





# Report on city fleet management workshops

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			WP4 Influencing travel behaviour	WP10 Project manage- ment
			WP5 Safety, security & health	WP11 Research and Technological Develop- ment
			WP6 Innovative mobility services	WP12 Impact and pro- cess evaluation
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## 1. Introduction

This Deliverable provides information on the different workshops that have been organized by the Measure Leader of CIVITAS-ELAN measure 1.1-COM for the city fleet managers in the other ELAN cities.

All ELAN cities have city fleets owned by the city council and public transport fleets owned and operated by the public transport operators. These car fleets are often divided among the different city departments and/ or different public transport operators, each with their own view on how to use the available fleet. Especially in the city councils, there is no central fleet management.

The present use of innovative clean vehicles in public fleets is rather low, as city councils and public fleet operators are not willing to take financial risks implementing prototype vehicles or vehicles which have not proved their technical successes vet.

# 2. Measure 1.1-COM Energy management of public fleets

This measure is common for all cities. It fosters exchange and discussion within CIVITAS-ELAN. Each partner city appointed a dedicated "green fleet manager", who deals with the topics of managing the energy consumption of city fleets, as well as reduced emissions and decreased fuel consumption. The City of Gent serves as the leader of this common measure being responsible for the cooperation of all workpackage related activities and is being supported by all other CIVITAS-ELAN partners.

# 2.1. Objectives

Clean and efficient vehicles are a central part of the CIVITAS demonstrations. But just replacing some standard vehicles by clean ones will not be enough to come to a radical new approach having a major impact on the total energy use of the public fleets. Since all CIVITAS-ELAN cities consider this observation as a major challenge this measure is geared towards the energy management of public fleets by the means of a joint action working together on the best strategies in this context with the following specific objectives:

- To introduce clean fleet vehicles and sustainable fleet management for city administration and public operators in support of local air quality objectives within each of the CIVITAS-ELAN cities;
- To follow the most recent developments on the theme of biofuels and to spread this information to the ELAN partners;
- To increase the efficient use of a fleet;
- To come to the most energy friendly driving behaviour;
- To reduce emissions of, and human exposure to air pollution.

Through energy management of public fleets, the city councils and public transport operators set an example for sustainable fleet use to the citizens.

# 2.2. Innovative aspects

The main innovative aspect of the CIVITAS-ELAN project in this field is the integrated approach to cover all factors that can contribute to the main objective to come to the lowest possible energy and emission levels. This will consist of a wide range of aspects:

- The implementation of the best technologies for the engines,
- New driving behaviour,
- · Optimised use of the fleets.



# 2.3. Time plan and current status of 1.1-COM

No. of M/ WD/ D	Name of M/ WD/ D	Delivery date from DoW	Achieved/ Delivered (Yes/No)	Actual/ Forecast achieve ment/ delivery date	Comment
1.1-M1	Inventory of existing experience and approaches finished	15.09.09	<b>~</b>	26.02.10	There was a need to first clarify the content of the measure during the amendments process. The inventory was finalised during the 1.1-COM workshop in Ljubljana.
1.1-WD1	Working document on energy approaches for city fleet	15.01.10	Y	16.04.10	Slight delay due to unclearness of the content of the measure before submission of the amendment request.
1.1-M2	Internal workshop on biofuels	15.04.09	Y	23.04.09	The workshop was held on 22-23 April 2009 in Zagreb.
1.1-M3	First internal work- shop city fleet man- agement	15.11.09	Y	20.11.09	A workshop on public fleet management took place on 19 November in Gent. It was followed by a site visit to the Gent Bio-Energy Valley biofuel installations in Gent's harbour on the next day.
1.1-M4	Second internal workshop city fleet management	15.09.11	Y	21.01.11	A workshop was organised in Zagreb because it was considered necessary already do this at this point and not to wait until September 2011.
1.1-WD2	Joint action plan on how to make fleets cleaner	15.01.12	N	15.12.11	Joint action plan was included in the 4 <sup>th</sup> amendment
1.1-M5	Gathering information finished	15.03.12	N	15.03.12	
1.1-M6	Start overall evalua- tion of the measures in WP1 (project level)	15.03.12	N	15.03.12	
1.1-WD3	Report on energy management measures for public city fleets	15.05.12	N	15.05.12	
1.1-M7	Exchange of general knowledge gathered in the common	15.06.12	N	15.06.12	





No. of M/ WD/ D	Name of M/ WD/ D	Delivery date from DoW	Achieved/ Delivered (Yes/No)	Actual/ Forecast achieve ment/ delivery date	Comment
	measure and the sub- workpackages of WP1 finished				
1.1-M8	European open work- shop on energy man- agement of public fleets (if possible during final European Conference)	15.06.12	N	15.06.12	

This Deliverable provides information on Milestones 1.1-M2, 1.1-M3 and 1.1-M4.

# 3. Internal workshop on biofuels

As biofuels and their introduction are part of this measure's content, the organisation of a workshop on this subject seemed very relevant for the progress of this measure. It was included in the timetable as a Milestone.

On 22-23 April 2009 an internal workshop on biofuels was organized in Zagreb.

The workshop started in the afternoon of 22 April. Participants visited one of the bus and tram stations of ZET, the public transport company of Zagreb. A variety of buses and trams and the new CNG buses were presented. The control centre of ZET where all the buses and trams in operation are being followed online was also visited shortly.

The workshop on 23 April was divided into two parts. In the more general morning session, two presentations were given: first there was an introduction on some technical aspects of the biofuel issue. After that information was given on biofuels and sustainability and on the EU point of view.

After this general introduction, the afternoon session consisted of some experiences within the CIVI-TAS-ELAN cities with biofuels.

# 3.1. Agenda

On 22 April, as mentioned above, a technical site visit was organized.

On 23 April, the workshop started with some technical background on biofuels. The other topics that were discussed were the following:

- Biofuels and sustainability, and the EU point of view (Nathalie Devriendt, VITO, Flemish Institute for Technological Research),
- The use of waste biofuel in Porto's ELAN measure "Light-weight hybrid bus shuttle" (1.5-OPO) (Sérgio Moreiro, FEUP),
- How Porto's bus operator Arriva can achieve the aim to ride 50% of its fleet on biofuels (Ana Pinho, PrioFuels),
- Experiences with biofuels at DPMB, Brno's public transport operator (Iva Machalová),
- Experiences with biodiesel B100 (Javno Podjetje, LPP),





- Zagreb, biodiesel experiences in (ZET) the Zagreb Public Transport Company (Branko Mikinac, ZET),
- Gent, to stimulate the implementation of biodiesel use (B30) in the surroundings of Gent (Simon Van Kerrebroeck, UGENT).

Picture 1: Technical site visit



Picture 2: Workshop in Zagreb



# 3.2. Objectives

The objectives of the meeting were the following:

- To discuss how the issue of biofuels is being dealt with in ELAN cities;
- To discuss how to proceed with biofuel measures within ELAN;
- To discuss common and different biofuel approaches within ELAN cities;
- To discuss other alternative fuels and alternatives to alternative fuels;
- To discuss how to cope with the fact that there is currently no common position and guidance from the EU Commission and many national governments about biofuels;
- To enhance contact between Measure Leaders and ELAN partners working on this topic and facing similar problems.





## 3.3. Results of the workshop

The workshop on biofuels in Zagreb was very successful in many ways:

- It provided some pure technicians on the field with a general background on the biofuels issue: technical (in general terms, e.g. first and second generation biofuels), ethical and political.
- It was a chance for technicians, mostly working for a public transport company, to share some concrete information on their own experiences.
- It was above all a chance for each participant to learn something from each other's positive and negative experiences.

# 4. First internal workshop on city fleet management

The first workshop on city fleet management was held in Gent during the 2<sup>nd</sup> ELAN consortium meeting in November 2009. On 19 November the workshop took place, on 20 November a visit to GBEV (Gent Bio-Energy Valley) was organised.

#### Picture 3 and 4: Workshop in Gent





## 4.1. Agenda

First there was a general introduction on public fleet management.

The other topics that were discussed were the following:

- City Fleet Management in Kortrijk (Bart Baeten, City of Kortrijk),
- City Fleet Management in Gent experiences and measures within CIVITAS-ELAN (Jan Gheldof, City of Gent),
- Carsharing and Fleet Management experiences and ideas for the public sector (Geert Gisquière, Cambio, Gent),
- The ecoscore tool (Tobias Denys, VITO Belgium),
- Public Fleet Management within STCP (Porto) (Margarida Nogueira Mota, STCP, Porto)
- CIVITAS-ELAN 1.1-COM: State of the art, further actions, role of the City Fleet Manager (Jan Gheldof, City of Gent).





## 4.2. Objectives and results from the workshop

On 19 November 2009 the first part of the workshop was about sharing experiences among ELAN cities and with other cities on public fleet management. The ecoscore tool was also explained to the participants of the workshop.

In the afternoon agreements were set on this measure's content, expected outcomes and next steps to be taken.

The fleet management and ecodriving lessons shall lead to:

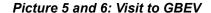
- · Reduction of cars in the city fleet;
- Reduction of car use;
- Reduction of costs because of the reduction in the fuel use;
- Considerable reduction of CO<sub>2</sub> and dust emissions;
- Decrease in the number of accidents because of a larger follower distance and because of avoiding abrupt pulling up and braking.

It was decided to focus within this measure on the developments within the sphere of biofuels and use the ecoscore as evaluation tool. There would be less focus on vehicle technology, as there is not enough time and money to implement new technologies and because this is too technical.

During a later workshop it became clear that using the ecoscore as an evaluation tool for all the fleets was not feasible. The ecoscore database is a very useful tool, but does not include all the fleet cars of the cities from other countries, this makes it difficult for them to find the data and therefore it is not a good idea to use this as the evaluation tool.

During the workshop in Gent, it was decided that the efficient use of the fleet would be studied and options to organise ecodriving courses would be looked at.

On 20 November a visit was organised to the biofuel plant GBEV (Gent Bio-Energy Valley).







# 5. In-between session with all city fleet managers

As the cooperation between the green fleet managers of every city started in April 2009 in Zagreb, an in-between session was held in Brno in June 2010. In Gent agreements were made and deadlines set, but it proved to be not always that easy to meet them. The difference between a common measure and city measures is that different people from different countries and cities work together, but meeting regularly is not so easy. But personal meetings are needed for smooth cooperation and to discuss problems. Therefore a meeting was organised in Brno during the PMG meeting on 17 June 2010.





## 5.1. Agenda

The team met for a whole day and every green fleet manager of the different cities presented the status of measure progress in their city.

Future steps were decided upon and deadlines were set.

It was decided to focus on three issues:

- Analysis of existing fleet: starting with operational cars from September 2008 onwards;
- · Status on ecodriving;
- Status of the fleet use efficiency.

All the different aspects of these three focus points were explained by the ML. In this way everybody was very well aware of what was expected from him/ her.

Picture 7: Meeting in Brno



# 5.2. Explanation of the different aspects

#### 5.2.1. Analysis of existing fleet

Goal: Measuring the progress in the efforts of making the city fleet more sustainable. At the end of CIVITAS-ELAN there will be a second and final analysis. By using the same framework for the analysis of data, the green fleet manager from each ELAN city will be able to compare equal findings.

Method: Using existing facts and figures from cities' databases.

The city of Gent relies on the Service and Logistics Department which has years of experience with quite an extensive data collection. The classification of the cars is based mainly on registration numbers which are then linked to several facts and figures as described below.

Number of operational cars:

These are all the cars that were in use at the time even when going out of service during the year.

- · Registration numbers.
- Type of car (passenger or freight), model and brand.
- · Used by which department?

This is to be able to identify the biggest fleet users amongst the different city departments.

• CO<sub>2</sub> emission (as given by car manufacturer or based on a mathematic formula based on real fuel use):

Diesel: litres per 100 km \* 2640/ 100 = CO<sub>2</sub> emission per km





Gasoline: litres per 100 km \* 2392/ 100 = CO<sub>2</sub> emissions per km

 Other emissions if available, for more recent cars it is easier to get information about a variety of emissions.

#### Ecoscore:

Ecoscore is an evaluation tool with a value between 0 and 100. The higher the score, the more environmentally friendly the vehicle is. The ecoscore has been developed by VITO, Belgium, as an answer to the gaps in the Euronorm system because Euronorm does not give a total picture of the impact on the environment. Euronorm is limited to information about the emissions of  $NO_x$ , CO, HC and PM.

CO<sub>2</sub>, however, is equally important and is evaluated with the ecoscore. Unfortunately, this system of classification is available only in Belgium and only for passenger cars. For trucks and other heavy duty vehicles the ML still has to rely on Euronorm regulations.

Euronorm specifications:

As mentioned above: information about the emission of NO<sub>x</sub>, CO, HC and PM.

Euronorm goes from 1 to 5 (future 6).

The city of Gent has been replacing its trucks systematically to Euro 5 models over the last years. This is an on-going process and end results in 2012 will show overall improvements in the fleet.

Euronorm specifications are being provided by the manufacturers. This is obligatory.

- Fuel type specification: diesel, gasoline (euro 95, super plus, lead-free), gas (LPG).
- Amount spent on fuel in Euro: this can be an important argument towards decision-makers.
- Number of fuel litres per year and per car.
- Average fuel use/ 100 km.
- Number of driven kilometres/ year:

Goal: To be able to show in the end results that a better policy for the use of the city fleet has an impact on the number of driven kilometres.

Number of accidents: better car policy (with reduction in use) and combination with ecodriving will
probably lead to fewer accidents.

### 5.2.2. Ecodriving

- · Identify the frequent car users
- Ecodriving lessons for frequent users of city fleet cars: Only a selection of employees will be able to take ecodriving lessons, as time and money are also an important aspect for the organisation of the ecodriving courses.
- Number of accidents before and after ecodriving (entire city fleet): By driving according to the ecodriving rules, drivers will drive more 'defensive' and will anticipate more to road traffic.
- Evaluation of the driving behaviour.
- Reduction in fuel use.

#### 5.2.3. Efficient fleet use

The fleet use of a city or organisation could be managed by an online tool.

This digital tool can allow the fleet manager to have an overview of the car reservations. And the system can be used to effectively and orderly organise all administration and maintenance issues considering each car. The existing databases containing information about maintenance, accidents, bookkeeping, insurance, registration, taxes, etc. could be incorporated in the new system so that in the future all information would be centralised.



There would be more control on the fleet use, so people who reserve a car for example for a very short distance could be encouraged to uss another means of transport.

The idea could be to link personal health with healthier transport choices. 15 minutes of biking burns an average of 90 calories and speeds up heart rhythm. This could be an extra argument for more walking or cycling. In Gent this is supported by the city council.

# 5.3. Results of the meeting

The main result was that finally everybody had a clear view on what was to be expected and clear deadlines were set:

#### Timetable analysis public fleets

Ac	tion Item Action	Responsible	Deadline
Ove	erview on agreements		
1	uniform reporting of data	all	
2	For the input of all data in uniform spreadsheets. Gent will provide the necessary data sheets	Lies	beginning of July 2010
3	language all reporting: English	all	
4	following data need to be gathered:		August 31, 2010
	<ul> <li>type of car/ model/ brand</li> </ul>	all	
	year of purchase		(2008+2009)
	<ul> <li>CO<sub>2</sub> emissions(as provided by manufacturer)</li> </ul>		
	<ul> <li>ecoscore (if possible) (for all models after 2002)</li> </ul>		
	<ul> <li>Euronorm: ALWAYS (see conformity certificate of cars)</li> </ul>		
	fuel type		
	<ul> <li>number litres fuel per year</li> </ul>		
	cost fuel per year in euro		
	<ul> <li>average fuel use per kilometre (mixed use provided by manufacturer)</li> </ul>		
	<ul> <li>number of driven kilometres per year</li> </ul>		
5	Damages: number of damages in total per year in 2 categories:	All	August 31,2010
	reported to insurance company		
	<ul> <li>not reported to insurance company</li> </ul>		
	No need to specify the type of damage		
6	Scope of this research:		
	<ul> <li>passenger cars</li> </ul>		
	vans up to 3.5t		
7	4 data gathering moments: (data as described above)		August 31, 2010
	September 2008		
	September 2009		(2008+2009)
	September 2010		
	September 2011		
	for deadline August: only 2008 and 2009		

#### Timetable efficient fleet use

Action Item	Action	Responsible	Deadline
Overview on	agreements		
1	Presentation current situation of each city (extensive description of location pools, number of cars per pool, car policy, reservation management,)	all	August 31,2010
2	graphical presentation of carpools: on city map  • in diagramme style with number of cars per pool	all	August 31, 2010
3	overview of actions regarding efficient fleet use in each city: past, present and planned for in the future	all	August 31, 2010
4	Gent will spread information about the projects of car sharing by the Civitas-partner Cambio, so possibilities and feasibility of these new systems can be discussed at future workshops (accident policy, car policy, legal obstacles, GPS-tracking,)	all	August 31, 2010

#### Timetable ecodriving

Action Item	Action	Responsible	Deadline				
Overview on	Overview on agreements						
1	We agreed that <u>only in the case of</u> ecodriving the scope is open to different types of cars: passenger cars, vans, public transport vehicles (bus,)	all	August 31, 2010				
2	Action plan ecodriving (when? who takes part? who will give lessons?)	all	August 31, 2010				
3	Gent will find out which Belgian companies in eco driving can give us valuable information about how to organise this for your own town (training the train- er principle)	Lies	August 31, 2010				
4	Gent provides a spreadsheet for uniform data collecting of fuel use before and after and information about improvement of driving style	Lies	August 31, 2010				

The aim of gathering all this information was to come to a final joint action plan that provided information on the current situation in all five cities, and that included suggestions on how to make the fleets cleaner.

# 6. Second internal workshop on city fleet management

According to the measure timetable the second internal workshop on city fleet management was planned for September 2011. The measure team decided to hold it sooner as some follow-up was necessary as in some other cities there had been problems with gathering the data for the analysis of the fleet use.

The workshop was organised during the 3<sup>rd</sup> Consortium Meeting in Zagreb on 21 January 2011.

# 6.1. Agenda

During the second internal workshop on city fleet management the measure team compared the received data from the different cities, tackled problems occurring in the different cities and the ML explained the ecodriving course that was organised in March 2011 in Gent to the other green fleet manager. As the course was a combination of e-learning and some hours practice, it was not too time con-





suming for the employees taking the course. It seemed an interesting approach also for the other cities.

#### Picture 8 and 9: Workshop in Zagreb





## 6.2. Results and minutes

Comparing received data from the different cities

#### Data 2008-2009 (as agreed during the Brno workshop)

Brno: OK.

However, no access to ecoscore data.

Gent: OK.

Ljubljana:

Data are not complete yet. It seems to be very difficult to get everything together.

There is no database mentioning information on the Euronorm in Slovenia. Data on ecoscore is not complete either. A comparison system for all the cars in all European countries does not exist. The launch of a common database on all the cars for all European countries could be an important suggestion when evaluating this measure.

Contingency plan:

By the end of February 2011 it will be clear which data are accessible and which are not. It is better to have part of the data by then than nothing at all. Part of the data can already give some conclusions.

Gent can ask the company who made the ecoscore website for help for certain types of car.

Porto:

Change of Measure Leader. No data collection until now. Will have all the data (2008-2009) by the end of March 2011.

Zagreb: OK.

## Data 2010

Brno: end of March 2011.

Gent: end of March: 2011.

Ljubljana: end of March 2011.

Porto: end of March 2011.





Zagreb: end of March 2011.

#### Efficient fleet use (as agreed during the Brno workshop)

Brno: OK.

Gent: OK.

Ljubljana:

Is currently gathering all the information.

Porto:

Change of Measure Leader. No data collection until now. Will have all the data by the end of March 2011.

Zagreb: OK.

General suggestion for the five cities:

When a city works on car sharing or other sustainable transport modes, it is always interesting to mention this to the Measure Leader so she can include it in the reports.

#### **Eco driving**

#### Brno:

The city is not introducing eco driving. There are a lot of people who use the city fleet, and always only for short distances. It is impossible to train everybody.

Suggestion:

Only train certain people who really drive a lot (the biggest users)? Maybe.

#### Ljubljana:

City has had contact with an organisation that can provide eco driving lessons. In 2011 15 people will be invited to a one-day workshop on eco driving. There is, however, no confirmation yet. By the end of March 2011 there should be more info on this project.

#### Porto:

The city is not introducing eco driving. Each department has a number of cars and everybody uses them.

#### Suggestion:

Train one department and then organise a competition on fleet use. Which department saves the most when driving? The measure representative will suggest this to the Transport Department.

Eco driving training for the PT drivers? Porto will check whether this could be a possibility.

#### Zagreb:

The city is organising a workshop in cooperation with another project. The training will start in the beginning of March 2011, first public transport drivers. By the end of March 2011 there should be more info on this project.

#### Eco driving in Gent

In January 2011 a period of eco driving lessons for 60 city employees started. Out of about 5,000 employees, a number of people based on the frequency of their car use were selected (number of visits to gas stations, drivers' database in the departments themselves, etc.). The ML has tried only to select those who drive the same car for 95% of the time and those who usually do not share their car with other people.



The system is based on digitally collecting data on driving behaviour through a device called the D-Logger. The device is installed at the beginning and at the end of the whole process to collect data ante and post respecting the eco driving lessons. It tracks accelerating, braking, speed, etc. It does not track the location of the vehicle.

For the data collection the participants are asked to take notes of the mileage and the amount of litres of fuel pumped at every fuel stop. To save on working hours spent on the eco driving lessons, the city choose a combination of e-learning and only one hour of practice with an instructor.

The advantage of this system is that not too many working hours are consumed and as a result normal work schedules were affected as little as possible.

#### Overview

Time frame	Description	Time needed for employees (number of working hours to complete task)
week 1	installing D-Logger in cars	none
week 1-3	collecting data on driving behaviour by D-logger	none
week 4	unplug D-Logger	none
week 4-5	e-learning	4 x 20 minutes (in a 10-day period)
		employees are free to choose when
week 6	processing data	none
week 7-8	practical test with driving instructor	1 hour
week 9-10	instructor sends employees additional exercises (on PC) and reminders	depending on the employee
week 11	installing D-Logger in cars	none
week 11-14	collecting data on driving behaviour by D-logger	none
week 15	unplugging D-logger	none
	and start processing data	
week 16	processing and evaluating all data	none

The programme in Ghent started in January 2011 and ended in May/ June 2011.

#### Remarks

The e-learning package can be translated and made available for the other cities.

## Joint action plan

Some possible measures to make one's fleet cleaner were listed during the workshop:

- Evolution to Euro 5 in city fleets.
- Higher eco score.
- · Removing cars when mileage is too low.
- · Removing cars when fuel consumption is too high.
- · Lower accident number through eco driving.



- Change in possible fuel type: electric, CNG, B30.
- · Lower fuel use: lower mileage and eco driving.

## Action plan

Action Item	Action	Responsible	Deadline
Overview on	agreements		
1	Inform Porto on all the actions that should be taken and where to find all the templates, etc.	Sophie	Asap
2	Contact Alen Hadžić about e-learning programme	Lies	Asap
3	Send impact analysis 1.2-GEN and evaluation method around for input	Begga	February 2011
4	Collect data of 2008 and 2009:	Ljubljana	March 31, 2011
	type of car/ model/ brand	Porto	
	year of purchase		
	CO <sub>2</sub> emissions(as provided by manufacturer)		
	ecoscore (if possible) (for all models after 2002)		
	Euronorm: ALWAYS (see conformity certificate of cars)		
	fuel type		
	number litres fuel per year		
	cost fuel per year in euro		
	average fuel use per kilometre (mixed use provided by manufacturer)		
	number of driven kilometres per year		
5	Data on efficient fleet use	Ljubljana	March 31, 2011
		Porto	
6	Collect data of 2010	all	March 31, 2011
7	Report on eco driving projects	all	March 31, 2011
8	Develop draft final action plan	Sophie, Lies and Begga	April 2011

## 7. Evaluation

Information on the evaluation of this measure was also given at the internal workshops on city fleet management.

The Measure Leader is the final responsible person for the common measure evaluation.

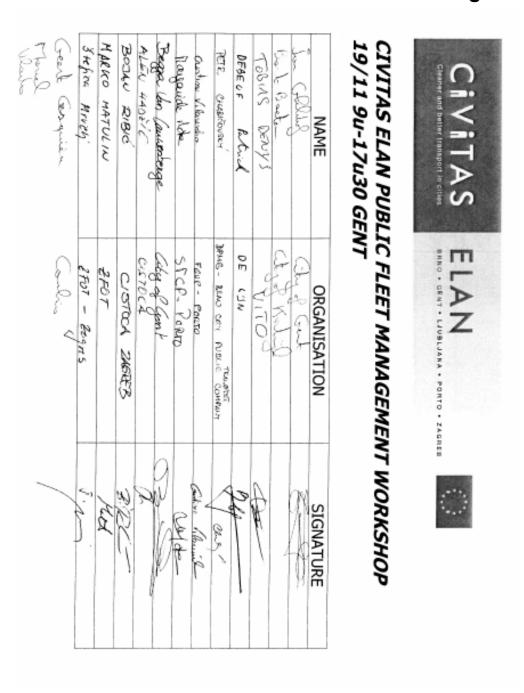
An impact evaluation and a process evaluation have to be done. Gent's Site Evaluation Manager will coordinate this together with the ML. There is no real implementation for the common measures. The main aim is to share knowledge and experiences around a certain topic and exchange ideas and approaches to tackle the questions and problems related to this topic.



# 8. Future plans

For this common measure there are no further meetings planned. The joint action plan on how to make fleets cleaner (1.1-WD2) has been submitted and distributed to the different cities. There is constant contact between the different fleet managers whenever input is necessary or problems arise. This will be continued until the end of the CIVITAS-ELAN project.

# 9. Annexes - Attendance lists of the meetings







## CIVITAS ELAN 3rd Consortium meeting

January 19 - 22 2011 Zagreb





## LIST OF PARTICIPANTS 1.1-COM Workshop 21-01-2011

NUMBER	NAME	ORGANIZATION	CITY	SIGNATURE
1.	Petr Chabicovsky	DPMB	Brno	Cars/
2.	Lies Helsloot	City of Gent	Gent	Stat/
3.	Begga Van Cauwenberge	City of Gent	Gent	₩
4.	Sophie Gillaerts	City of Gent	Gent	Satur
5.	Anthonis Tom	UGENT	Gent (	
6.	Andrej Piltaver	City of Ljubljana	Ljubljana	An

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## LIST OF PARTICIPANTS 1.1-COM Workshop 21-01-2011

NUMBER	NAME	ORGANIZATION	CITY	SIGNATURE
7.	Bruno Pereira	City of Porto	Porto	<b>A</b> .
8.	Ana Dundović	Čistoča	Zagreb	Sudaric
9.	Petra Žvorc	Čistoća	Zagreb	Diene
10.	Bojan Ribić	Čistoća	Zagreb	ZUC PL-
11.	Alen Hadžić	Čistoća	Zagreb	Ø.
12.	Branko Mikinac	ZET	Zagreb	Holen-

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## CIVITAS ELAN 3rd Consortium meeting

January 19 - 22 2011





#### LIST OF PARTICIPANTS 1.1-COM Workshop 21-01-2011

NUMBER	NAME	ORGANIZATION	CITY	SIGNATURE
13.	Valerijo keleuen Tepevik	City of TAGREB, City office to Stalling Howain	PAGRES	keleus Toji
14.				
15.				
16.				
17.				

1 am aware that all meals that I have received for free must be deducted from my daily allowance.













