

Issues discussed at the first meeting of the Equipment and Operational Working Group, March 2007, Sitges, Spain

The objective of the first meeting of the Equipment and Operational Working Group was to identify and discuss the main problems and challenges of public transport actors in Central and Eastern Europe.

Issues and problems can be divided into two general fields.

- Issues related to the rolling-stock and infrastructure
- Issues related to the operational aspects of the public transport business (e.g. introduction of computerised processes and systems for ticketing and the provision of passenger information).

Problems related to infrastructure

In general, it seems that the challenges related to infrastructure are a bigger priority than the ones related to equipment and rolling stock as rolling stock “follows” infrastructure and not vice versa. The following problems were discussed at the meeting:

- **Better quality of both infrastructure and equipment and rolling stock.** Better riding comfort is closely connected to the quality of roads, tracks and track beds, stops, stations, interchanges and accessibility. Improvements should address the needs of people with reduced mobility.
- **Increases travelling speed.** This problem is related to increasing the number of dedicated lanes as well as the implementation of traffic lights that give priority to public transport. It is closely related to travelling comfort and very important if cities are to maintain or increase the modal share for public transport. Punctual and reliable operation in conjunction with attractive commercial speeds are decisive characteristics of high-quality public transport.
- **Greater urban space** dedicated to public transport. This needs political support.
- **Ticketing and passenger information** systems. These needs need much improvement in many cities.

Problems related to rolling stock

The following problems related to the rolling stock were discussed:

- **Improvement of technical safety and reliability** of vehicle fleets (buses, trams and light rail). Reliability increases the quality of public transport and helps to reduce the cost of operation. Also harmonisation the bus and tram fleets is also one of the problems.
- Introduction (either by upgrading or replacement) of **low floor** vehicles or compartments including the consequences on workshop design. This is related to riding comfort.
- The use of **alternative fuel for busses** and the introduction of **modern propulsion systems** on IGBT basis (insulated-gate bipolar transistor) for trams and light rail systems can reduce energy consumption and costs and contribute to environmental protection. It can also increase the reliability and maintainability of rolling stock.
- A **lack of funding** makes it difficult to provide attractive and affordable public transport as a high-quality alternative to cars, whose numbers are on the rise throughout the region.
- **Enhancing safety and improving the operation quality for passengers** such as increasing the frequency of buses and tramways, guaranteeing connections; dynamic, real-time passenger information; forward-looking preventive measures; and limiting external disruptive factors (obstructions, congestion, road construction and so forth), and minimising the impact of unavoidable deviations from the scheduled timetable.
- **Interoperability. Better interoperability** between metro, trams, light rail and buses is a

substantial benefit for passengers. Investments in infrastructure toward this goal must respect economic considerations, and go hand-in-hand with maximum efficiency in personnel and vehicle expenditures, the simplest possible dispatching method, the creation of multi-mode stops, and minimised operating costs.

- **Maintenance.** Daily vehicle care and maintenance is a prerequisite for smooth operation. It is essential to make suitable arrangements for maintenance and storage facilities and to have appropriately designed vehicle workshops. It is very important to increase vehicle operating performance and to reduce down time of rolling stock and optimise working processes in maintenance and storage facilities. These measures assure a better operating efficiency.

Some measures discussed

One of the most intensively discussed problems **was the question of buying new rolling stock versus refurbishment or upgrading of existing or second-hand vehicles.** There is no universal solution for every city and a detailed economic analysis (taking into account the local conditions) of both options is needed to find the right decision for each city.

Computerised operational control systems (COCS) and **automatic vehicle monitoring (AVM)** as well as the implementation and optimisation of **fleet traffic control systems** can serve as a bridge between infrastructure and rolling stock and can provide a major contribution towards some of the problems mentioned above.

Besides computer-based control and monitoring systems, the implementation of **dynamic passenger information systems**, onboard and at stops, is considered an important tool to reach desired levels of quality and comfort. Therefore its implementation seems to be the main goal for public transport operators in many cities. It has to be mentioned that the compatibility of different systems in urban areas (e.g. of different public transport operators) and the **integration of internal IT systems** and passenger information or ticketing systems should be also addressed.

Accompanying Measures

Further accompanying measures like improvements in the **enforcement of car parking regulation** by the police, the **prevention of fraud and vandalism** and training and education programmes for public transport employees are further issues which need to be addressed.