Measure title: **Satellite based traffic management for SMEs**

City: **Malmo** *Project:* **SMILE** *Measure number:* **10.2**

A Introduction

215215 Transporter AB is a courier company with full service for both light and heavy transportation in the Öresund region. 215215 Transporter AB was founded in 1995 and is a private owned company. 215215 Transporter AB is operated as a co-ordination hub with associated hauliers bound by contracts to follow the policy and the working practice stipulated by the company. Since 1995 the fleet has grown from three to over twenty vehicles. The company's high level of personal service combined with fast deliveries has contributed to its fast growth.

The company is certified in accordance with ISO 14001 and ISO 9001:2000

215215 Transporter AB is actively engaged in developing more environmentally friendly transport solutions. The environmental impact of the company is registered and measured and there is a detailed plan to decrease it. The drivers are continually trained in ECO-driving and the company has an ambition to decrease the environmental impact by investing in clean vehicles. Today 25 % of the fleet is "environmentally friendly".

The traffic dispatch office registers the orders in their fleet manager programme and sends them out by sms. The planning is however done manually.

A satellite based GPS system was installed in delivery vehicles. This was followed by installation of handhelds, for a more efficient two-way communication between the traffic-dispatch and vehicles. By adopting the new technique the traffic-dispatch coordinates the vehicles more efficiently. It was anticipated that this would lead to fewer vehicles being able to conduct more tasks and a reduction in pollution and fuel consumption.

A1 Objective

- The new system provided the opportunity to increase the opportunities for co-ordination by almost 100%.
- As a result of coordination, the system was expected to lead to decreased emissions of climate changing gases and particles and other combustion products.
- It was also expected to lead to fewer vehicles for the same number of tasks which leads to lower use of tyre and vehicle chemicals and lower wear on infrastructure.
- Less paperwork through transfer to digital media.
- It was expected to change the working conditions for the traffic-dispatch in form of less stress and more control.
- The new system was expected to increase the competitiveness of 215215 both in terms of increased efficiency and decreased environmental impact.

A2 Description

The gps-positioning system will be purchased and installed in all of our vehicles before august 2005, during this process we will educate the traffic dispatch. The communication system in form of handhelds will be purchased and we will implement the communication system during the fall 2005.

The main effect of the measure is to increase efficiency through improved coordination of transportation tasks. This is expected to result from operators' improved knowledge of the exact position of vehicles in real time.

As a side effect, the increased efficiency may, however, be expected to lead to more tasks being performed, more kilometres being driven and hence potentially more environmental impacts being carried by 215215. Such an increase would, however, not represent an increased environmental problem as a whole, since a corresponding decrease should then be experienced by other transport competitors.

The potential for improvement in coordination is limited to new incoming tasks during the day since the basic planning is made in advance and since no tool for route optimisation is included in the new system.

No measures have taken place with external parties. There will be no geographical limits

B Measure implementation

B1 Innovative aspects

The measure has high demonstration value for Small and Medium Enterprises (SMEs) dealing with fast "unplanned" city distribution.

B2 Situation before CIVITAS

Before the measure, 215215 had no system for capturing real time positioning data for the different vehicles that could be used to optimise goods distribution and transport planning or loading of goods on the vehicles. The communication between the operator and the drivers was based on mobile phones with operators calling those drivers that they expected to be most relevant for an incoming task. The distribution of tasks was partly, but not entirely, based on efficiency with side objectives being driver preferences etc.

B3 Actual implementation of the measure

- Task 1
  - Positioning

The GPRS net is the third generation technology to handle dataflow over mobile networks (GPS as well as 3G). The positioning system uses the GPRS net to communicate the location of all vehicles to be shown on a map in our transport control centre. The system must be updated twice a minute in order to be efficient and be linked to existing systems to see the complete status of every vehicle (history, current tasks etc). The whole system was set up to allow for more precise positioning and an increase in the vehicle fleet

- Task 2

- Communication

The communication system is for order handling and all other information which is exchanged between the traffic control and PDAs (Personal Digital Assistant) in the vehicles. This will include authorised electronic freight documents as well as reports, questions/applications, status messages etc. As long as the right equipment is identified from the outset, this part of the project will primarily focus on software issues such as programming and integration of existing logistics programmes. The system was implemented by Barkfors Fleet.

Task 3

- Registration and evaluation

Registration system are for collation of data and status of each vehicles and task in order to give the customer/purchaser a specific environmental report showing environmental impact and the environmental benefit of co-ordinated transport. The principal task in this part of the project is to programme the equipment to register data and collate this in a quickly presentable way.

B4 Deviations from the original plan

None

B5 Inter-relationships with other measures

The content of measure 10.2 is related to parts of 10.1 Freight Driver Support since the latter originally aimed at better transportation planning of freight distribution. However, these measures were not coordinated in time and the objectives of the latter were modified to focus on specifying tendering requirements.

C Evaluation – methodology and results

C1 Measurement methodology

The new technique was installed in every vehicle used by 215215, in 2005 20 vehicles in all. A selection of 4 vehicles will be part of the evaluation during the before and after study. The 4 vehicles are all associated hauliers bound by contract to follow the policy and the working practice stipulated by 215 215 Transporter AB.

Two different evaluation approaches have been applied. This was due to the difficulty introduced by the large number of uncontrolled external factors influencing the transport pattern and therefore disturbing the comparison between before and after. Another central problem with evaluation of this measure design is the central role played by the individual operator as the mediator between the computer output, on one hand, and route changes for the vehicles, and thus the effects, on the other.

To avoid these two problems within given resource limits, we have adopted an evaluation methodology based on ratio indicators. Also we have tried two different evaluation methodologies:

- The first approach based on aggregated data for four drivers during October and November 2004 (before SMILE) and the same months during 2005 (just a few months after implementation).
- The second approach based on more disaggregated data on detailed route planning for two of these drivers. The period for this detailed study was five consecutive days within the months with data for 2004 being reconstructed by the drivers mainly based on their remembrance, triggered by the detailed list of conducted deliveries.

For the first, more aggregated, approach, the ratio indicators referred to the relation between 1) environmentally related output like vehicle kilometres and 2) production related indicators such as number of tasks.

For the second, disaggregated, approach indicators came closer to the aim of "efficient transport planning", by describing the level of coordination between deliveries, as decided by the operators. The indicators used were formulated based on the understanding gained by the aggregated approach but more closely reflected the objectives.

The reason for the second approach was that the first approach turned out to be too coarse to allow for control of the many external factors.

C1.1 Impacts and Indicators

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

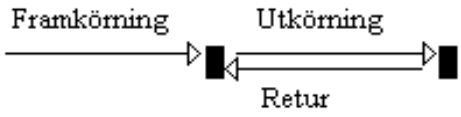
Nr.		*INDICATOR Name*	*Possible DESCRIPTION*	*DATA /UNITS*
13	Society	Awareness Level	Degree to which the general publics awareness has changed	Proportion of respondents in survey (3000 participants)
	Transport	Tasks per day	Aggregated approach (day based)	measured
	Transport	Kilometres per day	Aggregated approach (day based)	measured
	Transport	Kilometres per task	Aggregated approach (day based)	measured
	Transport	Trips per day	Detailed approach (Trip based)	Measured (interview)
	Transport	Deliveries per trip	Detailed approach (Trip based)	Measured (interview)
	Transport	Proportion of unloaded trips	Detailed approach (Trip based)	Measured (interview)
	Transport	Number of unloaded kilometres	Detailed approach (Trip based)	Derived from route planners

Detailed description of the indicator methodologies:

- **Indicator 13** (*Awareness Level of the general public*) – questions posed to the general public in survey
- **Aggregated indicators (based on days)** *(Tasks per day, Kilometres per day, Kilometres per task)* - based on aggregated data for four drivers during October and November 2004 (before SMILE) and the same months during 2005 (after just a few months since implementation).
- **Detailed indicators (based on trips)** (*Trips per day, Deliveries per trip, Proportion of unloaded trips, Number of unloaded kilometres*) – based on more disaggregated data on detailed route planning for two of these drivers five consecutive days within the months with data for 2004 being reconstructed by the drivers.

Terminology for the indicators

When 215215 receives an order, it is considered a task. A task in general consists of picking up goods of some sort at a special place and delivering them to another place. The task then consists of a trip to pick up the goods and another trip to deliver it, two trips. Sometimes the task involves a return trip as well, three trips.



Some tasks involve just one trip. This is the case for so called "fixed tasks" when there is nothing to deliver and the task involves just a trip to the fixed destination.

A task in general involves trips. Sometimes a trip can be a part of more than one task. That is the case when a vehicle is loaded with deliveries from several tasks at he same time, a multi task load. This introduces another indicator of importance: the *number of deliveries per trip.* This is probably a good indicator of efficiency, the degree of coordination of the trips.

At the other end is the fact that some trips are driven with no goods at all, an unloaded trip. This could also be expressed in terms of "*unloaded kilometres*", another indicator of

importance. The "*proportion of unloaded trips*" together with "*unloaded kilometres"* describes how well the different tasks are held together, the level of optimisation. The optimisation of the routes ought to be easier to achieve when the operator can see the exact location of the different vehicle on the computer screen when deciding how to distribute the tasks.

C1.2 Establishing a baseline

The time was a limiting factor for the evaluation. The plan for 215215 was to be ready in 2005 with this measure. The new GPS positioning system was not fully in place until autumn 2005 and that led to a rather short evaluation period, two months (Oct, Nov 2005). The before-period was chosen to be the same months the year before (Oct, Nov 2004) before SMILE. Because of that, the evaluation had to be based on available information at the time and not always on the right level, in order to construct a baseline.

Due to fact that two different approaches were applied, there are also two different baselines.

For the original, aggregated, approach four drivers were selected. Available data concerning number of tasks, driving distance and fuel consumption for October and November 2004 and 2005 were collected. The results are presented in figure C2.4.1, C2.4.2 and C2.4.3.

For the second, detailed, approach, two of the drivers were interviewed, supported by the list of registered deliveries for the same drivers for five consecutive days. Based on that data, the drivers were asked to reconstruct their routes driven during these periods. This was the case for the "before"-period as well, even if this period was a year back for the drivers. These interviews made possible, for example, to collect data about the level of coordination in terms of sharing load space and the proportion of unloaded kilometres driven.

C1.3 Building the business-as-usual scenario

There are many external influencing factors affecting the total environmental impact of the business 215215, such as total demand for delivery services and the number of competitors at the market. Further, there is potentially an indirect effect of the measure, making evaluation limited to the business 215215 as such, misleading. The increased efficiency of 215215 could lead to more tasks being performed, more kilometres being driven and hence potentially more environmental impacts being carried by 215215. This will not represent an increased environmental problem as a whole, since a corresponding decrease should then be experienced by other transport competitors.
For these difficulties, the evaluation is not based on "business-as-usual"-scenarios for the total environmental impact. Rather we have used narrowly defined indicators focusing directly on the objectives concerning improved transportation efficiency.

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

No indicator under the category Economy is associated with this measure.

C2.2 Energy

No indicator under the category Energy is associated with this measure. Some effects in this area could be reached through improved efficiency and therefore less energy consumption for the same amount of trips.

C2.3 Environment

No indicator under the category Environment is associated with this measure. Some effects in this area could be reached through improved efficiency and therefore less energy consumption leading to less environmental impact for the same amount of trips.

C2.4 Transport

There are several indicators associated with the Transport category. As described in section C1, we have tried two different evaluation methodologies with two different sets of indicators;

Aggregated approach: Indicators based on days: *(Tasks per day, Kilometres per day, Kilometres per task)* - based on aggregated data for four drivers during October and November 2004 (before SMILE) and the same months during 2005 (after just a few months since implementation). Available data concerning number of tasks, driving distance per task and fuel consumption were collected. The results are presented in figure C2.4.1, C2.4.2 and C2.4.3.

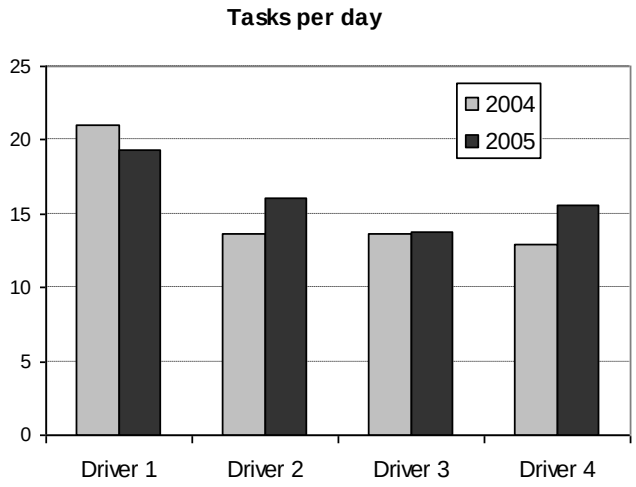


Figure C2.4.1. *Number of tasks performed during one working day for the four drivers. The measuring period is two months before and after the introduction of the GPS system.*

The difference between the "before" and the "after" situation varies between the drivers. The mean number of tasks per day for all four drivers was 15.5 tasks in 2004 and 16.2 in 2005, a small increase. The main difference between 2004 and 2005 is that the number of tasks tends to even out within the group. In this group of four drivers it is hard to say anything in general due to the large variations between them.

Figure C2.4.2 show the distance per task for the four drivers and the difference between 2004 and 2005. Two drivers drive longer distances per task when GPS is implemented and two drive shorter distances. The differences between the drivers even out after the introduction of the GPS-system. In total for this group of four, the distance per task has increased from 15.8 kilometres to 16.6 kilometres per task.

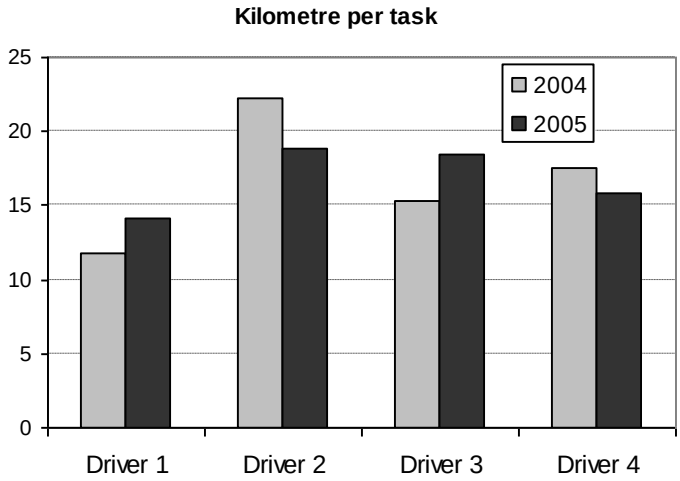


Figure C2.4.2. *The length in kilometres per task. The measuring period is two months before and after the introduction of the GPS system.*

Figure C2.4.3 show the distance per day for the four drivers and the difference between 2004 and 2005. Three of the drivers drive longer distances per day when GPS is implemented and the fourth driver drives about the same distance per day. The differences between the drivers tend to even out after the introduction of the GPS-system. In total for this group of four, the distance per day has increased from 247 kilometres to 270 kilometres per day.

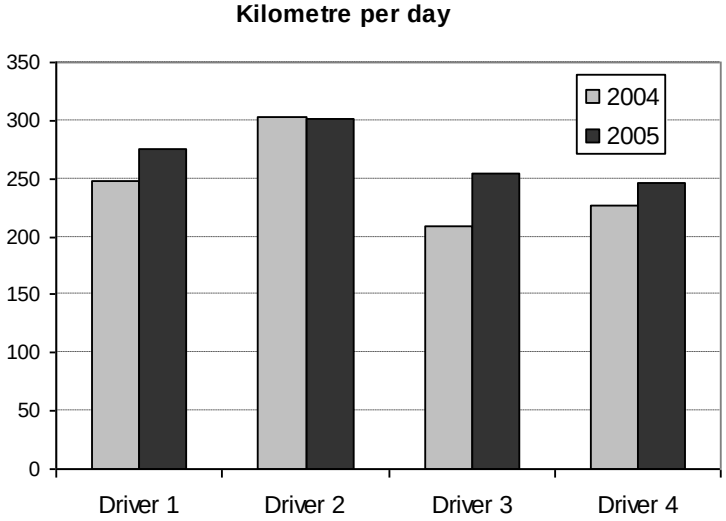


Figure C2.4.3. *The length in kilometres per day. The measuring period is two months before and after the introduction of the GPS system.*

	Tasks per day	*Kilometres per task*	*Kilometres per day*
2004 (Baseline)	15,5	15,8	247
2005	16,2	16,6	270

Table C2.4.4 *Data for the set of indicators for the aggregated approach (day based).*

As shown in table C2.4.4, all indicators show an increase from the situation before the GPS-system compared to the situation with the GPS-system. This could point to an increase in the efficiency due to this measure, but, as we know, this period was also the start of the growth of the markets world wide. The rather small differences as a whole for this group of drivers could reflect the growth of the total demand for delivery services and the number of competitors at the market just as well as the increased efficiency because of the measure 10.2. More

consistent than the small increase, is the fact that the differences between the drivers even out in the after study. The variations between the drivers are smaller when the operator has the GPS-system in place when distributing the tasks for this group of drivers. This could point to a change in the distribution, but it could also be the result of a change in demand. In order to distinguish between efficiency and demand we tried a second approach.

Detailed approach: Indicators based on trips (*Trips per day, Deliveries per trip, Proportion of unloaded trips, unloaded kilometres*) – based on more disaggregated data on detailed route planning for two of these drivers five consecutive days within November 2004 and 2005 with data for 2004 being reconstructed by the drivers.

During November 2005, the drivers have registered the distance of every stop together with the loading status. Based on this, the number of unloaded kilometres is calculated for each day. For year 2004, this was not possible, and the distance for the unloaded trips was calculated with route planners.

The indicators for 2004 and 2005 are presented in table C2.4.5 for the two drivers. The reason for this detailed material is to show the variation in the data, between the drivers as well as between the days.

2004 Baseline	*Day*	*Trips per day*	*% of unloaded trips (number)*	*Unloaded km*	*Deliveries/trip*
Driver 1	1	31	19.4 (6)	26.5	1.45
	2	39	15.4 (6)	11	1.77
	3	19	26.3 (5)	14.5	1.26
	4	36	13.9 (5)	14.5	1.67
	5	43	18.6 (8)	29.5	1.63
Driver 2	1	46	21.7 (10)	89.4	2.13
	2	46	2.2 (1)	3	3.02
	3	42	16.7 (7)	34.7	2.57
	4	40	17.5 (7)	23	2.45
	5	38	21.1 (8)	54.4	1.76
2005	*Day*	*Trips per day*	*% of unloaded trips (number)*	*Unloaded km*	*Deliveries/trip*
Driver 1	1	33	15.2 (5)	15	1.76
	2	43	11.6 (5)	29	2.58
	3	28	10.7 (3)	8	2.57
	4	36	2.8 (1)	1	2.36
	5	37	18.9 (7)	37	2.24
Driver 2	1	28	14.3 (4)	16	2.79
	2	43	25.6 (11)	57	2.21
	3	36	22.2 (8)	71	2.31
	4	31	16.0 (5)	33	1.87
	5	48	14.6 (7)	39	2.15

Table C2.4.5 *Detailed data for the indicators based on interviews and list of tasks.*

2004 Baseline	*Trips, total*	*% of unloaded trips, mean*	*Unloaded km, total*	*Deliveries/trip mean*
Driver 1	168	18.7	96	1.56
Driver 2	212	15.8	204.5	2.39
Total	**380**	**17.3**	**300.5**	**1.97**

2005	*Trips, total*	*% of unloaded trips, mean*	*Unloaded km, total*	*Deliveries/trip mean*
Driver 1	177	11.8	90	2.30
Driver 2	185	18.4	216	2.27
Total	**362**	**15.2**	**306**	**2.28**

Table C2.4.6 *Data for the set of indicators for the detailed approach (trip based).*

The results for driver 1 show an improvement in terms of deliveries per trip and proportion of unloaded trips. The unloaded kilometers driven were about the same. For driver 2, the improvements were not as clear.

Driver 2 had a larger number of "fixed tasks" during these weeks than driver 1. The fixed tasks were the same for all days during the week. Driver 1 had during some days the role of a "free car" meaning that he was available for express deliveries and incoming tasks during the day. The new GPS-system with positioning data for the vehicles probably gives the operator more opportunities for route optimisation for a "free car" than for a car performing fixed tasks.

When asked, both drivers had the opinion that the efficiency had not changed with the introduction of the GPS-system. In their view, the distribution of incoming tasks was still too much in the hands of the operator.

C2.5 Society

The objective for this category is to raise public awareness of the fact that 215215 has taken this step towards a more efficient transport service. This is measured by Indicator 13 (*Awareness Level of the general public)* and based on the survey described in Table C2.5.1

Time for the study	April and May 2008
Sample size	3123 in total
Respondents	Visitors in the City of Malmö
Method	Survey handed out and collected again at different locations in the City of Malmö
Aim	To estimate indicator 13
Comments:	Students (mostly young men) managed this survey. Maybe they attracted more young people than with a more representative way of choosing respondents. The survey was made in three versions. Some questions have smaller sample sizes due to that.

Table C2.5.1 *Data about the study made in 2008.*

The age and sex for the respondents are shown in figure C2.5.2. 42% are men and 58% are women. The most uneven distribution between men and women are for those under 24 years of age. Compared to travel surveys (2003, 5081 travel diaries, 2008, 5600 travel diaries) with about the same sample size but with more representative ways of choosing respondents, this survey has younger respondents as well as more women. The reason for this is probably the method described in table C2.5.1.

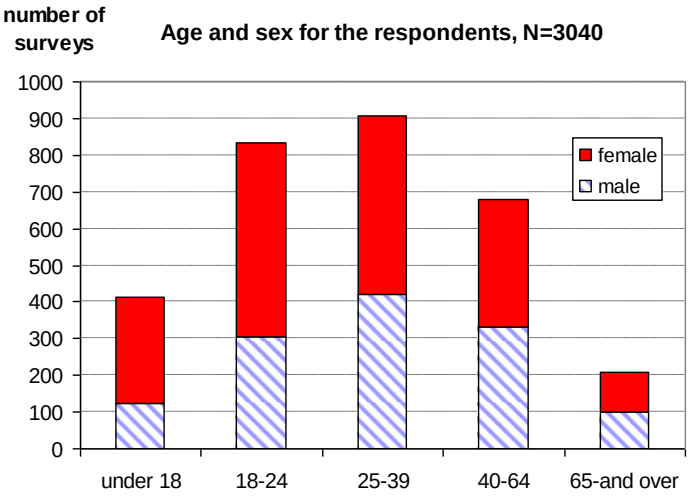


Figure C2.5.2

The distribution over age groups and sex for the respondents in the survey 2008.

The respondents for this survey are younger than the residents of Malmö. The reason for this is probably the method, see table C2.5.1

One question in the survey was relevant for this measure, see table C2.5.3. The result shows that among the general public, the company 215215 is not well known and the measure 10.2 is not widely known either. The vast majority of the respondents could not associate 215215 with anything.

What do you associate the company "215215" with when thinking about transports and the environmental impact?	N=607
Car-pooling	1,2%
Biogas	1,3%
Eco-driving	2,0%
Logistics for a better environment	2,3%
A large percentage of clean cars	1,6%

Table C2.5.3 *The awareness level for 215215 and their use of this technology.*

The importance of a high level of awareness for this measure among the general public is not crucial for 215215. The system with GPS in all cars is primarily targeted at a higher efficiency within the company, and neither is "the public" the market at which 215215 would want to strengthen their trademark.

C3 Achievement of quantifiable targets

No.	Target	Rating
1	The new system provides the opportunity to increase the coordination by almost 100%.	0
2	It will lead to fewer vehicles for the same number of tasks which leads to lower use of tyre and vehicle chemicals and lower wear on infrastructure.	0
3	Less paperwork through transfer to digital media.	NA
	It will also change the working conditions for the traffic-dispatch in form of less stress and more control.	NA
NA = Not Assessed 0 = Not achieved ★ = Substantially achieved (> 50%) ★★= Achieved in full ★★★= Exceeded		

C4 Up-scaling of results

The measure 10.2 has greater impacts on the market as a whole than what is shown for just 215215 as a single company, since 215215 not only have made their own business more effective but, as an effect of that, has increased their business compared to less efficient competitors.

For these kinds of systems there are substantial economies of scale so that intended coordination can only take place if there is a sufficient pool of deliveries to be distributed to the "optimally located" vehicle. Since the system is already fully implemented at 215215, these economies of scale are already "cashed in". As the system will lead to increased market share, the availability of deliveries suitable for coordination will grow further. Therefore it can be expected that:

- The effects of the system within 215215 will increase over time
- If the system is implemented at smaller transport companies with fewer cars, the potential for improvements is smaller.
- At companies with larger number of cars and more "short term orders", the effects will be larger.

C5 Appraisal of evaluation approach

Measure 10.2 is the first measure to be completed among the measures in Malmö. The period during which this measure was running was around six months. This measure kept the time limits with no delays. This made the possibilities for a "before" study limited. It had to rely on data available.

The first approach was to build on aggregated data but due to the limited time, the before and after period had to be rather short, two month each. The measure ended in 2006 and the after period had to be included in this time frame. The before-period had to match the after period and thus, be just as short. This showed to be too short due to the difficulty introduced by the large number of uncontrolled external factors influencing the transport pattern and disturbing the comparison between before and after. The first approach in the evaluation showed that these data were not detailed enough.

The second approach was based on a smaller sample of more detailed data and new indicators were formulated that pointed to a more specific description of the terms "efficiency" and "coordination". But since the objectives were expressed in not quantified terms of efficiency and coordination, these new indicators were even harder to compare with the objectives. This second approach better described the changes in coordination but the detailed sample was too small.

Another "finding" (a better word than problem in this case) is that, for this design of the satellite based traffic management, the role of the operator is crucial. When no route planning program is included in the system, the operator has to do the optimisation based on the information available. Not all operators have the same way of distributing the tasks. This is probably a factor of great importance but not included in the evaluation.

The evaluation shows that these kind of systems, with a mix of advanced technology and the human factor, are hard to evaluate without a in-depth knowledge of the way the company works. The demand of 215215 services shows a large variation in time and place and the external factors influencing the demand are many.

C6 Summary of evaluation results

The key results are as follows:

- **Key result 1** – the proportion of unloaded trips has decreased according to expectations, from 17% to 15%.
- **Key result 2** – the level of coordinated loads has increased from 2.0 to 2.3 loads per trip.
- **Key result 3 -** the total number of unloaded kilometres driven has not decreased but increased from 301 to 306 kilometres per week potentially as a result of an increased market share.
- **Key result 4 -** the possibility of increased optimisation for a system based on the individual operator is limited, without support from a well designed route planning tool.

D Lessons learned

D1 Barriers and drivers

D1.1 Barriers

- **Barrier 1 –** The objectives for this measure appear to be statements and assumptions which are difficult to evaluate to determine the success of the measure. To evaluate the environmental benefits and success of this measure its objectives need to be clearly defined, tangible, achievable and measurable.
- **Barrier 2** – The measure lacks the information on evaluation process and methodology and offers very limited results to determine the efficiency of the satellite traffic management system. In the absence of evaluation methodology and information on data collection and analysis it is difficult to determine the validity of the results and therefore the success of the measure.

D1.2 Drivers

- **Driver 1** – Availability of satellite traffic management technology
- **Driver 2 –** 215 215 Transporter AB active engagement in developing more environmentally friendly transport solutions
- **Driver 3** – 215 215 Transporter AB have had great support from the city of Malmö

D2 Participation of stakeholders

- **Stakeholder 1 –** 215 215 Transporter AB is a private company responsible for implementing the measure
- **Stakeholder 2** – City of Malmo has offered support to the project

D3 Recommendations

- **Recommendation 1** – To evaluate the environmental benefits and success of this measure its objectives need to be clearly defined, tangible, achievable and measurable. It is recommended that the objectives are properly researched prior the start of the project to meet the project requirements and enable the evaluation process to correctly measure their achievements and overall success of the project.

- **Recommendation 2 –** In the absence of a baseline it is difficult to evaluate the measure and determine its success as the 'before' and 'after' comparative analysis cannot be performed correctly. It is necessary that baselines are set prior to commencement of the project to enable like for like comparison as well as correct evaluation of achievements of quantifiable targets in C3.

- **Recommendation 3 –** Interpretation of findings without properly defined and measurable objectives and no baseline is a difficult if not impossible task. The actual meaning, interpretation and evaluation of the results are therefore subject to assumptions and guessing. To ensure reliability of data and validity of results the correctly defined objectives and baseline are as important and crucial part of the project as is evaluation process to gauge and determine the success of the project.

- **Recommendation 4 –** It is also recommended to develop a full evaluation process and methodology necessary to collect a robust and quality data for data analysis and interpretation to determine the benefits and success of the measure.

- **Recommendation 5 –** To achieve the best benefits from the satellite traffic management system it is recommended 215 215 Transporter AB develop a set of management and evaluation techniques to measure the environmental benefits of its operations and ensure further optimisation of vehicle movements as well as promote its services as environmentally friendly with clear environmental benefits.

D4 Future activities relating to the measure

Recommendations can be seen as future activities for this measure.