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Measure Evaluation Results

TAL 4.1 Mobility Management and Marketing Activities Directed at Popularizing Usage of active Transport Modes

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Executive Summary

The measure ‘Mobility Management and Marketing Activities Directed at Popularising Usage of Active Transport Modes’ was aimed at supporting the change of the modal split towards active modes of transportation by promoting them through a wide range of activities, such as organising promotional public events for sustainable transport, strengthening communication between the municipality and citizens and elaborating guidelines for the marketing of sustainable transportation modes. The objectives of the MIMOSA measure were to raise citizens’ awareness of their sustainable mobility choice, to improve public transport service quality and to raise satisfaction of users and therefore encourage a larger number of citizens to use PT, cycling and walking instead of using private cars. In total 28 activities were carried out during the measure and were individually designed in order to reach a wide range of target groups.

The measure was implemented in the following stages:

Stage 1: Implementing activities and passenger satisfaction surveys (2010 – 2012)

Activities addressed to diverse target groups such as schoolchildren, students, workers and commuters were organised.

Stage 2: Data collection for evaluation (2009 - 2012) Surveys before, during and after the implementation of the measure activities were carried out.

Stage 3: Drawing up Guidelines for marketing sustainable transport (2011- 2012) With the aim to elaborate a long-term marketing strategy, a study was conducted to analyse stakeholders, define the target groups and determine the opportunities and hindrances related to the promotion of sustainable transport in Tallinn. The results were combined in a report, which served as guidelines for raising mobility awareness among citizens.

An impact and a process evaluation were conducted. The main indicators for the impact evaluation were selected to determine awareness and acceptance of the most relevant activities conducted, to estimate the changes in general acceptance on fostering sustainable transportation and to calculate the evolution of the modal share in Tallinn. The results were all based on large scale surveys conducted before and after implementation of the measure and on the results of the survey conducted during one of the activities called “Knitting Bus”.

The **key results** from the evaluation highlighted a mixed assessment: while the citizens’ awareness and acceptance on the activities implemented in the frame of this MIMOSA measure are significantly positive, the results regarding awareness on mobility and the evolution of the modal share during the MIMOSA period were moderate. Indeed, the measure activities had a high level of awareness among the citizens of Tallinn: 25% of the 1,000 citizens interviewed were aware of the activities. Furthermore, the measure activities had a very high level of acceptance among the citizens of Tallinn: 78% of the 1,000 citizens interviewed gave good or very good appraisal of the three particular measure activities (knitting bus, new bus terminal design, new information panel design in PT stops). Nevertheless, there was a drop by 6% in the overall acceptance on fostering active transportation, from 94% to 88% which still remained very high. However, there was a slight drop in the modal share of personal car: the share of personal car use decreased by 1,5%, from 31,8% to 30,5%.

From the process evaluation, **some barriers encountered** during the implementation were identified. Firstly, the lack of a sustainable development agenda and vision in the preparation phase of the measure affected the efficiency of marketing activities, which could have been

implemented in a more systematic way. Secondly, the impeding cultural circumstances and lifestyle patterns reduced the impact of the measure. One of the **most important drivers** of the measure was the constructive partnership constellation between the many and diverse City Departments which contributed to the successful implementation of the measure. This driver is important as communication between City Departments is generally poor and results in poor coordination of activities. Another significant driver was the sharing of experiences and recommendations with the City of Dublin and other MIMOSA cities which helped to develop ideas for the implementation and conduction of the evaluation.

Some of the activities implemented in Tallinn were themselves based on previous good practices experimented with in other cities and even implemented in the frame of the MIMOSA project. The successful implementation of the measure in Tallinn and the great acceptance by its citizens of the activities conducted highlighted the **high degree of transferability of the measure** in the context of other European cities. The set of activities implemented in this measure are easily replicable and do not require high financial investment. Indeed, the cost of marketing activities is relatively low compared to investments, thus affordable to any city. Also, promotion is relatively easy to replicate with experiences from other cities and using other cities own possibilities on PT and in public spaces.

During the process, the city of Tallinn learnt relevant lessons to improve the planning of activities, implementation and of evaluation. Firstly, the measure activities should be based on a strategic plan elaborated with the contribution of experts in the field of sustainable transportation and other relevant stakeholders. Secondly, to be able to assess the impacts of the measure, the initial evaluation approach should be designed in strong correlation with the measure planning.

The new Tallinn Transport identity (including all transportation related information, web page, PT stops, etc.) received a Design Management Europe Award 2012 on November 15th 2012 in Paredes, Portugal for best management of design in a public or non-profit organisation.

A Introduction

A1 Objectives

The measure objectives are:

- (A) High level / longer term:
 - Improvement of the quality of life;
 - Reduction of transport related pollution;
 - Increase of modal share towards sustainable modes.
- (B) Strategic level:
 - Promotion of sustainable mobility in the city;
 - Reduce the usage of private cars in the target area;
 - Reduce pollution in the target area;
 - Promotion of healthy lifestyle.
- (C) Measure level:
 - (1) Promote an attractive and high quality public transport service;
 - (2) Increase the number of users of active transport modes (PT, cycling, walking);
 - (3) Awareness raising of potential active transport mode users and keeping the number of current PT users. Changing the habits of car users;
 - (4) Awareness raising on active transport modes;
 - (5) Awareness raising on new technical concepts and sustainability;
 - (6) Awareness raising on effective use of transportation (e.g. avoiding private car with only one passenger);
 - (7) Raising the satisfaction with the PT service and improve the overall image of PT in the urban area.
- (D) The expected results are:
 - (1) Awareness raised on possibilities of public transport and walking and cycling by 10%;
 - (2) Usage of developed infrastructure has increased by 10%.

A2 Description

The measure was aimed at supporting the change of the modal share towards active modes of transportation by promoting them through a number of activities, such as arranging promotional activities for sustainable transport, arranging communication between the municipality and the citizens or creation of guidelines for marketing sustainable transportation modes.

The promotion of possibilities and usefulness of active transportation modes was done through campaigns for wide variety of target groups on different events. One very important target group was children, because they are more open-minded for new ideas and besides educating a new generation of travellers it is often possible to reach their parents with ideas of sustainable transportation through them. The complete list of activities together with topics, dates, targets and numbers of participants is presented in the Table 1.

One of the most influential activities with the largest target group within the measure was creation of a new Design Standard (identity) for Tallinn public transport service (see **Figure 1** to **Figure 6**). The aim of creating a new Tallinn Transport identity was to change the user experience, image and communication of Tallinn public transportation to great extent, following the lead of European cities with tens of years of experience (London, Zurich, Stockholm, etc.). The mission was to make a similar impact on a very short timeline. The main keywords were: systematisation, unification, information noise reduction and standardisation, aiming at a user-friendlier and more accessible service environment. The current situation mapping process started in 2009 and there was a range of specialists involved: in-house field experts, team of design specialists, design students, external consultants, management team, production & setup team, and reflection group.

The new Tallinn Transport identity received a Design Management Europe Award 2012 on November 15th 2012 in Paredes, Portugal for the best management of design in a public or non-profit organisation.

Figure 1 A foldable Tallinn PT map for visitors (in English) available at the Airport and at tourist info points in the city centre.



Table 1 List of events and communication activities implemented in the scope of the measure

No	Date	Name of the event / communication action	Target groups	No of people addressed /influenced	Topics and activities
1	21.05.2010	Smart Traveller Day	General public, parents/ families, cyclists, car users, students/schoolchildren/ teachers	600	Influencing travel behaviour, promoting collective transport & intermodal integration, safety, security & health, educational games for children, traffic thematic crosswords
2	15. 07.2010	Company city bicycles for Transport Department officials	Tallinn Transport Department officials	55	Influencing Transport Department officials' travel behaviour and encouraging home-work-home trips by bicycle.
3	18.09.2010	Mobility Week 2010, Car Free Day	Car users, general public, students/ schoolchildren/ teachers pedestrians, parents/ families	250	Influencing travel behaviour, collective transport & intermodal integration, promoting online trip planning tool
4	20.11.2010	Producing educational cartoons to promote PT "Rabbit Juss uses PT"	Children and through children their parents	167 000 (page visits)	Influencing travel behaviour
5	23.10.2010 and 4.11.2010	Cinema Event for kindergarten and school children (1 st edition)	General public, students/ schoolchildren/ teachers/ kindergarten children, parents/ families	1 000	Influencing travel behaviour, safety, security & health, collective transport & intermodal integration, using sustainable modes of transport, walking, PT, bike, using reflectors in the dark period, culture of pt. preparing a group work at school/kindergarten (drawing and crossword), watching educational cartoons and proactive meeting with the traffic experts in the cinema.
6	15.11.2010	Launching Knitting	Students/ schoolchildren/	2 000	Promoting sustainable modes (public transport), inviting

No	Date	Name of the event / communication action	Target groups	No of people addressed /influenced	Topics and activities
		graffiti in Tallinn	teachers, general public, parents/ families, elderly / disabled people		volunteer knitters to participate and prepare the knitting graffiti campaign (June 2011)
7	7.05.2011 and 25.05.2011	Cinema Event for kindergarten and school children (2 nd edition)	Students/ schoolchildren/ teachers parents/ families	1 400	Safety, security & health, promoting sustainable modes (public transport, car free lifestyle and bicycling), site visits, public meeting, promoting bicycling
8	5.06.2011	Smart Traveller Day and Bicycle Parade 2011	Local stakeholders (interest groups, employers/ employees, citizens associations, formal groups), politicians - local/ regional, general public, students/ schoolchildren/ teachers cyclists	1 500	Promoting sustainable modes (public transport, walking and bicycle), exhibition, inauguration/ launch public meeting, road safety tests
9	10.06.2011	1st public action of the knitting graffiti	Local stakeholders (interest groups, employers/ employees, citizens associations, formal groups), general public	25 000	15 volunteers wrapping underground bus terminal pillars with knitted graffiti. Exhibition.
10	13.06.2011	2nd public action of the knitting graffiti	Students/ schoolchildren/ teachers	25 000	15 volunteers wrapping one PT vehicle with knitted pieces and the bus was covered with a knitting imitation. Promoting sustainable modes (public transport).
11	7.06.2011 and	Knitting graffiti campaign survey	Parents/ families, students/ schoolchildren/	813	Questionnaire in the knitted bus – before and during the event (813 replies).

No	Date	Name of the event / communication action	Target groups	No of people addressed /influenced	Topics and activities
	21.06.2011		teachers, general public		
12	17.06.2011	Knitting graffiti bus on service	General public		Promoting sustainable modes (public transport).
13	1.09.2011	ABC party 2011 for 1st grade students	Students/ schoolchildren/ teachers, parents/ families	3 000	Safety, security & health.
14	18.09.2011	Car free day (during the European Mobility Week)	General public, students/ schoolchildren/ teachers, parents/ families, pedestrians, car users	500	Promoting alternatives to private car use, public meeting, site visits
15	16.09.2011 – 25.09.2011	Design night festival	General public	600	Improved info design in Tallinn PT, exhibition of the new design, seminars and workshops.
16	10.10.2011 – 21.10.2011	Science Energy Centre an active training "Discover traffic"	Students/ schoolchildren/ teachers	1 150	Promoting sustainable modes (public transport), exhibition, workshop, site visits.
17	23.05.2012	Vigurivänt 2012 (bike licence event)	Students/ schoolchildren/ teachers, parents/ families	300	Safety, security & health, training, promoting sustainable modes (public transport), workshop, bike exams, education - bike use lessons.
18	28.05.2012 and 8.06.2012	Morning Cinema Sessions (3 rd edition)	Students/ schoolchildren/ teachers, parents/ families	804	Promoting sustainable modes (public transport), workshop, study and screening of cartoons.
19	17.07.2012	Launching new PT	Tourists and foreigners, local	2000	Inauguration/launch of PT maps for visitors. Handy maps

No	Date	Name of the event / communication action	Target groups	No of people addressed /influenced	Topics and activities
		maps for tourists	stakeholders (interest groups, employers/ employees, citizens associations, formal groups), foreign students/ teachers		contain all PT lanes, ticket info and selected tourists attractions.
20	29.08.2012	Launching new PT identity and new PT info materials	Local stakeholders (interest groups, employers/ employees, citizens associations, formal groups), general public, PT users	400 000	Collective transport & intermodal integration. Launching new PT maps, ticketing info, PT stops.
21	3.09.2012	ABC Party 2012 for 1st grade students	Students/ schoolchildren/ teachers, parents/ families	2 000	School bus promotion, new contactless ticketing system promotion, exhibition, inauguration/launch, public meeting
22	06.09.2012	Training and communication about new Tallinn Public Transport Identity and Design Standard.	Officials of Tallinn Transport Department and officials from Tallinn Communications Department	63	Introducing new Tallinn Public Transport Design Standard to officials.
23	17.08.2012 and 21.08.2012	European Mobility Week – launching Traffic Snake Game in Tallinn schools	Students/ schoolchildren/ teachers, parents/ families	2400	Safety, security & health, influencing travel behaviour training, promoting sustainable modes (public transport), implementing traffic game in schools
24	8.09.2012	Tallinn Marathon EXPO and launching of the sustainable mobility week in	General public, Students/ schoolchildren/ teachers, pedestrians	3 000	Collective Transport & intermodal integration, promoting sustainable modes (public transport), exhibition public meeting

No	Date	Name of the event / communication action	Target groups	No of people addressed /influenced	Topics and activities
		Tallinn			
25	10.09.2012	Signing a contract for purchasing and installing 96 user-friendly bicycle racks to Tallinn city centre	General public, bicycle users and potential home-work-home bicycle users.	400 000	Promoting home-work-home bicycle use and improving the bicycle racks network in city centre.
26	22.09.2012	Car Free Day and PT Orienteering campaign in Tallinn	Car users, general public, students/ schoolchildren/ teachers, parents/ families	600	Collective transport & intermodal integration, influencing travel behaviour, innovative mobility services, promoting sustainable modes (public transport), exhibition, orienteering competition with PT, introducing new ticketing system

Figure 2 New PT info layout in PT stops. Big stop name on top, ticketing info on the right and a user-friendly PT map in centre. For faster location finding a sticker “You are here” with a 10 minutes walking radius is glued to each PT map.



Figure 3 P&R outdoor campaign followed the Design Standard – Tallinn Transport visual language is recognisable.

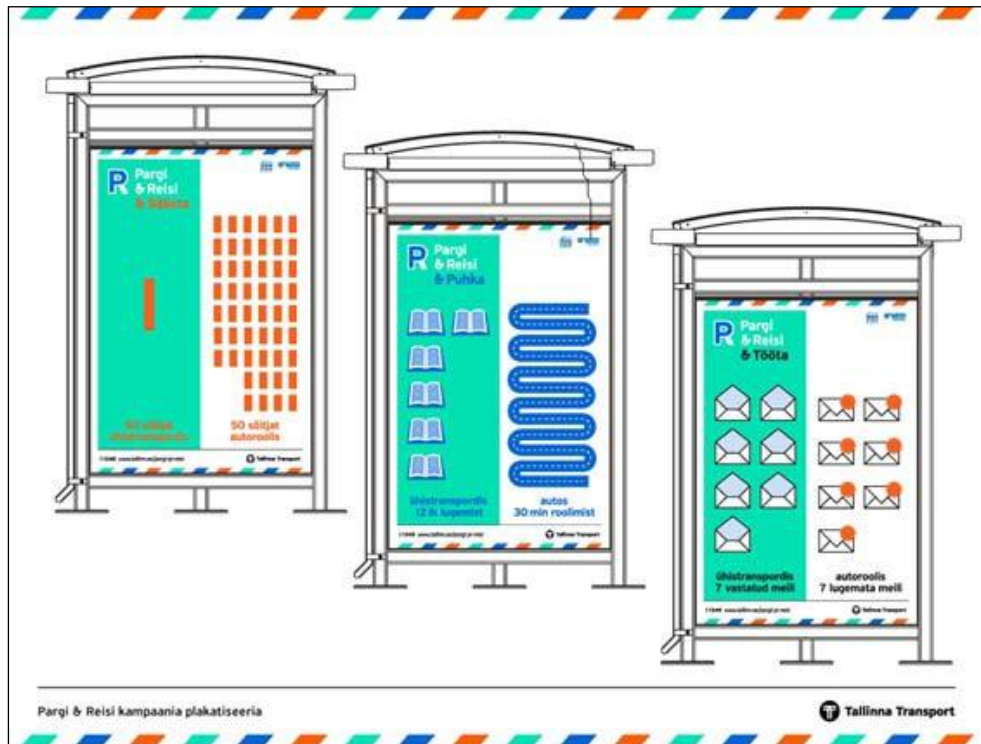
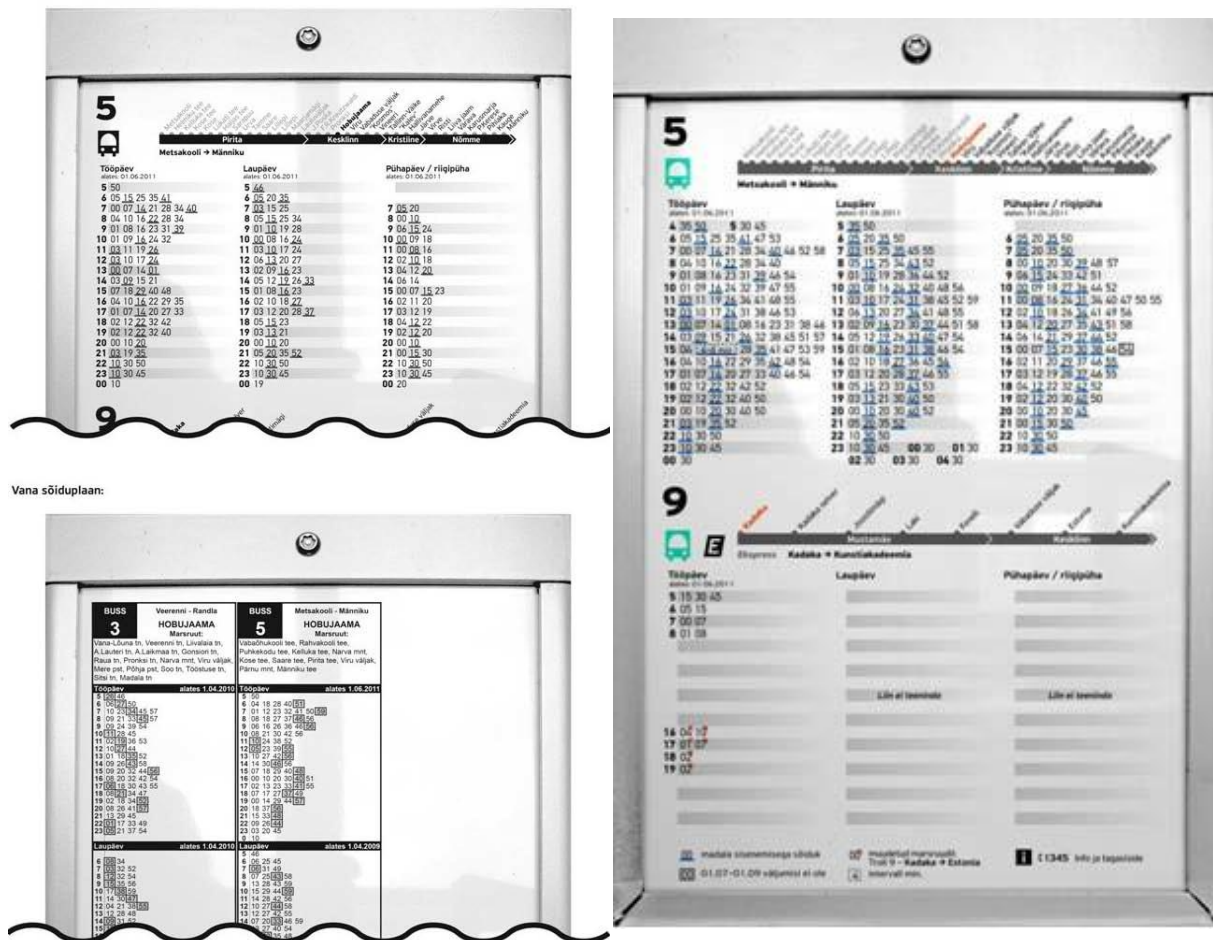


Figure 4 New user-friendly layout (left on top and right) of the PT time schedules replaced the old ones (left below) in PT stops. Most important changes on new schedule layout regard new typeface



Vana sõiduplaan:

- PF Din Text Pro (for numbers): narrow, legible, timeless
 - PF Highway Sans Pro (identity, signage): optimized for signage and legible from distance
- Type is now larger and more legible
- New layout adds important information (route scheme, symbol legend, workers area)

Figure 5 Schoolbus campaign also followed the Design Standard (colour scheme and visual language).



Figure 6 Information booklet about the new contactless e-ticketing system was designed in accordance with the Design Standard.

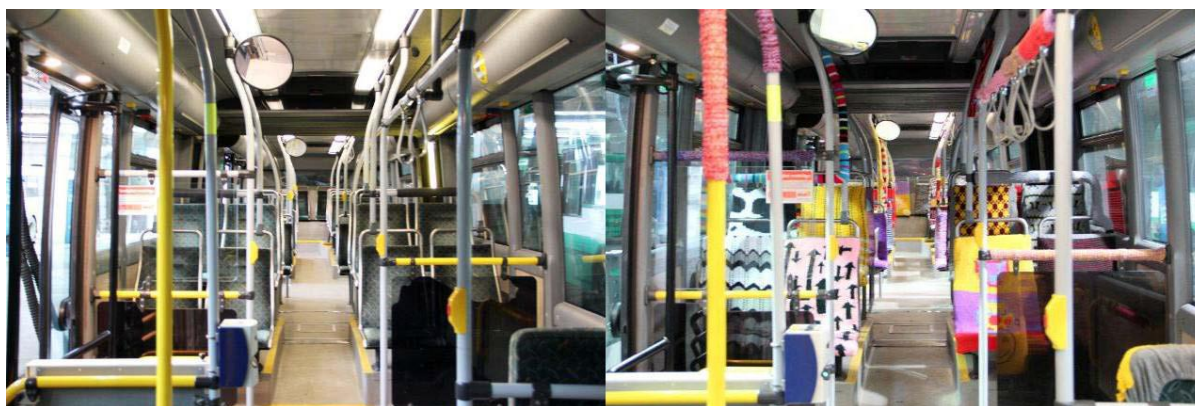


One of the most visible activities in the measure was „Knitting bus“ and „Knitting graffiti“ campaigns (**Figure 7** and **Figure 8**). Pillars of the Tallinn central underground bus terminal and one articulated bus were wrapped in coloured woollen knitted scarves along with a central park in Tallinn. The bus was literally wrapped both inside and out (**Figure 8**). Scarves covered seats and a sticker imprinted with knitted scarves covered outside of the bus. The various colours and textures of the handmade crafts were intended to make the bus terminal and vehicle warm, friendly and inviting.

Figure 7 „Knitting bus“ exterior and knitted CIVITAS MIMOSA logo



Figure 8 The “Knitting Bus” interior before and after decoration.



B Measure Implementation

B1 Innovative Aspects

The innovative aspects of the measure are:

- **New conceptual approach** – creating an information line from the municipality to the citizens. Citizens were informed about the possibilities of mobility in the city.
- **New policy instrument** – a new direction was taken in policy in order to bring about desired changes - changing the previous trends of increased car usage and decreased public transport usage towards sustainable alternatives.
- **New organisational arrangement** – with the new Tallinn Transport Design Standard many officials that deal with PT management should follow specific rules of PT info transmission. Design Standard ensures more effective and efficient public transport info flow from municipality to the end users.

B2 Research and Technology Development

Two documents both aiming at the improvement of the sustainable transport in Tallinn were drawn up within the measure.

1) A directional document – Design Standard – was created, to regulate design related decision-making in connection with Tallinn Transport. It guides users to follow specific rules using, placing and producing Tallinn Transport design and communication elements (from information signage to user-friendly language use of accessible use of colour/type/layout/etc.). All the following design decisions of the project team were based on, and designs executed following the Design Standard, and therefore systematised and unified. It is recognised that the Design Standard carries one's point only if consistently followed, audited, and updated and its principles shared, trained and communicated.

2) Guidelines for sustainable transport marketing in Tallinn were created by Tallinn University of Technology in cooperation with Transportation Department of Tallinn city. It is based on current problems in transportation, communication problems with and between city departments, which are connected to transportation directly or indirectly.

The guidelines consist of classification of users of all transportation modes, recommendations for communicating with every group of users and recommendations for improving internal and external communication of Tallinn Department of Transportation. The classification is also based on users' trip objectives and regularity. Every group in classification is given rate of importance from the marketing viewpoint and recommendations for communicating with the group.

B3 Situation before CIVITAS

An economic downturn and then rapid economic growth have imposed large structural changes on the city and its transport system during past 20 years. The number of private cars has been increasing rapidly and this has turned the modal share towards private car dominance. While the overall quality of PT, walking and cycling possibilities have increased during the period, the PT service has been reduced constantly according to the decrease of usage. The reputation of PT has been low – often considered as a service for those who cannot afford a personal car. The reputation of cycling has different problems: dogmas of our

climate not being suitable for such activity and cycling being mainly usable only for sports and leisure. This all has all affected trends in modal share. Also, there was no marketing strategy for the active transportation modes, any positive changes were often not seen by people.

B4 Actual Implementation of the Measure

The measure was implemented in the following stages:

- **Stage 1: Implementing campaigns and activities, carrying out campaign satisfaction surveys. Drawing up Guidelines for marketing sustainable transport and Tallinn Public Transport Design Standard (2010 – 2012)** - Activities were applied to a range of target groups and included also practical interventions such as the promotion of mobility plans, education, and promotion to achieve a modal shift;. Guidelines for marketing sustainable transport and a new Tallinn Public Transport Design Standard were both drawn up within the measure but with a future perspective.
- **Stage 2: Data collection for evaluation (2009 - 2012)** – surveys before, during and after implementation of the measure activities;
- **Stage 3: Organising awareness campaigns following a new Public Transport Design Standard (2012)** - all new communications about PT will follow the visual language of the Design Standard in order to ensure consistency.

B5 Inter-Relationships with Other Measures

The measure is related to other measures as follows:

2.1. Developing P&R and School Bus – the efficiency of Park and Ride is directly linked to informing and promoting the system and public transport generally. Promoting P&R was part of the activities during promotional events like Car Free Day. A new Design Standard created within the measure was applied to P&R and School bus visual campaigns (see **Figure 1** to **Figure 6**).

2.2. PT Ticketing system – ticketing policy and solution were important parts of the full PT policy system. The current measure was also aimed at informing the users and other citizens on real costs of different transportation modes. A new Design Standard created within the measure was applied to new ticketing system launching and visual campaigns (see **Figure 1** to **Figure 6**).

5.1. Improvement of visibility and safety of crosswalks and bicycle tracks – several solutions used in the measure needed promoting to be more effective. Traffic safety was addressed during public marketing activities.

8.3. Real time information system. – real time status information on PT timetables was part of the communication plan of the measure 4.1.

C Impact Evaluation Findings

C1 Measurement Methodology

C1.1 Impacts and Indicators

As the measure was aimed at supporting the change of the modal share towards active modes of transportation the modal share was the most important impact to evaluate. Since no regular modal share studies have been done in Tallinn, the general MIMOSA survey was used to estimate the modal share change. For comparison, trends in motorized traffic flows in Tallinn are also presented in the evaluation results.

The second important impact was awareness and acceptance of general public of the measure activities and of promotion of sustainable transportation in general. While the exact activities were not known at the time of the before survey and the questions were therefore rather general, specific questions about particular activities were asked in the after survey.

Table C1.1: Indicators.

NO.	EVALUATION	EVALUATION SUB-CATEGORY	IMPACT	INDICATOR	DESCRIPTION	DATA/UNITS
15	Society	Acceptance	Awareness	Awareness level	Degree to which the awareness has changed	Index, qualitative, collected, survey
16*	Society	Acceptance	Acceptance	Acceptance level	Attitude survey of current acceptance of PT drivers and management unit	Index, qualitative, collected, survey
29	Transport	Transport System	Modal shares	Average modal share -vehicles	Percentage of each mode	%, quantitative, collected, survey

Detailed description of the indicator methodologies:

- **Indicators 15 and 16, awareness and acceptance** – the evaluation of change in awareness and acceptance on measure activities was based on the general MIMOSA before-phone survey in November 2009 and a separate combined source after-survey in September 2012.

The **general MIMOSA survey** was planned and carried out by a professional market research company OÜ Klaster. Sufficient sample for different MIMOSA measures purposes was calculated to be between 600-800 persons.

The **general MIMOSA before-survey** was carried out in November 2009 and had a random sample of 1014 persons between ages 14 to 75. The survey was based on landline phone interviews and was carried out in Estonian (mother tongue for 53% of the population in

Tallinn) and Russian (42%) languages. 25% of the sample was interviewed by mobile phones to retain representability, because the usage of land line phones has decreased fast during the past decade. The sample was based on the population registry data and was gathered from all 8 city districts of Tallinn. The quotas of ages and sexes were calculated within districts. The quotas of 2 smaller of the 8 districts were above proportional because minimum 100 respondents were planned to every district. This was compensated with using different weights for different districts when calculating overall city results. The questionnaire was programmed to CATI (Computer Assisted Telephone Interviewing) and all interviews were performed using the system. The gathered data was checked in three stages: structural control – the CATI directed the interview to right blocks with help of filter questions; formal control – after the survey the errors in open text answers and numerical answers were corrected; cleaning the data – incomplete answers and interrupted interviews were removed in the process of interviewing.

The after-survey was carried out in September 2012 and it had a random sample of 1000 persons selected according to the same principles as described above.

The social profile of a respondent was based on gender, age, nationality, district of residence, car ownership and transportation mode use.

The before survey had 3 questions connected to the measure or measure evaluation:

1. What kind of transportation mode are you using for your everyday trips?
 - Personal car (including company car)
 - Public transport (bus, tram, trolleybus, taxi)
 - Bicycle
 - Motorcycle
 - Walking
2. What kind of transportation mode are you using MAINLY for your everyday trips? (separately asked about summer and winter, same answer options as with previous question).
3. How necessary do you think it is to foster public transport, cycling and walking in city traffic?

The question 2 was used for evaluating the change in modal share; the question 3 was used for evaluating the change on general acceptance towards fostering active transportation modes.

The after survey in September 2012 had additional questions besides the repeated first ones. The questions were on awareness and acceptance of the most influential activities of the measure:

1. Have you noticed the “Knitting bus” in Tallinn Traffic? What is your view of that?
2. Have you noticed the new design of the central bus terminal? (the question is indicating to the other part of knitting campaign) What is your view of that?
3. Have you noticed a new design of information panel in PT stops? What is your view of that?

PT users' satisfaction levels were also surveyed on the bus before and after “Knitting bus” campaign. The before-sample was 408 passengers and after-sample 405 passengers with two weeks interval between surveys. The survey was based on self-filled questionnaire with 7 fields about the passenger filling the questionnaire and 19 fields for giving rating to aspects

about the particular bus and to bus service on TBC bus services in general. The surveys were carried out in June 2011 by professional survey company Factum & Ariko (F&A).

- **29 Modal share** – the estimation of modal share was calculated from the general MIMOSA survey questions, described under the indicators 15 and 16. The question no 2 was used for evaluating the change in modal share.

The result is not accurate in a sense of modal share definition as it lacks counting of mileages with different modes but was found to be suitable as a general indicator for trends in transportation and mobility. In June 2012 a third survey with the same methodology and with a sample of 1113 persons was carried out but it was used for other MIMOSA measures. However, the general questions of modal shares were also asked and therefore the results could be used for comparing the results.

Table C1.2: List of potential effects that were not assessed

Impacts category	Indicator	How does it impact	Why it was not accessed
Transport	Traffic flow levels, peak and off-peak	With changing modal share the car traffic is influenced both peak and off-peak hours.	There were too many contributors to the changes in modal share for the impact of the current measure to be detectable, thus a detailed and laborious study would not have given any additional useful information. The contributors are explained in the chapter C1.3 Building a Business-as-Usual scenario.
Transport	Traffic safety, no injured and killed	The change in modal share should impact also traffic safety.	The indicator was originally listed in the local evaluation plan. Even when the impact of the measure to the changes in traffic flows was not possible to be separated from other contributors, traffic safety has even more contributors and the relation between traffic flows and traffic safety is never linear 1:1. Higher share of cycling and walking tend to result in higher number of accidents in the beginning as numbers first start to grow..
Awareness and acceptance	Surveys during the measure events	Several surveys were made during different promotional events and results showed the impact of the particular event.	The samples of such surveys are not representative and the results are biased, because more often the people who are ready to accept the idea of sustainable transportation come to the events. This is also the experience of other MIMOSA cities. Therefore only the results from the general survey and knitting bus campaign were used.

<p>Awareness on events</p>	<p>Awareness on all public events of the measure</p>	<p>All public events arranged in the scope of the measure had an impact on people's awareness, at least they should be aware that such events have occurred</p>	<p>The list of organized public events is too long to be asked in a phone survey. Secondly, as the event list begins already 2 years ago, the results would not be accurate because of forgetting the details about time or name of the event. Several events were organized for children only and thus their parents are not fully aware of the event details. Also, several events were repeated, thus it is complicated to measure awareness of them in balance with other events. For the listed reasons, only larger and recent events were included in the survey.</p>
<p>Awareness on the possibilities</p>	<p>Awareness raised on possibilities of public transport and walking and cycling</p>	<p>The awareness on the possibilities is influenced by the campaigns.</p>	<p>Getting an objective picture of awareness on the possibilities is difficult, because, the persons own assessment on their awareness is often not objective. The most objective estimation of the awareness is the usage of different transportation modes.</p>
<p>Usage of infrastructure</p>	<p>Usage of developed infrastructure</p>	<p>The change in awareness and acceptance on active transportation modes results also in change of the referring infrastructure.</p>	<p>While the indicator was listed in the measure objectives, the share of different transportation modes is a better indicator listed for this in the original list of indicators.</p>

C1.2 Establishing a Baseline

The baselines for the modal share and the general acceptance were created with a before-survey in November 2009. The awareness on the three particular campaigns could not have any awareness before, therefore no baseline could be created for this indicator. For the Knitting bus survey the baseline was created on 7-th of June 2011, just before implementing the campaign (17-th of June 2011).

C1.3 Building the Business-As-Usual Scenario

Building the BAU scenario was especially difficult for the current measure. The reason is that there were several other highly influential contributors to the whole sustainable transport topic during the measure period:

- Firstly, the economic crisis had especially hard influence on employment in Estonia and car traffic on 2009 (the first year when traffic volumes actually dropped after two decades) and the influence is still lasting on 2012. This affects modal share and it is difficult to estimate even the magnitude of the impact of this compared to the measure activities;
- Introduction, promotion and implementation of the idea of fare free PT during 2012. The process started suddenly in January 2012 and resulted in September 2012 (during the week of the second survey) in the official decision to have fare free PT from January 2013. This has all influenced both awareness and acceptance on sustainable transport, especially when the topic has been actual months before and during the

second survey. Again, it is difficult to estimate even the magnitude of the impact of this compared to the measure activities;

- Overnight large scale introduction of new PT priority lanes in the city centre in July 2012. The topic is still discussed publicly, in press, on municipal and even on parliament level and has certainly influenced both awareness and acceptance on PT. It is just not possible to estimate the influence of it separately from the other factors and the impact of the measure activities;
- During the past 3-4 years the cycling communities have grown fast and organized many highly influential series of events and campaigns independently of the measure. It is not possible to separate and estimate the influence of these from the measure events but by looking at participation rates of the regular events, the impact to cycling is probably higher than with the current measure activities;
- The influence of the described contributors was more or less sudden instead of continuous trends over years. Thus it was not possible to extend the previous trends to the measure implementation period.

For the listed reasons the BAU scenario could not be estimated and was just assumed that without the measure all the indicators would have remained the same as the baseline.

C2 Measure Results

C2.1 Economy

Not applicable

C2.2 Energy

Not applicable

C2.3 Environment

Not applicable

C2.4 Transport

The changes in transport were measured with modal shares of all transportation modes before and after the measure activities. The shares were obtained from surveys answers to the question: What kind of transportation mode are you using MAINLY for your everyday trips? The question was asked separately for summertime and wintertime, the results presented here are an equally weighted average of the results. The equal weights are realistic because from mid April to mid October the average daily (24h) temperature is above +5°C and daylight time is over 14 hours in mid April and over 10 hours in mid October.

The results from different surveys are presented on the **Figure 9**.

Figure 9 Changes in annual average modal share 2009-2012

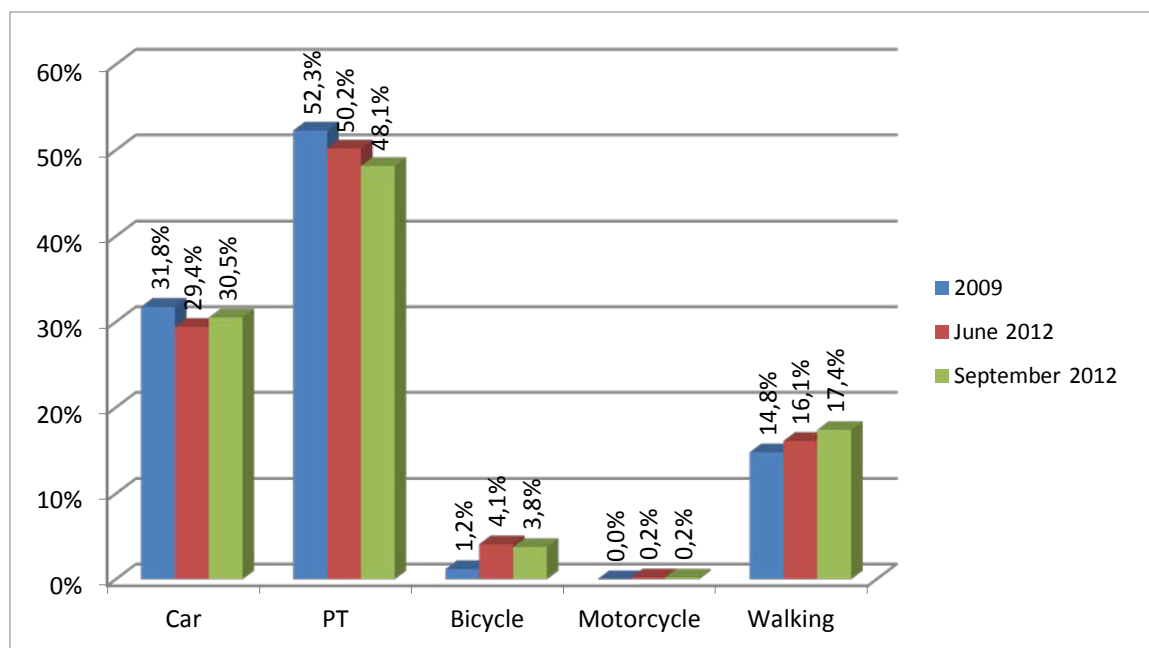


Table C2.4.1: Changes in modal share

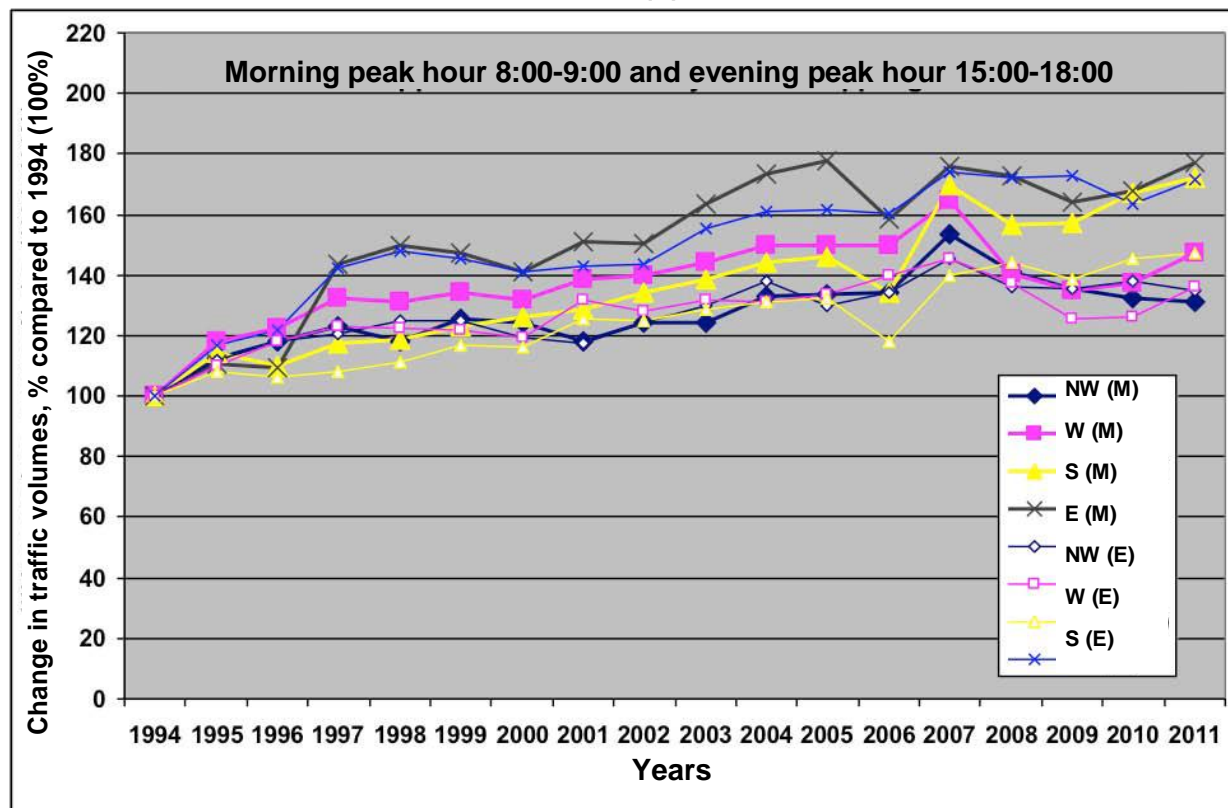
Indicator	Before (date)	B-a-U (date)	After (date)	Difference: After – Before	Difference: After – B-a-U
Modal share of personal cars	31,8% 11.2009	31,8% 09.2012	30,5% 09.2012	-1,3%	-1,3%

The overall result can be considered to be good, because it indicates that the increase of car usage has stopped and there is a slight tendency for cycling and walking increase. However, as explained earlier, the result cannot be accounted only to the activities of this measure and it is not possible even to estimate the magnitude of it.

The results of the modal share change estimates look realistic for several reasons. Firstly, the changes in actual behaviour take always time and bigger changes usually need considerable investments to sustainable transport. The latter has not been the case for Tallinn during the measure period. There were many small positive changes and activities (mostly thanks to CIVITAS MIMOSA measures) but no leap in the PT service quality nor in the cycling and walking possibilities in Tallinn. Secondly, the small differences between the 2012 June and September surveys indicate the accuracy of the survey result, varying only 1-2%.

However, survey results and actual situation are often (but not always) slightly different from each other. To compare the result of the survey to actual situation in car traffic, changes in traffic volumes are presented on the **Figure 10**. The graph is based on the annual traffic studies carried out by the TUT. The lines on the graph represent traffic volumes on city centre border from different summarized geographical directions on morning (M) and evening (E) peak hours. The figure shows that after reduction in traffic during economic depression in 2007-2009 the car traffic volumes have started to rise from 2010 despite the measure activities.

Figure 10 Change in traffic volumes on city centre borders of Tallinn in different summarized geographical directions on morning peak hours (M) and evening peak hours (E).

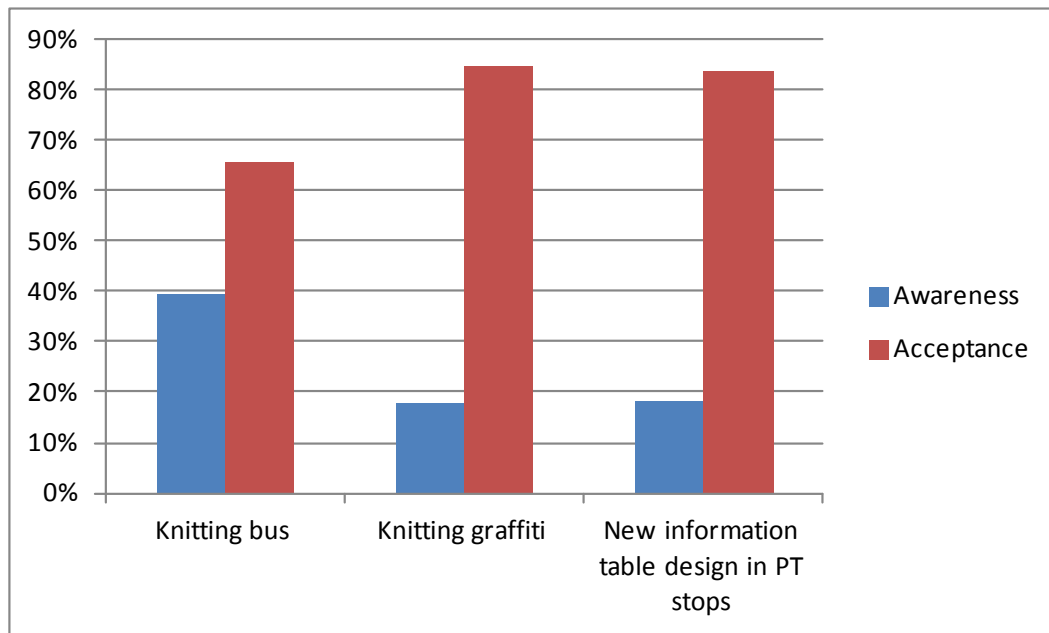


The reasons behind the trends on the **Figure 10** are lack of strategic planning and systematic activities for reducing car usage, for fostering sustainable transport and for sustainable land use planning both on municipal and national level. While the topic of sustainable transportation has been in focus in recent years, strategic planning and systematic actions are still lagging behind.

C2.5 Society

The changes in awareness and acceptance were also evaluated with general surveys and a dedicated survey for knitting bus campaign. The awareness and acceptance on the measure activities are presented on the **Figure 11**.

Figure 11 Awareness and acceptance on 3 activities of the measure



The result is high awareness and exceptionally high acceptance on the measure activities, considering the random sample over whole Tallinn population, the particular activities are mostly visible to PT users, the “Knitting bus” interior campaign was ended over a year ago and the new information table design was only introduced 3 weeks before the survey.

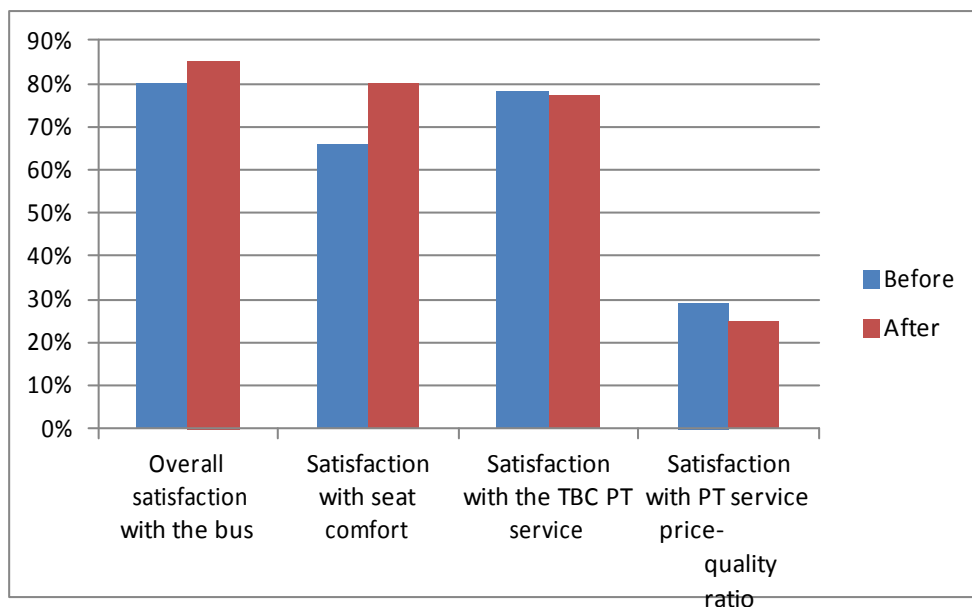
Results from the “Knitting bus” surveys before and during the operational mode of the activity are presented on the **Figure 12**. The results showed:

- 5% increase in overall satisfaction with the bus;
- 14% increase in satisfaction with seat comfort;
- 1% decrease in satisfaction with the Tallinn Bus Company (TBC) PT service;
- 4% decrease in the satisfaction with PT price-quality ratio.

The increases in overall satisfaction and comfort are directly connected to the campaign and show a good impact of it. The slight decrease in satisfaction with the TBC can be just a matter of accuracy of the survey or influenced by the next result – the decrease in satisfaction with the PT price-quality ratio. The reason is that between the two surveys a cancelling of 3-month period card was announced and this effectively increased the cost of PT service to daily commuters (who were using the period card, because it was cheaper) by 33%.

The surveys on the Knitting Bus campaign were carried out on the bus line 1A servicing between the city centre and eastern suburb of Tallinn. Therefore the results are valid only for buses (not other types of PT) for this particular line or with reservations for this servicing direction (North-East of Tallinn).

Figure 12 Selected results from the “Knitting bus” surveys



The change in general acceptance and awareness on the particular three measure activities is presented in the Table C2.5.1. The acceptance is based on the question: “How necessary do you think is it to foster public transport, cycling and walking in city traffic?”

Table C2.5.1: Change in awareness and acceptance on the measure activities

Indicator	Before (date)	B-a-U (date)	After (date)	Difference: After – Before	Difference: After – B-a-U
Awareness	-	-	25,1% 09.2012	-	-
Acceptance	93,9% 11.2009	93,9% 09.2012	88,0% 09.2012	-5,9%	-5,9%

The results of the surveys are mixed but have an explanation. The awareness is taken as an average of the three activities presented on the **Figure 11**. The result is good as explained above but since there could not be any awareness of the activities before they were implemented, no change could be evaluated.

The overall acceptance is generally in accordance with the average acceptance of the three particular activities – 77,9% (**Figure 11**). The decrease in overall acceptance is too large to be explained with a statistical error. The reason might be in the recent practical examples of fostering sustainable transport by Tallinn city, which is not always well accepted: the idea and costly promotion of fare free PT, overnight creation of PT priority lanes, etc. However, the overall acceptance is still very high even after the drop, which is one of the most important results from the evaluation.

C3 Achievement of Quantifiable Targets and Objectives

There were two quantifiable targets set in the measure objectives (). The awareness on possibilities is mostly reflected by the change in usage of the named transportation modes. As the total share of the active transportation modes changed from 68,2% to 69,4%, the change is only 1,8% (69,4/68,2). Also, the change is not achieved with the measure only, as discussed in previous chapters.

The second target of usage of developed infrastructure can best be characterized with the same indicator- change in modal share. Thus, the result is also the same.

No.	Target	Rating
1	Awareness raised on possibilities of public transport and walking and cycling by 10%	O
2	Usage of developed infrastructure has increased by 10%	O
<p>NA = Not Assessed O = Not Achieved * = Substantially achieved (at least 50%) ** = Achieved in full *** = Exceeded</p>		

The quantified results are not reflecting well the achievements of this measure. While the measure has reached good overall awareness and very good acceptance on the activities, the specific targets and their magnitudes listed in the quantifiable measure objectives are not good indicators for showing the real results. Firstly the targets are difficult and inaccurate for evaluation and secondly, the targets were set too high. While the measure have shown good results it is not possible to reach such big changes in 2,5 years with campaigns and activities only. While other MIMOSA measures have been supporting the change, the impact is then also sum of the other measures.

C4 Up-Scaling of Results

The campaigns and activities of the current measure have proved to be a very effective solution for raising the awareness and improving the acceptance of citizens on active transportation modes. Similar activities can very well be used in other cities and in transportation between cities and countries.

C5 Appraisal of Evaluation Approach

The evaluation of the measure results was difficult for several reasons:

- Influence of several other factors to the evaluation results and the fact that the influence could not be separated from the impact of the current measure. The biggest factors were the idea of fare free PT and recently implemented PT priority lanes;
- High number and nature of the activities. While most of the activities could be evaluated on site, such results would often not have proper random sample and would be biased by the activity itself;
- The change in modal share is not a task of marketing activities alone and thus the changes in modal share that can be expected from marketing are not reflecting the good results of the measure.

The survey and its accuracy proved to be suitable for the purpose but only the indicators of awareness and acceptance on the particular activities show the realistic effect of the activities. Since the same methodology could not be used for evaluating large number of activities, only three most influential were measured.

C6 Summary of Evaluation Results

The key results are as follows:

- **High awareness on the measure activities** - The measure activities have led to a high level of awareness among citizens of Tallinn – 25%;
- **Very high acceptance on the measure activities** - The measure activities have led to a very high level of acceptance among citizens of Tallinn – 78%;
- **The overall acceptance on fostering active transportation was dropped** – The acceptance was dropped by 6%, from 94% to 88% but remained very high. The measure had only partial influence on the result.
- **The modal share of personal car was dropped** – the share of personal car was dropped by 1,5%, from 31,8% to 30,5%. The measure had only partial influence on the result.

C7 Future Activities Relating to the Measure

There are several activities planned for the future:

- 50 bicycle parking racks will be installed in the centre of Tallinn;
- The design of the central bus terminal of Tallinn will be renewed during the reconstruction of the terminal;
- Several of the measure campaigns and activities have already become a tradition and will be repeated in coming years: smart traveller day, mobility week, car free day, cinema event for kindergarten and schoolchildren, traffic snake game; ABC party for 1-st grade students, etc.

D Process Evaluation Findings

D1 Deviations from the Original Plan

The deviations from the original plan comprised:

- **Delays in creating marketing guidelines** – creation of the guidelines was started after a year of activities had been implemented – in June 2011. The purpose of the guidelines was agreed to be a document to rely on also after the MIMOSA project has ended. The making of the guidelines by Tallinn University of Technology was also delayed so the final version was ratified in August 2012.

D2 Barriers and Drivers

D2.1 Barriers

Overall barriers

- **Cultural barrier** - Impeding cultural circumstances and lifestyle patterns. Similarly to other eastern European countries there is strong tradition and habit of considering the personal car as prestigious mode of transport in Estonia. This has probably reduced the impact of the measure.

Preparation phase

- **Political/Strategic barrier** – Lack of sustainable development agenda and vision and dedicated sustainable transport marketing plan. This has led to the fact that marketing activities were implemented in less systematic way and thus with probably smaller impact.
- **Organizational barrier** - Delays in creating marketing guidelines. This has also lead marketing activities to be less systematic and thus with probably smaller impact.

D2.2 Drivers

Preparation phase

- **Organizational driver** – Constructive partnership arrangements with other city departments and other institutions dealing with transport issues in general. This helped to implement the measure, mainly in a form of help arranging campaigns and events.
- **Involvement, communication related driver** – Exchange of experiences and lessons learned with other measures and cities. This has enabled to use the experiences: avoid mistakes and improve the results.

Operation phase

- **Involvement, communication related driver** - Experiences and recommendations from Dublin and other MIMOSA cities helped with ideas for implementation and evaluation. This concerned especially experience on PT campaigns and surveys.

- **Involvement, communication driver** – Positive feedback from PT users, city officials and other CIVITAS cities on the implemented activities has helped planning and focusing on new activities.

D2.3 Activities

Preparation phase

- **Organizational activity** – Following a delay in creating marketing guidelines for sustainable transport, additional members were added to the team making the document. This speeded up the process.

Implementation phase

- **Involvement, communication related activity** – Consultation of target groups through public awareness campaigns. This helped to adjust the focus of marketing campaign, to repeat events that have had positive reception and influence.
- **Problem related activity** – New activities were planned based on positive experiences and feedback from previous activities.

D3 Participation

D3.1 Measure Partners

- **Tallinn City Government** – The leading partner, represented by the Transportation Department
- **Tallinn University Of Technology** – Principal partner – responsible for creating the marketing guidelines and evaluation of process and measure results
- **Tallinn Bus Company** – Occasional participant – many activities were based on the TBC vehicles
- **Environment Department of Tallinn** - Occasional participant, several activities were organized in cooperation with the department.
- **Sports and Youth Department** - Occasional participant, several activities were organized in cooperation with the department.
- **Foundation Tallinn 2011** - Occasional participant, founded for organizing the European Cultural capital 2011 events in Tallinn. Several activities were organized in cooperation with the foundation.

D3.2 Stakeholders

- **General public** – Increasing the share of active transportation modes directly or indirectly in interest of everyone.
- **Car drivers/motorists** – For reducing the modal share of personal cars, this group was the target to reach with information and promotion on active transportation modes
- **Public transportation users** – majority of the activities and the most influential activities of the measure were directed or connected to public transport.

- **Cycle/walking groups** – many activities of the measure were directed or connected to cycling/walking.
- **Visitors** – Visitors of the city were also targeted with several of the measure activities.
- **Children** – kindergarten- and schoolchildren with their families were one very important target group of the measure activities.
- **Non-governmental organisations** – while the activities were not directly directed to any such organisations, there were several that were active in the topic of sustainable transportation.
- **Media** – media had an important role in disseminating the activities and results.

D4 Recommendations

D4.1 Recommendations: Measure Replication

- **The measure is highly replicable** – Several activities of the measure had been carried out by other CIVITAS cities before and several activities of the measure were repeated by other cities.
- **High acceptance, low cost** – Several activities of the measure have been highly accepted by citizens of Tallinn, as it came out from the surveys. The cost of marketing activities is relatively low compared to investments, thus affordable to any city.
- **People come along with good actions** – several of the actions, especially the “Knitting Graffiti” and “Knitting Bus” mobilized a considerable amount of volunteering citizens to contribute and participate in the action.

D4.2 Recommendations: Process (Related to Barrier-, Driver- and Action Fields)

- **Better planning for the activities** – The measure activities should be based on a strategic plan in which is made with wide involvement of experts in the field of sustainable transportation and other stakeholders. This enables to focus on the most important issues in sustainable transportation.
- **Better planning for evaluation** – To be able to bring out the effect of the measure, the initial evaluation approach should be planned better together with the measure planning. It is difficult to evaluate the change afterwards, if the initial approach is not planned well.

RTD Fact Sheet Template

TAL 4.1. Mobility Management and marketing activities directed at popularizing usage of active transport modes	
Reference Measure	4.1 Mobility Management and marketing activities directed at popularizing usage of active transport modes
Date of Submission	29/01/2012
Date of Review (ISIS)	04/2012
Date of Approval	04/2012
Author(s)	Marek Rannala
Editor(s)	Loredana Marmora (by ISIS)

Context and Purpose

An economic downturn and then rapid economic growth have imposed large structural changes on the city and its transport system during past 20 years. The number of private cars has been increasing rapidly and this has turned the modal share towards private car dominance. The overall quality of PT, walking and cycling possibilities have increased during the period, but this has not affected the overall trends in modal split. There is no strategy for marketing for the active transportation modes, positive results are often not seen by people.

The measure is aimed at promoting active transportation modes through creating marketing strategy, arranging communication between the municipality and the citizens, supporting the change of the modal split towards active modes of transportation and creating more effective and efficient institutional structures. The promotion of possibilities and usefulness of active transportation modes is done through campaigns.

The purpose of research in the scope of the measure was to focus marketing actions on important and influential topics in transportation in a systematic way.

Description of RTD Activity

A strategy for sustainable transport marketing and communication in Tallinn was created by Tallinn University of Technology in cooperation with Transportation Department of Tallinn city. It is based on current problems in transportation, communication problems with and between city departments, which are connected to transportation directly or indirectly.

Outputs and Results

The strategy consists of classification of users of all transportation modes, recommendations for communicating with every group of users and recommendations for improving internal and external communication of Tallinn Department of Transportation. The classification is also based on users' trip objectives and regularity. Every group in classification is given rate of importance from the marketing viewpoint and recommendations for communicating with the group.

The strategy defines importance of different groups for sustainable transport communication. This gives possibility to target efficiency of marketing by focusing on groups that have biggest influence on traffic and also are sensible.

Resulting Decision-making

Marketing activities for sustainable transport were started before the strategy was created. The

strategy confirmed most of the already implemented activities and gave recommendations for the rest of the project period. The paper is also guide for communication and marketing of sustainable transport after the end of MIMOSA as long as there are no significant changes in transportation in Tallinn.

Lessons Learnt

The most important lesson was that creating the strategy should have been the first activity in the process of the measure. Although the activities done so far have mostly proven to be successful there are some topics and aspects that have been overlooked in implementation. One measure cannot fix everything but then preferences and decisions have to be justified and strategy is a good way of doing that.

The second useful lesson is that while mapping situation in an organisation it is useful to work with specialists and management in separate groups. Then the specialists are more open on discussion of problems and are not affected by management who often tends to see the same situation in a more positive light.

Cost-effectiveness

Since the strategy was introduced to the Tallinn Transportation Department in November 2011 and the final version is still under discussion in January 2012 it is too early to judge the effectiveness of it. It confirms the implemented activities and gives ideas and directions to the rest of the project period which is a kind of quality control of the measure.

Dissemination and Exploitation

Creation of the strategy is aimed also for using after the MIMOSA project so that the implemented activities could continue promoting sustainable transportation. Both communication and marketing parts of the strategy are intended only for internal use within Tallinn Transportation department and other departments connected to transportation.

