



CiViTAS
Cleaner and better transport in cities



THE CIVITAS INITIATIVE



CiViTAS Forum

October 5th, 2007

Kaunas, Lithuania

Telematic Innovations in Ploiesti

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RATP Ploiesti - ROMANIA



Capital of Prahova county

- the most populated county in Romania

Surface area: 50 km²

Inhabitants: 250 541

An industrial city

- 75% of the industrial production is achieved by oil industry

Location

- 60 km north of Bucharest, the capital of the country
- between Prahova and Teleajen rivers
- Crossed by:

the 26⁰ east meridian

the 45⁰ north parallel

(is located half-way between the North Pole and the Equator, between Eastern and Western Europe).

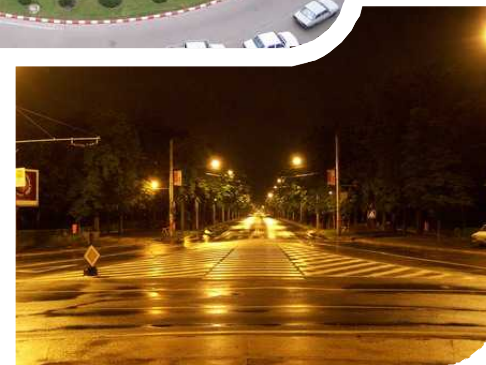
Access

- 40 km away from “Henry Coandă” International Airport (Otopeni)
- 70 km away from the most important mountain touristic zone – Prahova Valley





Ploiesti, Romania



- is to become the nucleus of a metropolitan area which will count the nearby villages
- 70,000 new inhabitants to the administrative area.



RATP Ploiesti

- the public transport operator;
- is subordinated to the local public administration;
- provides connections to all areas within the city;
- a daily average of 150,000 passengers;
- fleet:
 - 33 trams
 - 193 buses
 - 25 trolleys
- PT network:
 - 28 bus lines
 - 2 trolley lines
 - 2 tram lines
- total length:
 - 366 km bus lines
 - 30.8 km trolley-bus lines
 - 23.8 km trams.





Smaller
Urban
Communities in
CIVITAS for
Environmentally
Sustainable
Solutions

CIVITAS



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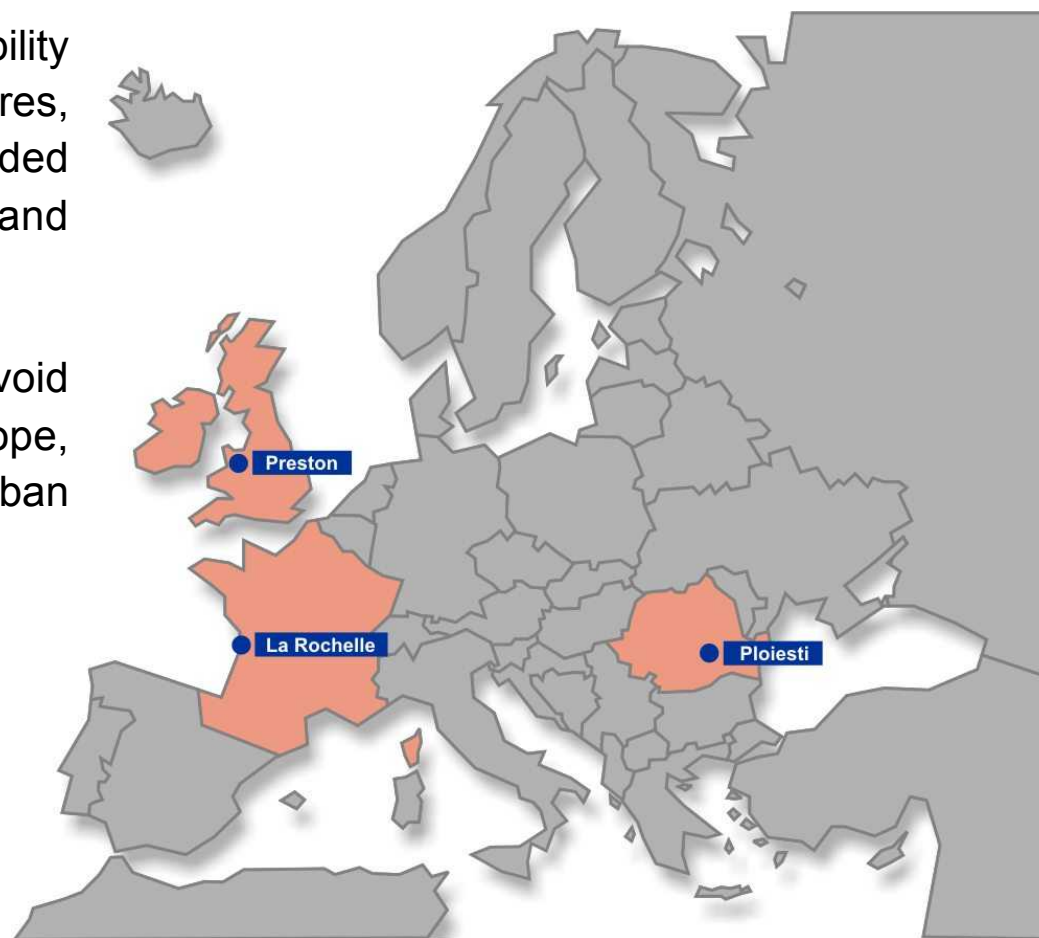



The innovative cities of
La Rochelle (Fr) – project coordinator
Preston (UK) and
Ploiesti (Ro)
are developing a project entitled
S U C C E S S
(**S**maller **U**rbain **C**ommunities in **C**ivitas for
Environmentally **S**ustainable **S**olutions),
with the ambitious will to ensure a living
environment for the 21st Century,
for all their inhabitants.



CiViTAS-SUCCESS Objectives

- alternative fuels can be an efficient choice for urban transport;
- with an ambitious package of mobility and traffic management measures, significant results can be provided regarding sustainable transport and energy policy;
- cities in candidate countries can avoid the mistakes made in Western Europe, and contribute to develop their urban collective transport systems.



As a local partner
in **CiViTAS-SUCCESS** project,
 Ploiesti has to implement certain
measures referring to Intelligent
Transport Systems:

- Development of a GPS system for the PT fleet
- Implementation of a new ticketing system for PT
- Implementation of a real time information system for PT.





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Before **CiViTAS-SUCCESS**

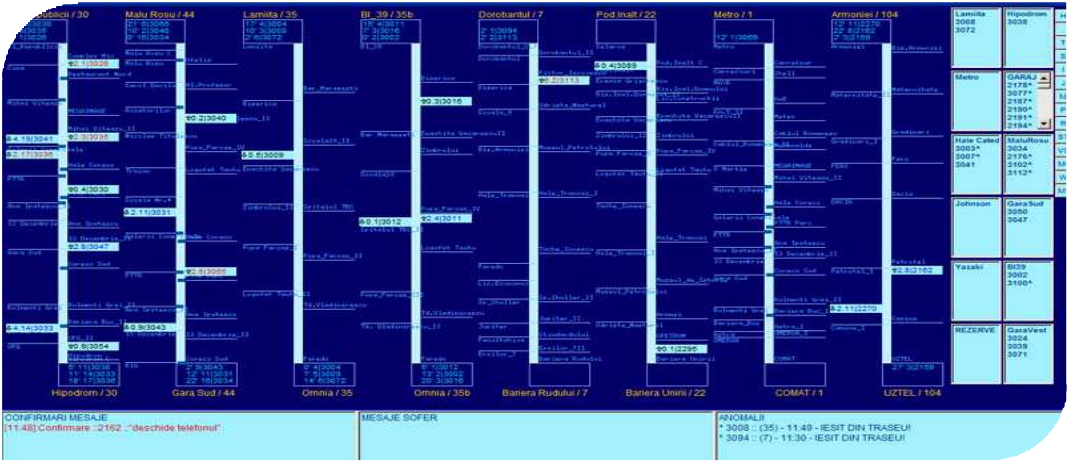
- there were 41 buses which had had GPS system.

Now

- all the bus fleet is monitored
- the trolleybuses and trams
 - i.e. 250 public transport vehicles.



GPS System





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GPS System - outcomes

- a unique dispatching center that co-ordinate the whole activity of the PT fleet
- 10 dispatchers instead of 46
- the communication between the drivers and the dispatching centre is highly increased
- the timetables are better accomplished.



| Linicul | Traseu | Gr. | Statie plecare | Ora plec. planif. | Ora plec. reala | Diferenta | Statie sosire | Ora sos. planif. | Ora sos. reala | Diferenta | Durata semicursa | Sofer | Tip plecare |
|---------|--------|-----|-------------------|-------------------------|-----------------------|-----------|----------------|------------------------|----------------------|-----------|---------------------|-------|-------------|
| 3037 | 30 | 1 | Garaj | 05:43 | 05:48 | -5.6 | Bl. Republicii | 05:58 | 05:52 | 5.7 | 3.8 | -- | DEPLASARE |
| 3037 | 30 | 1 | Bl. Republicii | 06:00 | 06:00 | -0.4 | Hipodrom C | 06:26 | 06:20 | 5.1 | 20.5 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 06:32 | 06:32 | -0.2 | Bl. Republicii | 07:01 | 06:58 | 2.9 | 25.9 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 07:03 | 07:00 | 2.7 | Hipodrom C | 07:29 | 07:25 | 3.8 | 24.9 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 07:35 | 07:35 | -0.4 | Bl. Republicii | 08:04 | 08:01 | 2.2 | 26.4 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 08:06 | 08:06 | -0.7 | Hipodrom C | 08:32 | 08:29 | 2.7 | 22.7 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 08:47 | 08:47 | -0.7 | Bl. Republicii | 09:16 | 09:12 | 3.5 | 24.8 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 09:18 | 09:15 | 2.8 | Hipodrom C | 09:44 | 09:38 | 5.6 | 23.3 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 09:50 | 09:51 | -1.3 | Bl. Republicii | 10:19 | 10:19 | -0.4 | 28.1 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 10:21 | 10:20 | 0.5 | Hipodrom C | 10:47 | 10:41 | 6.0 | 20.5 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 10:53 | 10:52 | 0.2 | Bl. Republicii | 11:22 | 11:23 | -1.1 | 30.3 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 11:24 | 11:23 | 0.4 | Hipodrom C | 11:50 | 11:45 | 4.8 | 21.6 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 11:53 | 11:53 | -0.8 | Bl. Republicii | 12:22 | 12:24 | -2.1 | 30.3 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 12:24 | 12:24 | -0.6 | Hipodrom C | 12:50 | 12:47 | 2.3 | 23.2 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 12:59 | 12:59 | -0.7 | Bl. Republicii | 13:28 | 13:27 | 0.3 | 28.1 | -- | REGULATA |
| 3037 | 30 | 1 | Bl. Republicii | 13:30 | 13:28 | 1.2 | Hipodrom C | 13:56 | 13:51 | 4.6 | 22.6 | -- | REGULATA |
| 3037 | 30 | 1 | Hipodrom | 14:00 | 14:05 | -5.5 | Bariera_Buc | 14:13 | 14:09 | 3.2 | 4.3 | -- | DEPLASARE |
| 3037 | 30 | 1 | Bariera_Buc | 14:15 | 14:15 | -0.2 | YAZAKI | 14:50 | 14:44 | 5.1 | 29.7 | -- | SPECIALA |
| 3037 | 30 | 1 | YAZAKI | 15:30 | 15:28 | 1.4 | Bariera_Buc | 16:00 | xxxx | x | x | -- | SPECIALA |
| 3037 | 30 | 1 | Bariera Buc | 16:02 | 16:07 | -5.5 | Garaj | 16:17 | 16:22 | -5.0 | 14.5 | -- | DEPLASARE |

| Cod vehicul | Durata (min) | Lungime linie (km) | Data | Raport(P/R) |
|-------------|--------------|--------------------|------------|-------------|
| 3037 | 447 | 102.684 | 24/09/2007 | 136.68% |

| Tip | (-00, -5] | (-5, -3] | (-3, 1.5] | (1.5, +00) |
|---------|-----------|----------|-----------|------------|
| Plecare | 15.00% | 0.00% | 75.00% | 10.00% |
| Sosire | 5.00% | 0.00% | 25.00% | 70.00% |





Real Time Information System

- Data received from the GPS system
 - is displayed on 38 panels installed
 - in the main stops across the city
 - information regarding:
 - the waiting time in the stations,
 - the succession of the routes,
 - the date,
 - the time and
 - the weather temperature in town
- The public transport is improved in several ways:
 - uncertainty is avoided
 - the waiting time is reduced
 - the number of passengers who wait in the stops is highly decreased



Before **CiViTAS-SUCCESS**

- the existing ticketing system
 - offers no real time data
 - permits fraud
 - is obsolete


Now

- the new one will consist of:
 - ticket vending machines
 - mixed validators (contactless and print)
 - smart cards
 - specific software
 - a unique control centre
- first stage is in progress:
 - feasibility study for the whole PT network
 - project for a part of the network, i.e. either a certain route or a means of transport (trolleys or trams)
- the implementation will be extended as part of other projects





Conclusions

Besides the above mentioned activities,  Ploiesti has developed several actions such as:

- Conversion of old polluting buses to LPG use (measure within **CiViTAS-SUCCESS** project)
- Replacement of the buses with trolleys on a line that crosses the centre of the city
- New bus lines have been established according to our passengers` requests
- Several bus lines have been extended to commercial areas outside the city

The major benefit of these activities is reflected in the number of the PT users:

- 58 million journeys - 2006
- 52 million - 2005.





LA ROCHELLE - PRESTON - PLOIESTI

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In the name of **CiViTAS - SUCCESS Ploiesti Team**,
I would like to thank you for your attention.

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