





lasi

T15.1: Business District Shuttle Bus in Iasi

lasi

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1. Introduction

1.1 Background CIVITAS

CIVITAS - cleaner and better transport in cities - stands for Clty-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.

CIVITAS I started in early 2002 (within the 5th Framework Research Programme); CIVITAS II started in early 2005 (within the 6th Framework Research Programme) and **CIVITAS PLUS** started in late 2008 (within the 7th Framework Research Programme).

The objective of CIVITAS-Plus is to test and increase the understanding of the frameworks, processes and packaging required to successfully introduce bold, integrated and innovative strategies for clean and sustainable urban transport regarding the concerns about the energy-efficiency, transport policy and road safety, alternative fuels and the environment.

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

Horizontal projects support the CIVITAS demonstration projects & cities by :

- Cross-site evaluation and Europe wide dissemination in co-operation with the demonstration projects
- The organisation of the annual meeting of CIVITAS Forum members
- Providing the Secretariat for the Political Advisory Committee (PAC)
- Development of policy recommendations for a long-term multiplier effect of CIVITAS

Key elements of CIVITAS

- CIVITAS is co-ordinated by cities: it is a programme "of cities for cities"
- Cities are in the heart of local public private partnerships
- Political commitment is a basic requirement
- Cities are living 'Laboratories' for learning and evaluating



1.2 Background ARCHIMEDES

ARCHIMEDES is an integrating project, bringing together 6 European cities to address problems and opportunities to create environmentally sustainable, safe and energy efficient transport systems in medium sized urban areas.

The objective of ARCHIMEDES is to introduce innovative, integrated and ambitious strategies for clean, energy-efficient, sustainable urban transport to achieve significant impacts in the policy fields of energy, transport, and environmental sustainability. An ambitious blend of policy tools and measures will increase energy-efficiency in transport, provide safer and more convenient travel for all, using a higher share of clean engine technology and fuels, resulting in an enhanced urban environment (including reduced noise and air pollution). Visible and measurable impacts will result from significantly sized measures in specific innovation areas. Demonstrations of innovative transport technologies, policy measures and partnership working, combined with targeted research, will verify the best frameworks, processes and packaging required to successfully transfer the strategies to other cities.

1.3 Participant Cities

The ARCHIMEDES project focuses on activities in specific innovation areas of each city, known as the ARCHIMEDES corridor or zone (depending on shape and geography). These innovation areas extend to the peri-urban fringe and the administrative boundaries of regional authorities and neighbouring administrations.

The two Learning cities, to which experience and best-practice will be transferred, are Monza (Italy) and Ústí nad Labem (Czech Republic). The strategy of the project is to ensure that the tools and measures developed have the widest application throughout Europe, tested via the Learning Cities' activities and interaction with the Lead City partners.

1.3.1 Leading City Innovation Areas

The four Leading cities in the ARCHIMEDES project are:

- Aalborg (Denmark);
- Brighton & Hove (UK);
- Donostia-San Sebastián (Spain); and
- lasi (Romania).

Together the Lead Cities in ARCHIMEDES cover different geographic parts of Europe. They have the full support of the relevant political representatives for the project, and are well able to implement the innovative range of demonstration activities.

The Lead Cities are joined in their local projects by a small number of key partners that show a high level of commitment to the project objectives of energy-efficient urban transportation. In all cases the public transport company features as a partner in the proposed project.

2. lasi

The City of lasi is located in north-eastern Romania and is the second largest Romanian city, after Bucharest, with a population of 366,000 inhabitants. It is also the centre of a metropolitan area, which occupies a surface of 787.87 square kilometres, encompassing a total population of 398,000 inhabitants.



The city seeks to develop possibilities for habitation, recreation and relaxation for all citizens in the region, business opportunities and provide opportunities for more consistent investments.

The city has five universities with approximately 50,000 students, the second largest in Romania. The universities and their campuses are located in the central and semicentral area of the city. In the same area, there are also a large number of kindergartens, schools and high schools with approximately 10,000 pupils. This creates a large number of routes along the main corridor, served by the public transport service number "8" (Complex Tudor Vladimirescu - Copou) with an approximate length of 10 km. The City of lasi will implement its integrated measures in this area to be known as the "CIVITAS+Corridor".

The city's objectives in CIVITAS - ARCHIMEDES are based on the existing plans related to transport, Local Agenda 21, approved in 2002, and the Sustainable Social-Economic Development Strategy for City of Iasi. The CIVITAS Plus objectives will be integrated in the Strategy for metropolitan development to be finalized in May 2009.

Background to the Deliverable

Before the ARCHIMEDES project, commuters travelling alone using their own private cars on their way to the business districts, contributed significantly to congestion problems in the morning. Additionally, valuable urban space was occupied during daytime by their parked cars, making it more difficult for visitors and customers to find parking spaces.

Measure number 15, "Business District Shuttle Bus in lasi" aimed at creating a more cost efficient way to cater for the needs of commuters by providing business district shuttle buses rather than expanding existing bus services.

3.1 Summary Description of the Task

lasi City Hall has started to identify some companies that have a significant number of employees and launched the idea that the movement of their employees to and from work should be by bus instead of by the sue of personal cars. Only two companies (CET and Metro) have given a positive answer so far. During a follow up consultation with their employees the idea was very well received. Taking into account that lasi City and Public Transport Iasi (PTI) has a concession contract called "Public Transport Services in Iasi" both parties agreed to make an amendment in that way that PTI were allowed to operate on the new routes.

4. T15.1 Business District Shuttle Bus

4.1 Description of the Work Done

Initially, Public Transport Iasi (PTI) discussed with a number of companies that are located outside of the formal city boundary in the suburban zone, but in the end only two companies have been interested for this kind of transport service.

¹ The object of the concession contract is that PTI is allowed to operate on the predefined route in the city at different intervals, with a minimal number of buses or trams on each route. This is the mechanism by which lasi City Hall organises Public Transport in the city.



The main benefits for the companies regarding this shuttle bus service are:

- economic by being able to negotiate with PTI, the company's expenses with the employees transport to and from workplace can be substantially diminished.
- punctuality because there is a transport time schedule, the employees will be able to arrive on time at the workplace.

After their discussions with CET and Metro, PTI evaluated their transport needs based

- Number of employees (450 persons both companies);
- The schedule (starting and ending time of the shifts):
- The routes to be followed, including the start and end points.

PTI received all these figures and signed contracts with two companies (CET and METRO). In these contracts the parties involved have established the optimal routes to transport the employees, the prices for renting the public transport vehicles which differs Saturday, Sunday and legal holidays from the rest of the week days (Monday - Friday).

The employees from CET will be transported with buses or minibuses (Fig. 1, Fig. 2) according to company's needs, and those from METRO will be transported with minibuses (Fig. 2).



Fig. 1 Special bus for C.E.T.





Fig. 2 Special minibus for METRO

4.2 Description of Business District Shuttle Bus

The management of CET and METRO discussed with their employees and established optimal transport routes so all the employees have the possibility to benefit from this bus service. After that, they discussed with PTI and finalised these routes (see appendix 1) and the number of transport vehicles needed.

PTI buses transport employees daily to match the shifts in operation. In Appendix 2 the schedules of business district shuttle bus are detailed according to time, the routes (including intermediate stops) and also the length of the routes.

For METRO the minibuses arrive at either 5.30 or 7.30 for the morning shift and 13.45 for the afternoon shift and depart at 14.30, 16.30 or 22.30/22.45 respectively.

For CET the buses will arrive at 7.15 for the morning shift at 14.50 for the afternoon shift and 21.50 for the night shift and depart at 7.15, 15.05/15.15 or 22.15 respectively.

4.3 Main Outcomes

Based on the signed contracts, the PTI buses carry a daily average of 250 passengers for CET and 200 passengers for METRO.



The main impacts of this measure are:

- fewer private cars leading to a more fluent traffic. For example, if initially about 100 personal cars transported employees to work, after the implementation of this measure, about 75 persons renounced at their private cars because they found it more convenient (less stressful) and safer to use the public transport service.
- fewer parking spaces problems. In the case of METRO, for the afternoon shift finding a free parking space was sometimes difficult and stressful.

More information will be made available in the measure evaluation template.



4.4 Communication Activities



Fig. 3 Shuttle bus poster used at the 'lasi CIVITAS Forum'

The PTI and the management of CET and METRO informed the employees about these shuttle bus services (Fig. 3), posters being also used to inform the potential commuters about the time schedule and the boarding points.



4.5 Problems Identified

No technical issues have been found after the implementation of this measure.

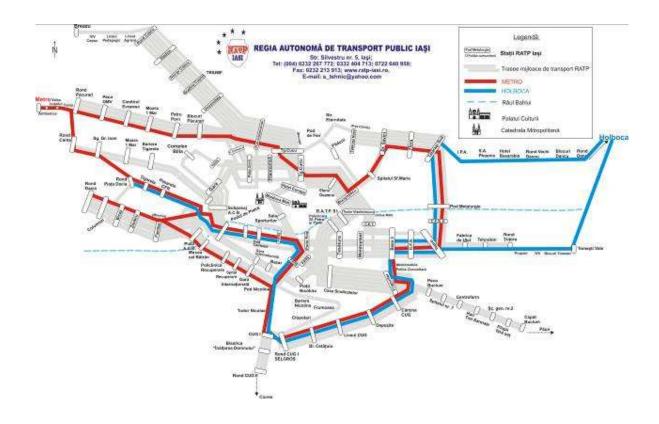
Some minor difficulties were found initially, when PTI initially began to try to convince all companies of the benefits of this shuttle bus service. It was also tricky to establish the routes so that all the city's districts could be covered.

4.6 Future Plans

The PTI will try to extend this shuttle bus service outside of the city's boundaries because there are a lot companies that could benefit if this measure were to be up scaled. For example there are many companies beyond METRO that can contract a shuttle bus service.



Appendix 1: Shuttle Bus Service Routes







Appendix 2: Shuttle Bus Service Schedules

Monday-Saturday schedule of METRO special bus route (Baza 3 - to Metro)

Bus Station	Hour
BAZA 3	4.40
SIRAJ	4.45
ROND VECHI CUG	4.50
PODU ROSU	4.55
CANTEMIR	5.00
PODU DE PIATRA	5.05
ALEXANDRU CEL BUN	5.10
ROND DACIA	5.15
COMAT	5.20
PACURARI	5.25
METRO	5.30
Number of Km	19

Monday-Sunday schedule of METRO special bus route (Dacia – to Metro)

Bus Station	Hour
ROND DACIA	6.15
ZIMBRU	6.20
FAMILIAL	6.25
PODU DE PIATRA	6.30
PODU ROSU	6.35
NICOLINA	6.40
ROND VECHI CUG	6.43
SIRAJ	6.50
BULARGA	6.55
BAZA 3	7.00
METALURGIE	7.03
TATARASI	7.05
BUCSINESCU	7.10
TG CUCU	7.15
INDEPENDENTEI	7.20
PACURARI	7.25
METRO	7.30
Number of Km	43.5

Monday-Saturday schedule of METRO special bus route (Metalurgie – to Metro)

Bus Station	Hour
METALURGIE	4.50
DOI BAIETI	4.55
TATARASI	5.00
BUCSINESCU	5.05
TG CUCU	5.10
INDEPENDENTEI	5.15
PACURARI	5.20
METRO	5.30
Number of Km	15

Monday-Sunday schedule of METRO special bus route (Baza 3 – to Metro)

Bus Station	Hour
BAZA 3	6.40
SIRAJ	6.45
ROND VECHI CUG	6.50
PODU ROS	6.55
CANTEMIR	7.00
PODU DE PIATRA	7.05
ALEXANDRU CEL BUN	7.10
ROND DACIA	7.15
COMAT	7.20
PĂCURARI	7.25
METRO	7.30
Number of Km	19

Monday-Sunday schedule of METRO special bus route (Metalurgie – to Metro)

Bus Station	Hour
METALURGIE	6.50
DOI BĂIEŢI	6.55
TĂTĂRAȘI	7.00
BUCŞINESCU	7.10
TG. CUCU	7.15
INDEPENDENȚEI	7.20
PĂCURARI	7.25
METRO	7.30
Number of Km	15





Monday-Saturday / Sunday schedule of **METRO** special bus route (Baza 3 - to Metro)

Bus Station	Hour
BAZA 3	12.30
SIRAJ	12.40
ROND VECHI CUG	12.45
PODU ROSU	12.50
CANTEMIR	12.55
PODU DE PIATRA	13.10
ALEXANDRU CEL BUN	13.15
ROND DACIA	13.25
COMAT	13.30
PACURARI	13.35
METRO	13.45
Number of Km	19

Monday-Saturday schedule of METRO special bus route (from Metro – Baza 3)

Bus Station	Hour
METRO	14.30
PACURARI	14.35
COMAT	14.40
ROND DACIA	14.45
ALEXANDRU CEL BUN	14.50
PODU DE PIATRA	14.55
CANTEMIR	15.00
PODU ROSU	15.05
ROND VECHI CUG	15.10
SIRAJ	15.15
BAZA 3	15.20
Number of Km	21.5

Monday-Saturday schedule of METRO special bus route (from Metro – Baza 3)

Bus Station	Hour
METRO	16.30
COMAT PĂCURARI	16.40
PĂCURARI	16.45
ROND DACIA	16.50
ALEXANDRU CEL BUN	16.55
PODU DE PIATRĂ	17.00
CANTEMIR	17.05
PODU ROS	17.10
ROND VECHI CUG	17.20
SIRAJ	17.25
BAZA 3	17.30
Number of Km	21.5

Monday-Saturday / Sunday schedule of **METRO** special bus route (Metalurgie – to Metro)

Bus Station	Hour
METALURGIE	13.00
DOI BAIETI	13.05
TATARASI	13.10
BUCSINESCU	13.15
TG CUCU	13.20
INDEPENDENTEI	13.25
PACURARI	13.35
METRO	13.45
Number of Km	15

Monday-Saturday schedule of METRO special bus route (from Metro -Metalurgie)

Bus Station	Hour
METRO	16.30
PĂCURARI	16.35
INDEPENDENȚEI	16.40
TG.CUCU	16.45
BUCŞINESCU	16.50
TĂTĂRAȘI	16.55
DOI BĂIEŢI	17.00
METALURGIE	17.05
Number of Km	17.5





Monday-Saturday schedule of METRO special bus route (**from Metro** – Letcani)

Bus Station	Hour
METRO	22.30
LETCANI	22.35
METRO	22.40
Number of Km	10

Monday-Saturday schedule of METRO special bus route (from Metro – Podu Ros)

Bus Station	Hour
METRO	22.45
PĂCURARI	22.50
ROND DACIA	22.55
ALEXANDRU CEL BUN	23.00
GALATA	23.05
PODU ROS	23.15
Number of Km	24

Monday-Saturday schedule of METRO special bus route (**from Metro** – Baza 3)

Bus Station	Hour
METRO	22.45
PĂCURARI	22.50
MOARA 1 MAI	22.55
GARA	23.00
PODU DE PIATRĂ	23.05
PODU ROŞU	23.10
ROND VECHI CUG	23.15
SIRAJ	23.20
BULARGA, BAZA3	23.25
Number of Km	26

Monday-Saturday schedule of METRO special bus route (from Metro -Metalurgie)

Bus Station	Hour
METRO	22.45
PĂCURARI	22.50
INDEPENDENŢEI	22.55
TG.CUCU	23.00
BUCŞINESCU	23.05
TĂTĂRAȘI	23.10
DOI BĂIEŢI	23.15
METALURGIE	23.20
Number of Km	24





Monday-Sunday schedule of CET special bus route (P-ta Dacia – to CET)

Bus Station	Hour
PIAȚA DACIA	6.00
PODUL DE PIATRĂ	6.05
PODU ROŞU	6.10
CUG 1	6.15
POITIERS	6.20
MOLDOMOBILA	6.25
DOI BĂIEŢI	6.30
DANCU	6.40
CET II HOLBOCA	6.50
Number of Km	30.50

Monday-Sunday schedule of CET special bus route (P-ta Dacia – to CET)

Bus Station	Hour
PIAȚA DACIA	14.00
PODUL DE PIATRĂ	14.05
PODU ROŞU	14.10
CUG 1	14.15
POITIERS	14.20
MOLDOMOBILA	14.25
DOI BĂIEŢI	14.30
DANCU	14.40
CET II HOLBOCA	14.50
Number of Km	30.50

Monday-Sunday schedule of CET special bus route (P-ta Dacia – to CET)

Bus Station	Hour
PIAȚA DACIA	6.10
PODUL DE PIATRĂ	6.15
PODU ROŞU	6.20
CUG1	6.30
POITIERS	6.35
MOLDOMOBILA	6.40
BAZA3	6.45
ZONA INDUSTRIALĂ	6.50
TOMEŞTI	7.00
CET II HOLBOCA	7.15
Number of Km	43

Monday-Sunday schedule of CET special bus route (P-ta Dacia - to CET)

Bus Station	Hour
PIAȚA DACIA	21.00
PODUL DE PIATRĂ	21.05
PODU ROŞU	21.10
CUG 1	21.15
POITIERS	21.20
MOLDOMOBILA	21.25
DOI BĂIEŢI	21.30
DANCU	21.40
CET II HOLBOCA	21.50
Number of Km	30.50





Monday-Sunday schedule of CET special bus route (**from CET** – P-ta Dacia)

Bus Station	Hour
CET II HOLBOCA	7.15
DANCU	7.25
DOI BĂIEŢI	7.35
BAZA 3	7.40
MOLDOMOBILA	7.45
POITIERS	7.50
CUG 1	7.55
PODU ROŞU	8.00
PODUL DE PIATRĂ	8.05
PIAȚA DACIA	8.10
Number of Km	30.50

Monday-Sunday schedule of CET special bus route (**from CET** – P-ta Dacia)

Bus Station	Hour
CET II HOLBOCA	15.05
TOMEŞTI	15.20
ZONA INDUSTRIALĂ	15.30
BAZA 3	15.35
MOLDOMOBILA	15.40
POITIERS	15.45
CUG 1	15.50
PODU ROŞU	15.55
PODUL DE PIATRĂ	16.00
PIAȚA DACIA	16.05
Number of Km	43.00

Monday-Sunday schedule of CET special bus route (from CET – P-ta Dacia)

Bus Station	Hour
CET II HOLBOCA	22.15
DANCU	22.25
DOI BĂIEȚI	22.35
BAZA 3	22.40
MOLDOMOBILA	22.45
POITIERS	22.50
CUG 1	22.55
PODU ROŞU	22.00
PODUL DE PIATRĂ	22.05
PIAȚA DACIA	22.10
Number of Km	30.50

Monday-Sunday schedule of CET special bus route (from CET – P-ta Dacia)

Bus Station	Hour
CET II HOLBOCA	15.15
DANCU	15.25
DOI BĂIEȚI	15.35
BAZA 3	15.40
MOLDOMOBILA	15.45
POITIERS	15.50
CUG 1	15.55
PODU ROŞU	16.00
PODUL DE PIATRĂ	16.05
PIAȚA DACIA	16.10
Number of Km	30.50