*Measure title:* **School Cycling Campaigns in Aalborg**

*City:* **Aalborg** *Project:* **Archimedes** *Measure number:* **29**

## Executive Summary

The City of Aalborg has implemented a cycling campaign that seeks to find new ways of communicating with schoolchildren (11-13 years) through mobile phones and the Internet together with more traditional campaigning elements. In order to motivate and engage the target group, the campaign was built around a range of characters and a number of riddles related to the bike. The schools competed against each other to solve the riddles and win the competition. The campaign was implemented first in the period August-October 2010 and then again during the same period in 2011.

Evaluation showed that over 75% of the children in the target group are aware about the campaign and about 23% states that they participated actively. In general, over 60% of the schoolchildren state that it has been fun to participate in the campaign. Especially, the parts of the campaign, where the children had to go out on their bikes or had the possibility to upload photos on the internet are rated positively.

The campaign has had a positive impact on the attitude towards cycling among the schoolchildren and on their stated actual behaviour. In both 2010 and 2011 about 22% of the children state that the campaign has positively affected their desire to bike and around 18% state that they bike more after the campaign. On the other hand around 7 % of the children say the campaign has negatively affected their desire to bike and 11 % state they bike less than before the campaign.

The overall impact of the modal split among the targeted schoolchildren is hard to determine because of seasonal variations in the before and after data. When correcting for the fact that the after data was collected in winter, it can be concluded that there is an increase of the modal share of cycling among the target group.

Lessons learned by this initiative could be transferred to other countries – however, one should be aware about differences in the local context e.g. how are the infrastructure facilities for cycling and do the children live nearby the school or do they come from a larger area. The main lessons learned are:

- Using the Internet and the mobile phone in an active way creates a direct way of communication to the children, which has shortened the distance to the children.
- The schoolchildren perceive biking as fun and positive. Therefore, a campaign should build on their eagerness to go out on their bikes.
- The competition element in the riddles proved to be a good way to activate the children. In addition, the prices in the competition also focussed at improving the cohesion in the classes.
- Tailored information was provided for the schools/teachers, and they were given specific information on their role in the campaign.

# A Introduction

## A1.1 Objectives

The measure objectives are:

(A) High level / longer term:

- To encourage children to cycle to school and thereby encourage children to get sustainable travel behaviour in a long-term perspective.

(B) Strategic level:

- To reduce the number of children being driven to school.

(C) Measure level:

(1) To design a campaign with traditional campaigning elements (e.g. posters, radio and TV spots) and to test new ways of communicating with the target group.

## A1.2 Target groups

The measure focuses at the schools located within the CIVITAS ARCHIMEDES corridor. In total 18 schools are located within the corridor.

The target groups of the measure are:

- School children: The measure focused on reducing the number of school children being driven to school. The campaign focused on the age group between 5$^{th}$ and 7$^{th}$ grade (children approx. 11-13 years old). Surveys conducted before the beginning of the campaign (spring 2009) showed that 20% of the children in this age group were transported to school by car, even though 16 of the 18 schools in the ARCHIMEDES corridor are located within urban areas. In addition, the surveys showed that children in this age group start cycling alone to school. The campaign was developed in accordance with the specific age group chosen.
- The parents: A secondary target group was the parents of the children. The parents are not a direct target group. However, the parents' appreciation of the campaign was seen crucial for disseminating the messages of the campaign and thus, for its success. Therefore, the parents received relevant information.
- Schools and teachers: Support from the schools and teachers were an important precondition for success, especially for data collection for the evaluation (e.g. knowledge about travel behaviour and attitude towards the bike) and permission to display campaigning material.

## A2 Description

Daily journeys between home and school constitute a significant part of traffic problems near schools. These problems are frequently used as an argument why children are driven to school thus creating a self re-enforcing coil of still more car traffic. From a safety and environmental point of view it is a problem - currently due to the traffic situation but even more important in a long term perspective as children do not take up the habit of walking or cycling and become much less experienced road users.

For a number of years, schoolchildren and their travel behaviour has been an area of focus for The City of Aalborg. As such, the City of Aalborg has the aim to reduce the number of school children being driven to school by private cars to a maximum of 10% in urban areas and 20% in rural areas by 2020. Previously, this goal has, among other things, resulted in a survey among all schoolchildren to get information about how they get to school and how they perceive road safety on their way to school. The information from this survey was used as background information for the design of this campaign.

Within CIVITAS ARCHIMEDES, the City of Aalborg has implemented a campaign that seeks to find new ways of communicating with the target group through mobile phones and the internet together with more traditional campaigning elements such as posters, and leaflets. In order to motivate and engage the target group, the campaign was built around a range of characters and a number of riddles related to the bike. The schools competed against each other to solve the riddles and therefore win the most points.

Building the campaign around a storyline and a range of characters was a new way of presenting the message about cycling without lecturing or preaching to the children. Instead, the campaign

communicated to the children in their terms, and at their level. Furthermore, the riddle element was included to motivate the children to be active in the campaign.

The campaign ran for a period of approximately two months from the school start date in August 2010 at 17[1] of the 18 schools located within the ARCHIMEDES corridor. In total, there are 64 schools within the municipality and 27 schools within the urban part of Aalborg. Therefore, the campaign covered 63 % of the schools located in Aalborg.

During the campaign period, the children had to solve seven different riddles. The website: www.cykletilskole.dk was used as the basis for the campaign. Mobile phones were used to communicate with the children and the riddles could be solved by sending text messages. Thereby, the campaign sought to use the mobile phone as a direct way to communicate with the children and to obtain fast responses.

The campaign was reintroduced at the start of school year in August 2011. The reintroduction builded on the same campaigning elements (riddles, competition between schools, internet based, use of mobile phone) and a reintroduction was intended to strengthen the effect of the campaign and further reinforce the use of the bike by this target group.

## A3 Person in charge for evaluation of this measure

| | |
|---|---|
| Name of person | Anne Marie Lautrup Nielsen |
| Name of organisation | City of Aalborg |
| Direct telephone | +45 9931 2307 |
| e-mail | Aml-teknik@aalborg.dk |

[1] One smaller private school declined to participate in the campaign because the majority of the children at the school lives far away.

# B Measure implementation

## B1 Innovative aspects

The innovative aspects of the measure are:

- **Use of new technology/ITS:** Using new ways of communicating with target group. The campaigns combined more traditional campaigning elements with new ways of communicating with the target group. The use of new ways of communicating is intended to create more interest and attention from the target group. The use of the mobile phone, specially SMS, was a specifically new and innovative way of getting in touch with the target group.
- **Targeting specific user groups:** The measure intends to focus at changing the travel behaviour of school kids. The intention by targeting this group is to build the foundation of sustainable travel behaviour at an early age.

## B2 Planning of Research and Technology Development Tasks

Not relevant.

## B3 Situation prior to implementation

Both national and local cycling campaigns have been conducted in Aalborg during the last years. The City of Aalborg has supported the national school start campaigns planned by Safe Traffic that is run by the Danish Road Safety Council. These campaigns build on posters, roadside signage, and booklets with assignments for the school children that are handed out for free to the schools. The schools can buy other equipment like hats or t-shirts.

In addition to these initiatives the City of Aalborg has, during approximately the last 10 years, produced leaflets for all the schools within the municipality that give directions on the safest way to the specific school.

Through this work it is recognized that different target groups need different approaches and more work has to be done in this field. And the campaign designed as part of the ARCHIMEDES project focuses directly at engaging the children to cycle more.

## B4 Planning of demonstration tasks

The measure has been implemented in the following stages:

**Stage 1: Conduction of survey among school kids** *(March 2009 – April 2009) – The City of Aalborg has as part of another scheme initiated a survey among school kids to get information on how the kids get to school and how they perceive the road to school. The survey is conducted among all school children on the 18 schools in the ARCHIMEDES corridor. The output from the survey has been used as foundation to the campaigns and as baseline data.*

**Stage 2: Design and development of the campaigns** *(Concept developed by August 2010) – This phase included the development and design of the campaigning elements. The implementation of the measure was organised in cooperation between departments within The City of Aalborg. During winter 2010 a working group consisting of representatives from both The Technical and Environmental Department and The Department of Education and Cultural Affairs was formed. This cooperation secured that the campaign was designed with respect to the target group. In addition an*

*advertising company was engaged to develop the concept and the technical solutions for the campaign.*

**Stage 3: Launch of campaign** *(August 2010-October 2010) – The campaign was launched after the summer holiday. Launch of the campaign: The campaign was launched through a more traditional "bike-to-school" campaign encouraging school children to cycle and enter their mobile phone number to participate in the competition. The campaign was launched on a web paged combined with posters, flyers and slap wraps distributed to the children at the schools.*

(1) Sabotage of the campaign: The posters and homepage were sabotaged by a character named Roland. A movie introduced the gallery of characters and the first riddle.


**Figure 1: The traditional campaign used as the start of the campaign can be seen to the left. The sabotaged version to the right marked the start of the first riddle and the introduction to the characters.**


**Figure 2: Screen shot from the campaign web page where the characters and the first riddle were introduced.**

(2) Riddles 1-7: Riddles were introduced on the homepages and through text messages sent to the children that had registered on the homepage. For each riddle solved, the schools received points in the competition against the other schools. For some of the riddles, the points were given in relation to how fast the children solved them in order to take advantage of the fast communication through mobile phones. During the campaigning period the children could keep track of their position in the competition on the web page.

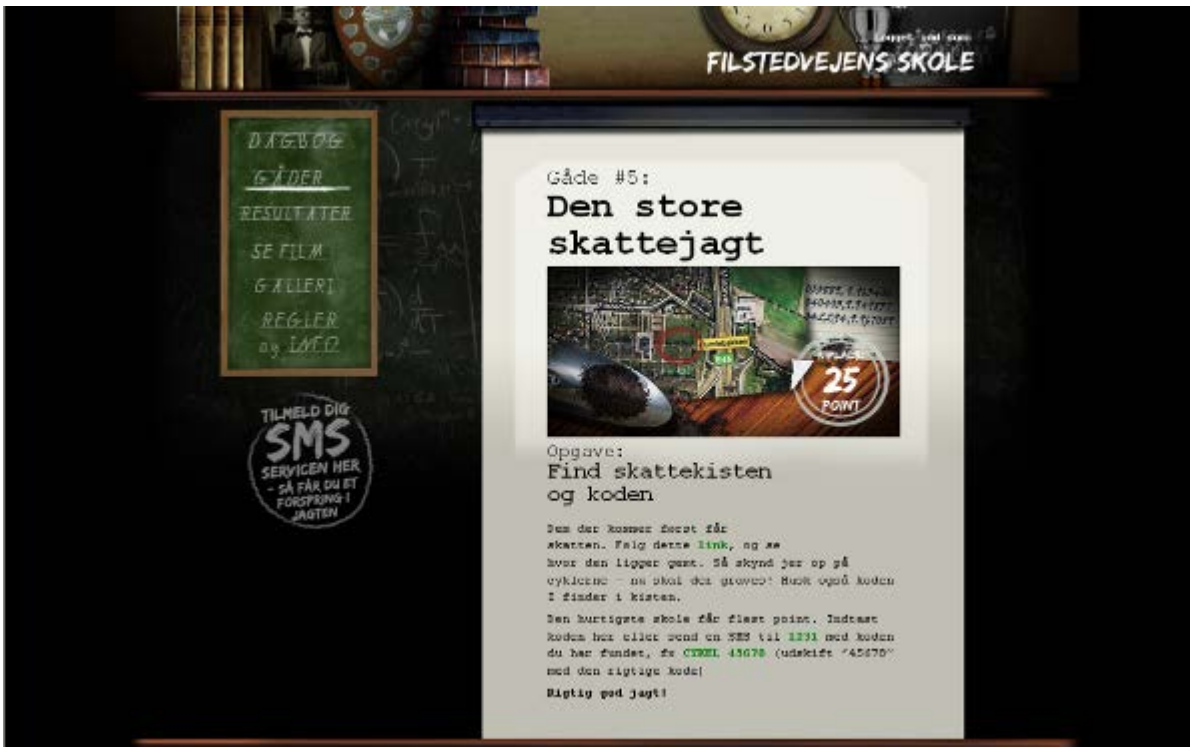


**Figure 3: Screen shot from web page that introduced one of the riddles where the children were asked to cycle to a specific location near the school to find the code and a "hidden treasure".**


**Figure 4: Screen shot from the web page with one of the riddles where the children had to take and upload pictures of themselves together with a bike and a signpost.**

*(3)* End of campaign – a winning school was found: Due to the children solving the riddles, the tickets are rediscovered and the winning schools announced. Because two schools had the same points, both schools were announced as winners.

**Stage 4: Collection of after data on awareness and modal spilt** *(Collected in December 2010) – Surveys at the schools have been conducted. Data on modal split and awareness were part of this survey.*

**Stage 5: Redeveloping the concept** *(January 2011-August 2011) - Based on the experiences from the campaign in 2010 a new campaign building on the existing concept was developed. The new*

*campaign was built on the webpage and text message service that were part of the first campaign. The following learning points were included as part of the design of the new campaign:*

- The riddle concepts proved to be a good way to activate the children and the children indicated that they love to bike. Therefore, especially riddles where the children had to go out on their bikes were to a higher degree included in the new campaign design.
- The focus at communicating directly with the children as the webpage as the platform proved to be a good way to reach the target group.
- The mobile phone could be used to a higher degree and giving children using the mobile phone an advantage in the competition could be a way to further make use of the mobile phone as a way of communicating.
- Giving the schools tailored information and securing as little as possible work for them to do in the campaign were a good way to secure the support of the schools.

**Stage 6: Launch of Campaign 2011** *(August 2011-October 2011) – The campaign was introduced at the schools again. The target group was again kinds in 5$^{th}$ – 7$^{th}$ grade at the schools within the corridor. Thereby, part of the target group also participated in the campaign in 2010, while the children in 5$^{th}$ grade are new to the target group. Working a target group where part of the children is familiar with the concept is expected to make it easier to get the children to participate. Through the campaign the children were introduced to 6 different riddles and the winning school won a bowling trip for the whole class. This year there were also prizes for the second and third place consisting on table football game and a table tennis game.*


**Figure 5: Screen shot from the campaign web page in 2011 with one of the riddles where the children had use an exercise bike and log the number of kilometres driven.**

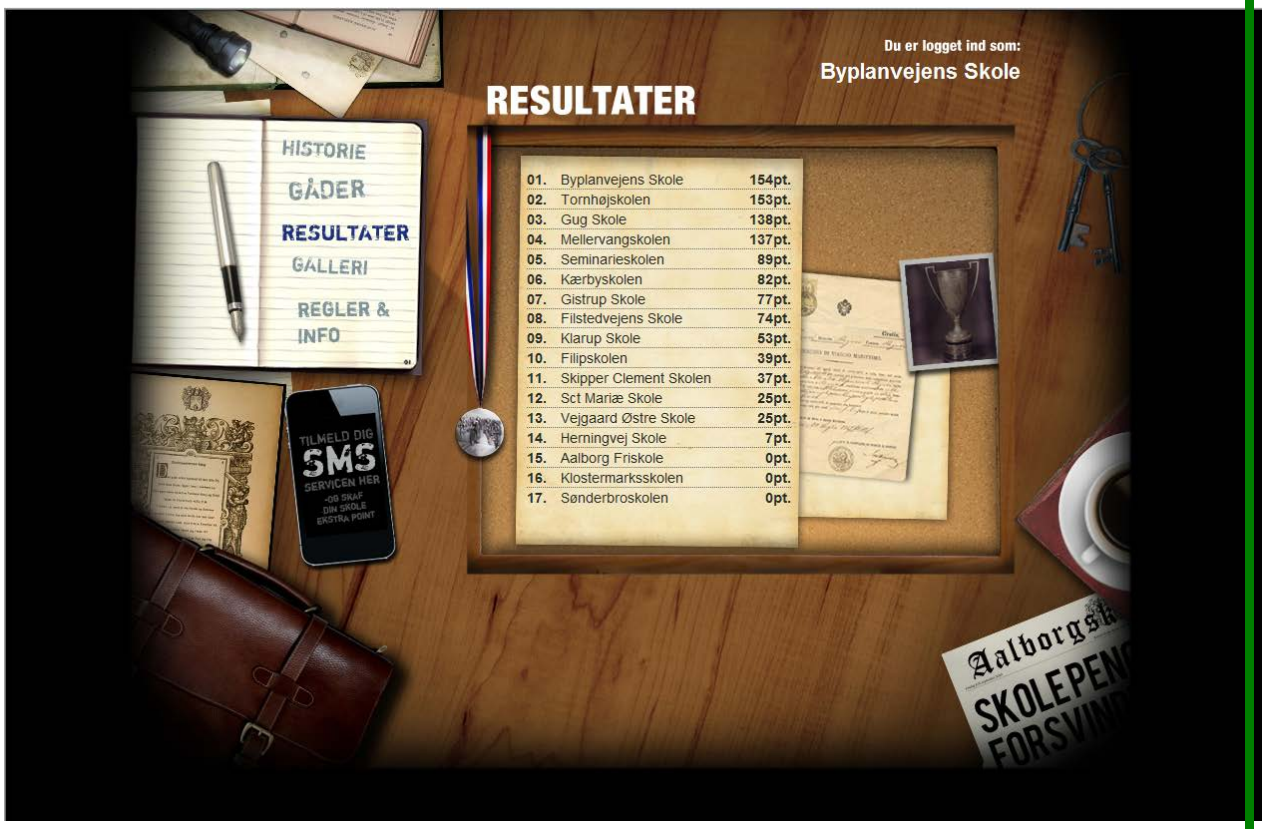


**Figure 6: Screen shot from the campaign web page in 2011 with the results list where the children throughout the campaign could follow their position in the competition.**

**Figure 7: Happy children at the event where they got the first price.**

**Stage 7: Evaluation** *(Completed by 16th of November 2011): A survey on awareness indicators and modal split at all the schools concluding on the effects of the campaign in 2011 was conducted.*

## B5 Inter-relationships with other measures

The measure is related to other measures as follows:

- **Measure 43** – Traffic Speed Reduction Zones: Some of the schools are located in the proximity to or inside of the planned traffic speed reduction zones. Therefore, the zones are expected to make the area around the schools friendlier for bicycles.

# C Planning of Impact evaluation

## C 1 Measurement methodology

## C1.1 Impacts and indicators

### C1.1.0 Scope of the impact

The high level/longer term objective of this measure was to increase the number of children cycling to school. Thereby, sustainable travel behaviour is founded at an early age and the intention was that this travel behaviour would be kept in the long-term perspective.

On the strategic and measure level, the intention was to reduce the children being driven to school in private cars and to design a campaign that tests new ways of communicating with the target group.

By including an awareness survey that, as it is described in C2, included awareness about the campaign, the message and changes in attitude towards cycling as well as the effectiveness of the campaigning elements was captured. Furthermore, the data on modal split was used as an indicator on whether the campaign has had concrete results regarding travel behaviour as well.

### C1.1.1 Selection of indicators

| NO. | EVALUATION CATEGORY | EVALUATION SUB-CATEGORY | IMPACT | INDICATOR | DESCRIPTION | DATA /UNITS |
|---|---|---|---|---|---|---|
| | **SOCIETY** | | | | | |
| 13 | | **Acceptance** | Awareness | Awareness level | Awareness of the policies/measures | Index (%), qualitative, collected, survey |
| | **TRANSPORT** | | | | | |
| 29 | | | Modal split | Average modal split-trips | Percentage of trips for each mode | %, quantitative, derived |

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## C1.1.2 Methods for evaluation of indicators

| No. | INDICATOR | TARGET VALUE | Source of data and methods | Frequency of Data Collection |
|---|---|---|---|---|
| 13 | Awareness | Widespread knowledge of the campaigning elements and the message of the campaign among school children.<br><br>More positive attitude towards cycling. | Survey conducted among the schoolchildren at the 18 schools in the corridor. The surveys were made as questionnaires. The survey included the following aspects:<br>- The awareness of the campaign in general (Are the children aware about the campaign and the different elements?)<br>- The awareness of the message of the campaign (Have the children understood the message of the campaign?)<br>- The awareness of the benefits of cycling (Have the campaign made the children's' attitude towards cycling more positive? Have some of the barriers indentified in the before data analysis been mitigated?).<br>The after survey on modal split has been combined with the awareness survey. It was chosen to make this survey as a questionnaire to make it easier for the schools to handle and thereby secure a high response rate. The questionnaires were distributed at all the 17 schools among the specific target group (approximately 2300 school children in 5$^{th}$ to 7$^{th}$ grade). The questionnaires were sent to the class teachers that were responsible for the distribution and returning the questionnaires. The response rate was 49%.<br>A similar survey was concluding on the effects of the campaign in 2011 was conducted in November 2011. The questionnaires were sent to the class teachers that were responsible for the distribution and returning the questionnaires. The response rate was 51%.<br>The after evaluation done through paper version is believed to be easier for the schools to handle and therefore not only the schools that feel engaged in traffic issues are expected to participate. It can thereby be argued that the people participating in the after surveys could have a tendency to be not as engaged in cycling issues as the ones participating in the before. However, due to the fact that it has been the same target group and that we have been able to obtain high response rates and | 2 time. |

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| No. | INDICATOR | TARGET VALUE | Source of data and methods | Frequency of Data Collection |
|---|---|---|---|---|
| | | | thereby large samples for all the surveys they are perceived comparable. | |
| 29 | Modal split | Increased percentage of bicycle use | Survey conducted among school children at the 18 schools in the corridor. The before survey has in spring 2009 been conducted as an internet based questionnaire addressed at all the 8500 school children. The response rate was around 50 %.<br><br>The first after survey on modal split was combined with the awareness survey. It was chosen to make this survey as a questionnaire to make it easier for the schools to handle and thereby secure a high response rate. The questionnaires were distributed at all the 17 schools among the specific target group (approximately 2300 school children in 5$^{th}$ to 7$^{th}$ grade 5$^{th}$ to 7$^{th}$ grade). The questionnaires were sent to the class teachers that were responsible for the distribution and returning the questionnaires. The response rate was 49%.<br><br>A similar survey was concluding on the effects of the campaign in 2011 was conducted in November 2011. The questionnaires were sent to the class teachers that were responsible for the distribution and returning the questionnaires. The response rate was 51%. | 3 times. |

### C1.1.3 Planning of before and after data collection

| EVALUATION TASK | INDICATORS INVOLVED | COMPLETED BY (DATE) | RESPONSIBLE ORGANISATION AND PERSON |
|---|---|---|---|
| Before survey at the 18 schools in the corridor. | Awareness, modal split | M10 | City of Aalborg, Anne Marie Lautrup Nielsen |
| Survey at the 18 schools in the corridor. | Awareness, modal split | M28 | City of Aalborg, Anne Marie Lautrup Nielsen |
| Smaller survey on awareness at specific schools | Awareness, modal split | M40 | City of Aalborg, Anne Marie Lautrup Nielsen |
| | | | |
| | | | |
| D12.2 Baseline and first results from data collection | All indicators | Month 34 | |
| D12.3 Draft results template available | All indicators | Month 35 | |
| D12.4 Final version of results template available | All indicators | Month 37 | |

## C1.2 Establishing a baseline

A survey as an internet-based questionnaire conducted in spring 2009 is used to establish a baseline. The survey was conducted among all schoolchildren on the 18 schools in the ARCHIMEDES corridor. The output from the survey has been used as inspiration to the campaigns as well. This survey was combined with a larger survey that investigated how the children get to school and their route choice. The response rate for the specific three different grades is between 49% and 58%. In total almost 1300 of the 2461 schoolchildren in 5th to 7th grade at the 18 schools answered the questionnaire. However, the schools stated that it for them were difficult to arrange access to computers for the whole class. Therefore, it was decided to make the after surveys as paper handouts.

## C1.3 Methods for Business as Usual scenario

Business as usual includes not implementing the school cycling campaigns. Baseline data from the survey conducted at the schools were used for the business as usual scenario.

However, the baseline measurements were done in April 2009 while the after data collection rounds were in held in December 2010 and 2011.

From counting data on one of the most important cycling nodes in Aalborg, the city knows that overall cycling levels are 30% lower in December compared to April.

For the Business as Usual scenario the assumption is that without the campaign the modal share of cycling in April 2011 would be at the level of April 2012, while the modal share in December 2011 would be 30% lower than the level of April 2009.

## C2 Measure results

As the measure has focussed directly on engaging and activating the schoolchildren this group has also been in focus in terms of the evaluation. The questionnaires have directly focused on asking the schoolchildren and getting their judgement of the campaign.

## C2.1 Society

An important part of the objective of this measure was to test new ways of engaging with this specific target group. In this section, an evaluation of how the children participated in the campaign and how they interpreted the different campaigning elements is presented.

**Participation in the campaign**

**2010**

In terms of participation, the use of the webpage gives an impression of how the children engaged in the campaign. From the beginning of the campaign in 2010, the number of unique visits on the webpage was around 30 visits each day. As the graph on the next page shows the school children are especially active after the introduction of the fourth riddle where the use of the homepage increases to around 100 unique visitors each day. After this point in the campaigning period, the numbers indicate that the children are into the campaign, which is reflected in the webpage getting more visits also in the interval between the different riddles. In addition, the graph reveals that the number of visitors on the homepage increases in the days before a new riddle is released indicating that the schoolchildren are waiting for the next riddle to be released. As one of the riddles the children had to upload pictures on the homepage and in total more than 600 photos were uploaded on the homepage

On average, the visitors visited the homepage around 4 minutes and 30 seconds and visit almost 11 pages of on the homepage. The visit time is relative long for a homepage. Together with the increasing number of visits through the campaigning period, this indicates that the children are engaged in the campaign and eager to start solving a new riddle.

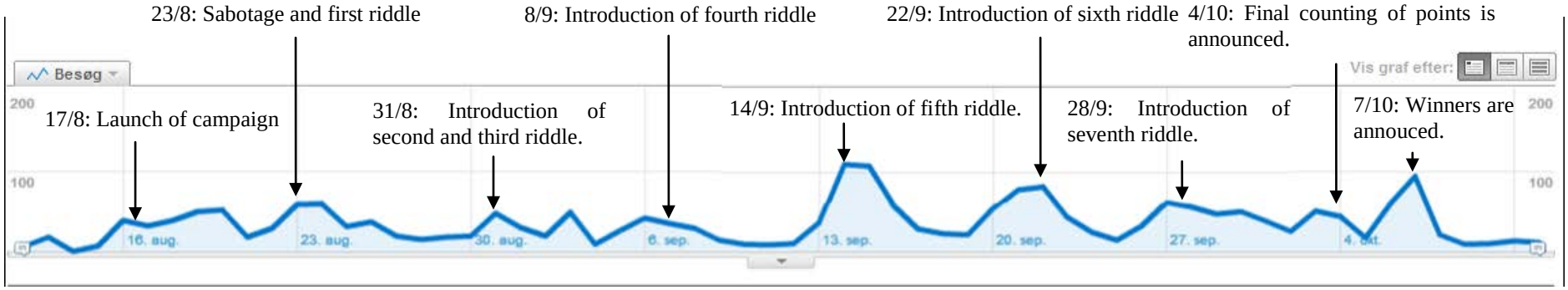


**Figure 8: Activity on the webpage in the campaigning period in 2010. The important events during the campaign are marked on the graph. The activity is shown as number of unique visitors on the homepage/day.**

**2011**

In 2011 from the beginning of the campaign, the number of unique visits on the webpage was around 20-30 visits each day. The graph on the next page shows that the campaign in 2011 was more successful in terms of getting the children active from the start of the campaign. Like in 2010 the graph reveals that the number of visitors on the homepage increases in the days before a new riddle is released indicating that the school children are waiting for the next riddle to be released. Again, in 2011 the children had to upload pictures on the homepage as one of the riddles and this year more than 500 photos were uploaded on the homepage

This year the visitors visited the homepage around 4 minutes and 30 seconds and visited 10 pages on the homepage. The visit time is again an indicator that the children are engaged in the campaign and eager to start solving a new riddle.

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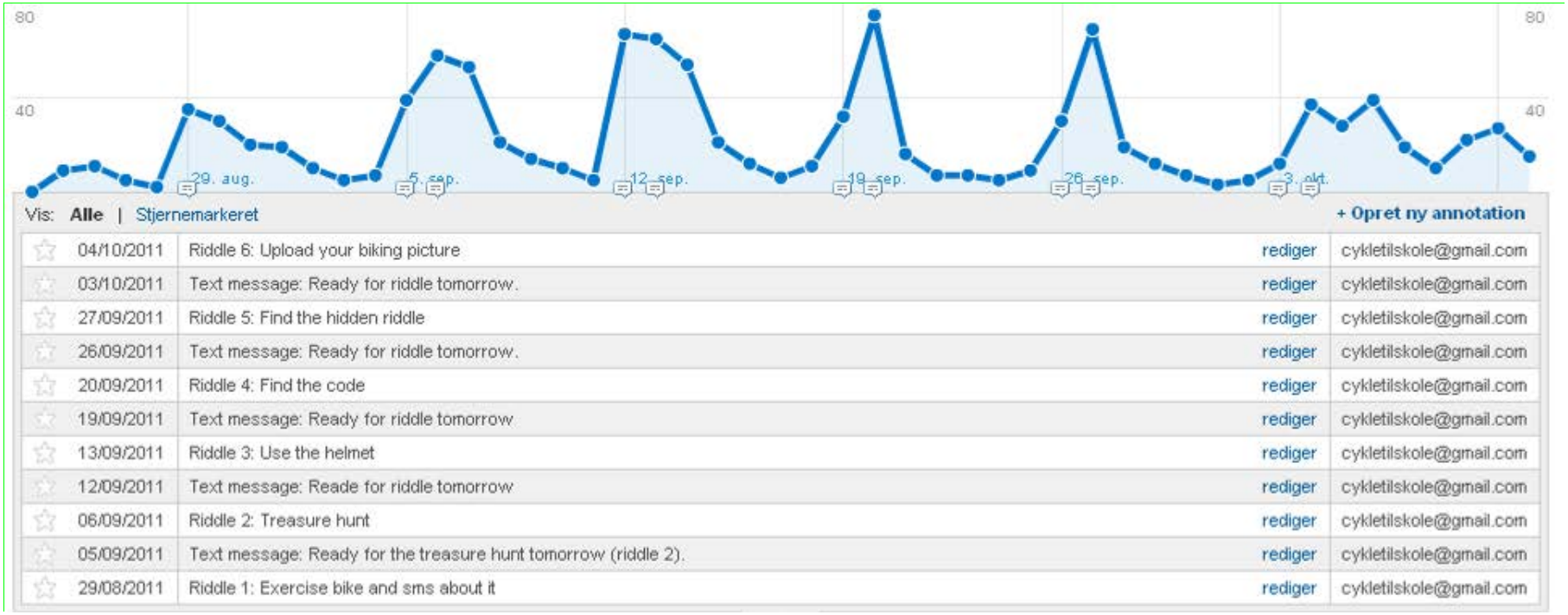


**Figure 9: Activity on the webpage in the campaigning period in 2011. The important events during the campaign are marked on the graph. The activity is shown as number of unique visitors on the homepage/day.**

In both after surveys, the children were asked about their participation in the campaign. The answers revealed that both years around 23 % of the schoolchildren stated that they have been active in the campaign. In 2010 59% of the schoolchildren stated that they know the campaign, but have not directly participated in the campaign. In 2011 this number was 53%. Combined these numbers says something about the promotion of the campaign and indicates that both years over 75% of the children are aware about the campaign.

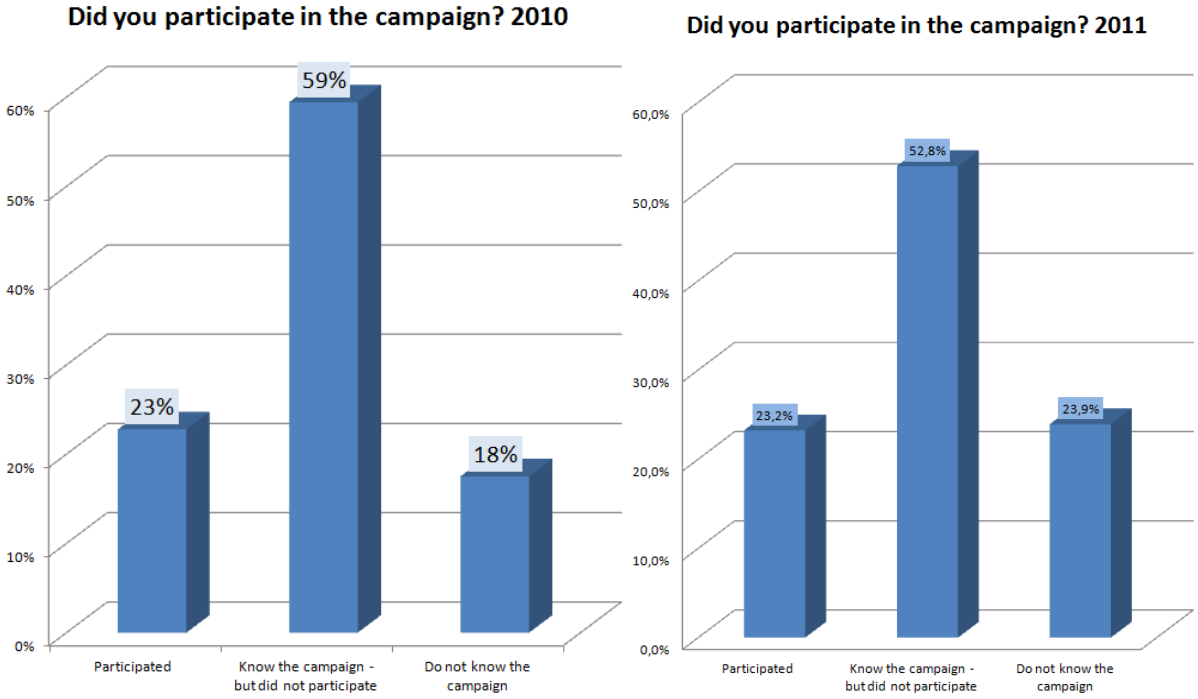


**Figure 10: Participation in the campaigns in 2010 and 2011.**

### Ways of communicating with the target group

An important part of the objective of this measure has been to test new ways of communicating with this group. Therefore, the use of the internet and the mobile phone have been two important means of communication through the campaign and these elements of the campaigns have therefore been given specific attention in the evaluation as well.

During the campaign periods the children could sign up for a text message service alarming them on new riddles and other important events. In 2010 in total 151 signed up for the service and 17 text messages were send out to each of the people that had signed up for the service during the campaign period. In 2011 88 signed up for the text message service and 11 text messages were send out to each person that had signed up for the service during the campaign.

The schoolchildren had also the opportunity to solve the riddles through text messages, which gave them an advantage in terms of time saving and being the faster than using the webpage. More than 55 messages were received in 2010 with answers during the campaign period. In 2011 emphasis was on making riddles that gave children using the mobile phone an advantage in the campaign. This also showed out on the number of text messages received during the campaign, which in 2011 was 113 text messages

In the survey, the schoolchildren answered whether they had used the mobile phone in the campaign. 43 % of the participating schoolchildren state that they had used the mobile phone during the campaign in 2010 while 39 % stated that they had used the mobile phone in 2011.

The survey also included questions about what the children found particular good/bad about the campaign. Here the use of the internet and mobile phone does not rate high, neither in terms of being a particular positive campaign element nor being a particular negative campaign element. This could indicate that the children see these ways of communicating as normal parts of their everyday life.

Having around 150 children in 2010 and around 100 in 2011 signed up for the text message service indicates that there is an interest in this way of participating in the campaign. Even though the number of people signing up for the text message system was lower in 2011 compared to 2010 the level of messages received was doubled. This indicates that the riddles designed in 2011 where more riddles focused at getting the children out on their bikes to a higher degree was suitable to connect with the use of the mobile phone. In 2010 the campaign included more riddles that could be solved at the school or close to the school which did not in the same way invite the children to use the mobile phone.

**Perception of the campaign and the different campaigning elements**

In general, in 2010 64 % of schoolchildren state that it has been fun to participate in the campaign, while 63% state it has been fun in 2011. Both years it is the parts of the campaign, where the children had to go out on their bikes or had the possibility to upload photos on the internet that are rated particularly positive. Especially the riddles where the children had to go out on a treasure hunt on their bikes seem to have had a positive effect on the participation of the children. This is consistent with the children's preference for riddles where they have to go out on their bikes. Therefore, more of these kinds of riddles were included in the campaign in 2011. As described almost the same number of children perceives the campaign as fun in 2010 and 2011. However, in 2011 a larger amount of the children perceives the campaign as "really funny" compared to 2010.

The answers indicate that it is especially the elements related to the uncertainty about what will happen in the next riddle that are perceived as negative elements by the children.

**Table C2.5.1: Summary of evaluation results in terms of awareness**

| Indicator | Before (date) | B-a-U (date) | After (date) (2010/2011) | Difference: After –Before | Difference: After – B-a-U |
|---|---|---|---|---|---|
| Awareness | N/A | N/A | 82%/76% of the school-children are aware of the campaign.<br><br>23%/23% state that they have been active during the campaign.<br><br>150/88 people have signed up for the text message system.<br><br>64%/63% state it has been fun | | |

| | | | | | |
|---|---|---|---|---|---|
| | | | to participate in the campaign. | | |

## C2.2 Transport

The survey conducted in spring (March-April) 2009 before the campaign revealed a modal split for the schoolchildren's trip to school as the three figures below shows. The survey also revealed that children in general start biking around to school around 4th grade and it is therefore important to promote the use of bike in relation to this age group in order to create sustainable travel habits.

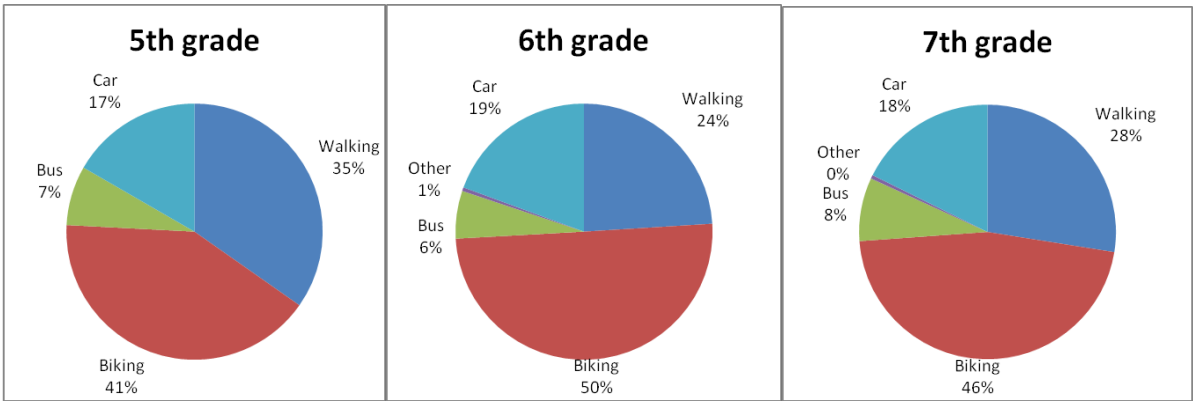


**Figure 11: Modal split stated in the before survey in April 2009.**

The after-survey is conducted in December, since the campaign was finished in the end of October. Therefore, the surveys are not conducted at the same time of the year and even though the children are asked to leave weather conditions out of account when answering, it will unavoidable have a negative effect on children's desire to bike.

The children have therefore been asked how the campaign has affected their desire to bike and whether they bike more or less after the campaign. In 2010 22% of the children state that the campaign has positively affected their desire to bike and 17% state that they bike more after the campaign. In 2010 7 % of the children say the campaign has negatively affected their desire to bike and 11 % state they bike less than before the campaign. In 2011 the campaign seem to have influenced the children at almost the same level: 22% state that the campaign has positively affected their desire to bike, 19% state that they bike more after the campaign, 8% state that the campaign has negatively affected their desire to bike and 11 % state that they bike less than before the campaign.

In the evaluation in 2011 the school children were also asked about which mean of transport that they had used to get to school the specific date[2]. The results are listed in the diagrams below.

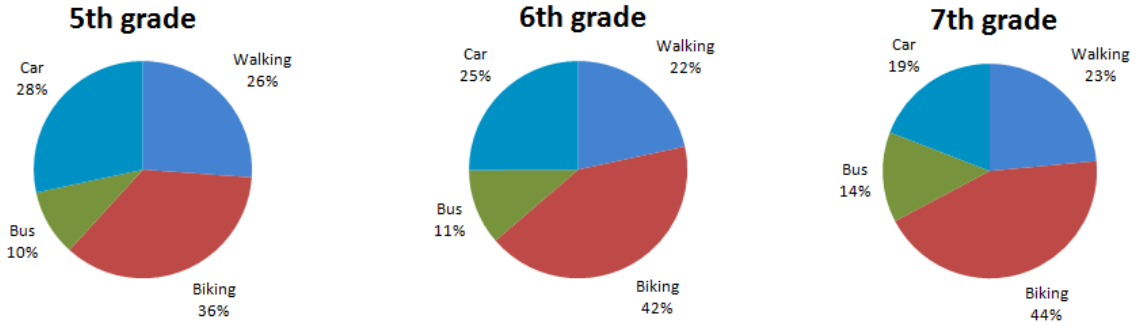


**Figure 12: Modal split stated in the after survey December 2011.**

A comparison of the modal split diagrams before and after shows a decrease of 2-8% in bike use between the different grades. However, because the before survey is made in March/April the diagrams cannot be directly compared. In general, bike use is lower in December compared to March and April. If one compares the number of cyclists on the Limfjord Bridge, that is one of the key nodes within the cycle network in Aalborg, the number of crossing cyclists in December 2011 was around 30% lower than the number of cyclist in April the same year.

Taking these numbers as an indicator on the seasonal variations the bike use the biking level in December is supposed to be around 30% lower than the before surveys held in April. However, the bike use in the after survey is regarding 5$^{th}$ and 6$^{th}$ grad only around 16 % lower than at the before survey, and regarding 7$^{th}$ grad the biking level is more or less as before the campaigns. This could indicate that the schoolchildren to a larger degree hold on to the bike despite of weather conditions. This tendency seems to be evident concerning the schoolchildren in 7$^{th}$ grade, where the level of biking is more or less as before the campaign which also goes for the level of car use. These results indicates that if children in 5$^{th}$ or 6$^{th}$ grade have established biking habits they will, when they get older continue these travel habits all year around despite of weather conditions. Working with children within this age group is therefore important when it comes to establishing sustainable travel habits among schoolchildren.

Looking at the level of car use it is higher for both 5$^{th}$ and 6$^{th}$ graders in the after survey, while the level for 7$^{th}$ graders as mentioned is more or less as in 2009. The higher use of cars in the after survey can be explained by the weather conditions. Thus, it is more difficult to conclude on a direct effect on the level of car use. However, the increase in cycling when adjusted for annual fluctuations is perceived also to consists of new bikers that previously were driven to school.

**Table C2.2.1: Summary of evaluation results in terms of transport**

| Indicator | Before<br>April 2009 | B-a-U<br>December 2011 | After<br>December 2011 | Difference:<br>After –Before | Difference:<br>After – B-a-U |
|---|---|---|---|---|---|
| Modal Split | Journey to school:<br>Bike: 45,9% | In December on average cycling is 30% lower | Journey to school:<br>Bike: 40,8% | Modal share of cycling:<br>- 5,1% | Modal share of cycling:<br>+ 8,7% |

[2] Only data from 2011 has been collected in order to keep questionaires simple for the schools it was choosen to include this only in the last survey.

| | | | | | |
|---|---|---|---|---|---|
| | Car: 17,9 %<br>Bus: 7,2%<br>Walking: 28,7%<br><br>To make results comparable with the after survey conducted in December the average bike use is perceived to be 30% lower in December compared to April e.g. 32,1% | than in April: 32,1 % [3] | Car: 23,9%<br>Bus: 11,7%<br>Walking: 23,7% | | |

In relation to the overall goals of the campaign about securing the foundation of a sustainable travel behaviour among school children these numbers indicate together with the children's involvement and engagement in the campaign that this type of campaign activity has an effect on both the attitude towards biking and also their actual travel behaviour.

The campaign has focused at engaging the children to bike to school. By choosing this focus the campaign has worked with one of the main reasons behind not biking. The before survey showed that the children indicated distance, weather, not allowed by parents, safety issues and no eager to bike as the main reasons behind not biking or walking to school. The municipality has a range of initiatives that through campaigns and physical changes focus at improving the traffic safety around the schools and therefore it was chosen to focus at engaging the children to bike in this campaign.

## C3 Achievement of quantifiable targets and objectives

| No. | Target | Rating |
|---|---|---|
| **1** | To encourage children to cycle to school and thereby encourage children to get sustainable travel behaviour in a long term perspective | ** |
| **2** | To reduce the number of children being driven to school. | **NA** |
| **3** | To design a campaign with traditional campaigning elements (e.g. posters, radio and TV spots) and to test new ways of communicating with the target group. | *** |
| **NA = Not Assessed O = Not Achieved ★ = Substantially achieved (at least 50%)<br>★★ = Achieved in full ★★★ = Exceeded** | | |

[3] The B-a-U is believed to be equal to the before scenario. The number of cyclist on the Limfjords Bridge in April 2009 is around the same level as in April 2011.

## C4 Methods for upscaling

Upscaling of this measure would mean introducing the campaign at all schools within the municipality. There are 64 schools in total within the municipality compared to the 17 schools in the CIVITAS corridor.

However, only around 1/3 of these schools are located as urban schools were the children come from the neighbourhood. The rest of these schools have children coming from a larger hinterland. At these schools, it is not realistic to believe that it is possible to get as high a percent to go to school by bike as at the schools located in urban areas. The goal at the school at rural areas is to reduce the number of children being driven to school to a maximum of 20%. Therefore, the effects of a similar campaign at the schools in rural areas are expected to be lower, but the campaign could be upscaled to include all schools in the municipality.

## C5 Appraisal of evaluation approach

The following aspects are important leanings during the design and completion of the evaluation of this measure:

- Designing the data collection in a way that makes it as easy as possible for the schools to participate is important in order to get their support and obtain a high response rate. This among other things meant that we prioritised to print the questionnaires for the schools and pack them so it was straightforward for the teachers to handle them out to the schoolchildren.
- Engaging with this group in terms of evaluation through a questionnaire requires specific attention to the reader-friendliness and complexity of how the questionnaires are presented. This was handled by designing a relatively simple questionnaire with concrete questions that are understandable for the children as well. Working with the simple questions is the only way of getting sound evaluation data.
- The after evaluations are placed directly after the end of the campaign, which is in the winter period where people do not bike as much as in the summer period. However, it has been necessary to place the evaluation in continuation of the campaign in order to make sure that the children remember the campaign and still can relate to the specific questions about the campaigning design.

## C6 Summary of evaluation results

Important evaluation results of the campaigns:

- Both years around 80 % of the children within the target group state that they know the campaign.
- Around 25-30 % of the children within the target group state that they have been active in the campaign by solving riddles and challenges.
- The mobile phone and the internet were means of communication that shortened the distance to the children and made it possible to design a campaign on the children’s terms.
- Especially elements where the children had to be active and go out on their bikes are perceived as positive by the children.
- 22% of the school children within the target group state that the campaign has made them more desire to bike
- Taking weather conditions into account the after survey indicates that the number of children that still bike during winter is increased.

- And finally nearly 20% stated both years that they bike more after the campaign.

## C7 Future activities relating to the measure

The City of Aalborg will continue the work with improving and facilitating secure school roads. This work includes as described leaflets for all the schools within the municipality that give directions on the safest way to the specific school. When planning future campaigns for school children the experiences with this type of engaging the school children will be taken into account.

In addition, school road analyses have resulted in a number of infrastructure projects that are implemented at the schools in 2012 and more are planned for the coming years.

# D Process Evaluation Findings

## D.0 Focused measure

| | | |
|---|---|---|
| X | 0 | No focussed measure |
| | 1 | Most important reason |
| | 2 | Second most important reason |
| | 3 | Third most important reason |

## D.1 Deviations from the original plan

The measure has overall been implemented as planned. Initially the plan was only to have one campaign round..

- **Campaign in both 2010 and 2011** – A reintroduction of the campaign was however chosen due to two different reasons. First, repeating the campaign made it possible to learn from the experiences with the campaign in 2010 as described in section B4. Second, having a second campaign where the message is repeated was perceived as a good way to improve the effect of the campaign.

## D.2 Barriers and drivers

The campaign has schoolchildren as the direct target group and this implies some specific challenges and restrictions on the planning and design of the campaign.

One of the specific actions that was taken in the planning of the measure was to set up a working group with members from the Department of Education and Cultural Affairs in order to secure a direct approach to the public schools. Furthermore, drawing on the knowledge from people that are used to engage with the schools is a way to secure that the campaign fits the target group.

Furthermore, one of the challenges with this target group is that schools and teachers are under pressure from many different interests that takes time away from education. Therefore, it was chosen to put as little workload on the schools and teachers as possible and instead try to engage the children instead. This approach turned out to be successful. An important precondition for this success is that the campaign intended to communicate with the children in a positive way and make it fun for them to participate.

Using the internet and the mobile phone in an active way also created a direct way of communication to the children which has shortened the distance to the children. In addition, by using this way of communication we did not have to rely on the willingness/time of the school.

As the evaluation also showed, one specific driver of the campaign is that the children see biking as fun. This is a very valuable starting point, and a good precondition for getting them involved in the campaign.

The barriers, drivers and adjoining activities are summarised in the following sections.

### D.2.1 Barriers

**Preparation phase**

- No barriers experienced.

**Implementation phase**

- **Schools and teachers lack time to engage in these kind of initiatives** – Schools and teachers are under pressure from different interests that take time away from the education. Therefore, they have to choose and prioritise what they engage in. Consequently, it was chosen to put as little workload on the schools and instead engage with the children directly.

**Operation phase**

- No barriers experienced.

## D.2.2 Drivers

**Preparation phase**

- **Cooperation across Departments** – Cooperation with the Department of Education and Cultural Affairs secured direct contact to the public schools and proved to give valuable input to the design of the campaign.

**Implementation phase**

- **Direct communication with the target group** – Using the internet and mobile phone is a direct way to reach this target group, without having to rely on communicating through parents or schools. This made the distance to the children shorter.

**Operation phase**

- **Positive attitude towards biking** – Schoolchildren perceive cycling as fun and building on this positive attitude it is possible to get the children involved and engaged with the campaign.

## D.2.3 Activities

**Preparation phase**

- **Cooperation across Departments** – A working group with participation of the Department of Education and Cultural Affairs was set up to secure direct contact to the public schools and input to the campaign.

**Implementation phase**

- **Reducing the workload for schools and teachers through tailored information and communication directly with the children** – In order to make it easier for the schools and teachers to participate the information was short and specific and the campaign build on communicating directly with the school children.

**Operation phase**

- No activities undertaken.

## D.3 Participation

### D.3.1. Measure Partners

- **City of Aalborg –** Responsible for the planning and implementation of the measure. The work was done in a cooperation between the Technical and Environmental Department and the Department of Education and Cultural Affairs.
- **Advertising Company (SHRPA)** – External advertising company hired to develop the concept and technical solutions for the campaigns.

### D.3.2 Stakeholders

- **School and school children and their parents in the corridor –** The information in the campaign was targeted school children, but the schools and parents were kept informed.

## D.4 Recommendations

The school cycling campaign has in an alternative way approached schoolchildren and succeeded in activating them in the campaign. The mobile phone and internet proved to be a good way to engage with the children. Many lessons learned by this initiative could be transferred to other countries – however, one should be aware about the context e.g. how are the infrastructure facilities for cycling and do the children live nearby the school or do they come from a larger area.

The lessons learned are summarised in recommendations in the following two sub-sections:

### D.4.1 Recommendations: measure replication

- **Recommendation 1:** Using the internet and the mobile phone in an active way creates a direct way of communication to the children, which has shortened the distance to the children.
- **Recommendation 2:** The schoolchildren perceive biking as fun and positive. Therefore, a campaign should build on their eagerness to go out on their bikes.
- **Recommendation 3:** The competition element in the riddles proved to be a good way to activate the children. In addition, the prices in the competition also focussed at improving the cohesion in the classes.

### D.4.2 Recommendations: process

- **Recommendation 1:** Tailored information was provided to the schools and teachers, and they were given specific information on their role in the campaign.

*Measure title:* **School Cycling Campaigns in Aalborg**

*City:* **Aalborg** *Project:* **ARCHIMEDES** *Measure number:* **29**

# E Summary time schedule

| | | YEAR 1 | | | | | | | | | | | | YEAR 2 | | | | | | | | | | | | YEAR 3 | | | | | | | | | | | | YEAR 4 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Task No.** | **Task name** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 4.1 | School Cycling Campaigns | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Evaluation tasks** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Before survey | | | | | | | | x | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| After survey | | | | | | | | | | | | | | | | | | | | | | | | | | | | x | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Process evaluation report | | | | | | | | | | | | | | | | | | | | x | | | | | | | | | | | | x | | | | | | | | | | | x | | | | | |
| **Deliverables** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M12.1 Draft MLEP | | | | | | | | | | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D12.1 Final MLEP | | | | | | | | | | | | | | x | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D12.2 Baseline and first results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | x | | | | | | | | | | | | | | |
| D12.3 Draft results Temp | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | x | | |
| D12.4 Final result temp | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | x |