



# CiViTAS

Cleaner and better transport in cities

## E L A N



LJUBLJANA



BRNO

## Mobilising Citizens for Vital Cities

Introductory Brochure



PORTO



GENT



ZAGREB

# CIVITAS - ELAN



After signing the CIVITAS-ELAN Agreement of Cooperation: Karin Temmerman (Alderman, Gent), Milan Bandić (Mayor, Zagreb), Zoran Janković (Mayor, Ljubljana), Ladislav Macek (Deputy Mayor, Brno) and José Sérgio Moreira Brandão (Porto)

## CIVITAS-ELAN Project

The CIVITAS-ELAN Project is the result of an intensive cooperation and exchange process during which the cities of Ljubljana, Gent, Zagreb, Brno, and Porto agreed to respond in a pro-active way to the substantial mobility challenges in European cities. Based on the agreement signed by the mayors of the five cities, a common mission statement for CIVITAS-ELAN has been agreed: "To 'mobilise' our citizens by developing - with their support - clean mobility solutions for vital cities, ensuring health and access for all."

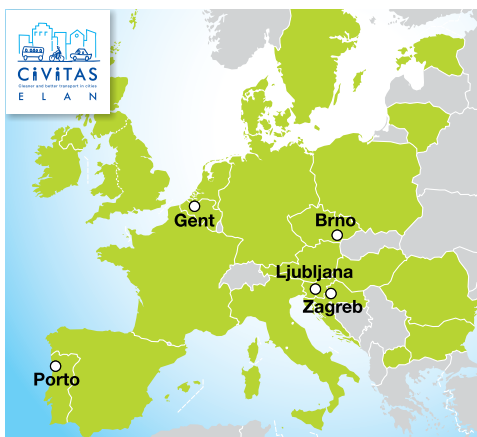
## CIVITAS-ELAN Policy Fields and Measures

Project partners developed a highly integrated work plan with several common measures and a range of other cooperation and exchange arrangements. The starting point for the CIVITAS-ELAN project was to "put citizens first".

In responding to citizens' needs, 68 measures will be implemented within eight CIVITAS-ELAN policy fields:

- Alternative fuels and clean vehicles (15 measures)
- Collective transport and intermodal integration (10 measures)
- Demand management (5 measures)
- Influencing travel behaviour (14 measures)
- Safety, security, and health (8 measures)
- Innovative mobility services (4 measures)
- Energy efficient freight logistics (4 measures)
- Transport telematics (8 measures)

More detailed information about the measures can be found in the city sections below.



## CIVITAS-ELAN cities:

Brno, Gent, Ljubljana, Porto, and Zagreb are representatives of a growing number of dynamic, large or medium-sized national and regional centres with a strong cultural background.

## Project consortium



City of Ljubljana,  
consortium leader  
and 9 local partners



City of Brno  
and 1 local partner



Gent City Council  
and 6 local partners



City of Porto  
and 6 local partners



City of Zagreb  
and 6 local partners

## Supporting partners



## Contacts

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## Project budget

The total project budget is €29,185,139.46, the EC contribution is €17,841,239.01 while total investment cost for the partners is €120,000,000.



# LJUBLJANA

Well, I understand this talk about environment and so on, but if they cannot find a parking space, how can people come to my shop? We must not ruin the economy!



Milan,  
shop owner, 57 years,  
Ljubljana



*Ljubljana, the coordinating city of the CIVITAS-ELAN project, is the capital of Slovenia and its cultural, trade and scientific centre. The city has 275,000 inhabitants, with 47,000 of them university students. In addition, more than 130,000 commuters travel to the city each day.*

[www.ljubljana.si](http://www.ljubljana.si)

## Mobility Issues in Ljubljana

The Ljubljana city center has a relatively high urban density with 27,000 people living in an area of five km<sup>2</sup>; an extremely high concentration of activities in a star-shaped city topography. The city center faces an increasing number of daily commuters. The public transportation system is underdeveloped. The modest use of public transport facilities and the modal split that is in favour of individual car use, contribute to air pollution, noise, and congestion problems that have a negative impact on the quality of life. Walking, cycling and other more sustainable mobility modes are increasing, but more supporting action is needed.

## CIVITAS-ELAN Measures in Ljubljana

The City of Ljubljana plans to implement a total of 16 measures as a part of the CIVITAS-ELAN project, as well as four additional common measures in cooperation with other CIVITAS-ELAN partners. Ljubljana's CIVITAS-ELAN measures intend to tackle traffic jams, congestion and an unfavourable modal split ratio between public transport (PT) and individual cars.

- **CIVITAS Demonstration Corridor:** Objectives are the provision of high-quality public transport in the corridor, with separate lanes; PT priority at intersections and real-time information for passengers; and generally speaking, making the use of PT easier, more attractive, safer, and more secure. Thus, the CIVITAS-ELAN corridor will serve as a 'laboratory' of innovative measures, which could be applied elsewhere in the city, in other cities in Slovenia, and beyond as well.
- **Increasing the Use of Clean Vehicles and Telematics Systems:** For the first time in Slovenia the newest hybrid bus technology will be introduced in the quest for cleaner urban transport solutions. Modern telematics systems promise traffic flow improvement and an anticipated more attractive image of PT.
- **Changing Mobility Behaviour:** This means understanding and influencing mobility behaviour, and strongly promoting non-motorised transport modes. With an integrated planning perspective for urban transport, a long-term influence on sustainable PT in Ljubljana and its region is expected.
- **Improving Urban Freight Distribution:** This requires testing a combination of innovative measures in the field of limiting access and consolidated deliveries, as well as the introducing of appropriate incentives for cleaner freight traffic.

## PARTNERS

The City of Ljubljana, LPP-Public Transport Company, Telargo, Urban Planning Institute of the Republic of Slovenia, University of Ljubljana, Transport Institute Ljubljana, Agricultural Institute of Slovenia, Regional Environmental Center - Slovenia, Jožef Štefan Institute and SŽ-Slovenian Railway.

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# P O R T O



*Porto, World Heritage site since 1996, is one of Europe's oldest cities. It is the second largest city in Portugal with 263,131 inhabitants and has a strong concentration of student population with a growing reputation as a city of knowledge.*

[www.cm-porto.pt](http://www.cm-porto.pt)

## Mobility Issues in Porto

The city faces serious mobility problems raised by the new mobility patterns (longer trips, urban sprawl, etc.). This caused serious congestion problems that have now shifted from the centre to the city's main entrances/exits. With some exception to the metro system, the public transport is still seen as a 2<sup>nd</sup> place choice in the city's social standards.

## CIVITAS - ELAN Measures in Porto

Porto's partners in CIVITAS-ELAN planed a total of six measures to be implemented during the project's lifetime:

- **Mobility Management and New Mobility Services**

The Mobility Shop will act as CIVITAS-ELAN headquarters in the Asprela area and will provide citizens with all information about transports and Innovative Services. The development of enthusiastic dissemination activities and awareness campaigns to achieve the project proposals "cleaner and better transport in the cities" are also foreseen. Bicycles will become a possibility for daily trips in the area, a web agency will support car-pooling users and buses will offer DRT services (demand responsive transport).

- **Increasing Use of Alternative Fuels, Clean Vehicles and Telematics Systems**

The development and operational testing of a light-weight bio-fuel bus based on innovative manufacturing technologies will be a reality. The goal is to establish a clean bus shuttle within the Asprela area, to foster modal shift between transport modes and to reduce the CO<sub>2</sub> emissions. Transport telematics will be tested once they still have an unexploited potential for more efficient management of urban transport and traveller information. With Mobile Mobility Information, the PT users will meet their needs in real time by using the newest solutions in this field.

- **Planning Intermodal Infrastructure and Managing Public Space**

The studies to launch a competitive public tender for the design, construction and operation of the infrastructure for the implementation a functional Multi-modal Transport Interchange are also foreseen.

At the end, all of the measures will be considered in the Mobility Plan for Asprela. The main idea is to create a well succeeded sustainable mobility case study that will help proving the effectiveness of the specific implemented measures when integrated in a global approach of transport planning.



## PARTNERS

Porto City Council - CMP; Faculty of Engineering of Porto's University - FEUP; Collective Transport Society of Porto - STCP; Light Rail Metro System of Porto - MP; National Association of Road Passengers Transporters - ANTROP; Optimization and Planning of Transports - OPT; Science Faculty of Porto's University - FCUP; Foundation Fernando Pessoa - UFP.

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# BRNO

Of course I know, that what comes out of my old car, is bad for the health. But how shall I get my kids to day care and still make it to work.



Eliška,  
hospital nurse,  
38 years, Brno



*Brno, the Czech Republic's second largest city, has a population of nearly 400,000 inhabitants and is a seat of universities, national courts of justice and the renowned Brno Exhibition. The former industrial city took on the character of a modern city, thanks to the construction of new buildings, the most important of which is the Tugendhat Villa, a site inscribed on the UNESCO's World Cultural Heritage List.*

[www.brno.cz](http://www.brno.cz)

## Mobility Issues in Brno

Brno's public transport system consists of 13 tramlines, 11 trolleybus lines and a complementary bus network (49 bus lines). The local mobility policies are facing challenges such as a slightly decreasing rate of public transport use, demographic change, sustainable solutions including energy efficiency and alternative fuels introduction. However, Brno can already build on a number of measures enhancing its sustainable mobility culture such as a strong public transport network as well as railway, cycling and pedestrian zones in the city centre.

A road network project that comprises the big city ring road is crucial for diverting individual car traffic from the city centre. It falls within the need for parking regulation in the city centre and residential areas as well as further development of "soft" modes of transport.

The new international railway junction project is the priority for mobility development of the South Moravian Region and addresses both transport and urban regeneration issues.

## CIVITAS-ELAN Measures in Brno

In the framework of the CIVITAS-ELAN project, the City of Brno envisages the implementation of six measures as well as three additional common measures that are to be executed in cooperation with other cities and partners. The prime goal of Brno's measures within CIVITAS-ELAN is to increase the number of public transport users through communication and service quality improvement.

- **Optimizing Energy Consumption** in tram and trolley bus networks by introducing a new heating regulation system in trams and trolley buses with no negative impact for passengers.
- **Increasing the Quality of Public Transport Services** by introducing new minibuses for passengers with reduced mobility.
- **Intermodal Infrastructure Planning** by establishing a participatory platform for sharing best practice and fostering local and European partnership in terms of innovative mobility solutions.
- **Comprehensive Mobility Dialogue** for raising citizen engagement and awareness about sustainable mobility.
- **Introducing Integrated Information Services** for passengers while saving operational costs, thanks to innovative technologies.
- **Ticket-Vending Machines** - installation of a new system of wireless modems and ensuring online alert transmission to the dispatching site.

## PARTNERS

Brno City Municipality  
Brno Public Transport Company

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# G E N T



*Gent is the third largest city in Belgium, with the metropolitan area comprised of about 500,000 inhabitants. The city itself has 239,000 inhabitants and over 60,000 university students and students at the schools of higher education. Gent was recently chosen by National Geographic Traveller Magazine as the third “most authentic travel destination in the world.”*

[www.gent.be](http://www.gent.be)

## Mobility Issues in Gent

With respect for the past and an uncompromising vision of the future, Gent works through renewal to achieve a sustainable, open, shared community. Therefore, it is a real challenge for an old medieval city to face the mobility issue in the 21<sup>st</sup> century. Every day, about 35,000 people commute to Gent, while 43,000 people commute from Gent. There are 10 bus lines, 4 tramlines and 10 car parks. There is also a large network of cycle paths. Situated at the junction of the motorways E17 and E40, Gent can easily be reached by car.

## Mobility Plan in Gent

About 10 years ago, the Gent City Centre Mobility Plan injected a new dynamism into the historical centre of Gent. A pedestrian zone was established with space for cyclists and public transport, allowing the Gent city centre to become the setting for numerous cultural, sports and commercial activities.

## CIVITAS-ELAN Measures in Gent

Nowadays, large high-tech infrastructural works go hand-in-hand with efforts to change peoples' mobility behaviour. But this is a very long and ongoing process. Within CIVITAS-ELAN, Gent is implementing 25 measures, with every measure screened whether citizens participation will or can be useful.

- **Public Transport**

In the course of 2009, the PT Company De Lijn will introduce 20 hybrid buses, and will concentrate on safety, traffic flow improvement and operating a clean fleet.

- **Cycling and Walking**

Different partners will work on safer and better foot and cycle paths, an anti-theft system for bikes, a digital route planner, conceptualising a “House of the Bike” and more bicycle sheds.

- **Changing Mobility Behaviour**

State-of-the-art mobility plans for companies and schools will be implemented as well as a collective taxi service, innovative car sharing, intelligent P&R enforcement and an extended marketing campaign with an intense citizen dialogue.

- **Other Issues**

There will be further development of clean fleets, freight management and initiatives on bio-diesel production. The installation of a brand new traffic management system will replace the current parking system and will provide real time traffic information.



Simon,  
student, 24 years,  
Gent

## PARTNERS

Gent City Council, De Lijn (PT operator), Max Mobiel, StudentENmobiliteit, Cambio, University of Gent, Public Agency for Infrastructure & Transport

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# ZAGREB

I am happy that I can still enjoy life - and I really don't feel like "a pensioner" - but a bit more comfort is not really asking too much, is it?



Vlatka,  
retired teacher, 72 years,  
Zagreb



*The city with a tradition of almost one thousand years celebrated its 900<sup>th</sup> birthday in 1994. Being the capital and the largest city of Croatia, Zagreb is the cultural, scientific, cinematic, economic and governmental center of the country with approximately 1.2 million inhabitants in the entire metropolitan area.*

[www.zagreb.hr](http://www.zagreb.hr)

## Mobility Issues in Zagreb

The number of private vehicles has almost doubled in Zagreb since the transition in the early nineties of the 20<sup>th</sup> century which has caused serious problems as the traffic grid could barely support so much traffic. Furthermore, severe congestion problems have emerged in the city center as on most roads public transport (mostly trams) operate on the same lanes as private. Even though the city has improved conditions for cyclists and pedestrians as well as public transport in the last couple of years, the transport culture is in favour of private vehicles. It is therefore important to restrict car use where necessary, change the mobility behaviour of citizens, improve links between transport modes and create more attractive public transport services.

## CIVITAS-ELAN Measures in Zagreb

The city of Zagreb will implement a total of 13 measures as a part of the CIVITAS-ELAN project as well as four additional common measures that are to be executed in cooperation with other cities and partners. As stated above, traffic problems that have been defined previously are to be addressed by introducing several measures and activities:

- **Increasing Energy Efficiency of Public Fleets** by improving management, purchasing of 70 energy efficient, silent and easy-accessible trams and reducing emissions and fuel consumption.
- **Introducing Vehicles that Use Alternative Fuels** thus cleaning-up the fleets by purchasing 160 bio-diesel and CNG buses, as well as 40 bio-diesel vehicles for waste management that will lead to a reduction of CO<sub>2</sub> emissions.
- **Introducing New Mobility Solutions and Infrastructure** (e.g. electronic ticketing, creating foundations for future high-mobility corridor (on Savska cesta), produce studies and dialogue on congestion charging in the city centre).
- **Fostering Alternative Transport Solutions** by supporting cycling, walking and the usage of public transport (creating bicycle racks along the mobility corridor and more, creating studies on cycling and cyclist routes, support walking and improve the image, security as well as the safety of public transport).
- **Creating a Strong Dialogue and Develop a Relationship with Citizens** through organising public events and creating a one-stop-shop for CIVITAS-ELAN in the city where all events with regard to the project are taking place and where information is provided.

## PARTNERS

City of Zagreb, Zagreb Holding –  
Department ZET, Zagreb Holding –  
Department Cistoca, Faculty of Traffic  
Science, HZ Infrastructure, NGO  
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## CIVITAS-ELAN Horizontal Themes

### Research and Technical Development

CIVITAS-ELAN measures related to research and technical development activities include technical and financial feasibility studies, development of demonstrations, implementation planning, tests and other scientific demonstration preparation-related activities. Its objective is to coordinate all research activities to ensure high quality processes and results and to contribute to the dissemination activities.

Scientific Coordinator: Simona Zavratnik (simona.zavratnik@fdv.uni-lj.si)

### Evaluation

It is crucial for the success of the CIVITAS-ELAN project to implement evaluation activities with a strong scientific basis to come to robust and consistent conclusions about the progress and the impact of the demonstrations in each city. The work is divided into five main tasks: evaluation planning, impact and process evaluation on city- and project-level, in-depth analyses and impact studies.

Evaluation Manager: Dirk Engels (dirk.engels@tritel.be)

### Dissemination, Training and Citizen Engagement

Dissemination activities are crucial to achieve actual change in transport-related policies and behaviour and as well to break the conventional link between transport, energy use and economic growth. Therefore, CIVITAS-ELAN will use a multi-level approach including tailor-made dissemination tools and activities depending on the target audiences. CIVITAS-ELAN also offers strong training elements.

Dissemination Manager: Jörg Kastelic (kastelic@fgm.at)

The main principle in CIVITAS-ELAN's citizen engagement approach is to consider citizens not as "the problem" in creating a sustainable transport system, but to mobilise them to become part of "the solution" through well designed consultation and participation processes. The focus on citizen participation has been deeply built into the work plan, in many measures, in evaluation, dissemination and risk management.

Citizen Engagement Coordinator: Milena Marega (milena.marega@guest.arnes.si)

## CIVITAS INITIATIVE

CIVITAS - cleaner and better transport in cities - stands for City-VITALity-Sustainability. With the CIVITAS Initiative, the EC aims to generate a decisive breakthrough by supporting and evaluating the implementation of ambitious integrated sustainable urban transport strategies that should make a real difference for the welfare of the European citizen.

Within CIVITAS I (2002-2006) there were 19 cities clustered in 4 demonstration projects, within CIVITAS II (2005-2009) 17 cities in 4 demonstration projects, whilst within CIVITAS PLUS (2008-2012) 25 cities in 5 demonstration projects are taking part. These demonstration cities all over Europe are funded by the European Commission.

Objectives:

- \* to promote and implement sustainable, clean and (energy) efficient urban transport measures
- \* to implement integrated packages of technology and policy measures in the field of energy and transport in 8 categories of measures
- \* to build up critical mass and markets for innovation

Map of CIVITAS community



For the more information please contact: [www.civitas.eu](http://www.civitas.eu)

