



Bucharest

Integrated Mobility Center



Context and rationale

Bucharest, the capital of Romania, has about 1.800.000 inhabitants and is located in the southern part of the country. The city is surrounded by Ilfov County with its 300.000 inhabitants. The Intercommunity Development Association for Public Transport Bucharest-Ilfov (TPBI) covers both the city and the county. The Association was set up in 2018 and since then has undertaken mobility planning at the urban and functional urban area level, coordinating the interests of many smaller peri-urban and rural municipalities as well as the capital city. Not yet fully developed governance structures and frameworks are major challenges. The Intercommunity Development Association for Public Transport Bucharest-Ilfov is perceived as a pioneer of new solutions, ready to test and adopt any kind of innovation as soon as it evolves. Learning from other cities, participating in research and innovation projects, and external consultancies are channels through which innovation is fed into decision making processes or operational activities.

The association has elaborated and adopted a Climate Plan and a Sustainable Urban Mobility Plan (SUMP-BI) which were validated by Bucharest Municipality and Ilfov County. Mobility planning takes place at the level of the functional area (agglomeration), and each municipality is represented in the association's board and validates decisions.

Initial challenges and needs

MANAGARA

Various Information Technology System (ITS) applications are deployed in an uncoordinated way in the urban areas covered by TPBI, leading to low efficiency of system deployment and low interoperability between the public transport systems. Processes at TPBI level and in relation to operators are currently not sufficiently digitized to create an integrated flow of data and adequate decision support for real-time public transport management.

Existing equipment and operating technologies of the public transport system (both at the TPBI and operator level) fail to provide the basic facilities for efficient public transport management and effective management of commercial costs and revenues.



Innovation developed

Within FastTrack the main objective of the mobility innovation selected by TPBI is to create an **Integrated Mobility Center**. This centre would ensure the electronic collection of public transport and mobility data from all sources and IT systems in order to obtain coherent, complete, and integrated information to assist decision-making for optimising public transport and for making investments, including monitoring the SUMP.

Two Modules compose the Integrated Mobility Center:

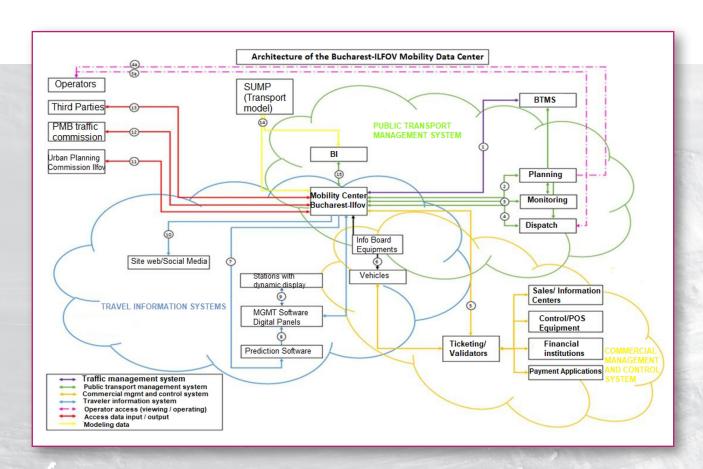
Module 1 – The planning software is the IT support necessary to develop and update the Integrated Transport Program for the Bucharest-Ilfov region. It configures lines, respectively routes intended for public transport in the Bucharest-Ilfov region and it establishes specific traffic schedules. It can integrate data from the monitoring application on average journey times recorded at interchanges and communicate data to the planning application on public transport routes/lines and traffic schedules implemented across the network.

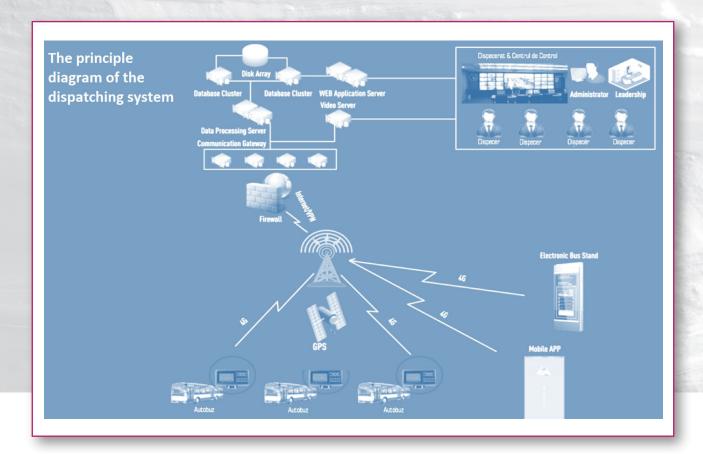
Module 2 – The monitoring software is the IT support for monitoring the circulation of public transport on routes in relation to the transport program of the operators based on the management delegation contracts/service provision contracts. It will be able to integrate the data related to the planned transport performance (the timetables of the public transport lines) and retrieve data (GPS coordinates, speed, route, vehicle identification elements on the route, etc.) from the systems in which they are collected at the operator level. At the same time, it will analyse in a unitary way the way in which the transport operators ensure the transport service at the planned parameters through the delegated transport program through planned-realised comparative analysis, but also through appropriate reporting according to TPBI requests.

The Mobility Center will be integrated with all ITS systems of TPBI through open data

The questions provided in the deployment plan template allowed the team to critically think about the process until now and to deepen where needed. Working on this deployment plan also stimulated the team to think more in advance about certain phases or approaches.

Regarding the Mobility Center, Module 3 (separate project) will include the acquisition of a new, modern dispatching system that will enable the transmission of open data from the four transport operators to the integrated mobility centre.





Lessons learnt along the FastTracking way

During the FastTrack programme, **Dan Rusu**, Project Manager, and his colleagues re- analysed the needs and re-evaluated the original plan. Together with the monitoring, planning and IT departments, they managed to improve the technical characteristics and the integration of equipment and operating technologies.

Through this collaboration, the project proposal, which was on standby for a long time with decision-makers, became a strategic and important project for the local authorities.

It led decision-makers to increase the budget compared to the initial project and significantly shortened the time needed for preparing documents, launching the tender and implementing the project.

Through the participation of the TPBI team in the FastTrack learning programme, the first contracting stages of the project started at least **6 months** ahead of schedule, and the budget allocated for the project was increased by approximately **15%** according to the team in TBPI.

"We managed to adapt new policies and strategies regarding the planning part of public transport and the technologies used, through the presentations made by the Local Ambassador - Budapest, information that will help us in the

proper implementation of the Integrated Center project of Mobility."

Dan Rusu, TPBI

Acceleration factors

- Clearer technical specifications
- Clearer scope of the project
- More convincing outline for political decision makers
- Use FastTrack project as momentum

Timeline - The deployment road ahead

Q2 2023 Q3 2023 Q4 2023 Q1 2024 Q2 2024

Preparation of the technical-economic documentation supporting the financing opportunity Preparation of documentation and launch of procurement for equipment and software, including installation and commissioning, for the components of each of the 3 subsystems Execution of physical works (equipment, installations, etc.) and physical works (equipment, installations, etc.) and development of software elements

Test acceptance of equipment and commissioning, i.e. testing of system functionality and handover between the developer (contractor) and the dedicated team Start ongoing maintenance and updating for the life of the system

Read more

Deployment plan TPBI

TPBI Website

SUMP Bucharest-Ilfov Region



