended to promote cycling beyond just getting cyclists on the road. Thus a wide range of campaigns were developed in these main categories:
• Children
• Adults
• Traffic safety

The children’s campaigns focussed on reaching as many children as possible on their own terms. Those without any willingness or interest did not become involved, but many active participants were attracted.

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Throughout the campaigns for adults, there was a great number of offers to try out new types of bicycle, trailers, company bikes etc., and the various types of accessories were reviewed. These cycling campaigns continuously encouraged people to use bicycles, and prizes were used as a reward, for individuals, workplaces and employers. Fold-up bikes were successfully introduced as an efficient complement for car commuters. It was attempted to promote traffic safety through a special campaign about cyclists' behaviour, and a selected area with a speed limit of 30 km/h was introduced. In addition it was attempted to support cycling as a lifestyle through several image improvement initiatives, including highlighting the special role of bicycles in police work and as taxis. The Cycle City project was powerfully presented, for example, through 80 talks and 856 newspaper articles. Each of the sub-projects had its own mission, and, to put it bluntly, suddenly we had a lot of pieces for a large jigsaw puzzle. Not everything was put into place, but the very diversity ensured that a lot of different target groups were aware of Odense Cycle City. A large proportion of the citizens were affected, sometimes more than once, by the project. The people of Odense are aware of the initiatives the city is taking to help cyclists, and to a certain extent, the Cycle City project has become part of the collective identity.

Panel survey
This was shown by a panel research study conducted by the University of Southern Denmark, where one of the aims was to record the evaluation of the Cycle City project and its areas of initiative. The participants were representative of a wide cross-section of the population of the city between the ages of 15 and 60. Of those asked, over half were familiar with the associated initiatives. The things which best remained in the consciousness were projects aimed at physical improvements, such as:

- Short cuts
- Green waves (flow scheme)
- Safe bicycle parking
- The conditions for parking bicycles

The campaigns which took the form of an annual "Cycling day" on the central Town Hall Square (Flakhaven) or the election of "The Cyclist of the Year" in Odense were hard for those involved in the survey to recall. This seemed to be related to the fact that the participants in the study could not remember who was behind these initiatives. One reason is that the weight placed upon the activities intended to promote cycling by the Cycle City project was different to that accorded by the cyclists themselves. Odense Cycle City continually asked the cyclists of the town what priority they would put upon future areas of initiative to promote cycling. The greatest interest was shown for:

- Crossing traffic lights
- The operational quality of the bicycle paths
- The conditions for parking bicycles

The study mentioned above confirmed this. The focus for the cyclist was actually on physical improvements, but it is our definite impression that there is a need for campaigns. Various activities and campaigns made it possible to draw attention to the qualities of cycling as well as the opportunities it offers in various forms. It is possible to market cycling better than through the general perception that it is healthy. The question remains as to whether the campaigns, activities and improvements for cyclists though the project have meant that Odense is a better city in which to cycle. The studies mentioned suggest that Odense is indeed a good city to cycle in, from the perspectives of physical qualities, the initiatives launched through Cycle City and the general conditions. 82 per cent of the participants in the survey said they thought that Odense had excellent urban cycling facilities. The effect of the Cycle City project is reflected in the study. The participants considered that Odense had become a better city in which to cycle for each year the project ran. Even though not all the participants were cyclists, they represented other groups of road users. The Cycle City project made no attempt to address motorists. This was a recognition of the fact that the roles or personalities of being a motorist or a cyclist are changing.

Therefore the target was to encourage more people to use their bicycles more often. The efforts here included looking after the physical conditions such as parking bikes, improving cycle paths and reducing the number of stops cyclists had to make at intersections. But the cycling campaigns were based on the idea that cycling is an easy alternative. Once the campaigns were simple and equal, the perception of the cyclist was one that many people were proud to be a part of. The people of Odense are aware of the initiatives the city is taking to help cyclists, and to a certain extent, the Cycle City project has become part of the collective identity.

Transport habits
At the end of 2002, in December, cycling traffic in the Municipality of Odense had actually increased by 20 per cent according to Denmark’s Statistics Transport Investigation (TU). This meant that the project goal in terms of the number of cyclists in the municipality had actually been met. Thus the predicted trend that especially after the opening of the fixed link to Zealand the amount of cycling would fall was reversed. The local initiatives in the Municipality of Odense, of which Odense Cycle City was just a part, are considered to have increased the volume of cycling traffic in 1999-2002 by 22 per cent in comparison to 1996-1997, and the figure had increased to 24 per cent by the end of 2002. In addition the local initiatives had resulted in a significant fall in transportation (km per person per day) in the Municipality of Odense. It would seem that transportation using cars or public transport has fallen by 15 and 45 per cent respectively as a result of the local initiatives. In particular, car trips and both long and short journeys by public...
transport have been replaced by shorter trips on foot or by bicycle. The reports suggest that the activities and sub-
projects which formed Odense Cycle City between 1999 and 2000 have produced an increase in the volume of cycling
traffic in the Municipality of Odense, and subsequent activities have served to consolidate this high level of cycling traffic.
The numerous new cyclists appear to have continued to cycle, as the volume of bicycle traffic was just as high in 2003
as it was during the project period 1999-2002. The effects of Cycle City will probably continue to be felt for a number of
years, as the project also reduced the number of car owners considerably. Assuming that the recorded increase of
bicycle traffic amongst the 16-74 year olds has also occurred amongst the young and the elderly, the local initiatives
in the Municipality of Odense, including Cycle City, resulted in an average 25,000 new cycling journeys per day during
the project period. This corresponds to over 35 million new cycling journeys during the whole period. In addition the
numerous new walking and cycling journeys correspond to approximately three minutes extra physical activity per day,
which will probably have a positive effect on health in general.

Traffic safety
Like transport habits, traffic safety can be described in many ways. According to the police the annual number of
personal injuries amongst cyclists due to accidents involving more than one party fell by 19 per cent in the Municipality
of Odense from the base years 1996-1997 to the period 1999-2002, when the Cycle City project was being implemented,
and by 20 per cent up to the year 2002. Thus the project achieved its objective of reducing the number of cyclists killed
or injured in accidents involving more than one party by 20 per cent by the end of 2002 as against the base years 1996-
1997.
The trend of personal injuries amongst cyclists due to accidents involving more than one party followed the general
trend. As there has been a significant increase in the volume of bicycle traffic in the Municipality of Odense in
comparison to the trend in general, the risks of cycling in Odense have thus fallen more in Odense than other large
Danish cities.

Public health
One positive result of the increased volume of cycling in the Municipality of Odense has been more physical activity by
the citizens. This has had an important effect on public health. For example, a lower mortality has been recorded
amongst the citizens of Odense, leading to a longer average lifetime, five months, for men in the period 1999-2002, when
the project Cycle City was run. In addition the citizens received half a day’s less social security benefits than
expected. The resulting savings in social security for illness amounted to 6 per cent, or DKK 41 million in the project
period 1999-2002. Costs for health insurance increased by approximately DKK 8 million in the same period, even though
at the same time the number of admissions and bed days in hospitals fell. The DKK 33 million saved is considerably
higher than the DKK 20 million which the project Cycle City cost. Thus it appears that financial savings can be made on
health care by encouraging more people to cycle.

Conclusions
Over the last four years the citizens of Odense have made 35 million new cycle journeys. This corresponds to 25,000
extra cycle journeys per day. Bicycle traffic in Odense has increased by 20 per cent, when adjusted for external factors,
such as the opening of the fixed link to Zealand. The citizens of Odense now use a bicycle for every fourth journey. The
results of Odense Cycle City go against the general trend, which shows a fall in bicycle traffic. Over half of the new cycle
journeys are made by motorists who have voluntarily decided to change their means of transport. Even though the
bicycle traffic in Odense has markedly increased, the project also managed to reduce the number of accidents involving
cyclists by 20 per cent. The fact that there are more cyclists on the road seems to have meant that they are more visible
to motorists.
The health related gains from the project Cycle City have been especially satisfying and have resulted in large savings
for the health sector. Concrete savings of DKK 33 million have been demonstrated. In the project period alone these
savings were higher than the cost of the project, DKK 20 million. The health related benefits of the project are not just the
concrete financial savings. The project has added 500 years to the total lifetime of the citizens of Odense, corresponding
to five months longer life for males, because people are cycling more. Mortality amongst the 15-49 year olds fell by 20
per cent. On the basis of these considerations it can be stated that Odense Cycle City has fully achieved its objectives.