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Implementation status report on first training for seniors on safe use of public transport

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	WP1 Alternative fuels & clean vehicles		WP7 Energy-efficient freight logistics
	WP2 Collective transport & intermodal integration	x	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

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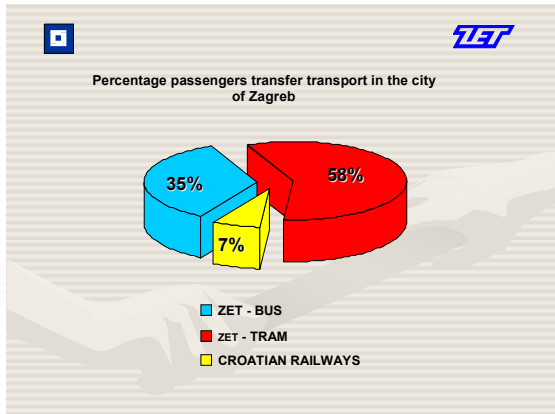
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1. SUMMARY (ABSTRACT)

The public transportation system in the City of Zagreb consists of three subsystems: trams, buses and trains. The largest share of trips are done by tramway transport (58%), then by bus (35%) and finally by Croatian Railways (7%). Bus and tram transport in the City is fully organized by the Zagreb Holding - Subsidiaries Zagreb Electric Tram (ZET), while the bus transportation from Zagreb County and other surrounding counties in Zagreb, except ZET, is organized by other carriers. Rail transport is organized by the Croatian Railways (HŽ).



The first training for seniors on safe use of PT was organized in a home for elderly and disabled called “Dom za starije i nemoćne CENTAR” in Klaićeva street, Zagreb. This home was chosen because of its proximity to the CIVITAS-ELAN demonstration corridor – Savska street.

Participants of the first training showed remarkable dedication which resulted in a successful cooperation among stakeholders (City planning experts, ZET as main PT provider, end users) towards better safety and security in public transport, especially for the target group, which, in turn, will probably lead to increased patronage of PT by elderly and disabled people.

Participants were also informed about the CIVITAS-ELAN info point of the City Office for Strategic Planning and Development situated on the Demonstration Corridor, as a place where they can obtain info on the CIVITAS Initiative and on all mobility issues.

2. INTRODUCTION

2.1 CITY OF ZAGREB

Zagreb is the capital and largest city in the Republic of Croatia. It is situated in the northwestern part of Croatia, on the Sava river, at the southern slopes of Medvednica mountain. Zagreb lies at an elevation of approximately 122 m (400 ft) above sea level. In 2008, Zagreb population was 804,200.

Its favourable geographic position in the southwestern part of the Pannonian Basin, which extends to the Alpine, Dinaric, Adriatic and Pannonic regions, provides an excellent connection for traffic between Central Europe and the Adriatic Sea.

The transport connections, concentration of industry, scientific and research institutions and industrial tradition are reasons for Zagreb's leading economic position in Croatia. Zagreb is the seat of the Croatian government, administrative bodies and almost all government ministries.

2.2 TRANSPORTATION IN ZAGREB

Like in other similar countries, the number of private vehicles has doubled since the transition process in early nineties of the 20th century. This led to a shift in modal split, decreasing the share of public transport (PT) in relative numbers. As a reaction to this the City Administration started implementing numerous measures towards improving the PT system in Zagreb and its metropolitan area.

Public transportation in the city consists of services provided by ZET (inner parts of the city are mostly covered by trams and the outer suburbs are linked with buses) and HŽ (railway company).

The public transportation company, ZET (*Zagrebački električni tramvaj*, Zagreb Electric Tram), operating trams, all inner bus lines, and the majority of suburban lines, is subsidized by the city council.

The funicular (*uspinjača*) in the historic part of the city is a tourist attraction. Taxis are readily available with prices significantly higher than in other Croatian cities.

As of 1992, the state rail operator HŽ (*Hrvatske željeznice*, Croatian Railways) has been developing a network of suburban trains in the metropolitan Zagreb area.



ZET bus on route 106

Tram and bus networks

Zagreb has an extensive tram network with 15 daytime and 4 night lines covering the majority of the inner- and middle-suburbs of the city. First tram line started operating in 1891 and trams have been serving as a vital component of Zagreb mass transit ever since. Their travel speed is usually between 30–70 km/h (19–44 mph), but becomes considerably lower during rush hours. The network is unique as it operates mostly at the curb.

An ambitious program is currently underway to replace old trams with the new and modern ones built mostly in Zagreb by companies Končar elektroindustrija and, to a lesser extent, by TŽV Gredelj. Dubbed "TMK 2200", 70 trams have been delivered in 2005–2007 period, and the delivery of an additional 70 trams will be completed in the meantime, thus raising the number of low-floor trams to 140.



ZET TMK 2200 on Line 3

Suburban rail network

In 2005, suburban rail services were increased to a 15-minute frequency serving the central parts and outer suburbs of Zagreb, primarily in the east-west direction and to the southern districts. This has enhanced commuting opportunity. A new link to the nearby town of Samobor is planned in the following years. This link will be standard-gauge and tie in with normal Croatian Railways operations (the previous narrow-gauge line to Samobor was closed in the 1970s).

Air traffic

Zagreb Airport (IATA: **ZAG**, ICAO: **LDZA**), known as 'Pleso Airport' is the main Croatian international airport, some 20 km (12 mi) southeast of Zagreb near Velika Gorica. This airport is also the main Croatian airbase featuring helicopters, as well as military and freight transport aircraft. A new terminal is planned to replace the current inadequate passenger terminal building.

A second, smaller airport, Lučko (ICAO: **LDZL**) is home to sports airplanes and a Croatian special police unit, as well as a military helicopter airbase. Lučko used to be the main airport of Zagreb from 1947 to 1959. A third, small grass airfield, Buševac, is located just outside Velika Gorica. It is primarily used for sports purposes.

2.3 PUBLIC TRANSPORT OPERATOR 'ZAGREBAČKI ELEKTRIČNI TRAMVAJI' (ZET)

Zagreb PT company ZET, besides organizing regular public transport by tram, bus and funicular within administrative boundaries of Zagreb as well as within part of Zagrebačka županija, provides also regular service to school children, special services for physically impaired, as well as tourist lines. It is owned by the City of Zagreb, and subsidized by the City.

Its forerunner was the "Društvo konjski tramvaj" (Horse-driven tram) in 1891. Since 1909 the tram is powered by electricity. In its almost 120 year-long existence, ZET made a vast impact on the urban development, covering the main directions of movement within Zagreb territory and its metropolitan area with a network of tram and bus lines. ZET continues to expand its services to new urban developments.

In recent years, due to the financial help of the City, the extent and level of PT service to the public has increased remarkably. In addition to 139 new low-floor trams, 214 low-floor buses are now in operation in Zagreb and its environments.

By 2007 ZET started using biodiesel, and since 2008 CNG as fuel for buses. The radio communications system is being modernized, and introduction of GPS enables the ZET Control center to locate all vehicles and forward their possible delays to displays on PT stations at any time. Also, since 2007 tickets for PT can be purchased via mobile phone by sending an SMS. Introduction of the electronic ticketing ("smart card") is underway.

2.4 SITUATION BEFORE CIVITAS, INCLUDING SITUATION ON DEMONSTRATION CORRIDOR

The level of safety and security in PT, including conditions for use by senior citizens, has remarkably improved compared to the situation some 10 years ago. Numerous low-floor vehicles, allowing for a safer and more comfortable access, have been introduced into circulation. 147 displays positioned at PT stops across the city inform citizens on expected arrival of trams and buses. A contact center, equipped with a state-of-the-art information system provides information to possible PT users:

- Expected arrival of trams on a specific PT stop
- Bus time tables
- Actual traffic situations
- Information on PT zones
- Tariff info
- History of PT service

More active use of displays providing passengers with more info is being prepared. PT stops on the Savska demonstration corridor are not yet equipped with elements of accessibility according to ordinance on providing accessibility to persons with reduced mobility. Elderly citizens using wheelchairs, walkers, canes etc. often cannot use trams because the doors are not adapted to their requirements and needs. The audio announcing system is often not activated, thus making use of PT by both visually impaired and elderly more difficult. Also, education aimed at elderly citizens on use of state-of-the-art technologies in PT is not provided.

Traffic lights on the corridor are not synchronized, thus increasing hazards to possible users.

It is necessary to stress that all new PT vehicles are equipped with air conditioning, thus making their use much more comfortable to all users, but especially the elderly.



ZET TMK 2200 on Line 6, 11

Overall, the technical level of PT stops has also remarkably improved compared to the situation some 10 years ago because protection from precipitation is given by shelters on most PT stations. A certain number of platforms are elevated and adjusted to the needs of physically challenged when entering low-floor vehicles, which contributes to safe use of PT.

3. Measure 5.3-ZAG Safety and security for seniors in brief

One of the measures within WP5 Safety and security is a measure conducted in Zagreb named 5.3-ZAG Safety & security for seniors. This measure is aimed at improving the state of PT for use by senior citizens and specific objectives. Planned actions and expected results are adjusted to this target group.

Expected outcomes:

- Reduced accidents of older people using public transport
- Increased participation of older people in (public) transport related decisions
- Encouraged older people being fit & mobile
- Improved the image of public transport among older people

The Description of Work of the CIVITAS-ELAN project for measure 5.3-ZAG defines objectives, innovative approaches, the situation before CIVITAS / present situation (incl. work funded through other projects), and describes the work to be performed within CIVITAS:

- Research and development
- Implementation and demonstration
- Data collection
- In-depth data analysis and studies
- Measure-related dissemination
- Dissemination and training

The timetable of the work to be done, as well as partners and their roles are described. Verifiable results / how CIVITAS contributes to the result, tangible outputs, expected outcomes, risks and risk management as well as estimation and justification of costs are also part of the Description of Work.



Typical PT station in Zagreb



Typical display on PT station in Zagreb

4. OBJECTIVES

Measure 5.3-ZAG, together with 5.1-COM (Comprehensive safety and security strategy in PT), will – by upgrading the safety and security level – necessarily lead to improved conditions for elderly citizens. Measure objectives are:

1. Improve safety of senior citizens in public transport;
2. Raise reliability of public transport to senior citizens;
3. Implement a dedicated communication scheme between senior citizens and operator;
4. Increase the understanding among public transport staff of senior citizen's expectations and needs.

The aims of measure 5.3-ZAG are often in accordance with the aims of measure 5.1-COM (Comprehensive safety and security strategy in PT).

Public transport is being analyzed within three groups /categories towards improving safety and security:

1. General issues
2. Safety
3. Security

General issues relate to all aspects of PT that provide users with a perception of a safe and reliable public transport system – mobility. These can be comfortable use of PT stops, level of comfort of vehicles, timely arrivals and departures, cleanliness of PT stops and vehicles, etc.



Improved access on PT stations

Safety deals with technical parameters defining and causing safety of PT, like: technical condition, signalization, lighting of routes and stops, surface, levels of platforms, technical characteristics of canopies, safety aspects of acces routes and surrounding areas of PT stops, etc.



Safer interior of new PT vehicles

Security deals with parameters defining and causing level of security in PT: surveillance of routes and stops, visual recording of acces routes and surrounding areas of PT stops, information system within vehicles and PT stops, etc.



Better lighting for safer access

A dedicated communication scheme between senior citizens as possible PT users and the main PT operator is being implemented as part of measure 5.3-ZAG.



Picture from first training on informing seniors about PT

5. FUTURE WORK PLAN

In the future further continuation of analyses on the state of safety and security in PT, both in Zagreb and in other larger local communities in Croatia, are being planned. Solutions for implementation towards an improved level of safety and security for seniors will be proposed.

Active collaboration has been established with experts from Brno, Gent, Ljubljana and Porto within measure 5.1-COM in the framework of the CIVITAS-ELAN project. The plan is to jointly propose and introduce measures towards better and improved safety and security, also for the elderly in PT, and thus increase their patronage.

Further activities according to the Description of Work will continue to inform elderly citizens on public transport in Zagreb, on new services and technical innovations. Work with the target group is planned within homes for the elderly, within associations of retired people, and also within local councils.

For these workshops, info leaflets aimed at elderly citizens and their specific needs are being prepared, and short inquiries will be conducted at each workshop to learn about the level of use by each group, and to detect possible obstacles for better use of PT by target groups

Plan Table:

Period	Number of trainings	Users
2010 (October-December)	3 trainings	Home for elderly, Association of retired and elderly, ...
2011	4-12 trainings	Home for elderly, Association of retired and elderly, ...
2011	questionnaire	Home for elderly, Association of retired and elderly, local councils
2011	list of recommendations for improvements	

6. FIRST TRAINING FOR SENIORS ON SAFE USE OF PUBLIC TRANSPORT

Start of training: 17 March 2010 at 10:00 am.

The first training for seniors on safe use of public transport was organized by ODRAZ and the City of Zagreb Office for Strategic Planning and Development of the City. The Measure Leader, Davor Silov, contacted „CENTAR“, a home for the elderly and infirm situated on Klaićeva street, Zagreb, and agreed with its general manager that a first training workshop will take place on 17 March 2010 from 10:00 – 12:00. ODRAZ produced the invitation leaflet and info materials for the 1st training.



First training workshop on informing seniors about PT held in “CENTAR” home for elderly and disabled

The invitation and program leaflet was prepared by ODRAZ (see attachments below).

At first, the study of the planned intermodal terminal Sava North, which was prepared by the City Office for Strategic Planning and Development of the City, ZET, BICIKL and HŽ INFRA within measure 2.5-ZAG was presented by Mr Stephen Kelčec-Suhovec. Also, leaflets presenting the study for the intermodal terminal and all the relevant information were distributed to all interested parties. Participants were also informed about the CIVITAS info point on Savska street.



Aerial view of future Sava North Interchange

Future workshops: trainings will also include the new SmartCard ticketing system, which was mentioned at the first training workshop and is being introduced into PT at this moment. It is expected that the SmartCard will significantly improve the billing system and contribute safer, easier use of the PT system. Users of PT who were present at the training workshop had a very positive opinion about the SmartCard system and its introduction.



The SMART CARD will improve system of safe use of PT.

Presenters at the first workshop on safer use of PT:

- Davor Silov, dipl.ing.arh., Measure Leader (ZAGREB)
- Višnja Jelić Muck, dipl.ing.arh. (ODRAZ)
- Tihana Damjanović, aps.ger. i kro. (ODRAZ)
- Stjepan Kelčec Suhovec, dipl.ing.prom. (ZAGREB)
- Mr.sc. Branko Mikinac (ZET)

COMMENTS MADE BY PARTICIPANTS FROM THE "CENTAR" HOME FOR THE ELDERLY AND INFIRM – FEEDBACK ON THE PRESENTATION OF THE PROJECT CIVITAS-ELAN THAT TOOK PLACE IN ZAGREB ON 17 MARCH 2010:

On new trams and buses:

- *"We are very pleased with the new tram!"*
- *"New low-floor trams are safe, but the seats are too narrow"*
- *"New buses are more comfortable!"*

On intermodal terminal SAVA - NORTH:

- *"The draft sketch for the intermodal passenger terminal SAVA - NORTH will facilitate travel for, among others, elderly passengers, and thus increase their patronage of PT"*
- *"The reconstruction of the present bus terminal on the Sava bridge is necessary, we welcome any initiative towards its improvement"*

On the problem with bicycle traffic:

- *"Cyclists are dangerous and the city looking for a solution to the problem of rushing bicyclists along the walkway between hospitals in Klaićeva - Home for the elderly and infirm - Centar", thus endangering residents of „CENTAR“ home" (clarification: dwellers of the Home are already for some time trying to have the bicycle lane removed from their side of the walkway, feeling threatened by bicycle traffic)*

General:

- "I welcome the CIVITAS Initiative and plead once more to the authorities to pay attention to the problems of disabled people in public transport."

- "In Zagreb, there are a lot of long streets without any tram service (additionally: seating facilities on PT stations and along the corridors to them are not sufficient for the needs of elderly citizens)"

Participants of the workshop were informed on advantages of new PT vehicles and expressed their positive opinion. The level of acceptance is high, and the only serious objection is a lack of sufficient seating and inadequacy of their positioning (elevated from the floor level).

Access routes and surrounding public areas, including connecting corridors between nursing homes and PT stops, should be provided with seating facilities (benches).

Many participants expressed their intention to use PT more frequently and visit friends and family in other parts of the city as result of the workshop.

7. CONCLUSION

The CIVITAS ELAN team working on 5.3-ZAG is satisfied with the successful conclusion of the first training for seniors on safe use of PT. Participants of the workshop are expected to visit the CIVITAS-ELAN info point on Savska road in the future and get information on all matters that they are interested in regarding public transport issues in Zagreb.

In conclusion, it is important to note that the local cooperation between all participating partners, the City of Zagreb Office for Strategic Planning and Development (ZAGREB), ODRAZ, ZFOT, ZET and others is very satisfactory and will continue in the same manner in future.

Following the plans related to work on this measure three training sessions will be organized by the end of 2010, and some 4-8 training sessions in 2011. Based on the results of the first training, the invitation leaflet is now being amended by ZAGREB and ODRAZ to give future participants more insight, and to ensure active and increased participation. A follow-up process is being planned to determine possible increased use of PT by training participants and a method for it is being developed by partners in Zagreb.

8. ATTACHMENTS


8.1. Invitation and program leaflet

Koordinator projekta:



GRAD ZAGREB
GRADSKI URED ZA
STRATEGIJSKO PLANIRANJE I
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Ostali partneri:



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odraz
ODRŽIVI RAZVOJ ZAJEDNICE



CiViTAS
za bolji i čistiji promet u gradovima
E L A N
Z A G R E B

Zagreb, 17. ožujka 2010.

Dom starih i nemoćnih osoba – Centar, Zagreb
- Korisnicima Doma

CIVITAS ELAN Zagreb dio je zajedničkog projekta pet europskih gradova među kojima je Zagreb. Svrha mu je poboljšati prometnu situaciju u gradskim središtima - ublažiti gužve i zastoje, poboljšati kretanje i dostupnost odredišta, smanjiti onečišćenost zraka i buku te time povećati kvalitetu življenja i zadovoljstvo građana.

Sa ciljem informiranja o projektu te upoznavanja vaših mišljenja i potreba vezanih uz javni prijevoz i planirana poboljšanja,

POZIVAMO VAS NA

PREDSTAVLJANJE PROJEKTA CIVITAS ELAN
ZAGREB

I RAZGOVOR O VAŠIM NAVIKAMA I POTREBAMA
U KORIŠTENJU JAVNOG PRIJEVOZA

Program

10:00	Uvod u projekt CIVITAS ELAN Zagreb <i>Višnja Jelić Mück / Udruga ODRAZ</i>
10:15	Studija intermodalnog terminala Sava Sjever <i>Stjepan Kelčec Suhovec / Grad Zagreb, Ured za strategijsko planiranje i razvoj Grada</i>
10:30	Razgovor Mišljenje, pitanja i prijedlozi sudionika <i>U razgovoru će sudjelovati i:</i> <ul style="list-style-type: none">- Davor Silov, voditelj projektne mjere "Sigurnost i zaštita starijih osoba u javnom gradskom prijevozu / Grad Zagreb, Ured za strategijsko planiranje i razvoj Grada i- Srećko Krznarić / Zagrebački električni transport - ZET

<http://civitas-elan.zagreb.hr>




Projekt sufinancira EU

8.2. Study of intermodal terminal SAVA NORTH interchange leaflet




Outer and inner side of the leaflet


8.3. List of participants of the first training workshop



12.	Mato Rončević	NR ✓
13.	Miroslav Babić	
14.	Stomil Stijak	
15.	Marko Čuček	
16.	Marko Čuček	
17.	Zdravko	ZDRAVKO DAIČEK
18.	IVAN VREĆIĆ	
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Projekt sufinancira EU




**PREDSTAVLJANJE PROJEKTA CIVITAS ELAN ZAGREB
I RAZGOVOR O VAŠIM NAVIKAMA I POTREBAMA U KORIŠTENJU JAVNOG
PRIJEVOZA**

POPIS SUDIONIKA

ponedjeljak, 22. ožujka 2010., 10 h; Dom starih i nemoćnih osoba – Centar,
Zagreb

	Ime i prezime	Potpis
1.	Marija Šušter	Šušter
2.	Radica Črnjen	Črnjen
3.	Đura Kralj	
4.	Branka Kralj	
5.	Mira Šušter	
6.	Đura Kralj	Đura
7.	Franjo Kaleda	Franjo Kaleda
8.	MIRA SLADINA	Mira Sladina
9.	Đura Kralj	
10.	Kata Kralj	
11.	Ivan Šušter	Ivan



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