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SMART RAILWAY SERVICE MANAGEMENT – LODZ AGGLOMERATION RAILWAY CASE

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Session 2bm Innovative Management
THE CITY AND THE RAILWAY

Łódź – the city in the centre of Poland, important TEN-T node. Łódź is in the course of the process of the revitalization from the 19th century industrial city towards to the city of new technologies.

Population (millions)
• City Łódź – 0,7m
• Agglomeration – 1,1m
• Region – 2,5m
HISTORY OF THE PROJECT

Within the high speed railway project in Poland also the program of Łódź node restructurisation has been worked out. Main elements:

- New underground station in the city center (central multimodal hub)
- New cross city tunnel
- New system of agglomeration railway (LKA)
NEW STATION ŁÓDŹ FABRYCZNA

- All categories of trains: high speed, intercity, regional, suburban
- Centralised traffic control system for whole railway region
- Easy and simply access to the city and regional transport stops

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CENTRAL MULTIMODAL HUB

For all transport modes:

- Trains
- Long-distance and regional buses stops
- Multi-level car parking
- Public transport: tram and bus, bike station
LODZ AGGLOMERATION RAILWAY

Construction planned on several stages:
• to provide access to the central station to HS trains and IC trains
• to service for the region and agglomeration together with the city transport and P&R
RAILWAY AND THE CITY

- 34 multimodal train stops
- 0.5 mln citizens living closer than 10 minutes from the nearest stop
- High level accessibility to trains in the most urbanised areas
INTEGRATED MANAGEMENT SYSTEM IN ŁKA RAIL

- **RST monitoring**
  - Status of vehicle
  - Automatic vehicle localisation

- **RST maintenance**
  - Remote monitoring
  - Vehicle data storage

- **Passenger service**
  - Automatic passenger counting
  - Monitoring ticketing sales

- **Staff management**
  - Staff management system (drivers, conductors)

Data delivered by infrastructure manager
- Real time timetable
- ERTMS data
MAINTENANCE SYSTEM OF ROLLING STOCK

- 20 units FLIRT 3 Stadler fully comply with TSI
- Maintenance within 15 years contract with the producer
- Dedicated modern maintenance facilities

RAIL DATA SERVICE
RDS/TWC: The condition of the fleet at a glance and at all times

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**WBA – ONE TICKET FOR THE WHOLE JOURNEY**

WBA – (single ticket) is a special offer of an integrated ticket fare for people travelling by train and using public transport in both in the agglomeration and in cities of region.
RESULTS FROM PASSENGER POINT OF VIEW

All innovative solution is highly accepted by passengers. Number of travellers is growing from year to year of more than 10%.

<table>
<thead>
<tr>
<th>Comfort in the Train - Generally</th>
<th>Passengers satisfaction (0 – 10 scale)</th>
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<tbody>
<tr>
<td>Climatisation, quality of air</td>
<td></td>
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<tr>
<td>Cleanliness</td>
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<td>Noise level</td>
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<td>Technical state</td>
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<td>Availability of seats</td>
<td></td>
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<td>Feeling of security</td>
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Next stages of system development

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THANK YOU
GRACIAS