

CiViTAS
Cleaner and better transport in cities

ELAN

BRNO • GENT • LJUBLJANA • PORTO • ZAGREB

Implementation Status Report on Surveillance Systems in Vehicles

ELAN Deliverable No. 5.2 - D1

Project acronym: ELAN
Project full title: Mobilising citizens for vital cities

Grant Agreement No.: ELAN TREN/FP7TR/218954/"ELAN"

Work package: WP 5 Safety, Security and Health
Measure: 5.2-LJU Safety and Security for Seniors and PT Users

Author: Damjan Kregar



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION

Final version

5 March 2011

ELAN deliverable no.	5.2 - D1
Date / Version	5 March 2011 / Final version
Dissemination level	CO
Work Package	WP5 Safety, Security & Health
Author(s)	Damjan Kregar
Co-author(s)	
File Name	5.2 - D1 - Implementation status report on surveillance systems in vehicles.doc

Keywords

General

x	CIVITAS	
x	ELAN Project	

Work package links

	WP1 Alternative fuels & clean vehicles		WP7 Energy-efficient freight logistics
	WP2 Collective transport & intermodal integration		WP8 Transport telematics
	WP3 Demand management		WP9 Project coordination
	WP4 Influencing travel behaviour		WP10 Project management
x	WP5 Safety, security & health		WP11 Research and Technological Development
	WP6 Innovative mobility services		WP12 Impact and process evaluation
			WP13 Dissemination, citizens' engagement, training and knowledge transfer

Document history

Date	Person	Action	Status ¹	Circulation ²
15.02.11	Damjan Kregar	Preparation of 1 st draft	draft	PM
21.02.11	Marcel Braun	Proof-reading of 1 st draft	draft	ML
05.03.11	Damjan Kregar	Preparation of final version	final	CO

¹ Status: Draft, Final, Approved, Submitted

² Circulation: PC = Project Coordinator; PM = Project Manager; SC = Site Coordinators; EM = Evaluation Manager; DM = Dissemination Manager; SEM = Site Evaluation Managers; SDM = Site Dissemination Managers; SCo = Scientific Coordinator, P = partners, ML = Measure Leaders

CONTENT

1. Summary	4
2. Introduction	4
2.1. CITY OF LJUBLJANA	4
2.2. JAVNO PODJETJE LJUBLJANSKI POTNIŠKI PROMET - LPP	6
2.2.1. Company headquarters	6
2.2.2. History	6
2.2.2.1. Tramway era (1901–1958)	6
2.2.2.2. Trolleybus era (1951–1971)	6
2.2.2.3. Bus era (1950-today)	7
3. Situation before CIVITAS-ELAN	7
4. Measure 5.2 – Safety and Security of Older PT Users	8
4.1. IMPLEMENTATION OF THE VIDEO SURVEILLANCE SYSTEM	8
4.1.1. External cameras	8
4.1.2. Indoor cameras	9
4.2. DRIVER TRAININGS	10
4.3. OLDER PASSENGERS TRAININGS	11
5. Measurements and results	13
5.1. COMPLAINTS AND PRAISES	13
5.2. VANDALISM MEASUREMENTS	14
5.3. TRAININGS AND WORKSHOPS	14
6. Dissemination	15
7. Conclusion	16
8. Sources, References and Attachments	17
8.1. SOURCES AND REFERENCES	17
8.2. ANNEX 1	17
8.3. ANNEX 2	18
8.4. ANNEX 3	19
8.5. ANNEX 4	19

1. Summary

Demographic studies have shown that the population in Europe is getting older. The same situation we have in Slovenia and Ljubljana. So it is very important, that we do everything to make public transport useful also for older passengers by which we mean people older than 65 years. They have to feel safe and secure enough to use public transport. In that way, we could keep older people a part of society, maintain their social life on an acceptable level and also enable them to be capable to take care of their own (and this is very important for their self-confidence).

Here we have two components, which are crucial and which supports keeping or even increasing the number of older passengers in public transport. One component is driver trainings. This means, that the drivers should be trained to help and support older passengers during all phases of the ride: entering the vehicle, travelling with it and exiting it. The drivers should have, beside good will to help older passengers, also all needed equipment to act accordingly. The other component is passenger trainings. Here, older passengers and their companions could be properly trained, how to enter the bus, exit it and move around in a way which is most suitable for them. During the respective CIVITAS-ELAN measure several driver and passenger trainings/ workshops had been planned where both groups can be trained.

Another very important issue how to make passengers feel secure is to implement video surveillance systems on vehicles. This is the main topic of this document. Here we have also two advantages which are being used in the buses. One is that everything that is going on the bus is recorded for a certain time period, so that the police can get the video whenever this proves to be necessary. Through this system, offences (petty crimes) and vandalism can be minimized. The second advantage is that the driver has a video controlled part near the door, so he/ she can easily observe, what is going on and intervene, if older passengers encounter problems, for example when entering or exiting the bus.

By now, the implementation of the video surveillance system has been accomplished and the results of the system are already being measured. Here we are using reports with passenger complaints and praises and reports about vandalism and injury cases.

The results show that less vandalism acts have been recorded in the first year. The main issue now is that there is no proper mechanisms yet to punish those who were caught during an act of vandalism.

2. Introduction

2.1. City of Ljubljana

Ljubljana is the capital of Slovenia and its largest city. It is the centre of the City Municipality of Ljubljana. It is located in the centre of the country in the Ljubljana Basin, and is a mid-sized city of some 270,000 inhabitants. Throughout its history, it has been influenced by its geographic position at the crossroads of Germanic, Latin and Slavic cultures.

For centuries, Ljubljana was the capital of the historical region of Carniola, and in the 20th century it became the cultural, scientific, economic, political and administrative centre of Slo-

venia, independent since 1991. Its transport connections, concentration of industry, scientific and research institutions and cultural tradition are contributing factors to its leading position.

The city has an area of 275.0 square kilometres (106.2 sq mi). Its location between Austria, Hungary, the Venice region in Italy and Croatia has strongly influenced its history. Ljubljana is located some 140 kilometres (87 mi) west of Zagreb, 520 kilometres (320 mi) northwest of Belgrade, 250 kilometres (160 mi) east of Venice, 350 kilometres (220 mi) southwest of Vienna and 400 kilometres (250 mi) southwest of Budapest.

The city of Ljubljana is governed by the City Municipality of Ljubljana (MOL). Municipal elections take place every four years. Between 2002 and 2006, Danica Simšič was mayor. Since the municipal elections on 22 October 2006, Zoran Janković, an influential businessman in Slovenia, has been the mayor of Ljubljana. In 2006, he won 62.99% of the votes. On 10 October 2010, Janković was re-elected for another four-year term, receiving 64.79% of the popular vote.

Among other roles, the city council drafts the municipal budget, and is assisted by various boards active in the fields of health, sports, finances, education, environmental protection and tourism. The City Municipality of Ljubljana is subdivided into 17 quarter communities that work with the municipality council to make known residents' suggestions and prepare activities in their territories.

The city bus network, run by the public company Ljubljanski potniški promet ("Ljubljana Passenger Transport", LPP), is Ljubljana's most used means of public transportation. One can also rent bicycles in the city, and there are numerous taxi companies. The city bus rides may be paid with the Urbana payment card (also used for the funicular) or via mobile phone. Sometimes, the buses are called "trole" (trolleys), harking back to the 1951–71 days when Ljubljana had trolleybuses. Until 1958, there were five trolleybus lines in Ljubljana, alongside the tram.

The tram system in Ljubljana is a small one. It was originally built in 1901. In the post World War II era, many Yugoslav towns and cities with tram systems took out their systems, as they took up a lot of space in an era when automobiles were more important. In Ljubljana the tram's end came in 1958. In its final years the system reached a length of over 21 kilometres.

Almost fifty years later, at the end of 2006, a new tram line was opened. The tram is a funicular, and goes from the Krek Square near the Ljubljana Central Market to the Ljubljana Castle. The tram is especially popular among tourists. It runs between 9:00 and 21:00, and the full trip lasts about 15 to 20 minutes. There are plans to build more tram lines in the future.

2.2. Javno Podjetje Ljubljanski potniški promet - LPP

2.2.1. Company headquarters

Company headquarters with office building, garage areas, workshops and technical inspection of motor vehicles building are located in the vast complex in the Upper Šiška between Celovška Road, Litostrojska Street and Ljubljana Brigades Road.

2.2.2. History

2.2.2.1. Tramway era (1901–1958)

When Ljubljana had about forty thousand inhabitants, the city authorities decided to impose a "mechanized" means of transport and in 1900 Splošna malo železniška družba (English: General little railway company) was officially established. Without special ceremony, the tramway officially started to operate on 6 September 1901. On the first day 6,400 tickets were sold.

The company was in fact very small, because only 13 motorized units with 1 trailer and a car used for salting roads in winter were in stock, 64 people were employed. In each tramway there was room for thirty people (16 seats and 14 standing), they could reach speeds of up to thirty kilometres per hour. By the end of 1901, the Ljubljana tram travelled about 136,000 kilometres and transported 330,000 passengers. Splošna malo železniška družba which was managing tramways in Ljubljana was the Austrian private limited company under the direction of foreign investor company Siemens & Halske. After the expiry of twenty years of operation, the city finally bought the rights of the tramway company.

In 1929, the Splošna malo železniška družba changed its name to Električna cestna železnica (English: Electric street railway) and since 1930 the city modernized stock and tracks. With purchasing new and used vehicles the rolling stock 1940 considered 52 units. Tramway lines were connecting the city centre with the suburbs. Workshops and garages were moved to the street Celovška cesta in the suburb of Šiška.

2.2.2.2. Trolleybus era (1951–1971)

After WWII, Ljubljana quickly spread and the tramway no longer withstood the growing transportation needs in the city. When personal cars were spreading to the general population, this was an additional reason for the different arrangements of the public transport which would need less street surface in Ljubljana. On May 1953 the Mestni ljudski odbor Ljubljana (English: City people's committee of Ljubljana) set up a commission that prepared the proposal on changing tramways with the trolleybus and bus service.

The transition was gradual. In the mid-fifties, Ljubljana started to regularly operate the first trolleybuses and buses. The tramway finally ceased to operate, Električna cestna železnica was renamed to Ljubljana-Transport. The last journey of a tramway was on 20 December 1958. Like the tramways, trolleybuses are also electrically powered and therefore are depending on the power lines installed in the city.

The experiences with the operation of the trolleybuses were not the best. Trolleybus power collectors often "fell off" and had to be reinstalled. In winter time there were additional problems caused by snow and a road-sanding with salt. Salt water often came into contact with electrical wiring and caused short circuits. Sometimes the entire body of the trolleybus was energized with electricity. Passengers were often experienced shock if they touched the metal parts of the vehicle. The last trolleybus vehicle in Ljubljana drove on 4 September 1971. On the next day the trolleybus lines were completely replaced by buses.

2.2.2.3. Bus era (1950-today)

The sixties and the seventies of the 20th century had brought unimagined development of urban public transport and the company. In 1971 the company was renamed to Viator which gradually expanded its operations throughout Slovenia. Urban transport operations developed into other services which were long distance passenger transport, freight and tourist traffic which boosted tourist-agency activities, and then continued with the construction of lifts to Vogel, Velika planina and Zatrnik. From transport and tourism it was only a small step to catering and taxi services. Since 1971, the company is engaged exclusively in the operation of public transportation with buses.



In 1977, Viator formed a link with the company SAP into SOZD SAP Viator. Further merges and alliances followed between different transport, tourism and hotel organizations throughout Slovenia which resulted in the INTEGRAL SOZD. In this context today's business name occurred, labour organization Ljubljanski potniški promet.

In 1989, the LPP decided to withdraw from the Integral, since there were any more development opportunities for continuing operations of

urban public transport to Ljubljana, its people and its visitors, and its suburbs. LPP has become a public company serving residents of the capital and all those who live in suburban municipalities. Since 1994 LPP acts as a public company under Ljubljana. It is a limited liability company.

3. Situation before CIVITAS-ELAN

Before the start of the CIVITAS-ELAN project there have been some follow-ups related to passenger complaints and praises. This means that LPP was aware that there is a problem, but LPP did not have the possibility to do much about it – especially regarding offences (petty crimes). Also, there were no special procedures and treatments in place for drivers in relation

to older passengers. Older passengers had to help themselves as much as they could. No driver trainings and passenger trainings were executed.

In the buses it happened sometimes that older passengers were injured by the doors. Also, vandalism costs were very high. A lot of seats and other parts of the bus interior were broken and damaged.

4. Measure 5.2 – Safety and Security of Older PT Users

This measure is about safety and security of older public transport users. There are two different ways towards improving the situation. The first one is prevention actions and the second one is to act after the action already happened. The prevention actions are split into different parts: driver trainings, older passenger trainings and implementation of video surveillance systems. Video surveillance systems are included also in activities after incidents occurred. The main topic of this Deliverable is the video surveillance systems. As mentioned, they “are playing” both roles. They can easily be used when preventing accidents and also preventing passengers from offences (petty crimes). Driver and older passenger trainings has the same role – just to let the attendees of the courses know, how to avoid accidents. At the same time video surveillance systems could be used after offences (petty crimes) are committed.



4.1. Implementation of the video surveillance system

4.1.1. External cameras

The external cameras for the frontal and reversal video surveillance systems of the vehicles were purchased in July 2009 for four buses. They were put in use on 15 August 2009. They

were meant for preventing accidents and to avoid that people are getting hurt. The videos taken by those cameras were meant also as evidence on court in case of accidents. After short tests, LPP decided not to equip any other vehicles with those cameras because there was no significant benefit from them. The main reason was that the buses during operating on the lines rarely drive reverse, so there is no need to have reverse cameras. One reason was also, that the videos taken by those cameras could not be used on court as evidence. So if a bus is involved in an accident LPP could not submit videos as valid evidence.

4.1.2. Indoor cameras

The indoor video surveillance systems were purchased in several steps and each time they were installed in the vehicles a few days after delivery. The last installation was done at the end of March 2010. By now 89 vehicles are equipped with the video surveillance system. On articulated buses 6 cameras were built in and on single buses 4 cameras are sufficient to cover the whole bus. The installation of the video surveillance systems first started on newer buses, and later on older ones. There were two reasons for that:

- the older buses has older equipment and the damage caused on those is normally cheaper than on newer buses.
- the older buses will be replaced soon with new ones.

Due to the global financial crisis in 2010 the LPP management decided to stop purchasing and installing video surveillance system on the buses. Since then, no additional systems were bought.

The video surveillance system consists of several cameras, a driver monitor and a hard disk. Cameras are installed in vehicle normally in corners in that way that the most of this part of the vehicle is recorded. The video itself is stored on the hard drive and is being kept for the last 48 hours. The hard drive can be taken out, read and viewed only by an authorized person (police). So, this part of the system is covering a role, when action is committed and authorities should find the ones who committed it. The driver can during the ride observe what is going on in the door areas. This part of the system is covering a prevention role. It is meant, that the driver observe if there are any problems during the ride or on bus stops in door areas.



Beside these roles, there are two benefits of the system:

- less vandalism and more security for passengers, and
- more safety for passengers as most injuries to older passengers happened while they are entering or exiting the vehicle.

In the time from 15.6 until 15.7.2010 a Mobotix digital video surveillance system was installed on single bus 139. The bus was operating normally during the testing period and LPP has monitored the functionality and checked which data we can get from this system. LPP has tested the Mobotix system for one reason: on an articulated bus only 3 cameras and on a single bus only 2 are needed. This means that buying this system would be cheaper. The tested system performs well but LPP has found out this drawback during the test. It was not good enough on the part where the driver should have the possibility to observe the door areas. For that reason a CPU (Central Processor Unit) is needed and an extra monitor which is not included in the price. When those two were added, the old system and the Mobotix were at the same price level. Therefore, LPP decided to keep the old solution as LPP knew the systems and how to manage and service it.

In spite of the fact that video surveillance systems are not built in on all buses, the measure team succeeded to get a systematic solution from the management. This means, that in the technical documentation for public tenders for the new buses, there is a description of video surveillance systems. So, on each new bus this should be built in by bus producer.

Another thing to mention is, that the video surveillance system is very simple to use. So any special training for this is not needed. A short training is included in standard new driver and standard renew trainings – the video surveillance system is just one among the other systems on the bus.

4.2. Driver trainings

During the European Mobility Week in autumn 2009 an initial driver training and workshop took place. The programme of this session was to train the drivers, how to help older people and people with mobility disabilities. There were also rehearsals related to procedure, how to set the ramp to the vehicle, so that the wheelchair can be boarded on and off the vehicle. The same can be used for the mothers with young children in baby buggies. But the response from the drivers were poor and the organization could have been better. This occurred because of the fact that all drivers were only invited to join and attendance was on voluntary basis. Therefore, the Measure Leader has decided to use another method next time, i.e. to better plan the training and it will be exactly decided which driver should participate at which events (trainings, workshops). Also much more effort will be put into organizing trainings and/ or workshops on this issue.

The second workshop was held on 25 May 2010 where several drivers and several elder public transport users were present. The aim was to hear “both sides” and get some explanations why elder people are not using buses more often. Drivers have also got some useful input, what to do, to improve their way of driving and what elder people expect from PT operator. To get some more participants on the following sessions, we should work more on dissemination. Among the participants, Mr. Božidar Voljč has been invited. He is an author of the book

“Starosti prijazna Ljubljana (To Elder Pleasant Ljubljana), where he, among other things, takes a look on the usefulness of public transport. The recommendations from the investigation are:

- safety is maintained by tolerance and also with a use of “kneeling technique” of the bus,
- the buses on the lines are frequent enough,
- user-friendly entrance on and exit from the bus,
- the buses have to be equipped with the convenient holders,
- the ride is pleasant and smooth,
- the bus goes on, when older passengers sit down,
- resigning of seats is practice,
- to introduce volunteers,
- video surveillance system helps with search of pickpockets, and
- the bus stops are not parked by other vehicles.



Additional driver trainings were held between 22 January 2011 and 13 February 2011. It was explained and practically shown to drivers how to help older people, how to address them and how to communicate with them. The majority of the drivers have been through this programme. The programme is attached in Annex 1. It should be stressed, that one of the trainers was present at a two-day workshop that took place in Salzburg from 24-25 November 2010 where experiences from the AENEAS project, specifically dealing with older passengers in public transport, were presented. During a workshop on driver training explanations were given on how drivers should be approached and what they have to be told. By means of special equipment the trainer experienced what it is like for older people to use public transport, e.g. to be partly visibly hindered, to be partly hearing hindered, to be partly motion hindered and so on. The workshop proved to be very successful and LPP succeeded to take over some parts and integrate them into their own workshops.

These workshops will be executed on a regular base and very systematically. Therefore, the issues are included in standard new driver and standard renew driver trainings.

4.3. Older passengers trainings

During the European Mobility Week in autumn 2009 also an initial older passenger training and workshop was organised. The programme of this session was to show older passengers how to use equipment already installed on the bus. However, the response from older passengers was rather poor because older people were not invited explicitly. They have just received information about the event which cannot be considered an invitation. The event was not dedicated to older passengers – it was meant only as one part of the organized event. So the organization could have been better, i.e. it should be more specific for the audience. Therefore, the Measure Leader has decided to use another method next time, i.e. to organize the training in such a way that older passengers will meet drivers and they can exchange

good or bad practices and experiences, wishes and also explain reasons, why one or another are acting as they are. Also, much more effort will be spent on this issue, i.e. invitations will be sent directly to the clubs where older passengers gather.

The second workshop was held on 25 May 2010 where several drivers and several elder public transport users were present. The aim was to hear “both sides” and get some explanations why elder people are not using buses more often. Drivers received useful input, what to do to improve their way of driving and what elder people expect from PT operator. As participation was rather low LPP decided to work more on dissemination to get some more participants for the following sessions. Again, the author of the book “Starosti prijazna Ljubljana” (To Elder Pleasant Ljubljana) explained that many of the statements from the older passengers were the same as what they found out in their research. The book was issued few days after our workshop.

The statements are:

- to have useful transport from one part to another part of Ljubljana,
- to have equally covered all city districts with public transport,
- frequency of the vehicles on the lines should be appropriate (high enough),
- easy and user-friendly entrance in and exit from the vehicle and the doors should not be dangerous,
- resigning of seats in practice and here volunteers should be introduced,
- ride should be smooth and soft,
- bus shelters should be clean and bright, and
- bus shelters should be built in a way that there is a room for wheelchairs and prams.



Additional older passenger trainings are planned from March to July 2011. But those trainings are not only meant for older passengers but also for people who are accompanying them. Here the main points of the programme are:

- how to get in the bus as safe as possible,
- how to get around the bus (“Tarzan technique” known from Salzburg),
- how to get out of the bus as safe as possible,



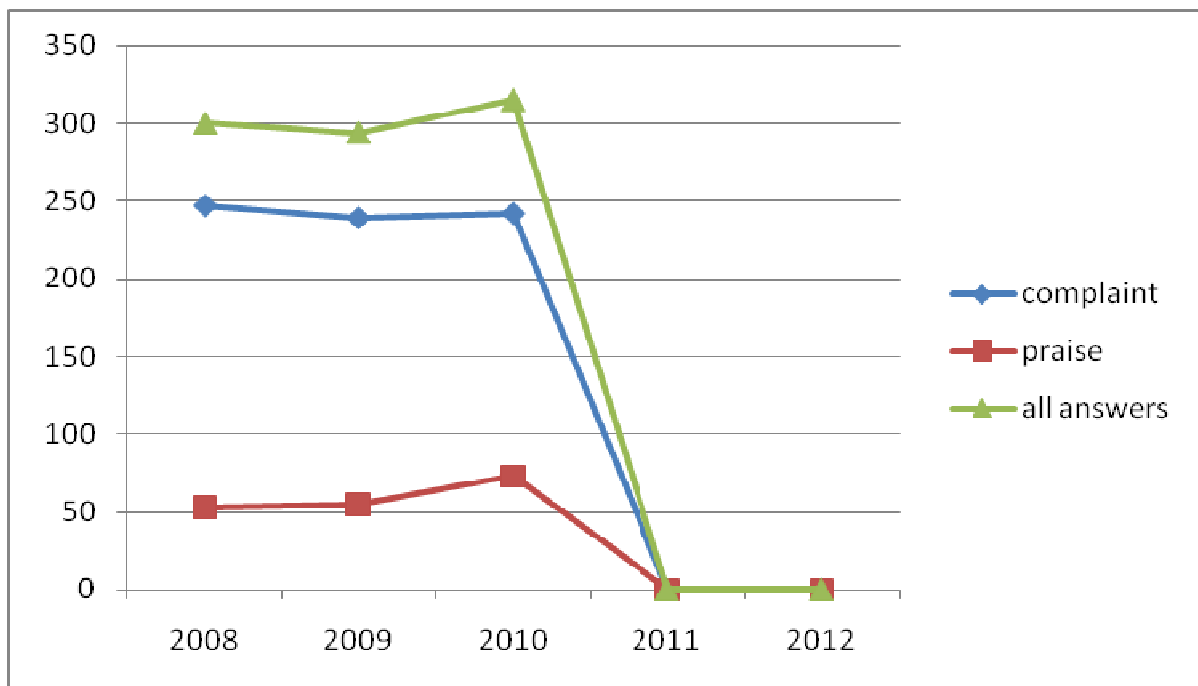
- how to address driver or other passengers to ask for support,
- how to address other (younger) for a seat, and
- and a lot of other practical issues.

Depending on the success of those five workshops, the organisers have the goal to persuade LPP’s management to proceed with those trainings even after the end of the CIVITAS-ELAN project.

5. Measurements and results

5.1. Complaints and Praises

Annex 2 includes measurements of public transport passengers divided into two parts. One is related to complaints and the other to praises. Both things are measured within LPP for years (also before CIVITAS-ELAN started) but in this document the comparisons start with the year 2008 when the project began. While LPP does not have all the results yet, all data will be collected and evaluated until the end of the project. Graph below gives an overview of the current status.



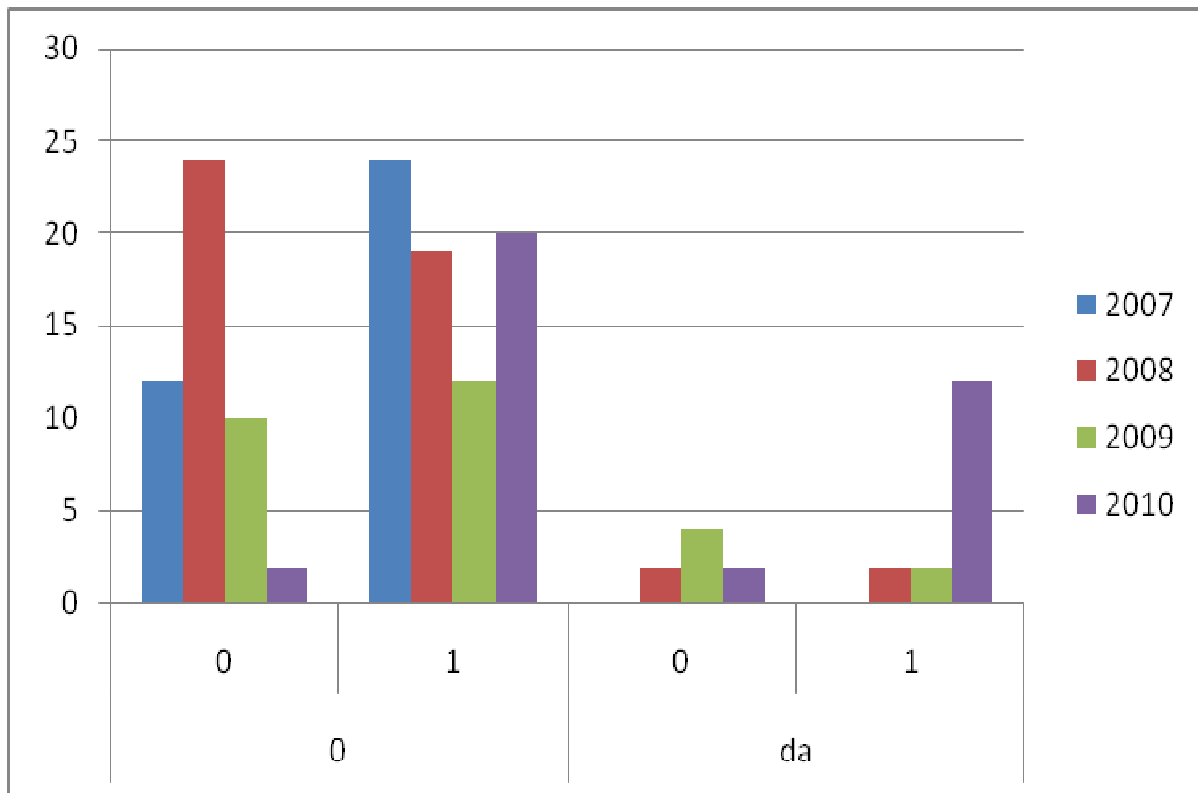
Number of complaints and praises during 5 years

The graph shows that the number of all answers increased (significantly on the praises side). This is also reason why there are more complaints in spite of the fact that it has lowered after first year of the project. This means that LPP can get a good picture of what is going on – there is very big relative increase in positive answers (praises) compared to 2008. In complaints, there is a small relative decrease compared to 2008.

5.2. Vandalism Measurements

During the project, LPP also measured vandalism events and made a comparison with the situation before CIVITAS-ELAN. There is much less vandalism acts since the implementation of the video surveillance systems. The only real issues are the glasses. In the system they are reported as vandalism but they are broken from outside the vehicle which is not “covered” by video surveillance systems.

While the results of the video surveillance system are satisfactory there are rather strict laws in the Slovene legislation of how to make use of videos. LPP’s personnel are not allowed to watch recorded video material. Only the police can watch the recorded videos and only then when a criminal act was committed. Those who commit the vandalism acts also know this. However, the real aim for implementing the system has been achieved as the number of vandalism acts decreased (also less costs). Annex 3 includes measurements of vandalism from 2007 to 2010.



Number of vandalism acts during the years (without and with video surveillance systems (»0« and »da«) and each of them separated to all but glasses and glasses separately (»0« and »1«).

5.3. Trainings and workshops

Annex 4 elucidates how the drivers were trained during the project. All trainings are now expanded with two important issues: (1) how to help older passengers and (2) how to use the video surveillance system (and how to check the door areas).

The workshop for drivers and older passengers was held on 25 May 2010.

6. Dissemination

Some dissemination activities already took place. Below an extract from the Report on the Information Campaign on Safety and Security of 25 October 2010:

In the measure it was mentioned that an information campaign should be done. This was done through two interviews with reporters from two different newspapers and at different times of the year. Newspapers Dnevnik and Delo are among those newspapers with the highest release numbers in Slovenia.

The first one was an interview for the newspaper Dnevnik issued on 17 February 2010. The whole article was about safety and security on public transport on the buses which LPP provides. Mrs. Tamara Deu, LPP communication consultant, has explained that LPP is carefully following the injuries on buses and also takes all measures to reduce this number. She also mentioned that all drivers are trained and also will be trained from the safety and security point of view.

The second interview was published in Delo on 14 October 2010. Mr. Jošt Šmajdek, sales department manager, has explained that after introducing video surveillance system, the vandalism costs decreased. He has mentioned that LPP has introduced also a new traffic control centre where communication between driver and centre can be established at any point in time. This is important also for the security of passengers (also with a use of “red button – emergency button”).

More dissemination activities are planned until the end of the project, among them five meetings which will be held in five city districts. Those meetings will be held between March and July 2011. It is expected that the mayor of Ljubljana will be also be present. All citizens from these districts will be invited. LPP expects that next to the older passengers themselves and also their companions will be present. During these dissemination events further passengers trainings will be conducted.

Further dissemination activities took place during the European Mobility Weeks in 2009 and 2010. LPP presented itself at stands in downtown Ljubljana but also “opened the door” to all visitors who were interested in how the company is run.



7. Conclusion

During the first two years of the project LPP has succeeded to:

- equip frontal and reverse cameras on outer side of several vehicles,
- equip more than half of the vehicles with video surveillance systems,
- organize several driver trainings and workshops related to supporting older passengers and the use of the video surveillance system,
- organize some passenger trainings and workshops,
- minimize vandalism acts and related costs,
- cover the interior of the bus (especially door areas) with video surveillance systems, and
- conduct several dissemination activities.

LPP regards it as very important that the solutions are systematic and integrated into LPP's systems. It has been decided that from now on all new buses will be equipped with cameras when they are purchased. This is already stated in the public tender documentation. From now on in all driver trainings it will be included how to support older passengers. Vandalism acts are followed-up and costs are collected.

8. Sources, References and Attachments

8.1. Sources and references

- Božidar Voljč (2010). *Starosti prijazna Ljubljana*, Institut Antona Trstenjaka, ISBN 978-961-6128-32-2
- Tadej Brate (1997). *Ljubljanski tramvaj včeraj, danes, jutri = Ljubljana tramway yesterday, today, tomorrow*. Tehniški muzej Slovenije. ISBN 961-90361-3-1.
- Tadej Brate (2005). *Zgodovina mestnega prometa v Ljubljani*. LPP d.o.o.. ISBN 961-91685-0-X.
- Tadej Brate (2008). *Ljubljanski mestni promet v slikah*. Kmečki glas. ISBN 978-961-203-343-9.

8.2. Annex 1

Salzburg Training Workshop, 24-25 November 2010, First Announcement

Wednesday 24 November

Venue: Salzburg AG, Bayerhamerstrasse 16

Conference room, ground floor

Introduction

09:00	Official welcome by the mayor of Salzburg the Managing Director of Salzburg AG and the Managing Director of public transport operator Short overview on transport and mobility in Salzburg	Dr. Heinz Schaden Dr. Arno Gasteiger(tbc) Dir. Gunter Mackinger
09:30	Introduction to the training workshop	Moderator
09:35	The AENEAS project; objectives and actions	Matthias Fiedler, Rupprecht Consult
10:10	The impact of ageing on communication abilities	Dr. Christa Erhart
10:40	Who is who in the training?	Moderator
10:50	Coffee Break	
11:20	Key note speech on Communication	Prof. Dr. Ralf Risser, Factum
12:00	Lunch at canteen of Salzburg AG	
	Experiences –communication with older people on mobility	
13:15	Activation exercise	Moderator
13:30	Communication with older people on mobility, experiences from Salzburg	Angelika Gasteiner, Salzburg AG
14:30	Experiences from Sweden	Eva Rödsta, City of Göteborg
15:15	Coffee break	
15:45	Round table: "Communication with older people": do's and don'ts– success factors and lessons learnt.	Representatives from AENEAS cities, audience
17:15	Summary of first day, further programme	
19:30	Official dinner	

Thursday 25 November

Venue: Salzburg AG, Bayerhamerstrasse 16

Conference room, ground floor

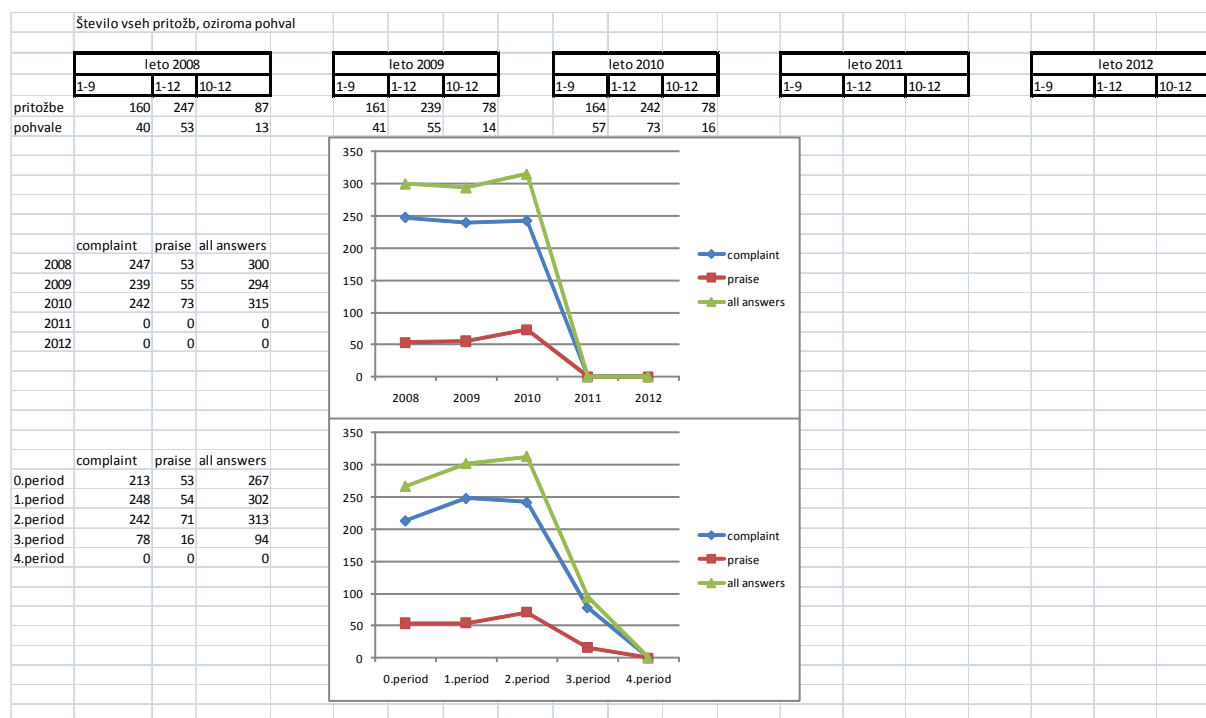
Communicate with older people

09:00	Welcome, the highlights of the first day and short presentation of second day programme	Moderator and Rapporteur
09:15	Movie about mobility projects with older people in Salzburg	All participants

09:30		Discussion with a panel of older citizens from Salzburg	The "movie stars"
10:30		Coffee break	
Transfer workshop			
11:00		Small groups work on transfer of training concepts to other cities.	
Bus Driver training	Passenger training		Angelika Gasteiner Susanne Schinagl
12:15		Lunch	
13:30	Bus Driver training continued	Passenger training continued	Small groups
14:30		Presentations of results in market place setting	
15:00		General conclusions	
15:30		Evaluation of workshop	Moderator
		Handing out of toolboxes*	
16:00		End of the workshop	
17:40		Optional: Vintage train from Salzburg to Oberndorf, Visit of the "Silent Night" Chapel and the small Christmas market, return 20:00	Meeting point 17:30 Lokalbahnhof
20:30		Optional: Brauerei	

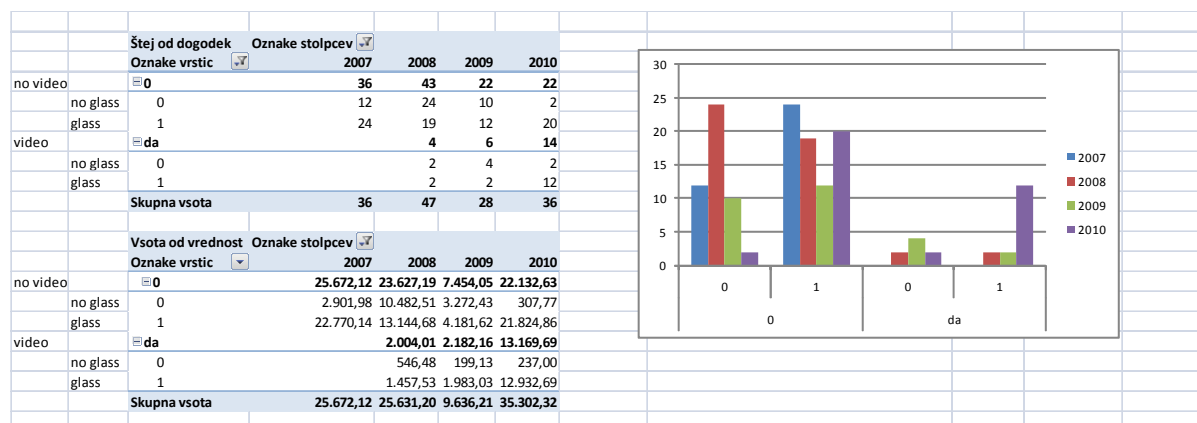
8.3. Annex 2

Complaints and Praises Measurement Results



8.4. Annex 3

Vandalism Measurement Results



8.5. Annex 4

Driver trainings

Driver trainings - all years						
New drivers						
From	to	No.drivers	No.hours	amount in €	There are no special trainings how to use video surveillance system. Driver just have to switch it on as other devices. So it is included in agenda for training the young drivers and also renewal trainings among other things, which should be told	
1.1.2008	31.12.2008	19	1.240	6.200		
1.1.2009	31.12.2009	68	5.440	27.689		
1.1.2010	31.12.2010	24	960	4.886		
1.1.2011	31.12.2011					
1.1.2012	31.12.2012					
Drivers - renewal trainings						
From	to	No.drivers	No.hours	amount in €	training costs in €	
12.4.2008	28.8.2008	495	1.408	52.045	45.555	
12.1.2010	29.8.2010	465	3.720	33.560	13.392	
20.1.2011	12.2.2011					
1.1.2012	31.12.2012					