

### **GOOD PRACTICES - PUBLIC TRANSPORT INTERCHANGES**

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# MULTIMODAL INTEGRATED TRANSPORT

#### General information

## Description

Prague Integrated Transport, PIT (Pražská integrovaná doprava - PID), is a modern integrated mass transport system established according to a European Union recommendation as a communal transport federation. It is developing gradually on the territory of the capital city of Prague and on the territory of Central Bohemia with vital transport relationships to the capital city. Integrated transport has been established with the goal of ensuring high-quality transport services to the territory in order to make mass transport competitive with individual transport. The determinative criteria for making the integrated system attractive are time, price, comfort, reliability and safety.

#### Backround and Context

Fostering urban/interurban interfaces to ensure fluent traffic flows between the high level and the connecting road network.

## Policy design details

### Policy Design Steps and Timing

In general, it is necessary to consider following factors during the phase of integrated transport system creation and its area definition:

- Geographical relations:
- Characteristics of public transport in operation;
- Extent of offered public transport;
- Quality and price of the offered public transport services;
- Functional area distribution in the region;
- Mutual relations of individual functional areas:
- Integrity of the region;
- Natural tendency for spatial catchments;
- Economic relations and interests.

#### Actors Involved

Key partners of the project were these stakeholders:

1)City of Prague

Receiver of the CED project

As an ordering party of the regional PT

2)ROPID

Organisator of Integrated Transport System

3)Central Bohemia Region

# **Decision Making Process**

When implementing the project, decision roles were set as follows:

- City of Prague: financial issues;
- ROPID: technical issues.

# Implementation details

# Implementation Steps and Timing

Regional Council in Resolution No. 51-11/2005/RK of 25 May 2005 has recommended opening negotiations with representatives of the City of Prague for the progressive unification of the Tariffs of Central Bohemia and Prague Integrated Transport.

In 2004, the PID served in nearly 300 communities and included 150 suburban bus lines

#### ICT/Infrastructures needed

Development of the MPVNET system for the Internet enables universal use and is available almost anywhere.

The vehicles (buses of PID except buses of DP) are equipped with RCA (Radio adapter) or modem, which contains both the GPS module and a SIM card for data transfer. RCA (or modem) is connected with the board computer in a vehicle. The board computer sends information about the GPS location, reason of sending the message, vehicle number, line number, traffic channel number, tour and additional data based on pre-defined parameters. The messages are sent on the basis of the following: bus stop notification, line/channel change, starting (the lowest speed exceeding, 10 km/h predefined), moved distance exceeding (it varies from 200 m to 2 km), the highest defined speed exceeding (c. 80 km/h), time passed since the last report (2 min.), entering the station, exiting the station. These messages are sufficient to show the trajectory of the vehicle and provide the connection with the time table.

The dispatcher enters every day the dispatch schedule, so, the system knows which vehicle is deployed on what line and channel/circle. The data from vehicle are sent to the defined IP address via GPRS by a public mobile net. On the server, the messages from vehicles are connected with timetables (the timetables in National Information System on Timetables CIS JR are crucial).

Employees of ROPID (checking the timetables compliance, finding the records and evidence to solve the complaints), employees of transport-union of Central Bohemia Regional Authority and MHMP have an access to the Internet application MPVnet, where the processed data are displayed (the MPVnet is provided by CHAPS). This application is available also to the councils and municipalities; they can find out the performance within the frame of their register. As a matter of course, carriers have an access to this application too.

Only dispatchers and selected employees of ROPID have an access to the local application MPVDesktop. MPVDesktop provides an access to the code list of

vehicles, circles' catalogue, operative changes in dispatch (Real Dispatch) and dispatch overview.

### Supporting Mechanism

## Awareness/Information Campaigns

Web page, workshops.

# Partnerships/Key Supporting Stakeholders

Project was very intensively supported, mainly by the regional political representatives.

#### Results

### Expected vs Actual Benefits

Service of the MPVNET being reliably continuously provided.

Further development of MPVNET expected.

System for delay evaluation is connected to the National Time-table System (Celostátní systém o jízdních řádech - CIS JŘ) which enables further extension for a regular public transport.

#### **Quantitative Results Achieved**

All official information related to the Prague's public transport is covered by the web portal <a href="www.dpp.cz">www.dpp.cz</a>. As stated in the introductive part, static journey planner generates any public transport connection by taking into the consideration all PT modes of the public transport and moreover provides also separated PT schedules for selected PT line or stop point.

More than a million passengers uses the Prague's public transport system a day. The official information about the average visit of the portal is not available, but according to the logged number of visits in the searching part of the portal the quantity is estimated to exceed 50 000 visits a day.

#### **Qualitative Results Achieved**

Quality standards of Prague Integrated Transport (PID) provides consistent level of quality services which are based on european standard (EN 13816). Standards have been set according to the identified key needs of passengers.

- Fulfilment of mileage
- Capacity of vehicles
- Barrier-free vehicles
- Barrier-free stop points and stations
- Ticketing option in vehicles selling, validation
- Ticketing option on stops, stations
- Information for travellers on stops, stations, vehicles
- Multimodal shift option
- Staff behavior
- Comfort and tidiness of vehicles
- Vehicle age
- Risk situations

### **Key Considerations**

#### Lessons Learned

Positive experience with the MPVNET operation.

### **Primary Obstacles**

Information about capacity of routes.

#### Critical Success Factors

# Financial aspects.

# Transferability Considerations

- Legislation support necessary;
- Harmonization of data formats necessary;
- Political demand for establishing;
- Financial instruments for investment costs very welcome;
- Operational costs to be considered.

# **Up-scaling Considerations**

Provision of travel information towards blind persons.

### Contact

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