Measure title: **Internet tool for travel planning**

City: **Malmo** *Project:* **SMILE** *Measure number:* **12.4**

A Introduction

Some people choose streets for cycling instead of cycling safely on bicycle lanes. In Malmö some bicycle lanes are located in or near low-traffic, green areas. As a result they are sometimes a bit difficult to find unless you know the area well. There is a tool for journey planning on the web site Trafiken.nu, which can be further developed to include bicycles as well. www.trafiken.nu is a web site that provides information about traffic disruptions - such as accidents, roadworks, etc -- for cars and for public transportation. Strategically located cameras provide information in real time.
Skånetrafiken's trip planner *reseplaneraren* functions in a way similar to the planner on trafiken.nu but obviously has a focus on trips by bus and train.

A1 Objectives

The following objectives are taken from the original text about the measure in its so-called DMP or detailed measure plan, which was in turn based upon the information appearing in the SMILE contract concerning measure 12.4; to add the bicycle-net to the travelling-system on the web-page www.trafiken.nu as well as the trip planner on www.skanetrafiken.se thus connecting bicycles with public transportation. To add a tool that makes it possible to evaluate environmental, health and economical aspect of a planned trip.

The measure objectives are:

- **Objective 1** Reduce emissions
- **Objective 2** Improve health
- **Objective 3** Increase acceptance of bicycle as a transport mode

A2 Description

To raise the consciousness of the people living in Malmö about the bicycle lane network and to show the possibilities to travel fast and safely by bicycle in Malmö, the bicycle lane network was added to the travelling-system on the web-page www.trafiken.nu and the trip planner on www.skanetrafiken.se. With the incorporation of the bicycle option together with the existing public transport and car options, the user can make a comparison not just between time and economy, but also between health aspects and environmental influence. The purpose is to encourage a comprehensive view of the different aspects of travelling and to make people aware of the benefits of choosing a different means of transport other than the car. The measure is intended to help commuters and other travellers to find the best way of travelling between two places within Malmö, or between Malmö and other places in the Skåne region, and get all the alternatives, their costs, how long the journeys take, health aspects and environmental influence. See Appendix 1 at the end of the measure template for examples of the web pages associated with this measure.

Steps taken in the implementation of the measure; i.e. its technical realisation, included:

- Make a 'bridge' layer connecting NVDB (National Road Data Base) and GC-nets (Walking- and Cycling-lanes).
- Patch road net with z-coordinates from terrain height database.
- Adapt existing travel planner, RoadElmer, to handle the digital map.
- Create a new entry page for the existing travel planner.
- Adapt user interface to allow for via locations.
- Adapt the route display pages of existing travel planner.

B Measure Implementation

B1 Innovative Aspects

- **New conceptual approach** – To raise people's awareness of how their planned travel affects the environment and the cost for the trip and to show sustainable alternative. To add a bicycle planning tool alongside other transport modes in an integrated package.
- **Targeting specific user group**– Cyclists

B2 Situation Before CIVITAS

The travelling-tool for public transport and car journey planning at www.trafiken.nu, was in operation prior to the start of SMILE. This tool is subject to occasional improvements. A similar tool exists on www.skanetrafiken.se which is, of course, oriented towards the use of public transport services offered by Skånetrafiken.

B3 Actual Implementation of the Measure

The measure was implemented in the following stages:

Stage 1: Planning and Programming *(February 2005 – late Spring 2008) – During this stage a number of meetings were held to plan for making a bridge layer, patching the road net with z-coordinates, etc. The measure leader and others involved in project management ran into difficulties in technical matters and incompatible databases which, among other things made it difficult to add topographic information to the existing internet tool. The technical evaluation staff repeatedly proposed testing of an incomplete tool, thus facilitating both the project development and technical evaluation, but these suggestions were not implemented (although considering that Malmö is essentially flat, elevation has only a minor effect on cycling times and problems with height data should not have stopped a testing of an incomplete tool).*

Stage 2: So-called technical testing of the tool *(May 15, 2008 – Summer 2008) – During this stage the tool was placed on the website in the guise of a technical verification rather than a user test. No marketing of the tool was carried out by the Department of Streets and Parks, City of Malmö. As a result of this, very limited marketing was carried out by Skånetrafiken despite the fact that, in the SMILE context, Skånetrafiken was not responsible for this and was a very minor actor.*

Stage 3: Use of the tool (remainder of 2008) - *During the remainder of SMILE the tool will be in use. As of August 2008 the technical evaluation staff remained unaware of any plans for marketing the tool.*

B4 Deviations from the Original Plan

The deviations from the original plan comprised:

- **Deviation 1 Prolonged delay** – This measure has had a prolonged and protracted delay. There was an opportunity to test and evaluate an interim version of the tool during 2006 or 2007 but the decision was taken not to do so. Testing and evaluation at that stage could have demonstrated whether further improvement of the tool was necessary and in what areas the potential users required changes to be made.

B5 Inter-relationships with Other Measures

The measure is related to other measures as follows:

- **Measure 8.3** - Integration of cycling with public transport.
- **Measure 11**.1 – Managing mobility needs of private persons and the business sector

C Evaluation – Methodology and Results

C1 Measurement Methodology

The original plan for evaluation of this measure was to incorporate an internet survey for the users of the travel planner tools on www.skanetrafiken.se and www.trafiken.nu to determine the degree of use and satisfaction with the actual internet tool, and - based on this attempt - to gauge awareness and acceptance. During 2005 and 2006 and into 2007 based on contacts with the measure leader and staff at Skånetrafiken who were involved in the measure there was no reason to doubt the feasibility of this methodology.

After having reached an initial agreement with the measure leader about this and also attending one of the meetings conducted for this measure, it seemed that the measurement methodology was set and fixed. However during the latter part of 2007, when the measure leader was reminded of this methodological approach, the decision was overturned and the technical evaluation was unable to continue along these lines. Concern was expressed that polling users about their opinions about the bicycle planning option in the travel planner on Skånetrafiken's website would detract from its use and would be considered a negative experience.

Furthermore, during 2007 it became apparent that this measure might not be in place and available to be evaluated until very late during SMILE, possibly after the evaluation was supposed to be complete. The evaluators became concerned that they might not know when the measure was actually in place and being used. These was also the distinct possibility that the measure would fail i.e., not be completed prior to January 2009. For this reason an alternative methodology was sought.

During January 2008, with still no working measure in sight, the decision was made to drop any hope of using an internet survey of the actual users of the travel planner tools and instead use the general public survey planned for spring 2008 to pose questions about trip planning tools on the internet and specifically the one on www.skanetrafiken.se. Because of the great uncertainty surrounding the measure it has made more sense to attempt to evaluate the measure "indirectly" instead of waiting for its *possible* delivery and then not be able to complete the evaluation in time for the deadline.

C1.1 Impacts and Indicators

Table of Indicators.

Nr.	INDICATOR Name	Possible DESCRIPTION	DATA /UNITS
13	Awareness level	Degree to which the general publics awareness has changed	Survey
14	Acceptance level	Survey of opinions on part of general public	Survey

Detailed description of the indicator methodologies:

- **Indicator 13** (Awareness level) – The degree to which the awareness about the existence of the tool has spread among the general public.
- **Indicator 14** (Acceptance level) – The degree to which the acceptance of the tool has spread among the general public.

C1.2 Establishing a Baseline

Because of the uncertainty of the actual roll-out of the measure, no data has been collected from potential future users of the tool prior to the placement of the revised travel-planner on the Internet. Furthermore it would be a very taxing enterprise to try to identify who to survey prior to the roll-out.

A qualitative description of a baseline is as follows: some infrequent cyclists in Malmö, who don't have a bicycle map (which has previously been mailed out home to all residents in Malmö), might use the trip planning feature on the internet and be disappointed that there is no bicycle feature in the tool. Since the objectives of the tool are non-quantitative, emissions reductions and health cannot be quantitatively factored into a baseline.

Given that the bicycle feature on the travel planner was not in place until mid-May 2008 and this feature appears to be rather unique in the Swedish context, it is difficult to understand how potential users could have had an objective opinion about this feature in terms of awareness prior to release.

C1.3 Building the Business-as-usual Scenario

If the measure were not carried out, what would the situation look like? People could not use www.skanetrafiken.se or www.trafiken.nu to plan for bicycle trips and would have to use alternative planning tools, consult a bicycle map, talk to a neighbour/friend who already cycles a lot, etc. This means that people may find alternative routes to cycle and therefore may be less inclined to cycle more, leading to a lower reduction in emissions, less improvement in health and a less positive view of cycling as a positive activity regardless of the roll-out or even success of this measure. This means that some cyclists, both potential and infrequent, would find the off-the-beaten-path bike lanes without the internet tool.

C2 Measure Results

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

C2.1 Economy

The evaluation staff does not know the true costs of this measure. There are no revenues.

C2.2 Energy

This is not applicable here since the only indicators are awareness and acceptance.

C2.3 Environment

This is not applicable here since the only indicators are awareness and acceptance.

C2.4 Transport

This is not applicable here since the only indicators are awareness and acceptance.

C2.5 Society

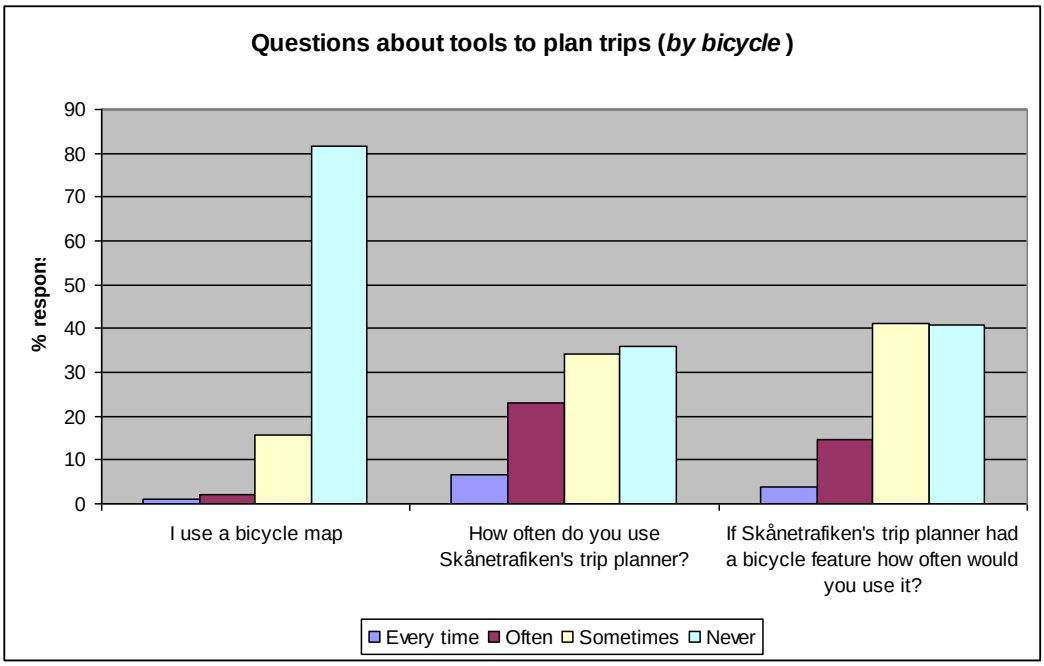
In the general public survey about SMILE measures in Malmö and the polling of travel habits, two questions were asked about this measure and one question was asked that indirectly deals with this measure:

- *How often do you use the Travel Planner feature on Skånetrafiken's website prior to your trips?* 1684 people replied to this.
- *If the Travel Planner even included cycling as a mode of transport, how often would you use this feature?* 1662 people replied to this.
- *I use a bicycle map when I am going to cycle.* 1605 people replied to this.

Possible answers to these questions were:

- Every time
- Often
- Sometimes
- Never

Responses from the questionnaire/survey were as presented in the following graph.



Here, in the first group of columns, we see infrequent usage of bicycle maps where over 80% claim that they never use a bicycle map. Even if the usage rate for Skånetrafiken's web-based trip planner – the second group of columns - is much greater compared to the use of a bicycle map, some 36% of the general public *never* use Skånetrafiken's trip planner. A higher percentage, just over 40%, says that they would not use a bicycle feature if it was installed on the trip planner.

18.3% of respondents say that they would use the bicycle feature "every time" or "often" if this was possible on Skånetrafiken's travel planner. How can this be interpreted? Given that the planner with the bicycle feature functions in some ways like an interactive map, it is possible to question whether 18.3% of respondents would actual use the bicycle feature. It is

one thing to ask about the use of a potential feature in the future and another to ask about the use of a feature that has been in place and marketed for several months.

Only 2.9% of the general public use bicycle maps very frequently. Of the 18.3% who responded very positively to its usage some may have responded because they thought it was something new and interesting to look into without really knowing what the tool entailed. This shows the drawback of trying to evaluate this before it is completely implemented.

As discussed previously, because of not being able to know when (if) the measure would be rolled out and realised, the formulation of questions in the general public survey had to reflect the introduction of the measure at some future date. The testing of the technical features of the measure was started after the general public survey was commenced. This means that some of the respondents answered this question before the feature was in place i.e. before the 'technical testing', whereas others responded once the technical test period had started, although it is probably that very few, if any, had actually seen or used the measure.

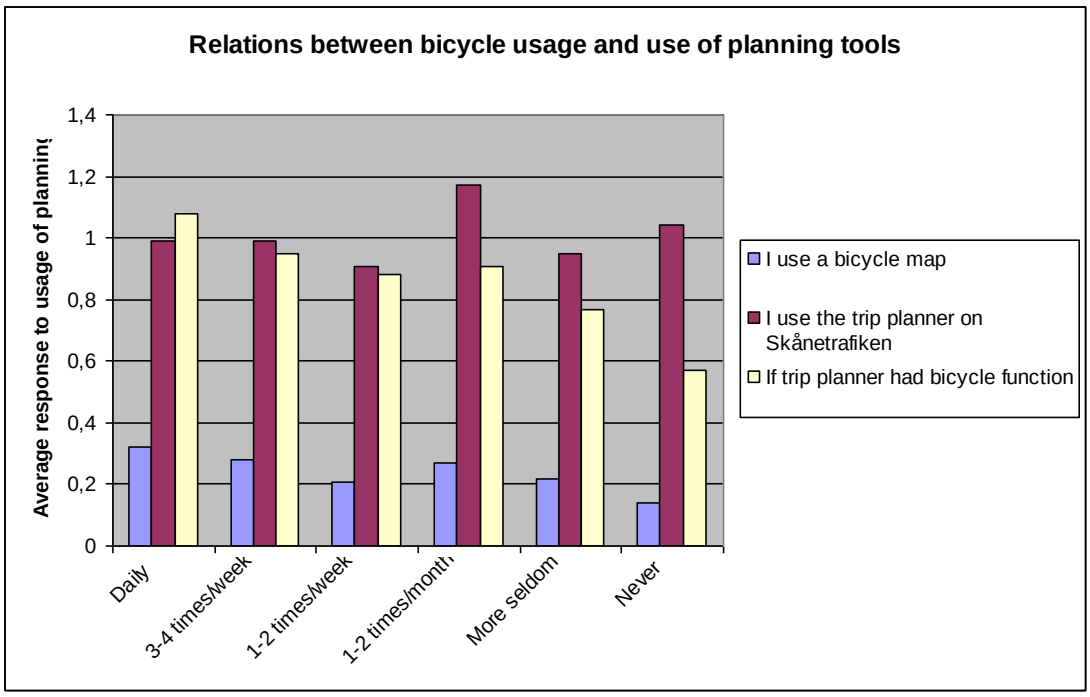
Awareness as measured as interest in using the feature on the trip planner changed in the two samples of respondents. By adding all responses of the use of the feature that are positive in some way we see that over half of the respondents claim that they would use the feature at least sometimes. Prior to the technical test of the bicycle feature on the internet 57.2% claimed that they would use the feature. During the test period 60.3% said that they would use the feature.

This may demonstrate some actual awareness of the feature. Had the evaluation group known that the technical demonstration was imminent, an effort would have been made to add a question such as "Have you used the bicycle planning feature on Skånetrafiken's trip planner?" on the questionnaire/public survey.

A problem with regard to this measure is that emphasis has been squarely placed on the technical features to realise the roll-out onto the websites. Since no marketing of the feature has occurred it is not surprising that awareness, as suggested by the results from the general public survey, of the measure is low. As of August 2008 users of the travel planner might not notice the inclusion of the bicycle option.

What about connections between frequency of cycling and the usage of the bicycle planning feature in the web based trip planner? Frequent cyclists are not the target group of this measure since, one may assume, frequent cyclists already know the majority of the "hard to find" bicycle routes that they need to know about and therefore it would be the less frequent cyclists that would be more likely to use the bicycle feature to find the "hard to find" bicycle routes. Furthermore, while the objectives of the measure seem to say that those who never cycle (who are likely to be the most resistant people to cycling) should be targeted in practice, because of the lack of marketing of the measure, those people that never cycle are unlikely to learn about the measure. Those who never cycle might not be interested in using the bicycle planning feature on web-based trip planners.

An analysis follows concerning the frequency of bicycle usage among respondents related to: how often the respondent uses a bicycle map, use of the trip planner on the Skånetrafiken website, and use of the bicycle feature on the travel planner if this feature were installed.



Bicycle usage is on the X-axis. The average response is shown as an index, calculated as the mean of the four possible responses about use of a bicycle map, use of the trip planner on Skånetrafiken's website and the use of a future cycling feature on the trip planner on the web (still in the test phase of development). The response options were: always = 3, often = 2, sometimes = 1, never = 0.

As a respondent's frequency of bicycle usage declines, interest in using the trip planning tools for bicycle journeys (web-based if it existed and traditional map based (i.e. map)) declines. Use of Skånetrafiken's web-based trip planner varies around an average of 1, or in other words "sometimes" regardless of frequency of cycling.

It is understandable that daily cyclists respond to using the trip planner more if it had a bicycle function than their use of the trip planner at present. The responses among cyclists who use a bicycle at least once a week seems to be similar with regard to using the trip planner regardless whether there is a bicycle function or not. One can wonder why or how anyone who never bicycles would actually use the bicycle function *especially when their average interest in using a bicycle map is essentially zero.*

Because of the difficulty of the measure to be in place and the uncertainty of when it might be rolled out, is has been difficult to collect direct evidence of awareness and acceptance. The indirect evidence collected from polling the general public has not been conclusive and some of the results appear to be contradictory. Nevertheless the evaluators would like to suggest that between 3-18% of the general public may be aware of the measure and interested in using it to some degree. It is likely that awareness of the measure as actually implemented will be at the lower end of this range, given that there has been little or no publicity given to the addition of the cycle planner to the existing on-line tool. On the other hand, it is likely that latent interest in using the measure could be higher and the challenge that remains is to reach those who could be interested and convince them of the benefits of using the cycle journey planning tool. However, in spite of this, the utility of the cycle planner is likely to be limited to a selection of journeys for a fairly small proportion of the population and for which conventional paper cycle maps could also serve a purpose, so that overall the impact on energy and environment would probably be limited.

Skånetrafiken's extremely limited marketing and survey of potential users, conducted just after stage two started and reported upon as marketing on 23 May 2008, suggests that awareness on the part of the general public was zero but that acceptance may be high. In Appendix 2 the reader can see a copy of the advert which appeared on 23 May 2008 and is, apart from a press release issued by Skånetrafiken the day after stage two started, the only marketing materials that this technical evaluator is aware of.

It is important to be able to question the objectivity of the advert. All featured people, while saying they knew nothing about the measure, were enthusiastic about the IDEA of being able to incorporate bicycle trip planning in the trip planner located on Skånetrafiken's web site. However, their enthusiasm should be considered in relation to what they actually said: Simon Lundmark "Smart and practical but since my bike is broken I walk most of the time when I don't take a bus or train." Monika Dahlström "Sounds like a fun idea but I walk to/from public transportation and don't think about taking a bike." Mathilda Granelli "Sounds like a great idea! I use the travel planner a lot and I'm going to check out the bike feature next time."

Depending on one's interpretation of this sample of three people either there is a 100% rate of acceptance or only 33%. However, presumably Skånetrafiken chose people to feature who were most interested in testing the application. This means that a high degree of scientific validity cannot be attached to the advert. Perhaps the enthusiasm that Simon and Monika demonstrate is because of this possibility being something new: not necessarily because they actually have a need for measure 12.4 in their everyday life.

During late March 2009 Skånetrafiken reported on the actual usage of the measure as part of the traveller planner located on their website. Since May 2008, when the bicycle option became operational on the traveller planner, the usage of the bicycle option has averaged about 400 uses per week. Usage of the planner varies considerably on a weekly basis from approximately 200 per week to over 1500 per week with no visible trend. The highest usage since the start of operation was during the second week of January 2009, and thereafter there has been a downward trend again so that by mid-March usage was under 300 per week.

Unfortunately, use of this section of Skånetrafiken's website can not be assumed to represent actual use of it as an active travel planning resource with resultant behaviour and travel mode.

While purely speculative: It is possible that the peak in early January coincided with people returning to work and trying to realise New Year's resolutions about exercise and the like. Other speculation includes: arrival of new university students for a new term, people needing to change travel habits in conjunction with starting a new job just after the start of a new year etc.

It is exceedingly difficult to say what the average figure of 400 uses per month means because it is difficult to relate these statistics to other statistics about usage of the travel planner. Skånetrafiken's web-based travel planner covers the entire county of Skåne with some 1.2 million inhabitants and the population of Malmö is under 300 000 inhabitants. Skånetrafiken does not keep data on travel planner usage based on the location of the user. On the other hand, at this moment the bicycle option is only possible to use for trips in the city of Malmö. Hence, comparing the use of the travel planner in general and that of just the bicycle option is therefore neither practical nor meaningful.

C3 Achievement of Quantifiable Targets

There were no quantifiable targets in this measure.

C4 Up-scaling of Results

Presently the cycle feature is only available for Malmö trips on Skånetrafiken's trip-planner. 3-4 other municipalities in Skåne have expressed interest in adding a bicycle feature. In the future the entire county may be benefit from a cycle planning tool on Skånetrafiken's web-based trip planner and on www.trafiken.nu.

Since the measure has hardly been in effect it is exceedingly difficult to know what the actual results are or will be. Furthermore the results of the evaluation at this stage are incomplete and inconclusive. This means that it is difficult to speculate about the up-scaling at this point in time. However, it is clear that a strong, well researched and targeted marketing effort would have a significant role to play in any up-scaling.

C5 Appraisal of Evaluation Approach

This measure has non-quantifiable objectives and had hardly come into effect when the evaluation was supposed to be complete. As a result of the delays an alternative evaluation approach was adopted at the start of 2008. The shortcomings of the evaluation approach stem in part from the protracted delays of the measure roll-out and the difficulty of evaluating this measure because of the inherent nature of the measure which incorporated no user testing or market research as part of its development. It is disappointing that controlled, interim testing phases were not scheduled into the development of the measure so that at least an incomplete tool could be used, evaluated and possibly improved. Lack of action in this way has led to a technical evaluation that is disappointing in the sense that there was potential to achieve more, and possibly contributed to the late implementation of the measure.

It is clear that the original evaluation plan, which proposed the use of an on-line survey embedded in the cycle planning tool, would have been a better way to evaluate the measure and is the way that other cities following this measure should go about the evaluation. The fact that this could not, in the end, be followed in SMILE is regrettable, but due to the way that the measure was developed, with delays and concern from those involved in the technical development that a user-based evaluation might interfere with technical delivery.

C6 Summary of Evaluation Results

The key results are as follows:

- **Awareness** – At least 3% and as many as 18% of the general public may be aware of the measure but there is a lot of uncertainty about how reliable the result is. It is most likely that the figure is closer to the lower end of this range (i.e. 3%). This is based on the discussion in C2.5 and the fact that there was no marketing. Had there been marketing the level of awareness would surely had been higher but is not possible to estimate.

- **Acceptance** – It has not been possible to assess acceptance levels. This is in part because of the nature of the measure, in part because of the measure not being in effect until after the first draft of this report was submitted. Nevertheless, according to statistics provided by Skånetrafiken during mid-March 2009, on average the bicycle option has been "used" 400 times per week since its roll-out in May 2008. The difficulty of attaching meaning to this statistic in terms of travel behaviour is discussed at the end of section C2.5.

D Lessons learned

D1 Barriers and Drivers

D1.1 Barriers

- **Barrier 1** – Technical barriers to this measure include problems in compatibility between geographic information systems and the linkage of height (or "z") data in the additional databases needed for the cycle planning tool with the existing maps used in the existing trip planner. This is an important issue in a city or area contemplating the introduction of a measure like this ***if*** there are significant changes in elevation in the area to be covered. In Malmö, where elevation differences are slight, this technical barrier was not a barrier for the successful implementation of the measure and would not have been raised except for the desire to co-operate with neighbouring regions.

- **Barrier 2** – Managerial barriers in this measure include the extreme reluctance of those involved in the technical development to test an incomplete bicycle planning tool mid-way through SMILE and learn from the results. Whilst it is understandable that such a test might put off potential users if the test was not successful, it would have been possible to arrange for this to be conducted in a way that would have both helped the evaluation and also helped the development of the measure through a detailed assessment of potential user needs. Based on those lessons learned it would then be possible to determine whether (and what kind of) additional improvement was needed, if any, for the tool and also gain feedback on the likely effectiveness of the tool, both in that form and with further, suggested enhancements.

- **Barrier 3** –Lack of marketing of the tool in this measure has resulted in the final tool being in place, at least in a test form, without the public being aware of the existence of the tool, which surely limit usage (if and) until its existence becomes known by word of mouth or other unplanned exposure. Comments about and actual usage statistics from Skånetrafiken appear to support the apparently very low level of usage of the tool compared to expectations.

- **Barrier 4** – A lack of formal names for cycle lanes means that the printed output from the planner states things like "travel along cycle lane for 300m, turn left into cycle lane for 500m, then cross main road and continue straight ahead on cycle land for 1km", which is not particularly helpful and is the sort of thing that could have been tested out in the system.

D1.2 Drivers

- **Driver 1** – Interest on the part of trafiken.nu and Skånetrafiken to include other traffic modes in their trip planner to make these internet planning tools more complete and appealing.

- **Driver 2** – Health concerns: by adding the bicycle feature on the planning tools it was expected that this would enable travellers to include bicycle usage as an additional, healthy option.

- **Driver 3** – Interest on the part of Skånetrafiken to link an additional travel mode to their existing network and selection of public transportation services. Through this they hoped for a slight (and unquantified) increase in ridership/patronage with this addition to their travel-planning service as new users integrated cycling with public transport use.

D2 Participation of Stakeholders

- **Stakeholder 1 –** City of Malmo transport department acted as project initiator and manager.
- **Stakeholder 2** – City of Malmo city planning department provided mapping information and experience.
- **Stakeholder 3** – Private consultancy was employed for the development of the software.
- **Stakeholder 4** – A different private consultancy was employed for the development of the web interface.
- **Stakeholder 5** – Regional authority (Skånetrafiken) involved as they are responsible for the website on which the trip planner is based, although they were not an active participant in the technical development. However they have been active in trying to accelerate the timetable and have functioned as an informal "bridge" for information about this project to other municipalities in Skåne (Lund, Eslöv, Helsingborg, Landskrona).

D3 Recommendations

- **Recommendation 1 –** There is considerable potential benefit from incorporating a market testing phase into the development of information tools such as this. There are various potential phases to this, including initial assessment of the expectations of potential users both from the perspective of ensuring user friendly design of the interface and also ensuring that the technical content is sufficient for the desired purpose. Once development has commenced there is significant extra value in conducting testing of the incomplete tool at a stage where the final functionality is clear, so that the initial research results can be checked. This would ensure that the technical development is on track and changes can be incorporated prior to final release, and also that the likely impact of the final tool can be more accurately estimated. It would be easy to arrange for this to be conducted in a way that the risk of damaging the future credibility of the measure could be minimised.
- **Recommendation 2** – It is essential that measures like this one, which are essentially technical in nature but which require public use to be effective, are accompanied not only by the aforementioned research phases but also benefit from specific marketing of the services. The marketing would specifically benefit from the user research and the initial and intermediate stages. CIVITAS should require a strong marketing component of the funded technical measures that have a direct contact with customers or public transit users scheduled within the technical development plan.
- **Recommendation 3** – The design of the measure should have included linkages to 11.1 (marketing of sustainable transport) and 8.3 (integration of cycling and public transport) in order to ensure proper relations between linked technical measures.
- **Recommendation 4** – The design of the measure should have included specific meetings and promotional activities with the cyclist association "Cykelfrämjandet" or similar organisations and bicycle repair/sales shops as well as Skånetrafiken ticket/information offices.
- **Recommendation 5** – The technical difficulties that were encountered in bringing together what were essentially incompatible databases should have been identified by and initial scoping exercise and risk assessment, which could have helped identify potential problems and remove the uncertainty regarding final implementation date by allowing appropriate revision of the implementation planning.
- **Recommendation 6 –** In barrier 1 and in other places in this document, there has been emphasis placed on the need for a Z-axis in the geographic data basis that is linked to the planning tool in the cases where topographic conditions call for this. Another matter that has not been considered at all by the measure leader or others involved in the project is

meteorological. Prevailing winds will tend to reduce cycling times in certain directions and increase cycling times in other directions. This measure could be improved in a later version (and should be considered in other cities watching this measure) with a real-time weather function: based on weather forecasts during the coming 24 hours, the travel planner would incorporate predicted wind direction and wind speed into a cyclist's route at the times the trip by bicycle would be undertaken. In a flat urban area, topography does not noticeably effect cycling times but weather conditions will.

- **Recommendation 7** – Another matter which effects cycling times are the current traffic conditions. At certain times of the day cyclists will have considerable delay times to cross traffic, wait for a green light for cyclists etc. At other times of the day cyclists will have little delay because of relatively light (car) traffic. This matter, together with weather conditions and topography, must be incorporated into the travel planning database and software to ensure more realistic travel times. Without this a measure of this kind will provide travel planning suggestions which fail to be similar to actual cycling experiences. Such lack of similarity will lead to a significant incongruence between the tool and reality which, ultimately, will keep tool usage rates low.

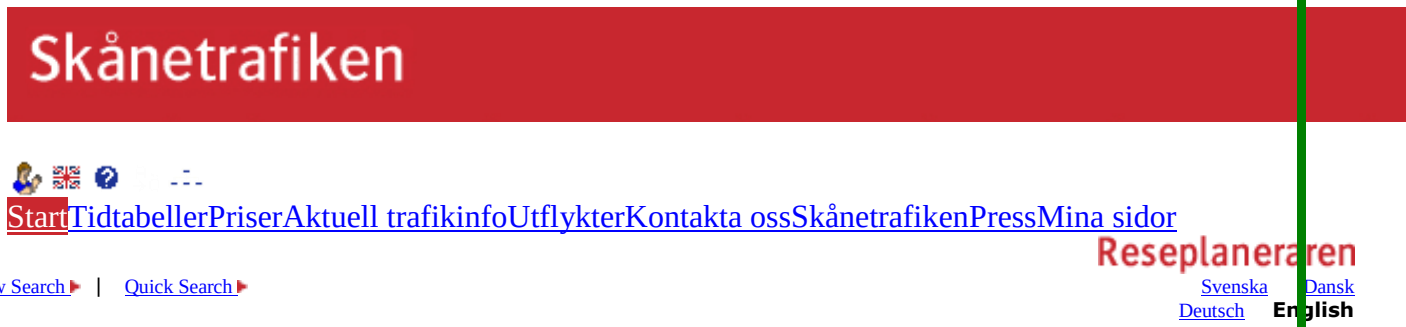
D4 Future Activities Relating to the Measure

There is some indication that this measure will be expanded to Lund, Eslöv, Landskrona and Helsingborg which are other cities and towns in Skåne. However, this will depend on the final user experience, which in turn depends upon the successful resolution of the initial technical issues.

Within Malmo there will be a publicity / awareness raising campaign now that a 'final' version of the cycle trip planner is available on the website. This information was provided by site manager during the fall of 2008, but by the end of the SMILE project the date, content or delivery mechanism for the campaign were not known.

APPENDIX 1:

Pictures showing the web-based travel-planner on Skånetrafiken.



ahead of schedule.

A grey triangle shows the actual time for a passed departure or arrival.

En del av Region Skåne

Cookies|Länkar

Date accessed: 2 March 2009
www.skanetrafiken.se

The travel-planner function is accessible in part in English, Danish, German and Swedish.
The reader is directed to the far right and 3 Means of transport. The default is that all of the options but car "bil" and bicycle in Malmö "cykel i Malmö" are selected. The user has to actively select the bicycle option, otherwise the results supplied from the search page do not include cycling.

If, however, cycling was chosen, then the result might look like the following for just a cycling journey in Malmö:

Skånetrafiken

StartTidtabellerPriserAktuell trafikinfoUtflykterKontakta ossSkånetrafikenPressMina sidor

Reseplaneraren

Help | New Search | Edit search | Save as Pre-defined journey | Print

Svenska Dansk
Deutsch **English**

Overview Itinerary Detailed itinerary Personal timetable Itinerary on map

Searched journey: **Malmö Högskola Teknik o Samhälle - Malmö C**

Select the preferred routes and click on a tab above for more information

	Day of travel	Dep	Arr	Duration	Changes	Selected means of transport	Fare	Traffic info	Travel info
☑	2009-03-02	16:07	16:15	00:08	0				

Return Trip Earlier journeys | Later journeys

Times in italics are estimated times. They vary by about 1-5 mins at stops.

Selected means of transport: Cykel

Traffic Information
By dialling +46 771-77 77 77 you can get straight through to the Traffic information knowledgeable information advisers.
Here you can: obtain information on times, lines, routes and prices obtain information on traffic disruptions receive help in finding lost property

Real-time traffic information
The column, Traffic info, displays time discrepancies and cancelled departures. Our real-time information is yet incomplete. All timetable deviations will not be displayed.

A red triangle indicates a cancelled departure, a delay greater than 5 minutes or a departure less than 1 minute ahead of schedule.

A blue triangle indicates a delay less than 5 minutes or a departure less than 1 minute ahead of schedule.

A grey triangle shows the actual time for a passed departure or arrival.

How long is my journey going to take?
We present journey times for both public transport and travel by car. Read more about the journey planner

All travel has a greater or lesser impact on the environment. The environmental impact for all travel alternatives is presented in the form of a pie chart. Explanatory text for environmental index »

En del av Region Skåne

Cookies|Länkar

APPENDIX 2:

Pictures showing the only marketing that ever took place, conducted by Skånetrafiken.

All three respondents said that they had neither heard about nor seen the tool but would use it. Presumeably Skånetrafiken asked more than three people and featured people who had the most positive response in their marketing.

ANNONS

NYHETER OCH INFORMATION FRÅN SKÅNETRAFIKEN • FREDAG 23 MAJ 2008

Har du hört talas om Cykelreseplaneraren?

Numera ger Skånetrafikens reseplanerare även möjligheten att söka cykelväg. Med hjälp av några snabba musklick får du fram bästa cykelvägen i Malmö.

Cykelreseplaneraren på www.skanetrafiken.se kan berätta var smidigaste cykelvägen går, hur många kilometer det är mellan olika adresser, och hur lång tid det tar att cykla mellan dem. Än så länge finns funktionen bara för Malmö – Malmö stad står för informationen och Skånetrafiken för den tekniska plattformen – men även Lund och Helsingborg är på gång.

Ett av målen bakom Skånetrafikens satsning på Cykelreseplaneraren är att på ett ännu tydligare sätt länka ihop cyklande med kollektivtrafikpendlande – det ska vara lätt att räkna ut enklaste vägen, till exempel till arbetet.

TEXT OCH FOTO: CAROLINE ALESMARK

Simon Lundmark, Malmö
– Nej det har jag inte, men det låter smart. Praktiskt att kunna gå in på nätet och få fram vilken cykelväg som är smartast, var vägen går på kartan, och hur många kilometer det är. Just nu är min cykel dock trasig så jag går mest, till exempel till Serieskolan på Industrigatan där jag pluggar.

Monika Dahlström, Hjärup
– Nej, den har jag inte hört talas om, jag brukar inte cykla i Malmö, bor i Hjärup. Jag cyklar inte till tåget hemma heller, bor så nära stationen att jag kan gå. Men om jag bodde här så skulle jag gå in och titta. Det låter som en rolig idé, att kunna se hur långt det är cykelvägen till olika ställen.

Matilda Granelli, Stackbom
– Nej det har jag inte, men det låter jättebra! Att kunna gå in på nätet och få reda på den bästa och snabbaste vägen. Jag känner till Reseplaneraren, använder den hela tiden, och kommer definitivt gå in och kolla bästa cykelvägen.

Mer information på www.skanetrafiken.se | Trafikupplysning 0771-77 77 77 | Talsvar 020-77 77 24 | Reseplaneraren i mobilen mobil.skanetrafiken.se | Redaktör Helen Nilsson redaktionen@skanetrafiken.se

Skånetrafiken

Sök din resa i mobilen. Läs om mobila tjänster på www.skanetrafiken.se