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Łódzka Kolej Aglomeracyjna – the new railway system for the Lodz agglomeration

The new FLIRT 3 in Lodz Kaliska Station; photo: M. Graff

Proposals of creating an agglomeration railway system in Lodz region first emerged during analysis done for projects of modernization of Lodz railway hub. In 2007-2008 were done first feasibility studies for a construction of a new central railway station and an underground tunnel joining together two major stations under the city center. In October 2008 Lodz Voivodeship Marshal Office decided to submit this project for EU funding from the Program Infrastructure and Environment priority 7.3 Transport in metropolis. It received the positive opinion from Ministry of Infrastructure and was entered on a list of projects to be financed. In 2009-2010 were done necessary feasibility studies, and for 2011-2012 were planned the beginning of construction works. In December 2012 was signed a contract with a company Stadler for delivery of 20 electric multiple units FLIRT 3.

In 2010 was founded a railway company Łódzka Kolej Aglomeracyjna (Lodz Agglomeration Railway) with 100% of shares held by Lodz Voivodeship. This company will operate on the whole Lodz agglomeration railway system. First trains (to Sieradz) started already in June 2014. In September was started a completely new line (never operated for passenger traffic) Zgierz – Lodz Widzew on the east periphery of the city. First days performance shows that it is a successful line and exceeded many expectations. In 2014 it will start operating lines Lodz – Łowicz, Lodz – Koluszki. In 2015 there will be the last line from the project first stage started – Lodz – Kutno.

Project objectives

General project objectives are:

- to stimulate better conditions for region economic growth by improving mobility of agglomeration inhabitants; a shortening of travel times is planned to under 30 minutes from ag-

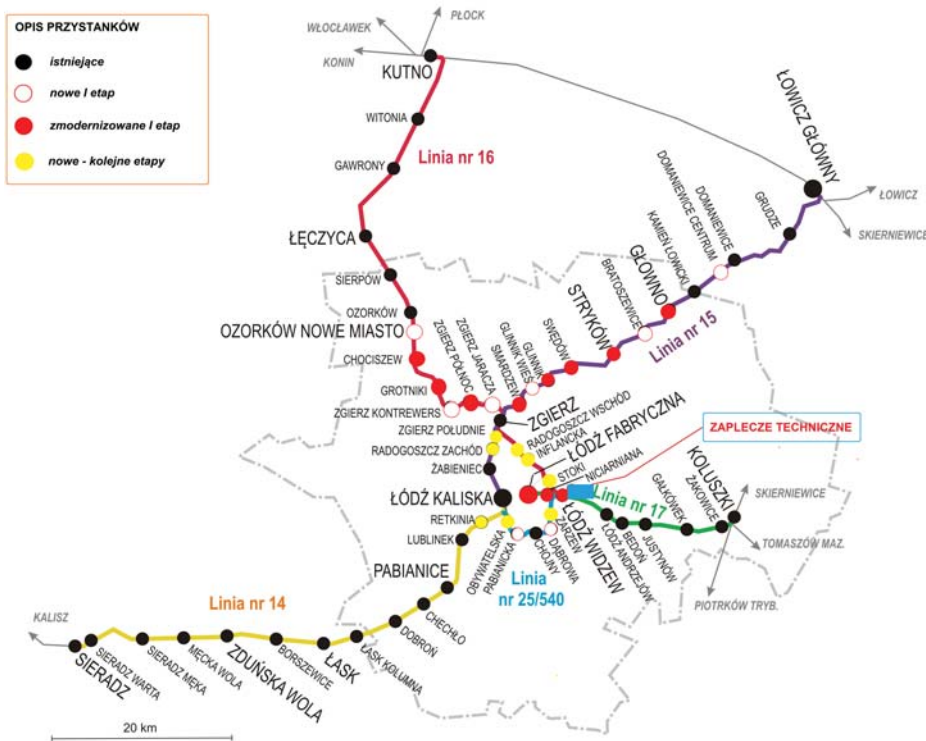
glomeration borders to Lodz city center (twice shorter time than the present one);

- improve spatial cohesion of the agglomeration and creating main expected urban development trends;
- ensure the cohesion of a transport system by a system of intermodal hubs providing most efficient and time saving interchanges between different transport modes;
- reduce congestion costs caused by the insufficiency of road system by offering a good standard of public transport;
- reduce CO₂ and air pollution emission;
- reduce number of road accidents in accordance with a government program till 2015 by increasing railway travel share in transport;

Creating Lodz Agglomeration Railway is a crucial part of regional development. It will help to control urbanization and to concentrate it around main transport routes making the whole public transport system more effective. By increasing mobility among citizens it will help reducing unemployment – there will be a new transport mode cheap, reliable and punctual. It will also help in giving equal education access to young people from more distant and less urbanized parts of agglomeration.

Main project facts:

- ◆ creating of an agglomeration railway system will be done in phases according to a development of railway infrastructure in Lodz region;
- ◆ project phase will be in 2015, railway company will be operating only lines already existing around Lodz and planned for modernization in next years;
- ◆ in the second phase will be after several investments, including a railway tunnel under the city center which will join together two main railway stations in Łódź and make the city center accessible for train passengers;



Stops of Lodz Agglomeration Railway done in the 1 phase project or to be done in a next stage

- ◆ the project will consist on the rolling stock purchase, construction of a depot for rolling stock maintenance;
- ◆ there will be several stations in Lodz and agglomeration built for Lodz Agglomeration Railway system – this will be a separate project;
- ◆ all projects in Lodz region will be coordinated in order to achieve maximum of efficacy of agglomeration public transport system.

Project realization

The project realization already in the first phase needs investments (apart from complementary projects of modernization and revitalization of railway lines already being done):

- ◆ purchase of 20 new electric multiple units of a construction typical for agglomeration traffic – max speed 160 km/h, acceleration and braking min 1,1 m/s², a contractor will be bond to maintain rolling stock for 15 years;
- ◆ a depot construction next to Lodz Widzew station – the construction of civil structures, side tracks and traction power supply, tools, diagnostic and computer systems and other equipment;
- ◆ construction of new train stops and modernization of several stations and stops as multimodal hubs.

Main characteristic of a Lodz Agglomeration Railway system:

area and disposes a different budget – mostly too small for major investments even in rolling stock. Part of a regional bus transport system is privatized and it is difficult to cooperate with such companies – this is necessary to create the system with regional busses providing transport to the majority of small villages. Public busses companies in small cities are also not willing to cooperate with railway system and in many cases maintain bus lines which are competing to trains. In 2013 was signed an agreement

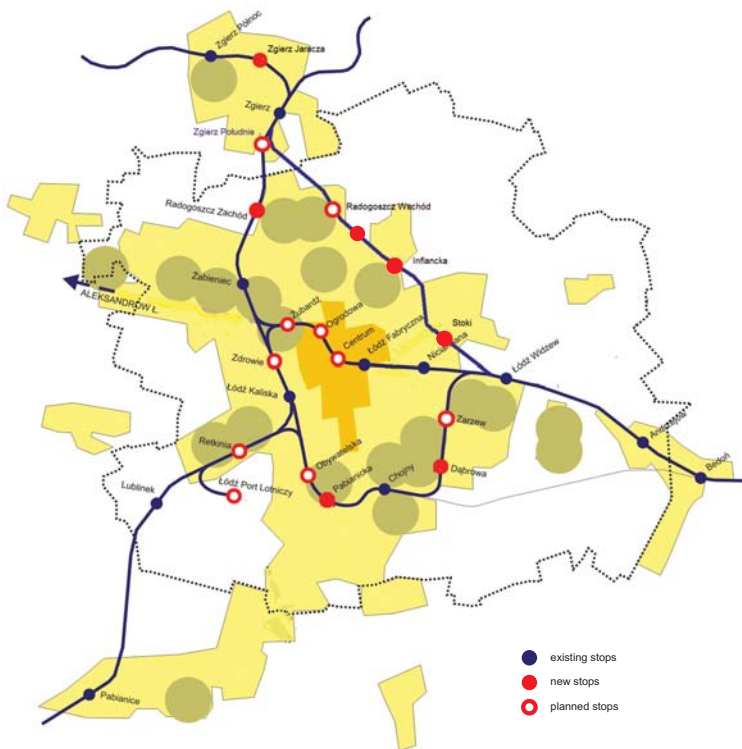
1. Main line will be in corridor Sieradz – Zduńska Wola – Łódź – Koluński which will be fully operational after the tunnel construction. Then it will be possible to achieve frequency in peak hours of min. 20 minutes. Until the construction of a tunnel the travel will be longer due to the necessity of travelling on the south periphery railway line.
 2. Second line will be Łódź Kaliska – Głowno – Łowicz.
 3. Third line will be Łódź Widzew – Łódź Chojny – Łódź Kaliska – Łęczycza – Kutno.
 4. For several trains to Kutno and to Łowicz trains will be using a line Zgierz – Łódź Widzew on the east side of the city.
- All relations can be modified in case of need and to adjust it to passengers demand.

Multimodality

What is entirely new in Lodz is that the railway system will be connected to the local public system transport – busses and tramways. This is particularly different due to a transport management system where there is no central organization responsible for all public transport. Each community is responsible for transport in its



New central station in Lodz (under building to 2015)



Proposed Lodz Agglomeration Railway stops in Lodz, Zgierz and Pabianice after the tunnel construction

on public transport organization between Lodz Marshall Office, Lodz Agglomeration Railway and all communities on lines Lodz – Sieradz and Lodz – Łowicz in order to create a transport system with regional public transport system. There have been created a common fare system – for local busses, Lodz busses and trams and for railways. The other major problem is also the separation

of transport planning mandate to organize public transport system in Lodz Voivodeship and in the city Lodz as well as the separation of budgets to finance investments. This causes many problems concerning investments in new and existing hubs based on railway stations – in many cases a train stop was created finally with no city public transport connection.

This is the reason why all actions regarding multimodal hubs organization are particularly difficult. The concept of such hubs demands integrated actions of many partners with strongly different budgets, politics and views. In spite of all difficulties it is planned to organize connections between railway and regional public transport system. It is also planned to organize Park&Ride parking next to several stations and major stops. All stops and stations should have also parking for bicycles, closed and video surveillance.

Main multimodal station will be a rebuilt central railway station – Łódź Fabryczna. The construction is to be finished in 2015. After the construction of a high speed line Warsaw – Poznań and Wrocław this hub will also allow to connect Lodz Agglomeration Railway System to the high speed railway system.

Future development

In the second phase of the railway system development will be built a railway tunnel under the city center. There are also planned for construction several new railway stops – improving railway stops accessibility. The major work to be done concerning Lodz Agglomeration Railway system will be for sure to form a fully functioning system with regional public transport. This will require investments in bus rolling stock – either on a railway company or community government side. Till 2020 there will be also a problem of modernization of railway lines Lodz – Sieradz and Lodz – Kutno. Infrastructure is owned by the national infrastructure manager, separate from train operators companies and the public procurement system is often extending line works for years. All this are major challenges that awaits Lodz Agglomeration Railway system till 2020.



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