

# Horizontal Timetable Project

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31.10.2024



**Ministerstwo  
Infrastruktury**



**POLSKIE LINIE KOLEJOWE**



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CENTRUM UNIJNYCH  
PROJEKTÓW TRANSPORTOWYCH



## Integration of tools and concepts:



## Integration of institutions:

The project is carrying out together by



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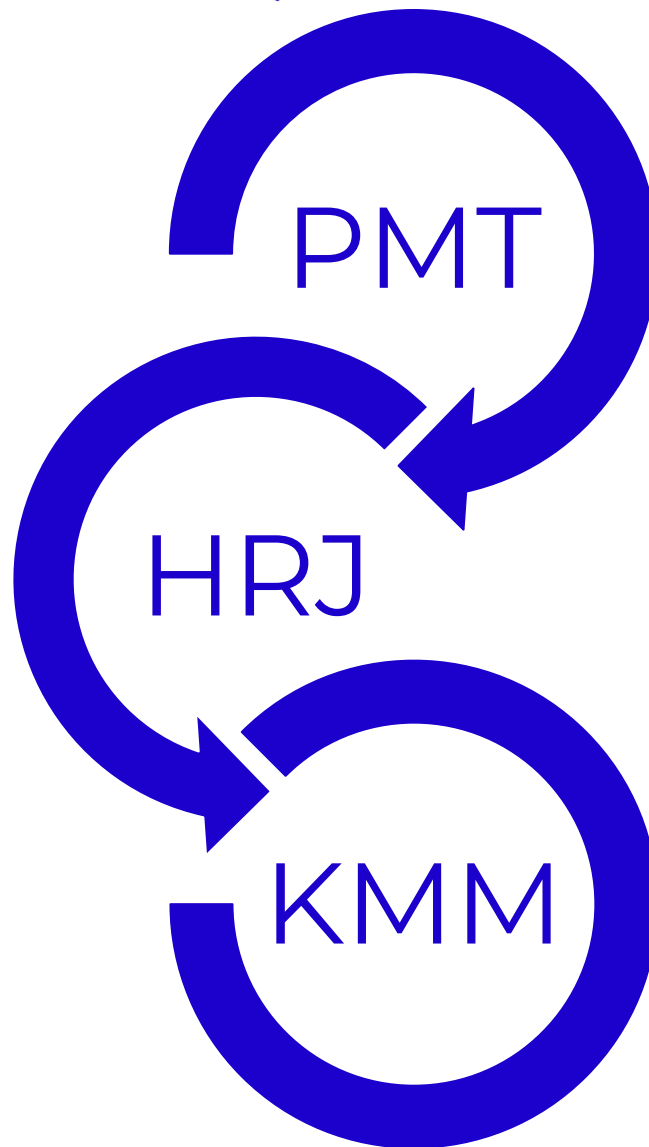


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Passenger  
Transport Model  
(PMT)

PMT

Horizontal Timetable  
(HRJ)

HRJ

Railway  
Microsimulation Model  
(KMM)

KMM



## Project steps

**1. Analytical work based  
on passengers forecast  
and timetabling**



**2. Evaluation of the  
obtained results**



**3. Consultation with  
stakeholders**



**4. Construction of the  
final timetable**

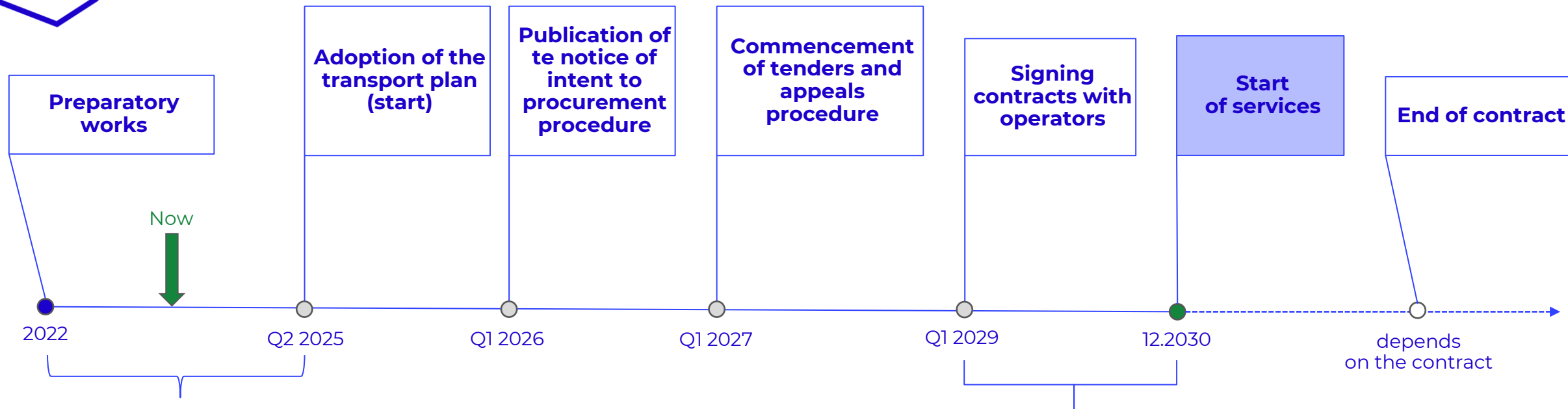
### **Consultation with:**

- regional transport authorities
- operators (incl. potential new operators)
- Office of Rail Transport (Polish regulatory body)

### **Coordination of trainpaths with neighboring countries, especially:**

- Germany (Deutschland Takt)
- Czech Republic, Slovakia, Austria, Hungary
- Rail Baltica




# Schedule of procurement



- public consultations with transport authorities, potential operators, neighbouring countries, the public and industrial organisations and society
- iterative work on the Horizontal Timetable incorporating feedback from consultations
- development of a new transport plan
- necessary legislative changes
- preparation for the tender process

- Procurement of rolling stock and approval for operation
- Operators' internal actions

# Access to infrastructure and types of service

	 public service (PSO)	<b>NEW</b>  predefined commercial routes	 open access
Subsidy from the transport organizer	✓	✗	✗
Organization of the tender for PSO	✓	✗	✗
Framework agreement with the manager	*	*	✗
Included in HRJ	✓	✓	✗
Preliminary examination of economic balance in HRJ	■	✓	✗
Coordination of routes and circuits	✓	✓	✗



yes



no



optional



N/A

- **Proposal** for a new route ordering mode: **predefined commercial routes** – acronym: **K**
- **This would not be a mandatory mode** – **open access will be available**
- However, we see benefits for both the carrier and the transport authority

# Market consultations with train operators

Consultation meeting no. 1

04.10.2024



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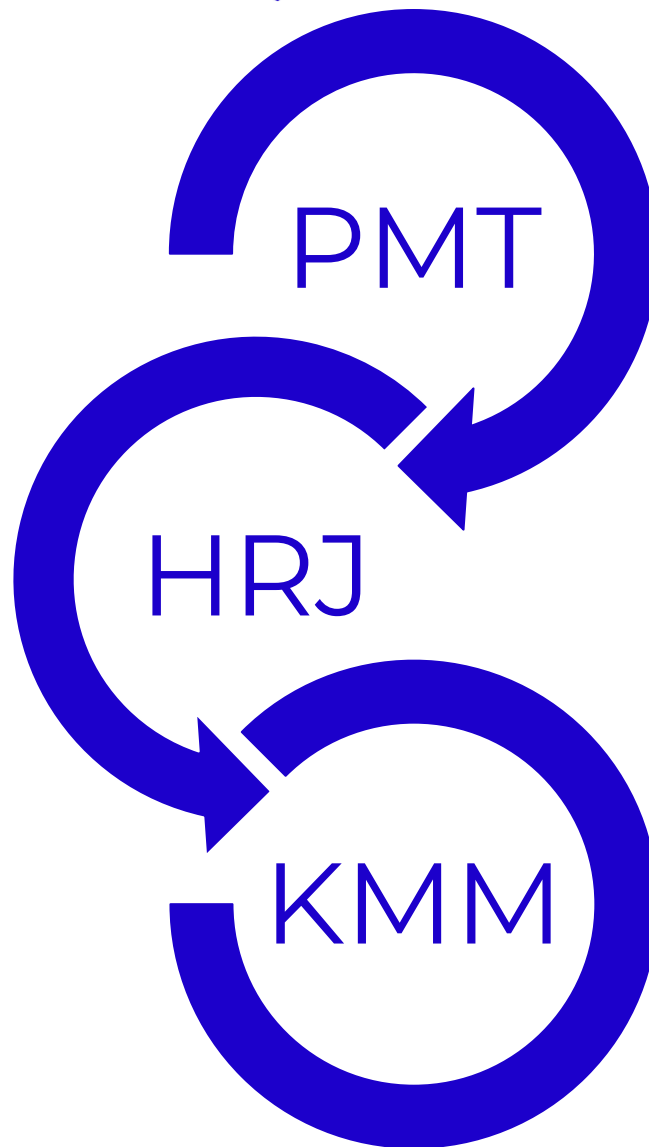


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Passenger  
Transport Model  
(PMT)

Horizontal Timetable  
(HRJ)

Railway  
Microsimulation Model  
(KMM)

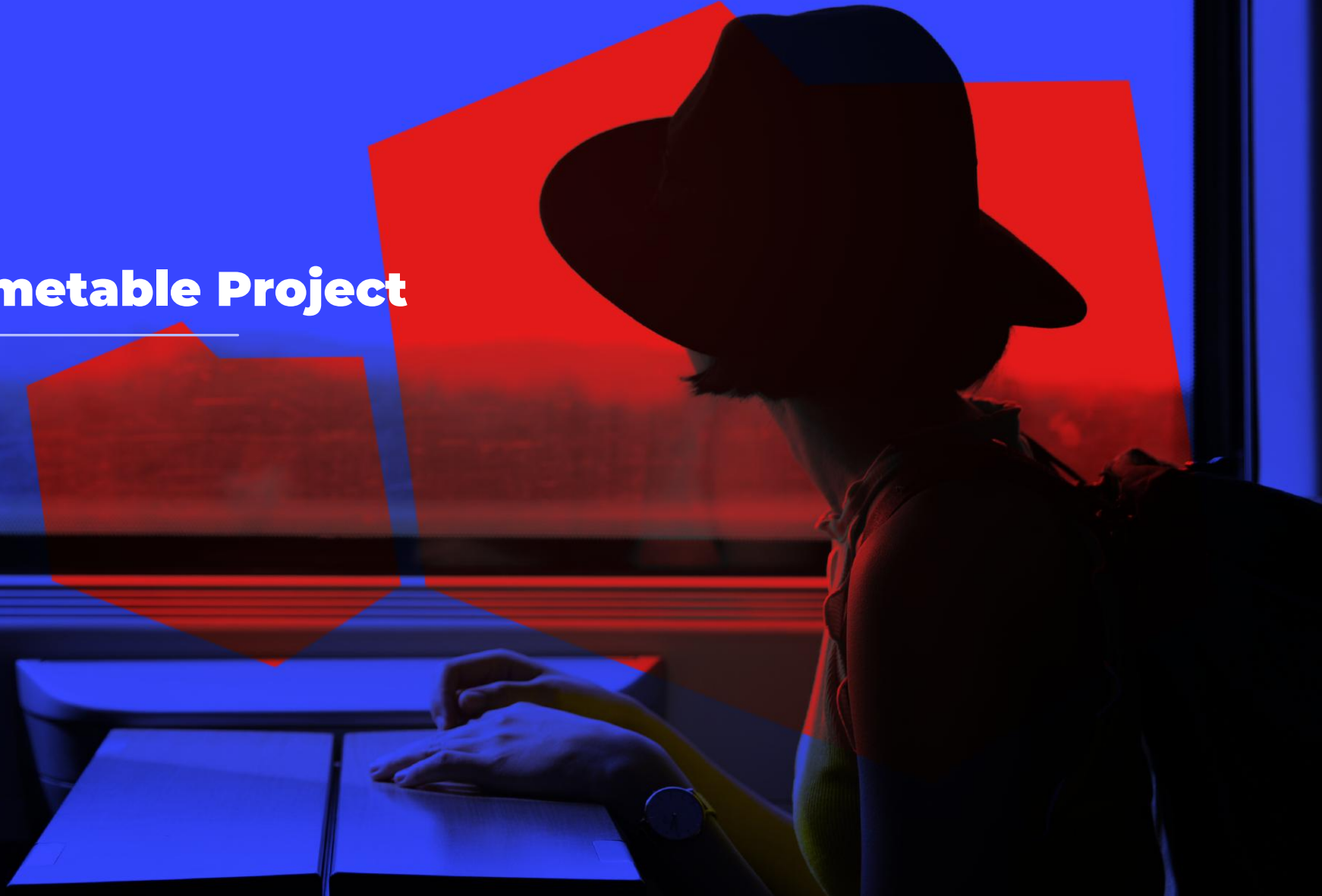


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ROZKŁAD JAZDY

# Introduction to the Horizontal Timetable Project

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10:00 – 12:00





## **General session – Introduction (2 hours)**

- a. Presentation of institutions involved in the HRJ Project
- b. Introduction to the HRJ Project
  - Rail infrastructure in Poland after 2030
  - Objectives and basic assumptions of the Project
  - Methodology for analytical work
- c. Consultation with potential long-distance operators
  - Objective of the consultation
  - Overview of the consultation process
  - Topics to be discussed during the consultation
- d. Q&A

### **1. Break (15 min)**

### **2. In-depth session (2 hours)**

- a. Predefined commercial routes (not subsidized under PSO)
- b. Approach to PSO tendering
- c. Q&A

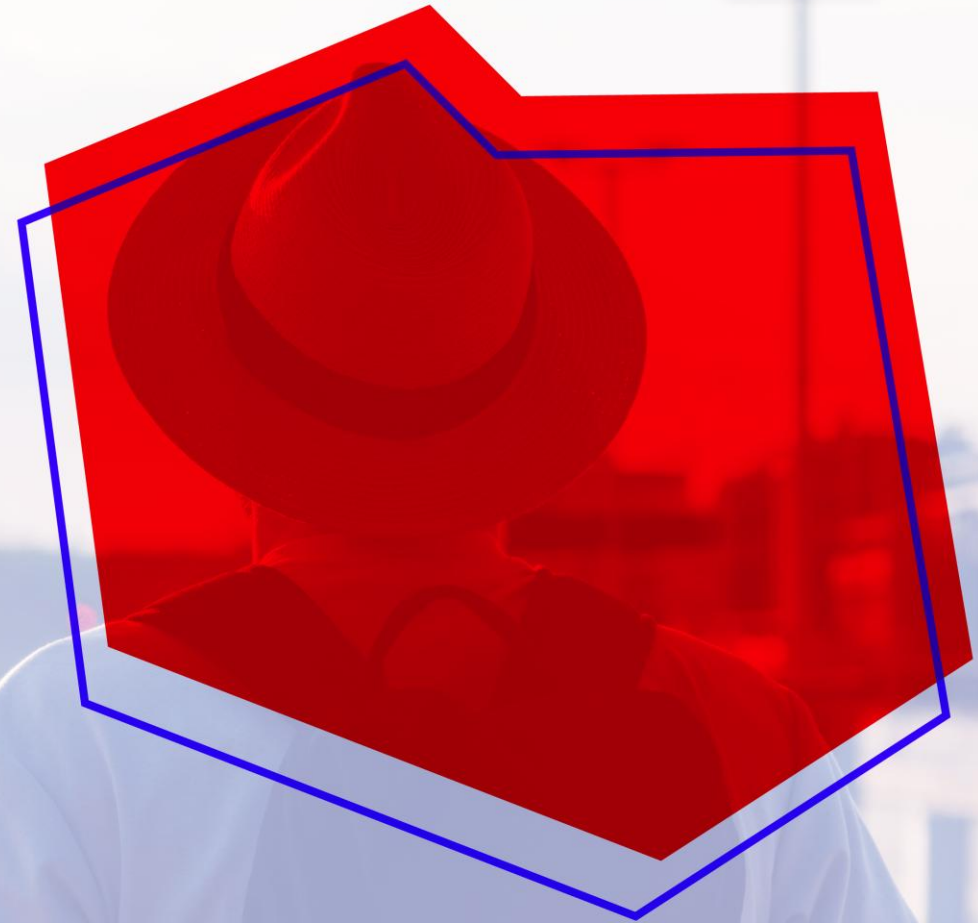


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# Introduction to the HRJ Project

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Rail infrastructure in Poland after 2030



## Rail network in the 2030/2031 timetable

### TT 2030/2031

- Achieving a speed of **250 km/h** on the Central Railway Line (**Warsaw - Kraków/Katowice**)
- Achieving a speed of **200 km/h** on the **Gdynia - Słupsk** section
- Improved Katowice Railway Node
- Implementation of ERTMS on the TEN-T core network
- **New sections:**
  - **Rail Baltica** between **Elk - Suwałki - Trakiszki - state border**
  - 'Podłęże - Piekiełko' shortening the distance from **Kraków to Zakopane and Nowy Sącz**



— PLK S.A. railway lines  
— new railway line sections for long-distance services built by PLK S.A.

*For new railway lines the graph does not show all connections to the existing network*

spatial data sources:  
PLK S.A., CRK Sp. z o.o., CUGIK

## 'Y' - investment priority for HSR

- The first trains are expected to run on the Warsaw - CPK - Łódź line in **2032**
- The remaining part of the 'Y': Łódź - Sieradz - Wrocław and Sieradz - Poznań will be ready for operation in **2035**
- Infrastructure will allow speeds of **350 km/h**
- Maximum operational speed: **300 - 320 km/h**

'Y' line diagram  
Running times are given to the nearest 5 min.



**Increase in speed from 250km/h to 300 - 320 km/h**

# 'Y' - investment priority for HSR

## TT 2031/2032



— PLK S.A. railway lines  
 — new railway line sections for long-distance services built by CPK Sp z o. o. or PLK S.A.

*For new railway lines the graph does not show all connections to the existing network*

spatial data sources: PLK S.A., CPK Sp. z o. o., GUGiK

## TT 2034/2035



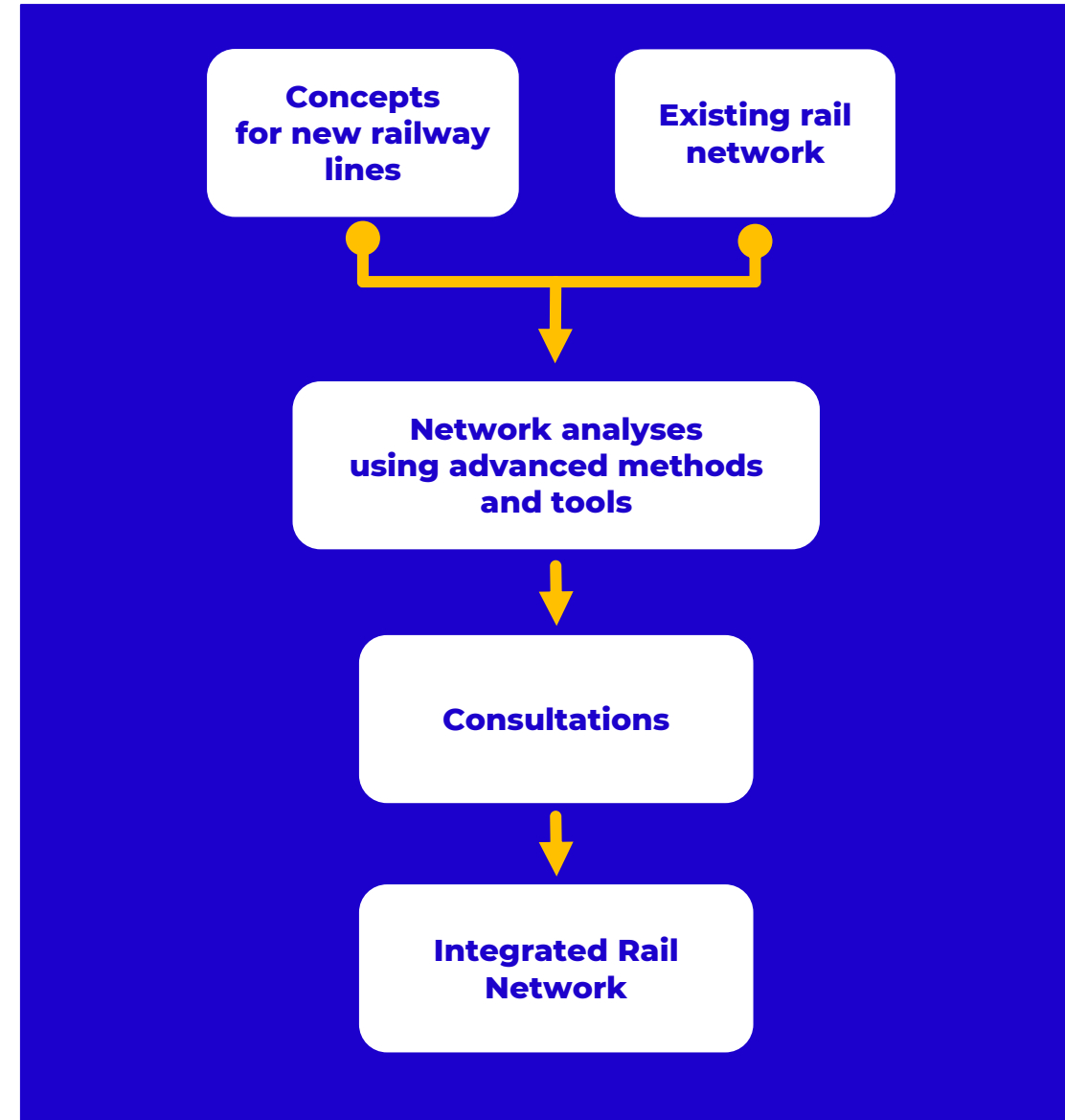
— PLK S.A. railway lines  
 — new railway line sections for long-distance services built by CPK Sp z o. o. or PLK S.A.

*For new railway lines the graph does not show all connections to the existing network*

spatial data sources: PLK S.A., CPK Sp. z o. o., GUGiK

# Integrated Rail Network: long-term development plan beyond 2035

- **Investment plans to date are one possible scenario**
  - Does it deliver maximum benefit at an acceptable level of cost?
  - Are adjustments necessary?
- **Network analyses**
  - Covering the entire rail network in Poland
  - Assuming a rational scale of investment of CPK and PLK
  - Conducted jointly and in dialogue with the railway industry
- **Planned results of the work - Q4 2025.**
  - Long-term and stable plan for development of the railway network
  - Preparation of a government regulation on the development of the railway network in Poland



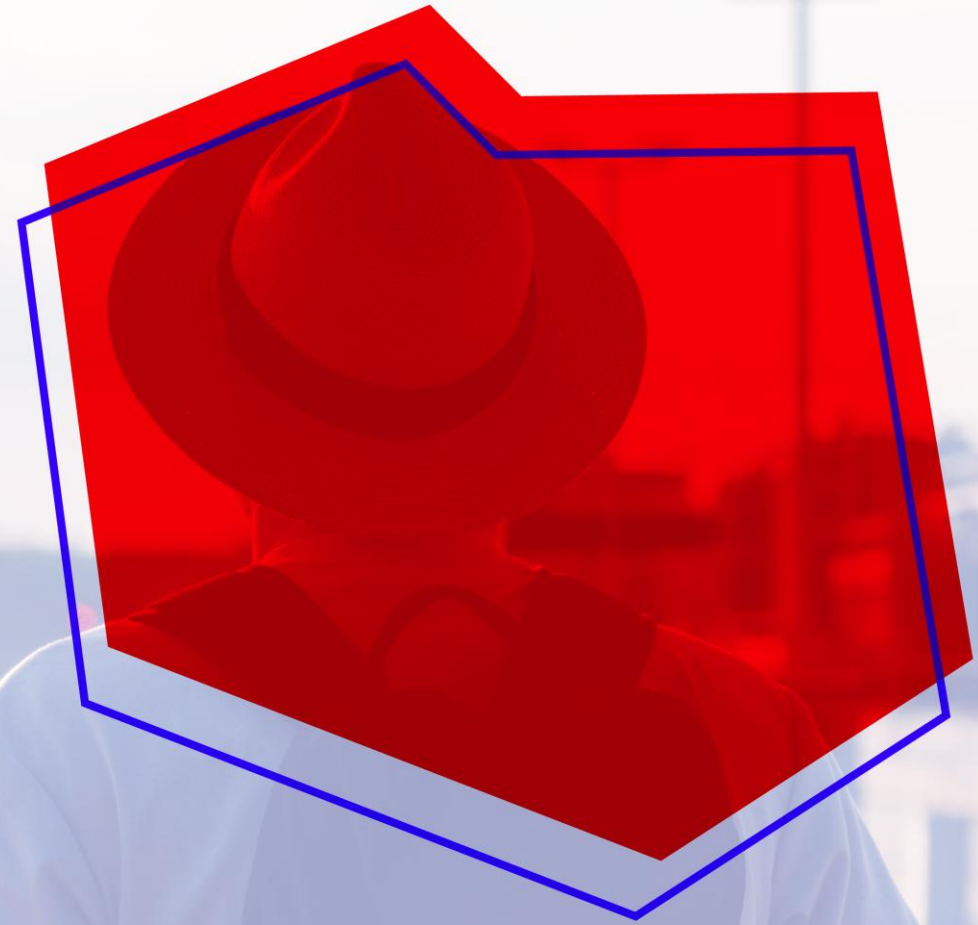


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# Introduction to the HRJ Project

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Objectives and basic assumptions  
of the Project



## Why the Horizontal Timetable?

### **Railways in Poland are facing significant changes in the 2030 perspective:**

- New railway lines
- 4th Railway Package - end of multi-year contract with PKP Intercity S.A.
- Construction of HSR lines - high-performance infrastructure opened in 2035
- Implementation of the new EU capacity regulation is planned\*

**The above determinants will be a positive impulse for the railway system, only if it will be prepared for them. It requires coordination of its elements - including the train timetable, which is the basis for many other components of the system**

\* Regulation of the European Parliament and of the Council on the use of railway infrastructure capacity in the single European railway area, amending Directive 2012/34/EU and repealing Regulation (EU) No 913/2010, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0443>





## Keywords

requirements   **stable and clear train routes**   guaranteed frequency  
symmetrical train paths   **TT based by demand analyses**   fixed  
train routes   **userfriendly transfers**   assumptions for infrastruc  
nd analyses   **guaranteed frequency of service**   cyclical and symm  
olling stock requirements   **fixed travel times**   TT based by deman  
y transfers   **cyclical and symmetrical train paths**   stable and clea  
s   **assumptions for infrastructure development and maintenance**  
vel times   **rolling stock requirements**   TT based by demand anal



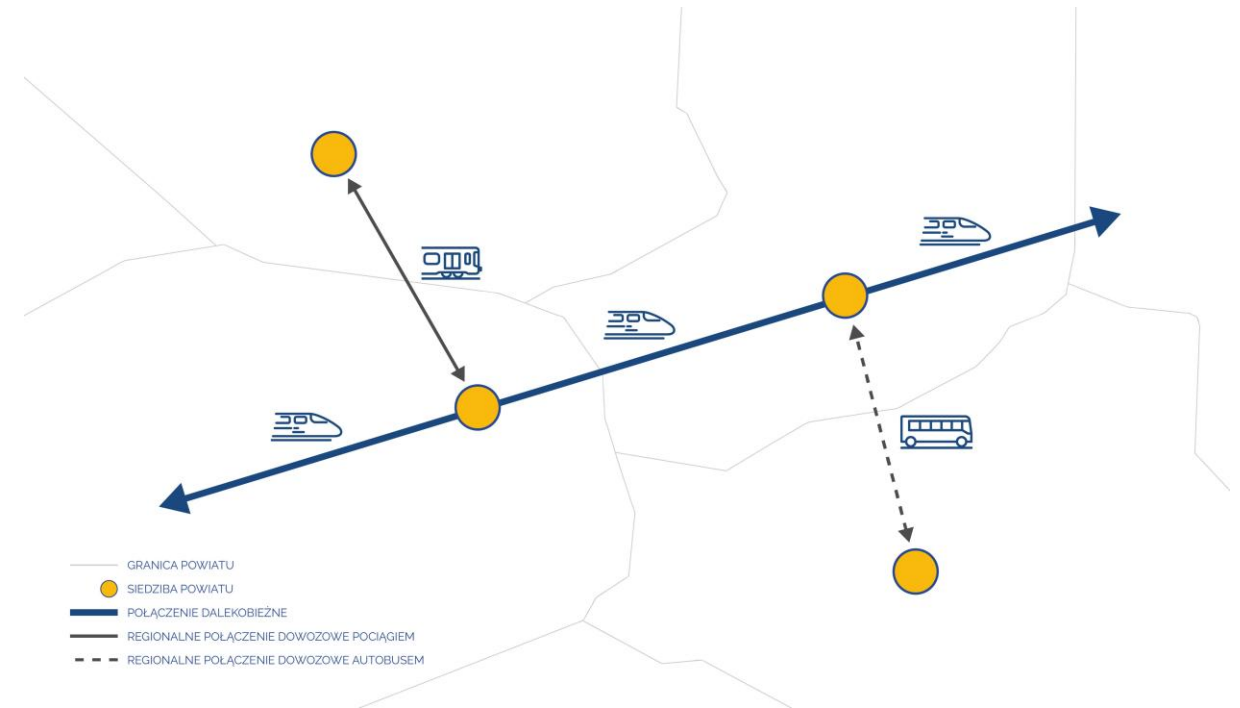
## Assumptions for the long-distance network

### Long-distance travel for all counties based on connections:

- long-distance (IC and IR trains)
- regional (with easy transfers to IC and IR trains)
- bus (with easy transfers to IC and IR trains)

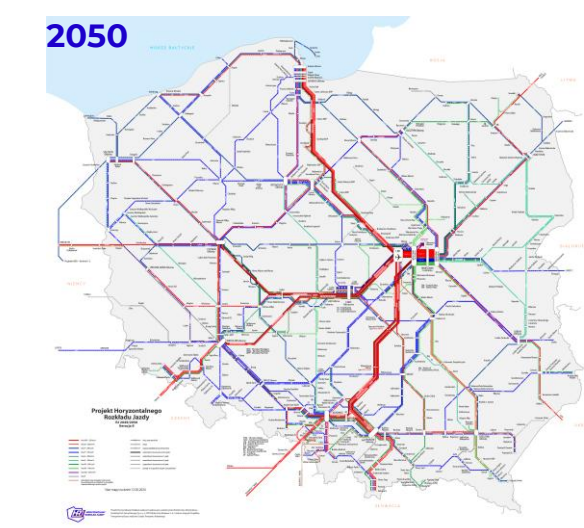
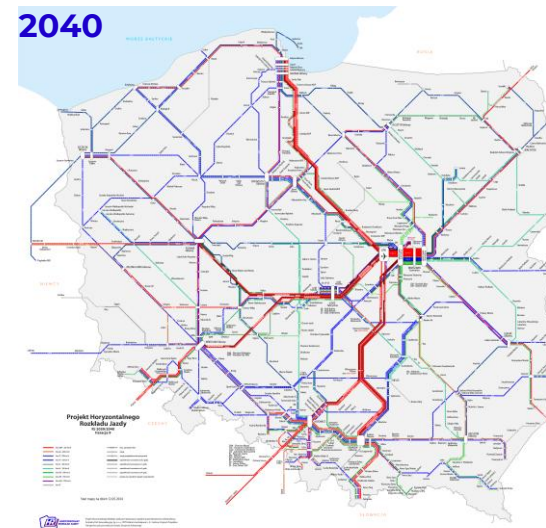
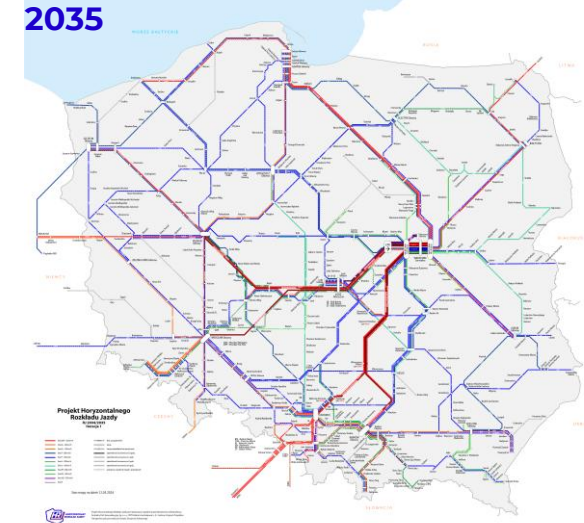
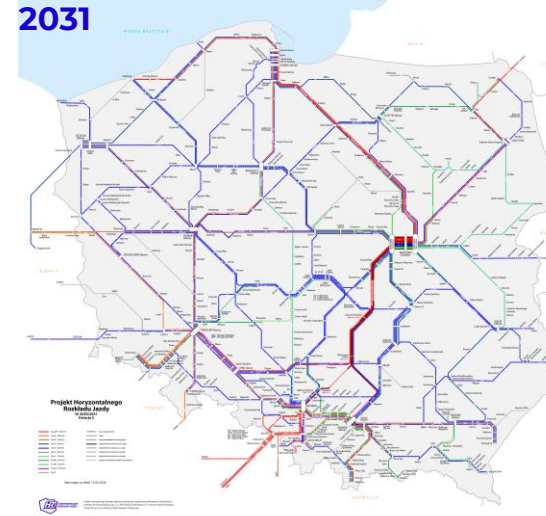
National connection system as a **framework for regional systems** established by the regional transport authorities

Shape of the IC and IR network based on **traffic forecasts**



**The idea of access to the national long-distance rail system from any county: directly, by regional rail or by bus**

- The HRJ is a tool developed jointly by **Ministry of Infrastructure, CPK and PKP PLK** for preparing a connection network based on traffic forecasts and then a train timetable based on capacity analyses.
- A key aspect of the HRJ is the need to **consult solutions** with multiple stakeholders to ensure involvement in the project and a **stable consensus on the coordination of train paths** of different types
- The stability of the HRJ is ensured thanks to jointly developed solutions are accepted by all and **form the basis for many subsequent timetables**
- The HRJ **will be scalable in years**, i.e. it will enable an increase in the number of connections according to the possibilities (financial, rolling stock, etc.) by **'activating' new routes arranged according to a coherent pattern** for a given line
- Adding to the basic 'system' network extra PSO or open access connections is possible, eg.: **night trains, seasonal trains, single daily services, route extensions**



# Scheme of services

Timetable 2034/2035

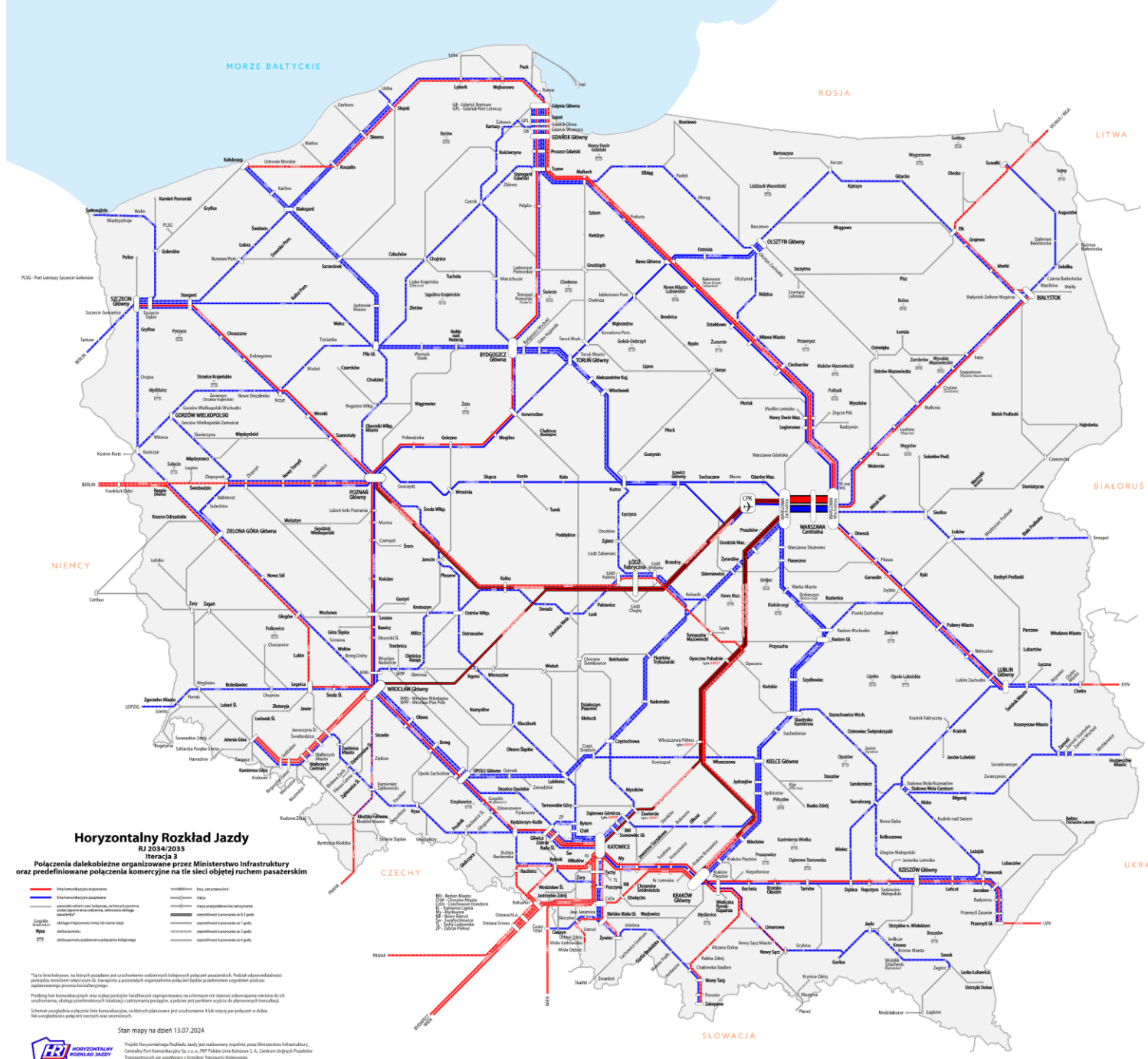
Long-distance connections organised by the Ministry of Infrastructure and predefined commercial connections on the background of the network covered by passenger traffic

Train routes:

- █ IC
- █ IR

A full-resolution diagram is available at [www.hrj.gov.pl/en](http://www.hrj.gov.pl/en)

[Direct link to the diagram](http://www.hrj.gov.pl/en)



## Basic data about HRJ for the 2035 horizon



### What routes are not included in the long-distance service diagram?

The diagram does not include train categories other than IC and IR, i.e.:

- 'non-system' connections - night, seasonal, single daily
- regional express (including on high-speed lines)
- regional and city passenger services

### Basic information on the long-distance segment

Maximum annual performance in Poland:

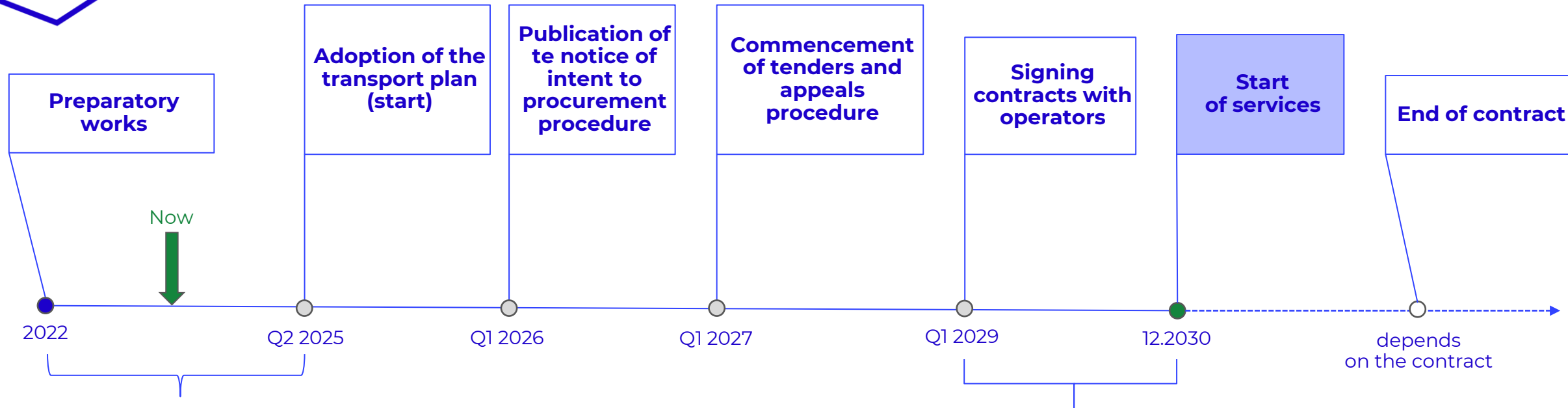
- **IC** segment – **72 millions train-km**
- **IR** segment **71 millions train-km**
- total – **143 millions train-km**

**IC segment** - generally commercial services operated on pre-defined commercial routes, i.e. outside the PSC contract

**IR segment** – generally public service (under PSC contract)

**Annual PAX of the long-distance segment approx. 87 - 102 million pax**

# Schedule of procurement



- public consultations with transport authorities, potential operators, neighbouring countries, the public and industrial organisations and society
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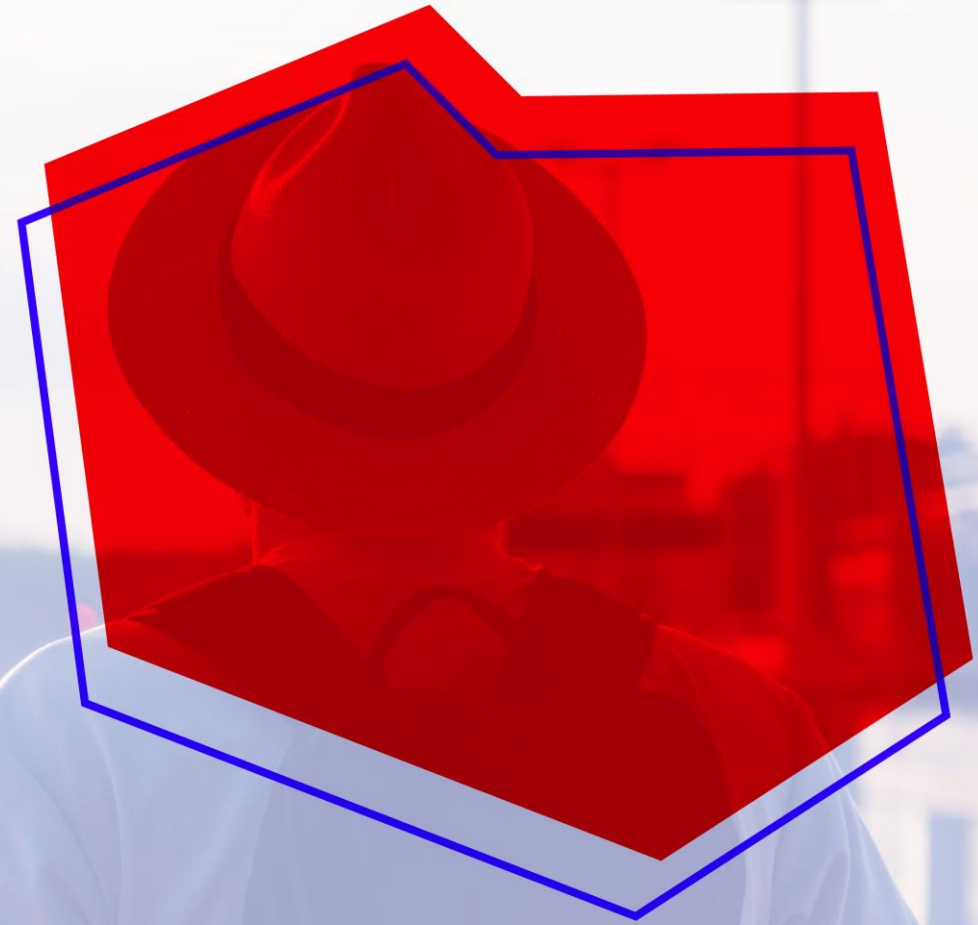


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# Introduction to the HRJ Project

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Methodology for analytical work



## Project steps

**1. Analytical work based  
on passengers forecast  
and timetabling**



**2. Evaluation of the  
obtained results**



**3. Consultation with  
stakeholders**



**4. Construction of the  
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### **Consultation with:**

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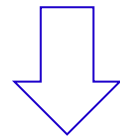
### **Coordination of trainpaths with neighboring countries, especially:**

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- Czech Republic, Slovakia, Austria, Hungary
- Rail Baltica

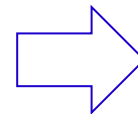
## Tools for analytical works



Forecasts of passenger demand are prepared  
in **Passenger Transport Model (PMT)**  
in PTV Visum software

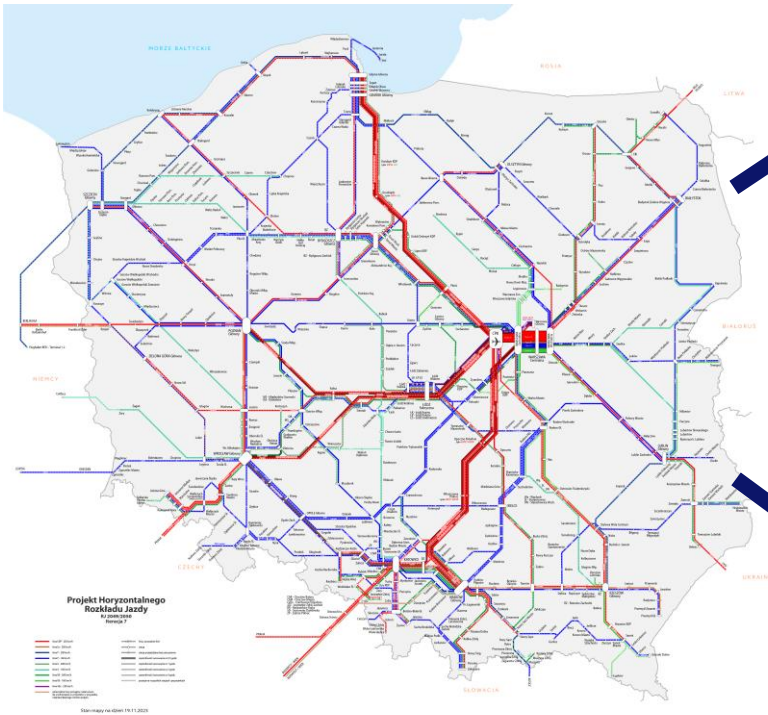


Preliminary capacity analyses  
and  
trainpaths coordination  
are preparing  
in **PMT**  
in PTV Visum software  
(timegraphs, netgraph)

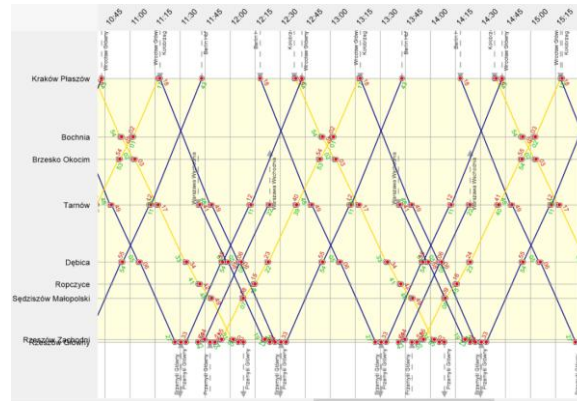


Detailed capacity analyses  
and  
trainpaths coordination  
are preparing in **microsimulation (KMM model)**  
prepared in RailSys model  
(simulation, timegraphs, netgraph)

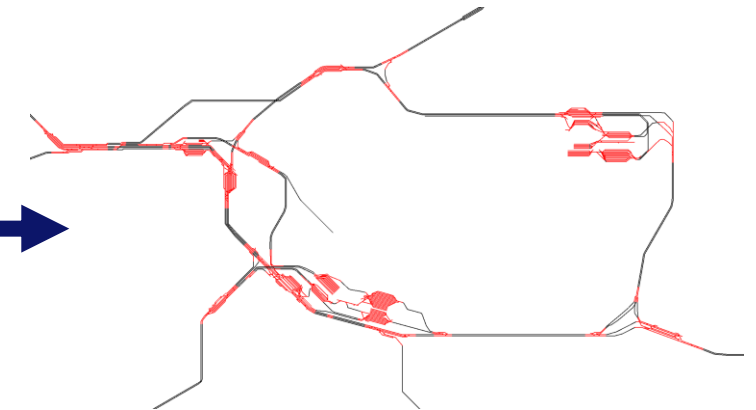
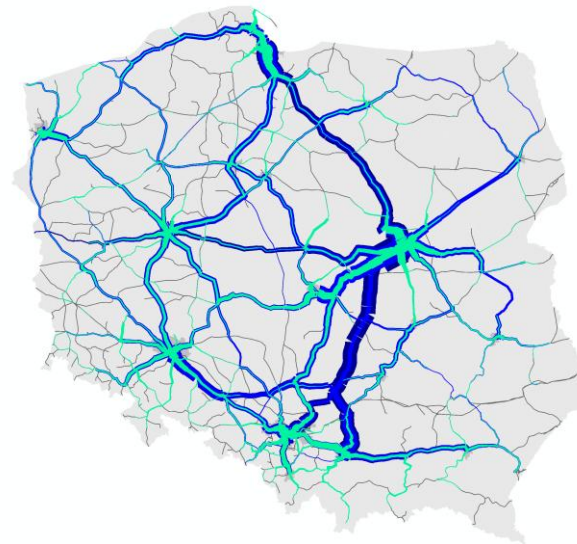
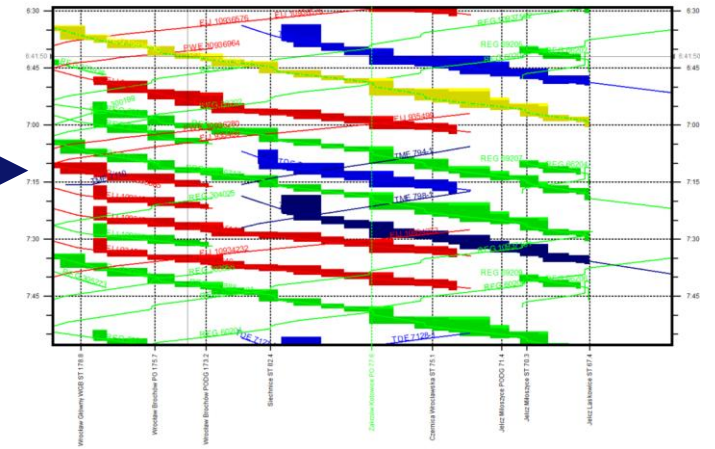
# Macro and micro scale of analysis at HRJ



## Makro scale - PMT



## Mikro scale - KMM



# Methodology

OD-matrix



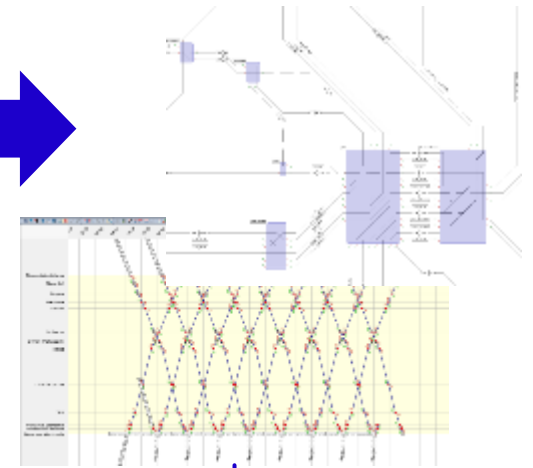
Schema of routes  
in long distance traffic  
with headways



Demand forecast  
in passenger  
traffic



Capacity tests  
and coordination  
of train paths



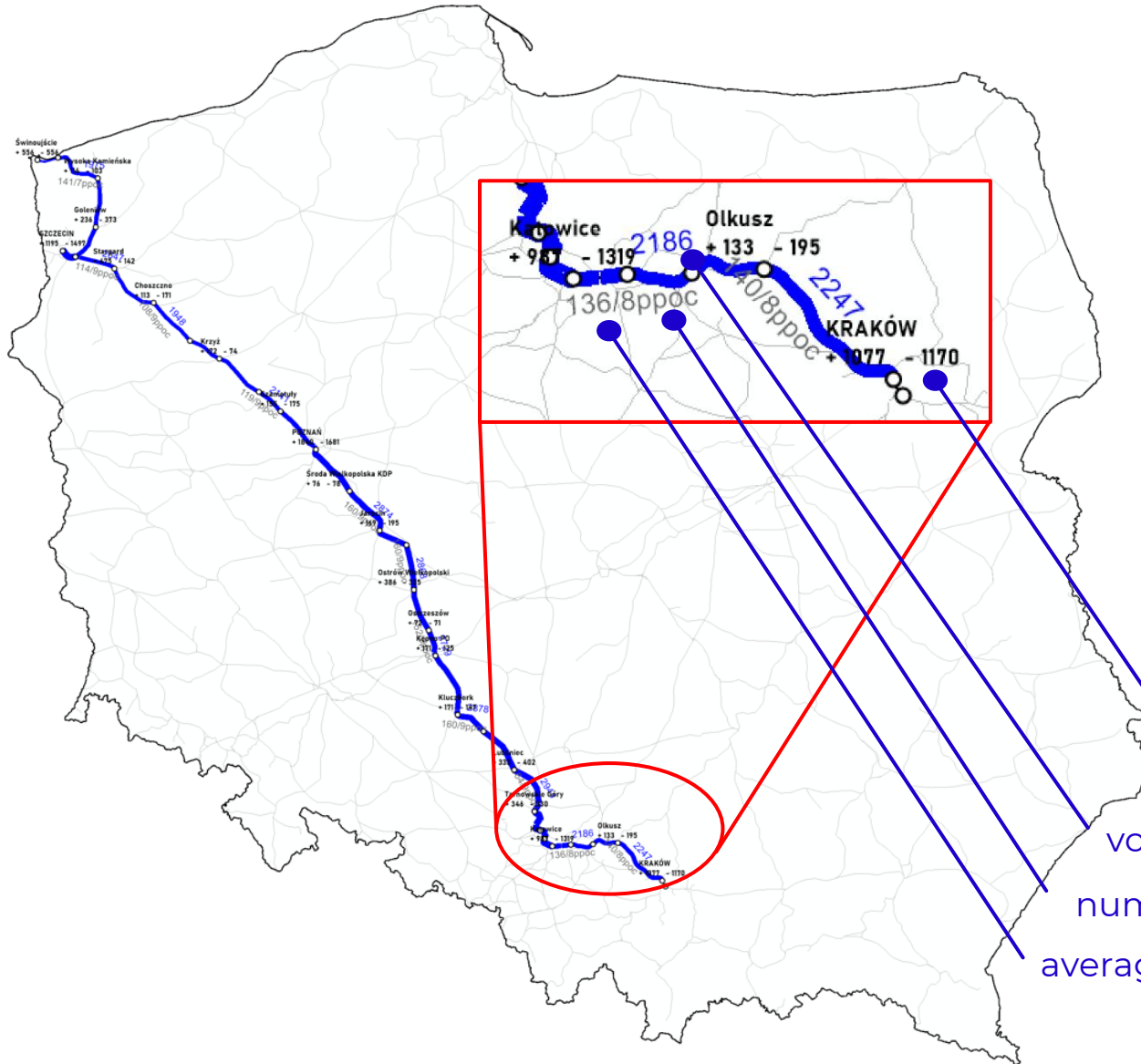
Infrastructure  
parameters



Iterative fitting routes of trains  
and headways based on obtained  
demand forecast

Iterative coordination of train routes

# Demand and performance analysis



- ➔ Volume of Ridership
- ➔ Operating Performance [train-km]
- ➔ Transport Performance [pax-km]
- ➔ Line Usage
- ➔ Train Efficiency: LF / RASK / CASK / yield factors

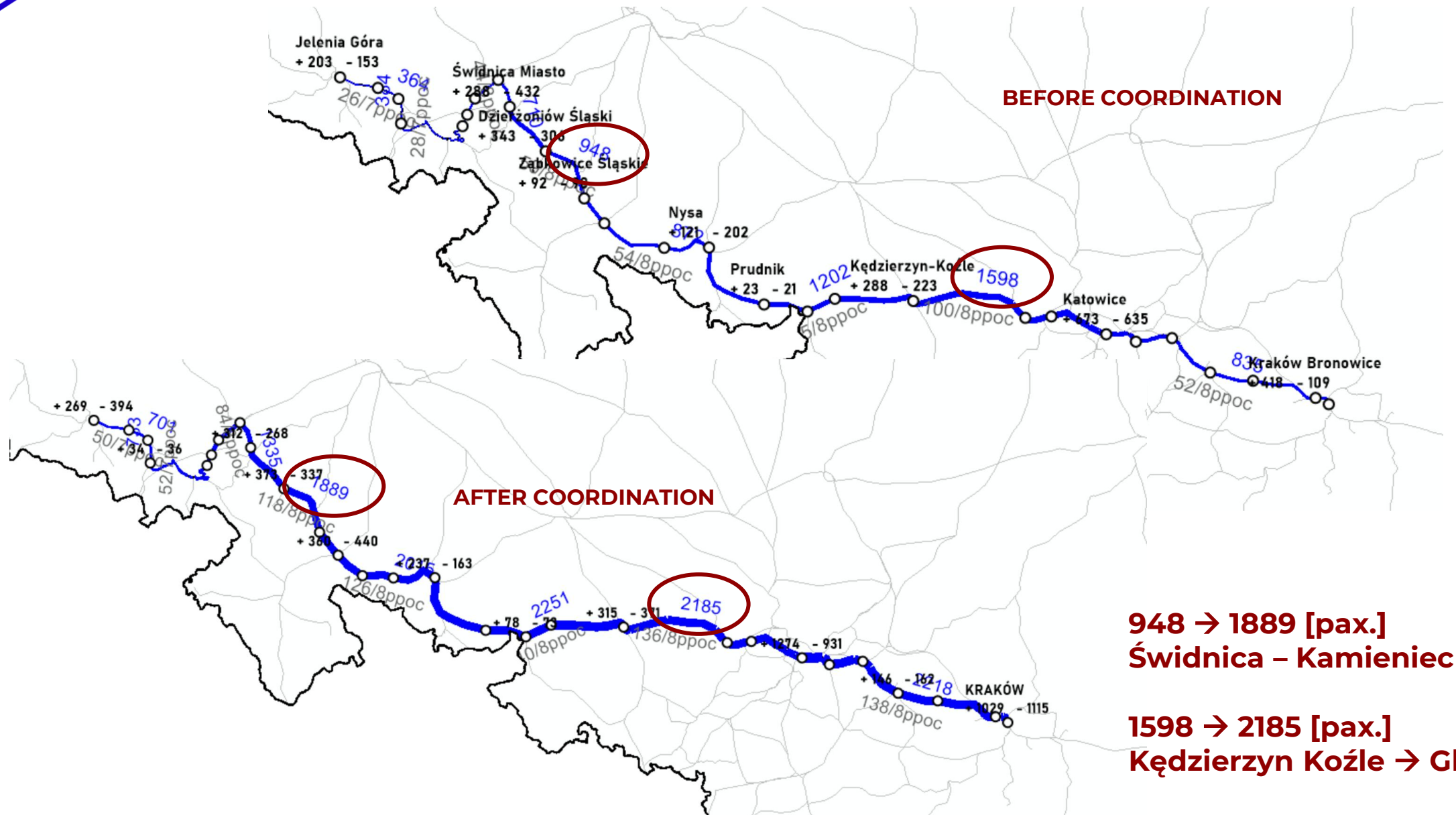
passengers boarding / alighting

volume of passengers per day in both directions

number of train pairs

average volume of passengers per train and direction

# Impact of timetable coordination on modeling passenger riderships in PMT



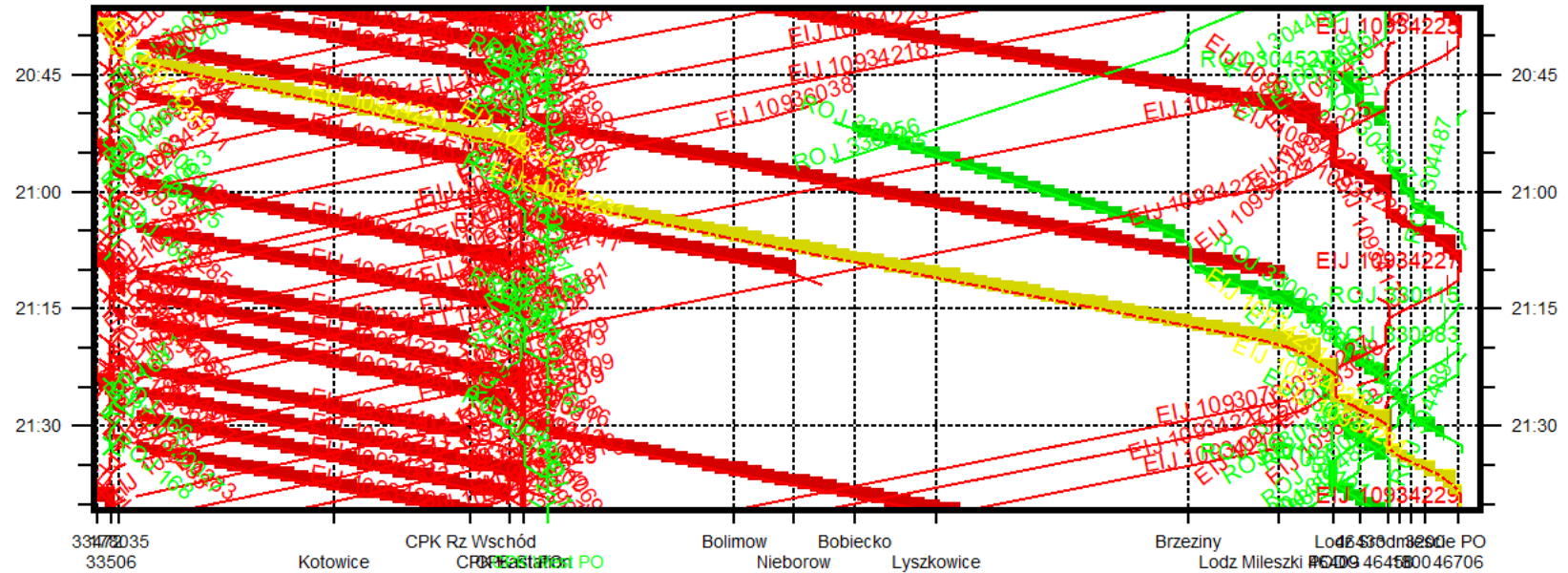


# Advanced capacity and infrastructure analyses in RailSys software

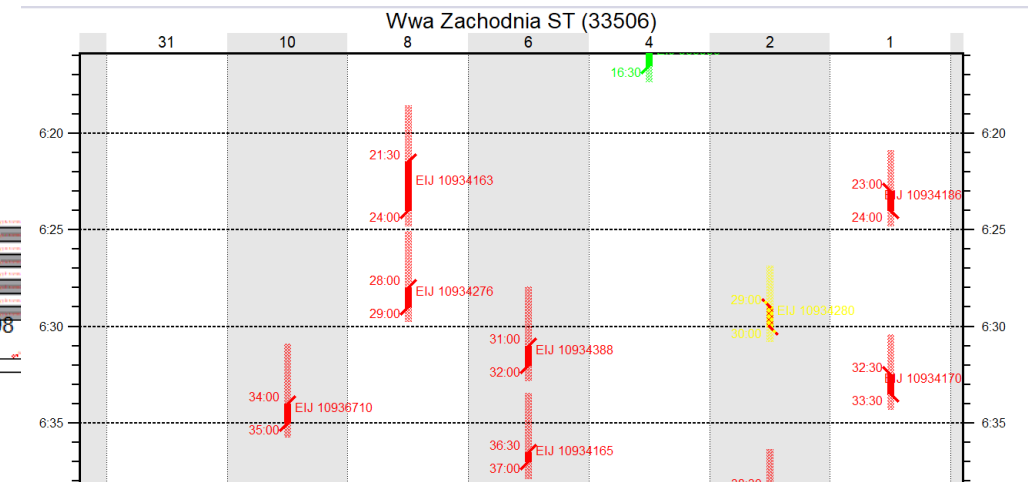
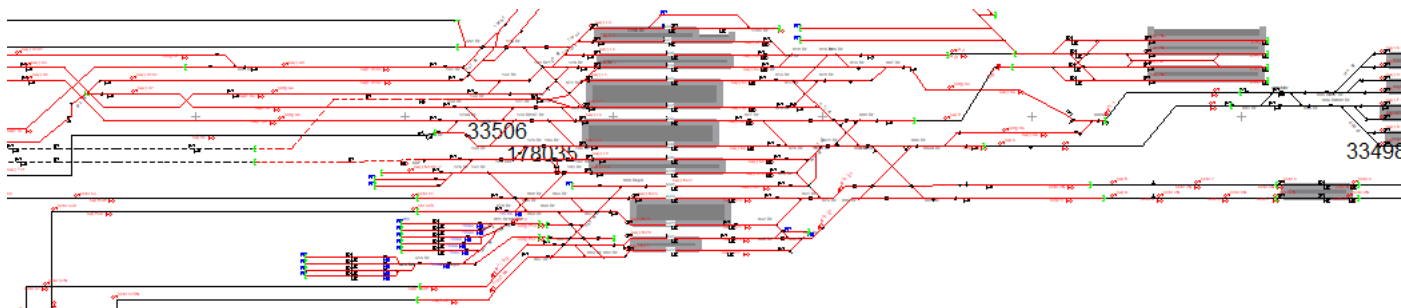
Detailed infrastructure model:  
tracks, signals, platforms, block sections

Full prepared timetable on timegraphs

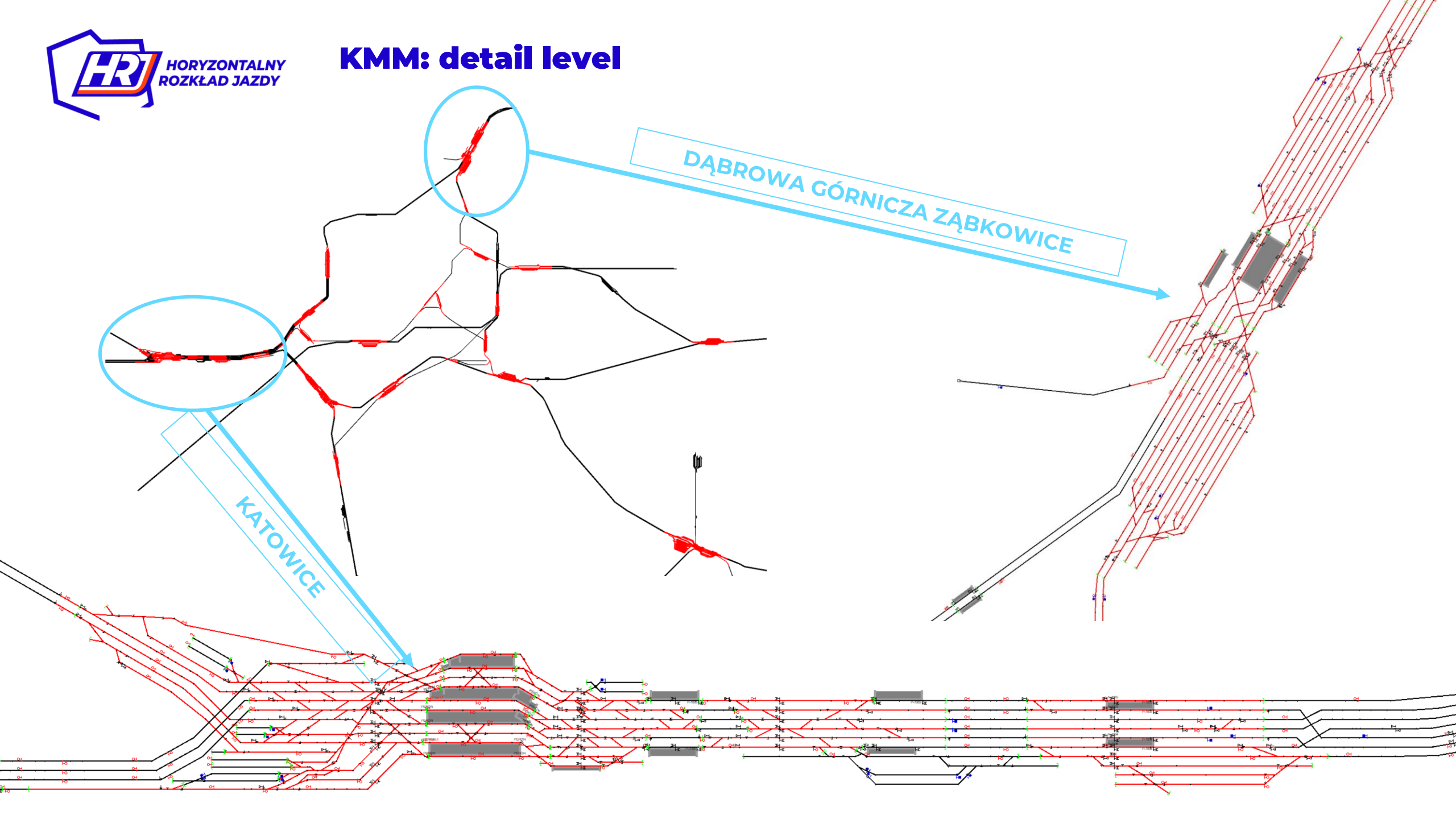
Simulations and capacity analyses  
according to UIC 406 leaflet



**RESULT: infrastructure fitted to timetable,  
not timetable restricted by infrastructure!**



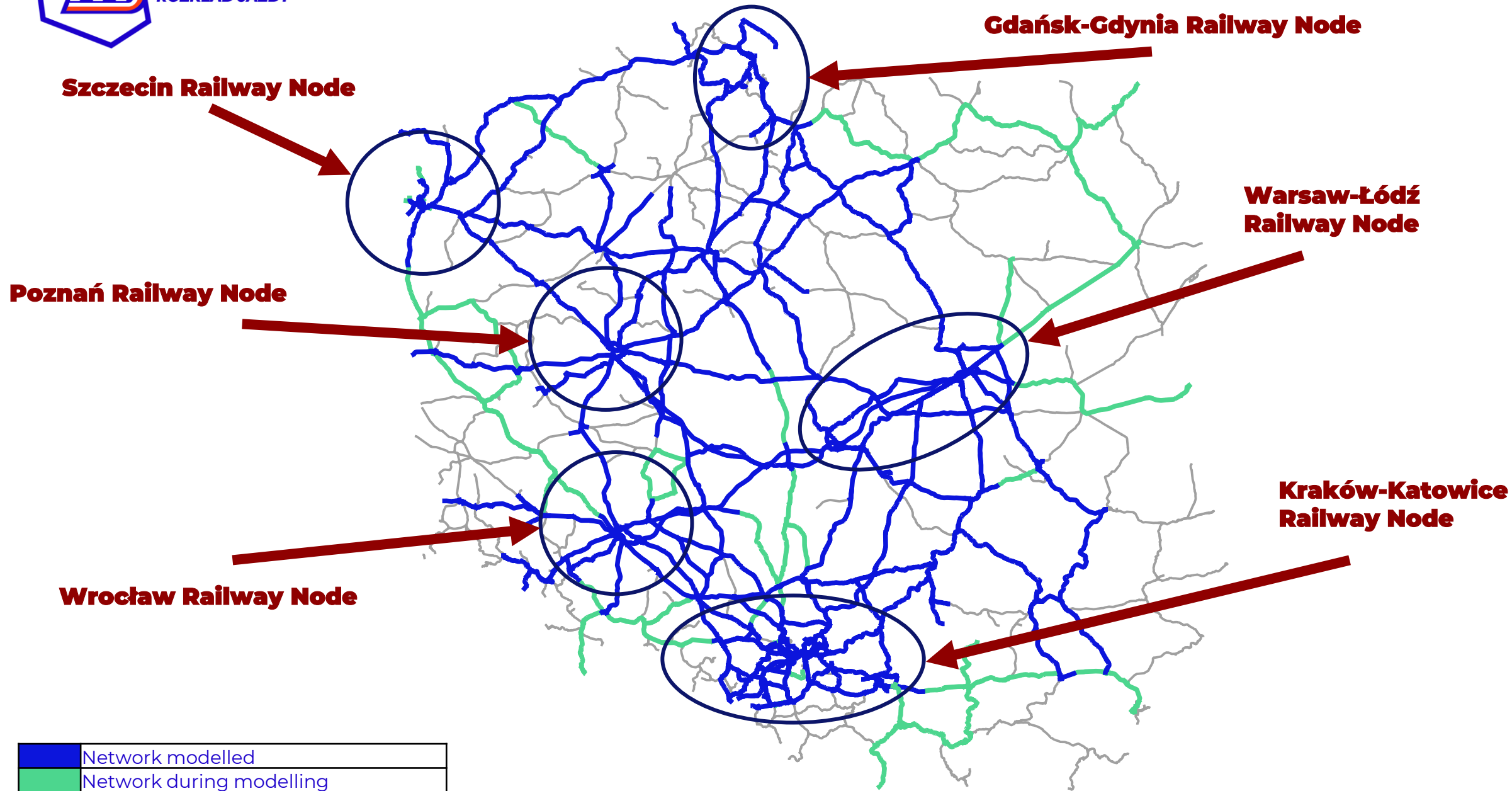
# KMM: detail level



DĄBROWA GÓRNICZA ZĄBKOWICE

KATOWICE

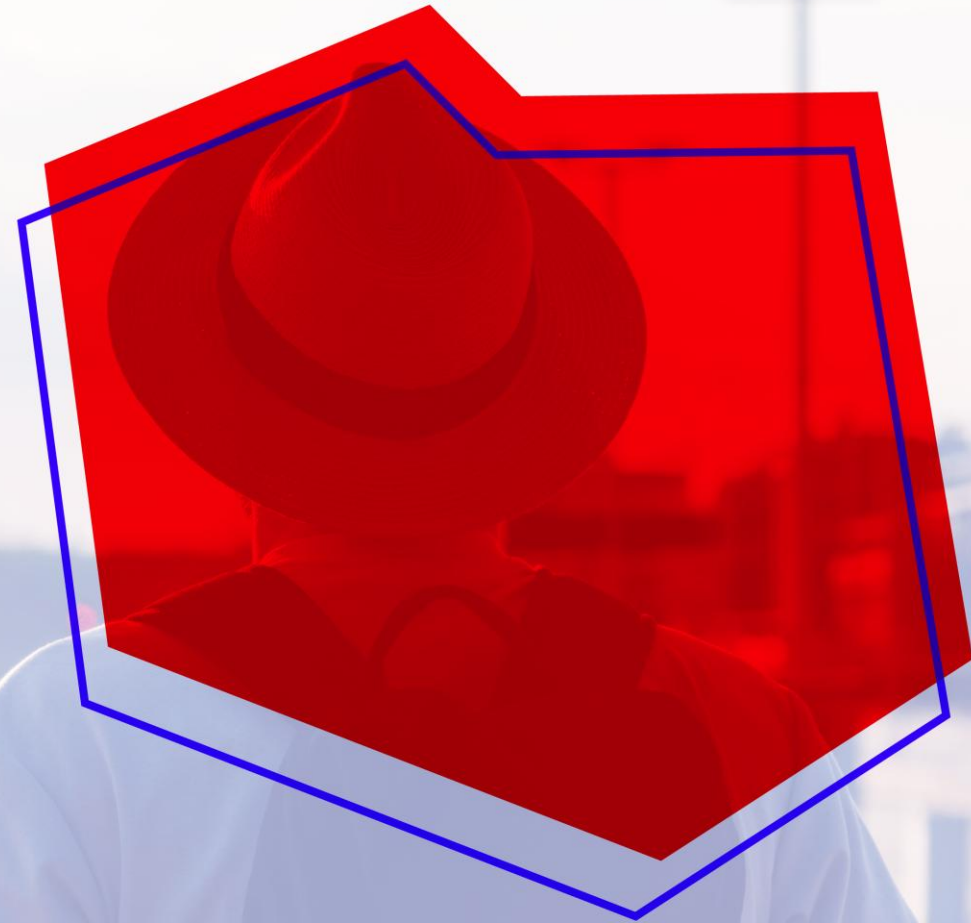
# KMM - state of progress



## **Consultations with potential long-distance train operators**

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1. Objective of the consultation
2. Overview of the consultation process
3. Topics to be discussed during the consultation



# Consultation objective - preventing barriers to market entry

## Information barriers and/or asymmetry

<p><b>Limited data availability</b> (decision to enter the market cannot be made due to lack of information)</p>	<p>Structural and strategic barrier</p>
<p><b>Information asymmetry</b> (incumbents have more reliable data than potential new entrants)</p>	<p>Structural and strategic barrier</p>

Source:  
IRG Rail Report,  
Analysis of the transport offer of open access operators in selected European countries together with an estimate of their potential offer in Poland



- **Avoiding the introduction of barriers to entry**
- **Room for improvements of the proposed solutions**
- **Assessment of the connection network**
- **Discussion on the features of the commercial offer**

### Conclusion

- Willingness to engage in dialogue with industry
- Ensuring the transparency of the process

### Activities

- Sharing PMTs with stakeholders
- Sharing of conducted demand analyses

### Target

- Ensuring a diverse and attractive connections and high utilisation of the network

## 4 pillars of market consultation

### TRANSPORT AUTHORITIES:

#### REGIONS (VOIVODESHIPS) METROPOLITAN AREAS

- Level of services and timetable
- Coordination of long-distance and regional trains
- Transfers between regional and long-distance trains
- Feeder connections to long-distance trains

#### POTENTIAL OPERATORS

- Level of services and timetable
- Potential of commercial operations
- Framework of the market

#### NEIGHBOURING COUNTRIES

- Level of services and timetable
- Coordination of the timetable at the border

#### PUBLIC OPINION NGOs, CHAMBER OF COMMERCE, OTHER BODIES

- Level of services and timetable
- Train stop policy

### Consultations with public opinion, NGOs, Chamber of Commerce, other bodies

- from 11th September to 13th October 2024

### Consultations with transport authorities (regions - voivodships and metropolitan areas)

- workshops

### Consultations with neighbouring countries

- at the level of ministries

### Consultations with potential operators

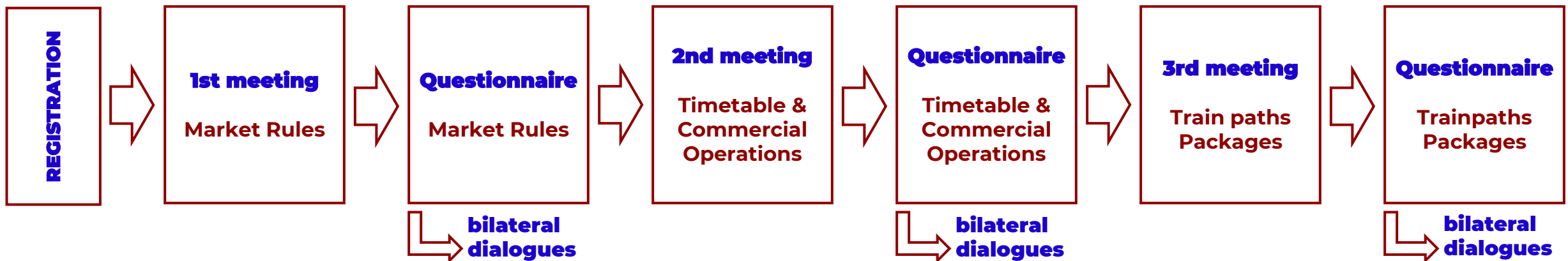
- registration of interested entities ended on 31st August 2024 – **22 applications**

# Consultation framework

## Railway Undertakings

- Domestic and international players: incumbent and prospective entrants in the market
- Conventional and High-speed lines

**A series of min. 3 group meetings followed by a questionnaire and then possible bilateral interviews**



**Comprehensive data will be shared with RU-s for collaborative discussions on timetable configurations and market rules**

Passenger forecasts, timetable details, rolling stock and TAC assumptions, and an editable economic model (including RASK, CASK, and yield calculations)

## 1. GENERAL INTRODUCTION TO THE TOPIC

## 2. SURVEY FOR THE PARTICIPANTS

- It will be sent by e-mail to meeting participants
- 2 weeks for completion
- Communication channel: [hrj@hrj.gov.pl](mailto:hrj@hrj.gov.pl)
- The conclusions will be presented in a report (public access)
- We reserve the right to publish the answer, but in a way that guarantees the anonymity of the entity and data

## 3. ON-LINE BILATERAL MEETINGS

- Discussion of responses, discussion of comments and proposals, mutual understanding of approach
- Optional - if either party expresses the need to meet

## CONNECTIONS AND TIMETABLE

- Level of services on the network
- Non-system trains  
(supplementary - single daily, night, seasonal, extensions)
- Traffic forecast based on the Passenger Transport Model
- Trains stops policy
- Economic analysis of lines
  - Separation of commercial and PSO lines
  - Cost structure
- Bundling of lines for PSO tenders
- Commercial lines and public service needs
  - Is it possible to cooperate in the field of:  
stops and line extensions?
- Technical facilities, circulation of train sets

## PRINCIPLES OF MARKET ORGANIZATION

- Predefined commercial routes
- General approach to tenders under PSO
- Access rate price list
- Rules for access to infrastructure – PSO and commercial use
- Rail-air intermodality
- Fares and ticket price lists, ticket and fare integration, National Integrated Ticket
- Details of contract provisions - model contracts

## WHAT ELSE...?

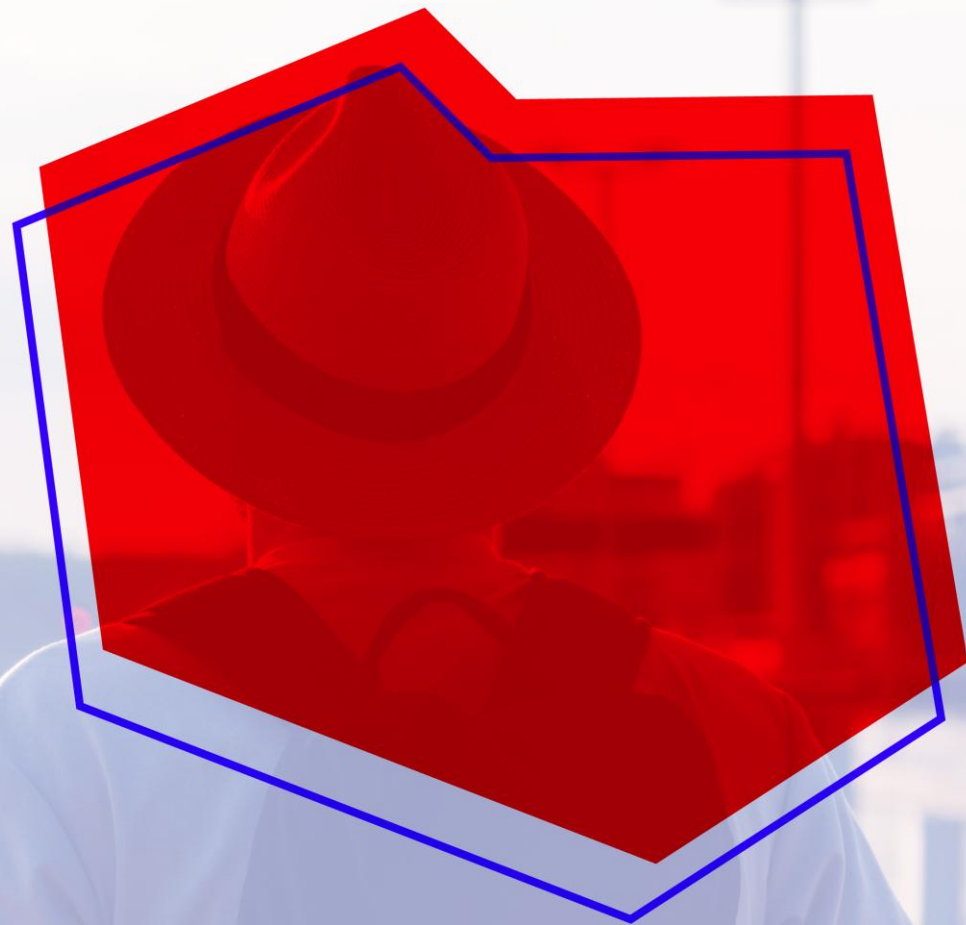
Presented catalog is not closed, and other topics can be suggested in the survey



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**Q&A**

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## Coffee break

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We will start at 11:10





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## In-depth session

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12:15 – 14:15

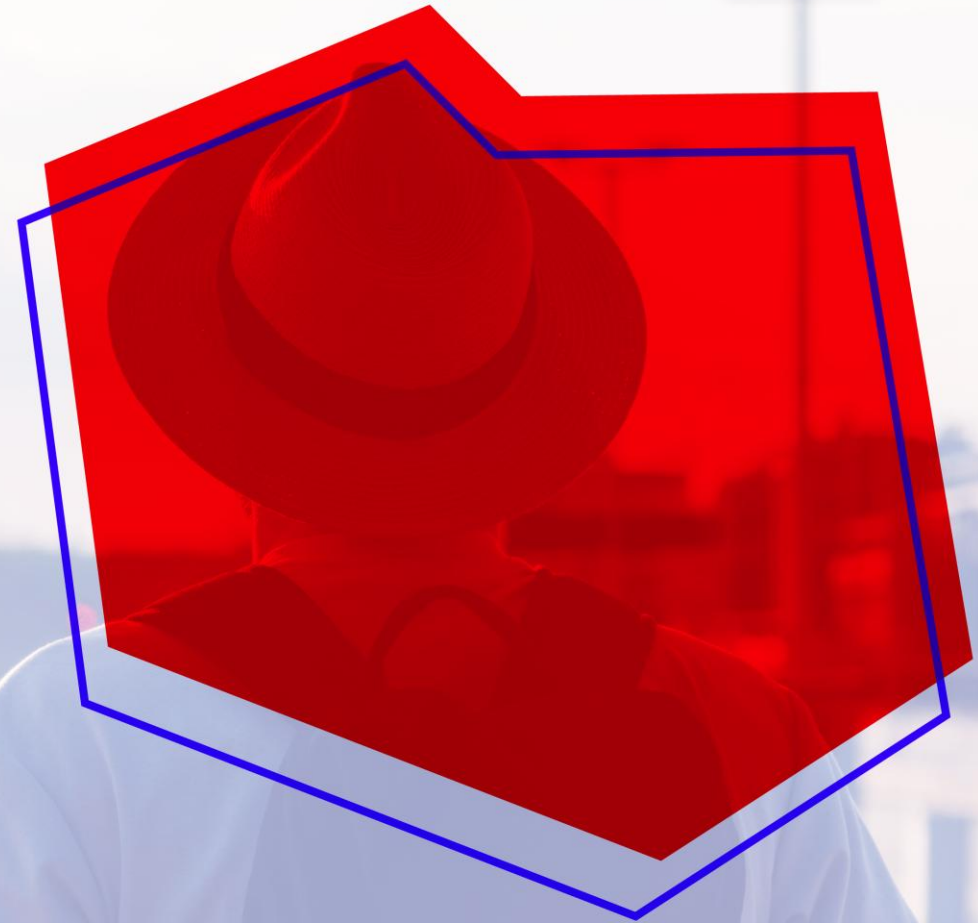




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## **Predefined commercial routes (not subsidized under PSO)**

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# Access to infrastructure and types of service

NEW



public service  
(PSO)



predefined  
commercial routes



open access

Subsidy from  
the transport  
organizer



Organization  
of the tender  
for PSO



Framework  
agreement with  
the manager



Included in HRJ



Preliminary examination  
of economic balance in  
HRJ



Coordination of  
routes and circuits



- **Proposal** for a new route ordering mode:  
**predefined commercial routes**  
– acronym: **K**
- **This would not be a mandatory mode**  
– **open access will be available**
- However, we see benefits for both the carrier  
and the transport authority



yes



no



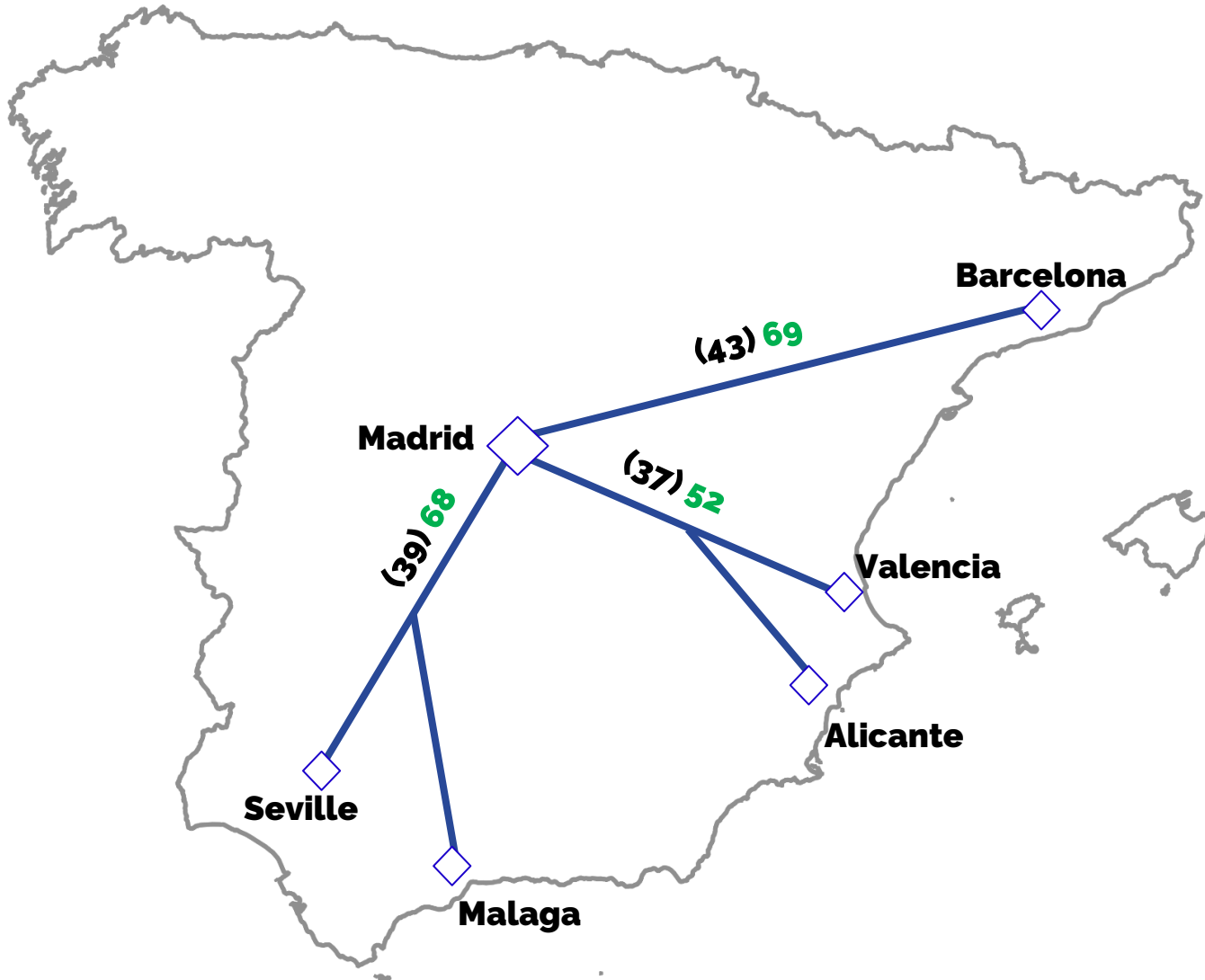
optional



N/A

# What characterizes the Spanish approach?

## SCOPE OF THE CONTRACT IN THE THREE CORRIDORS (the offer before liberalisation is shown in brackets)



### INSPIRED BY ITALY

Development and implementation of a model based on the Italian experience with the introduction of framework contracts as part of capacity management

### TENDERING FOR CAPACITY

As a result of the interest identified, which exceeded the available capacity, the infrastructure manager organised a competitive tender

### SIGNING OF FRAMEWORK AGREEMENTS

10-year framework agreements were signed with the successful applicants, covering a total of 70% of annual capacity

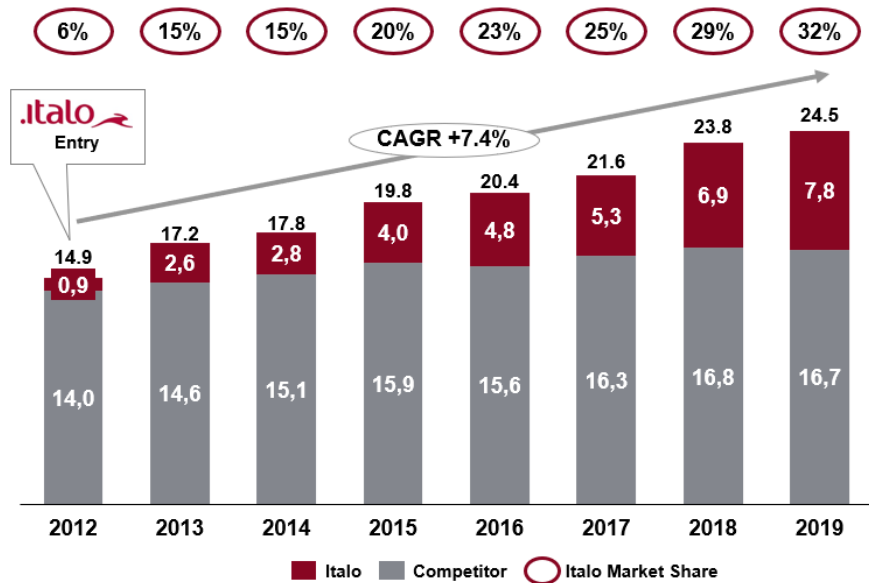
### ASYMMETRIC PACKAGES

The capacity packages for which operators competed were asymmetrical (60%, 30% and 10%) and structured so that three different operators received them.

# High-speed lines - the basis for successful competition

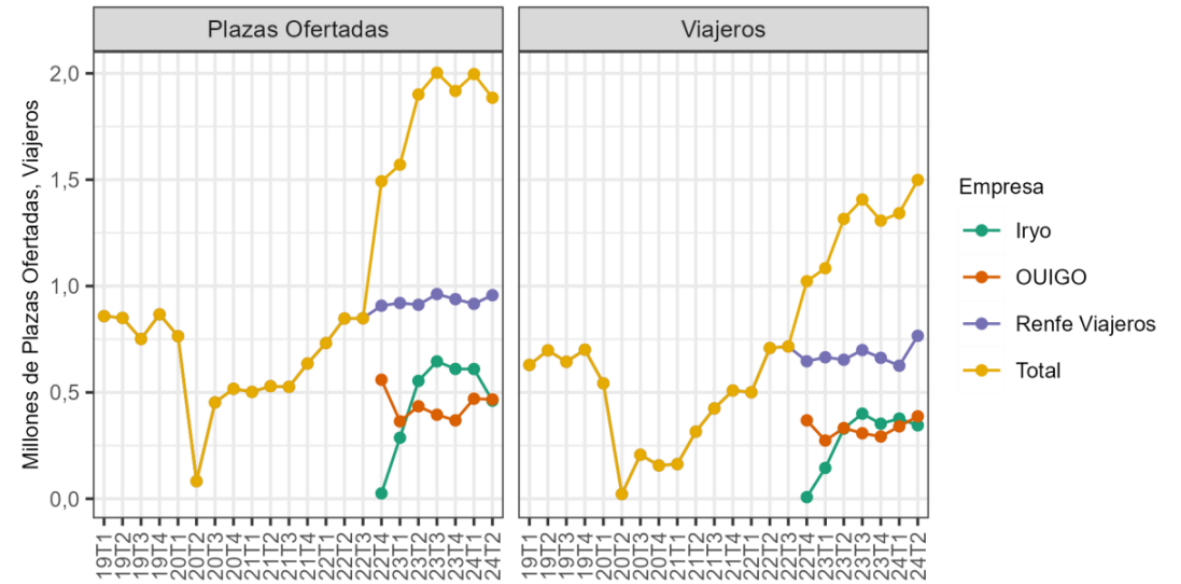
Our goal is to ensure that the 'cake' shared by the carriers grows at such a rate **that everyone benefits**. We want the newly modernised or built high-speed lines, which are the **backbone of the Polish railway network**, to be an additional asset.

The experience of market liberalisation in Italy and the most recent one in Spain have shown that such rapid market development is possible.



Source: <https://italospa.italotreno.it/en/investor-relations/the-high-speed-rail-transport-market.html>

The HSR carriage market in Italy grew by almost **65 per cent** between 2012 and 2019. The incumbent carrier increased its carriage during this period by nearly **20 per cent**.



Source: <https://www.cnmc.es/sites/default/files/5525168.pdf>

**Two years after** the opening of the market, the Spanish incumbent has begun to repeat its **historic performance** on routes where it competes with private operators



## Is the approach used in Horizontal Timetable different from the solutions implemented in Spain?

### Spanish approach

The opening of the market concerned only a part of the long-distance commercial services



The market consultation was based solely on discussions with the industry and was more informal in nature



Requests from operators with framework agreements shall be given priority for the establishment of the annual timetable



Model promoting companies belonging to foreign incumbent carriers



### Polish approach

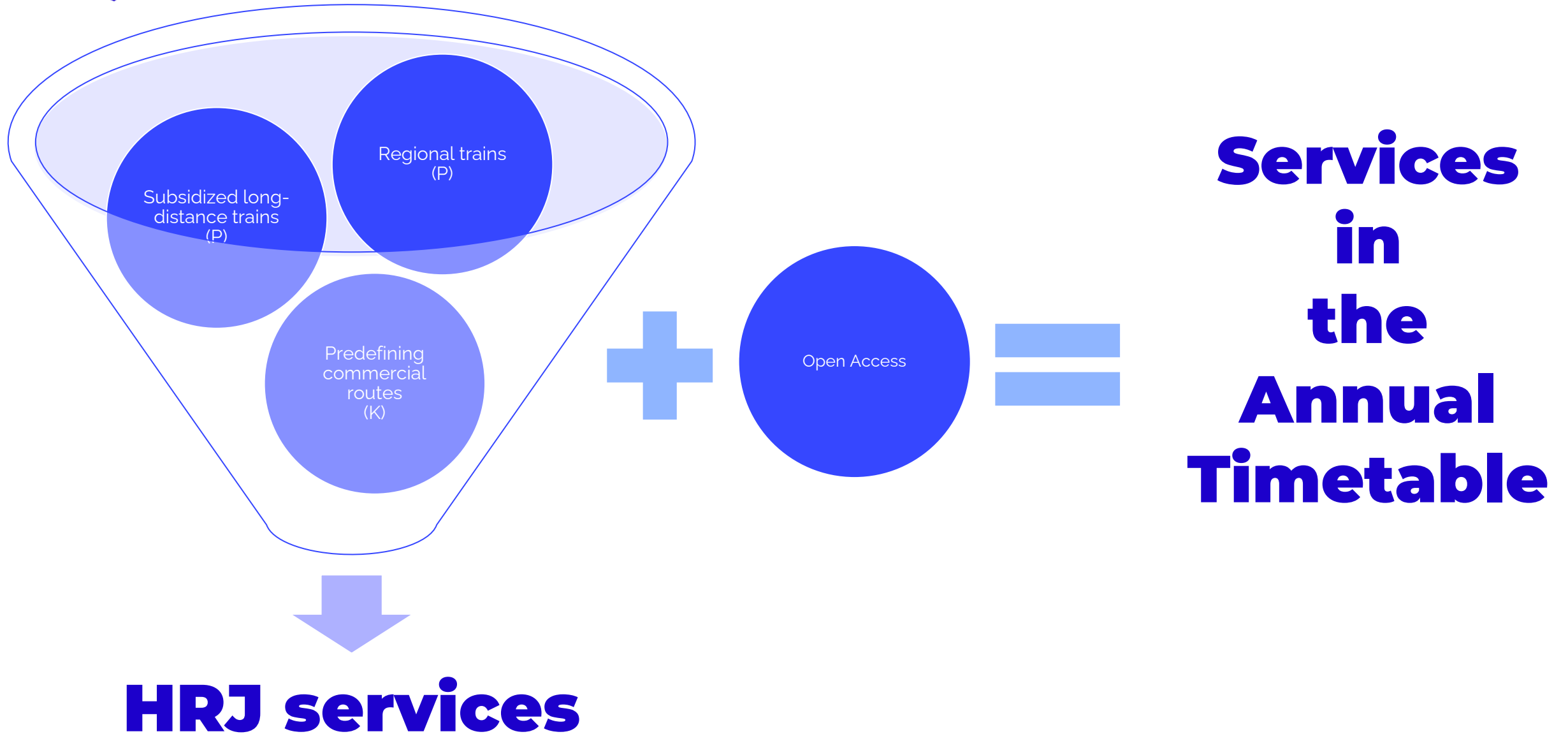
The opening of the market in long-distance transport will include both the commercial transport market and the PSO market

Consultation not only with industry, but also with transport authorities, NGOs and the public

An additional instrument in the form of guaranteed track access for the implementation of train paths included in Horizontal Timetable

Level playing field - varying contract lengths, launching a rolling stock pool to provide better access to rolling stock

**Commercial pre-defined routes would not be obligatory: open access will be allowed**

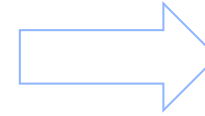


# Liberalization of the long-distance transport

**CONCESSION**

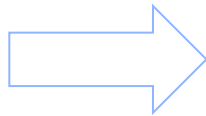


**COMPETITION FOR  
THE MARKET**  
(regulated)



**RIGHT OF EXCLUSIVE ACCESS TO  
RAILWAY INFRASTRUCTURE**

**PSO**

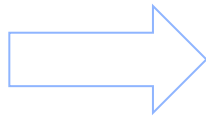


**COMPETITION FOR  
THE MARKET**  
(regulated)



**INTRODUCTION OF NEW ENTITIES,  
WHICH CREATE MINI-MONOPOLIES**

**OPEN ACCESS**



**COMPETITION  
IN THE MARKET**  
limited by capacity  
does not create a system  
costs on the part of the infrastructure  
manager no guarantee of access to routes

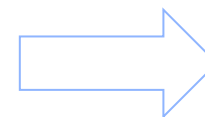


**INTRODUCTION OF NEW ENTITIES,  
WHICH COMPETE WITH EACH OTHERS**  
unstable competitive conditions

**PREDEFINED  
COMMERCIAL  
ROUTES**



**COMPETITION  
IN THE MARKET**  
but while maintaining the system  
framework, guaranteed, stable routes



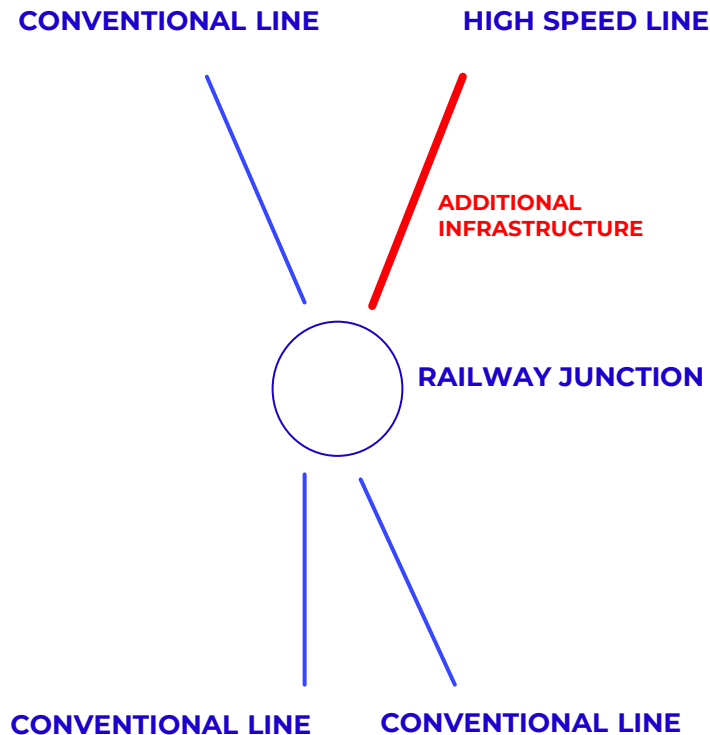
**INTRODUCTION OF NEW ENTITIES,  
WHICH COMPETE WITH EACH  
OTHERS**  
stable competition conditions

## What is a commercial predefined route and how does it differ from open access?

- The predefined route determines the infrastructure capacity needed to run the train between the specified locations in a given period, which is described as the exact train route from:
  - with the timetable,
  - any intermediate stopping points,
  - minimum rolling stock parameters.
- The basic difference between the concept of predefined routes and open access transport is their inclusion in the timetable creation. The prepared route system is to be stable over the next annual timetables.
- Within HRJ, the number of predefined routes depends on the available capacity, but whenever possible, it is set so as to provide enough of them to enable at least 2 (preferably at least 3) carriers, which will enable competition on the market
- Predefined routes are set to provide the most important connections and achieve effective rolling stock circulation
- Commercial pre-defined routes would not be obligatory: open access will be allowed

# Objectives of the predefined commercial routes concept

The implementation of predefined routes is intended **to provide benefits for all stakeholders:**



## Passanger benefits

- Sizing the number of routes in such a way that at least 2 carriers/operators can enter the market - it allows for the introduction of competition into the market and lower ticket prices
- Ensuring connections with PSO trains

## Operator benefits

- Simplifying the market entry process - analyzing the impact of commercial mergers on PSO: avoiding unnecessary competition between the PSO offer and the commercial services
- Possibility of maintaining attractive train routes in subsequent timetables (stability)
- Increased efficiency – routes prepared for rolling stock circulation

## National transport authority (Ministry of Infrastructure) benefits

- Avoiding unnecessary duplication of the PSO offer with the commercial offer
- Proper adjustment of the supply of the PSO offer and the ability to transfer available resources to the right place

## Infrastructure manager benefits

- Smarter capacity management
- Long-term capacity utilization forecast
- Planning the maintenance and expansion of the railway network
- Implementation of the CAP regulation

## Selection of predefined commercial routes

Predefined routes were generally implemented on HSR lines, which could be very popular with operators after the market opens.

### High-speed lines (HSR)

Sections of new railway lines with operating speeds above 300 km/h  
Sections of modernized railway lines with operating speeds above 200 km/h

In addition, predefined routes also appeared on selected conventional lines:

### Conventional lines

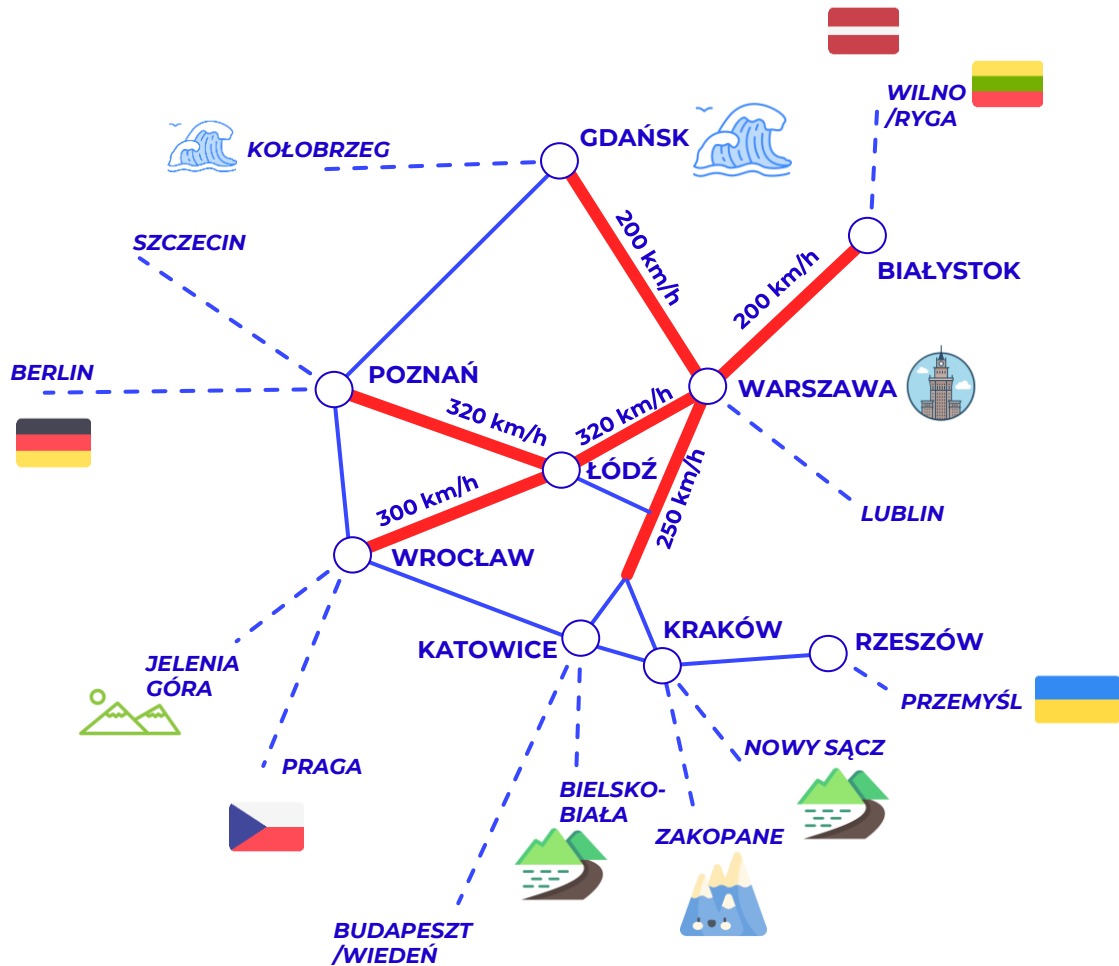
Sections of railway lines **connecting the most important metropolitan centers**  
Sections of railway lines **constituting parts of international transport corridors**  
Sections of railway lines **connecting tourist centers of national importance**

As a rule, IC trains were not routed on single-track lines with low operating speed.  
The exceptions are sections of railway lines leading to selected tourist centers such as: **Zakopane, Kołobrzeg.**

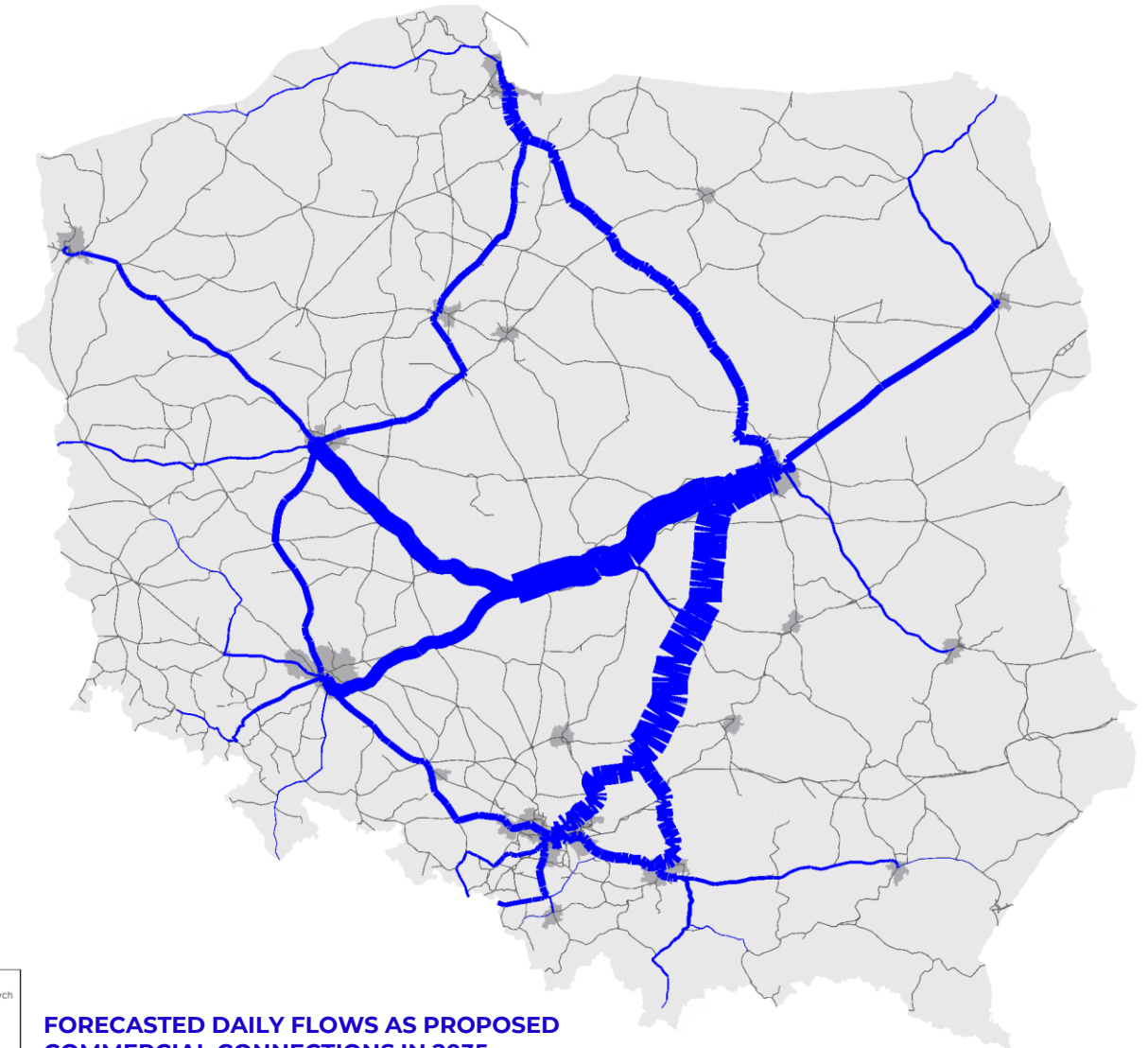
Do the defined routes make business sense, taking into account the costs of running the trains, potential revenues and other conditions?

Is there a potential to launch **year-round** commercial connections to tourist destinations?

# Good quality infrastructure, optimistic forecasts



- HIGH SPEED LINES (BUILD AND PLANNED)
- SECTIONS OF CONVENTIONAL LINES WITH HIGH TRAFFIC
- - - PROPOSED COMMERCIAL LINES EXTENSIONS



**FORECASTED DAILY FLOWS AS PROPOSED COMMERCIAL CONNECTIONS IN 2035**

# Synergistic stops

As part of the HRJ project, special emphasis is placed on searching for activities that will have greater effect.

Such synergy could be the implementation of the so-called synergistic stops, allowing, **in selected cases**, to serve smaller towns with commercial trains in cooperation with the organizer when:

The commercial carrier does not see the need for a commercial stop

The transport authority (MoT) does not see the need to launch the PSO line

A similar solution was **implemented** on the Spanish market during the first phase of market liberalization.

## Case study: additional stop in Świebodzin and Rzepin on the HSR01 line



### Organizer

No need to organize an additional PSC line that would connect Warsaw with Świebodzin and Rzepin

### Infrastructure manager

Possibility of using the recovered slot for other types of passenger transport or freight transport

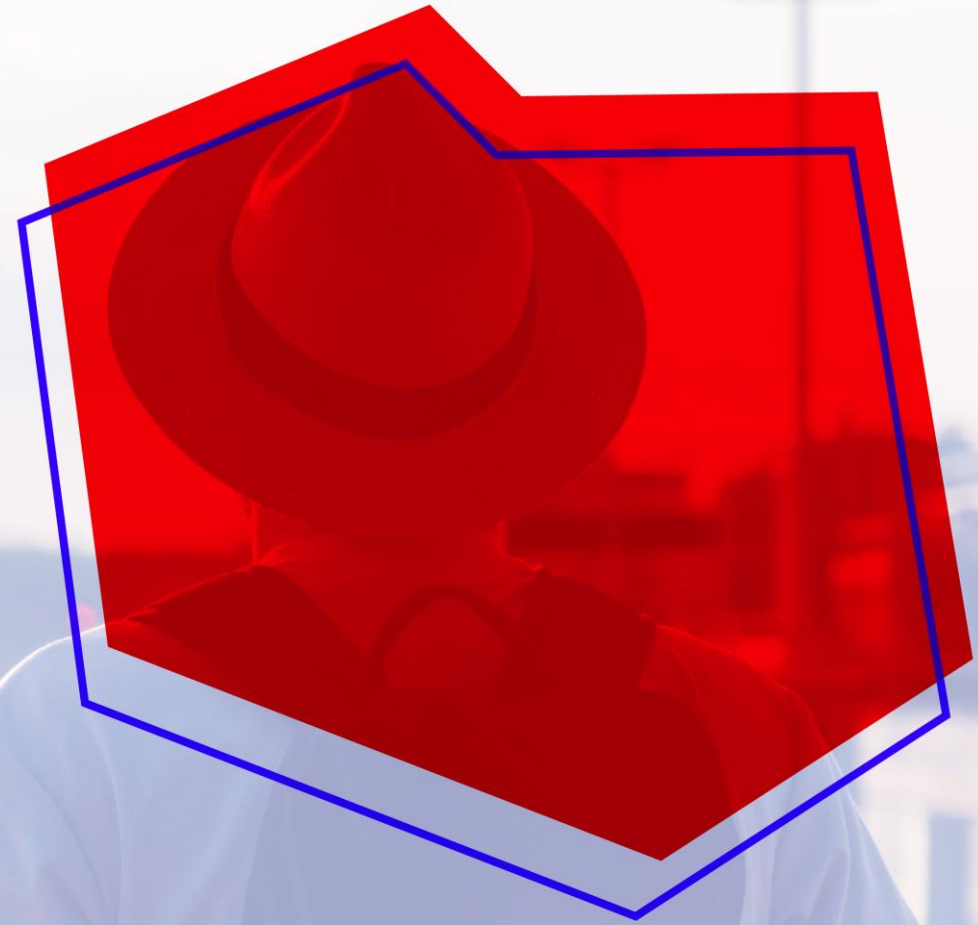
Is a form of agreement with the transport authority (MoT) in this regard possible?



HORYZONTALNY  
ROZKŁAD JAZDY

## **Approach to PSO tendering**

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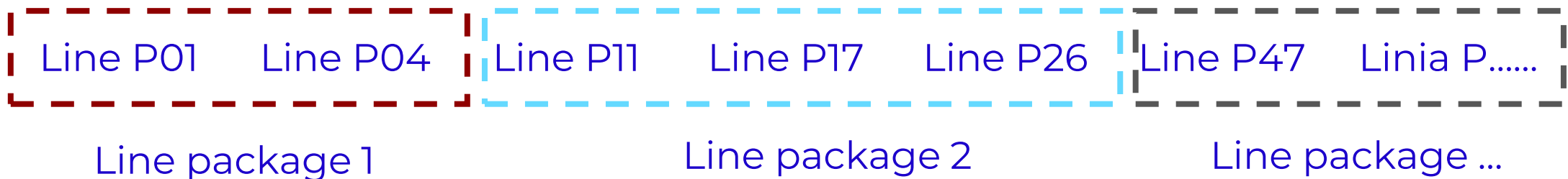


## Tenders and contracts for PSO services

- In December 2030, the framework agreement for the provision of public services in inter-regional and international rail transport concluded between the Ministry of Infrastructure and PKP Intercity S.A. will expire.
- **From December 2030, we intend to organise the market in such a way as to allow the entry of multiple operators**

PSO

(public service obligation services)



## Characteristics of a PSO contract

### DIRECTLY RELATED TO THE SERVICES AND TIMETABLE

- Creation of line packages
- Contract duration
- Rolling stock requirements
  
- Fares and ticket prices

} A separate topic for consultation

### RELATED TO GLOBAL

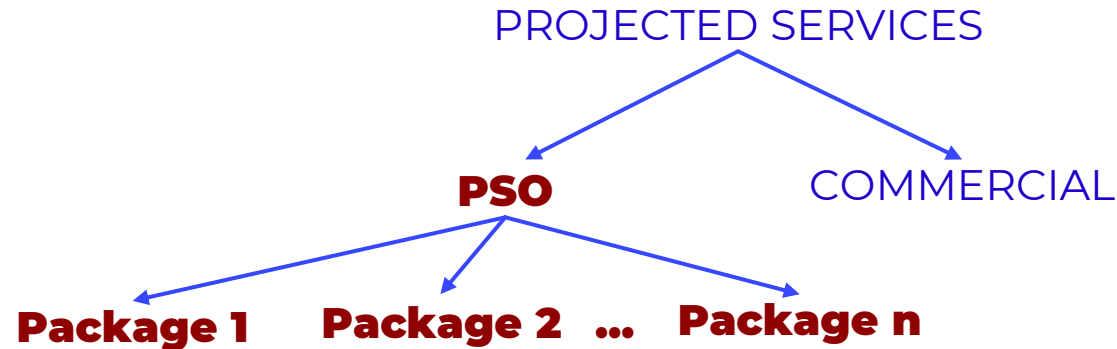
- Quality requirements (operations)
- Method of calculating compensation and reasonable profit
- Risk management
- Contractual penalties and bonuses for better performance
- Provisions of the model contract

} To be discussed at a later stage

What other features / parameters of the PSC contract are important to consult?

# The way to bundle PSO lines into packages

## FIRST STEP: DEFINING THE SCOPE OF THE PSO



## SECOND STEP: DEFINING PACKAGES WITHIN THE PSO

Possible criteria for creating packages:

- Market segment / type of rolling stock (IC, IR)
- Drive type (diesel, electric, hybrid)
- Maintenance depot
- Mix strong and weak lines in terms of profitability
- Source of rolling stock procurement

What other criteria for creating packages are relevant?

What should be the size of the packages?

### **START**

- Most contracts: start of service in December 2030

### **END - how can the duration of the contract be varied?**

#### **– ROLLING STOCK**

- New rolling stock: long-term contracts
- Existing rolling stock: contracts need not be long-term

#### **– TESTING THE POTENTIAL OF LINES**

- If it cannot be clearly determined that a line can be commercial - is it sensible to run them on a test under PSO and release them to the market if they become profitable?

#### **– ACTIVATING THE MARKET**

- Such a definition of the duration of contracts that tenders for PSO lines appear regularly

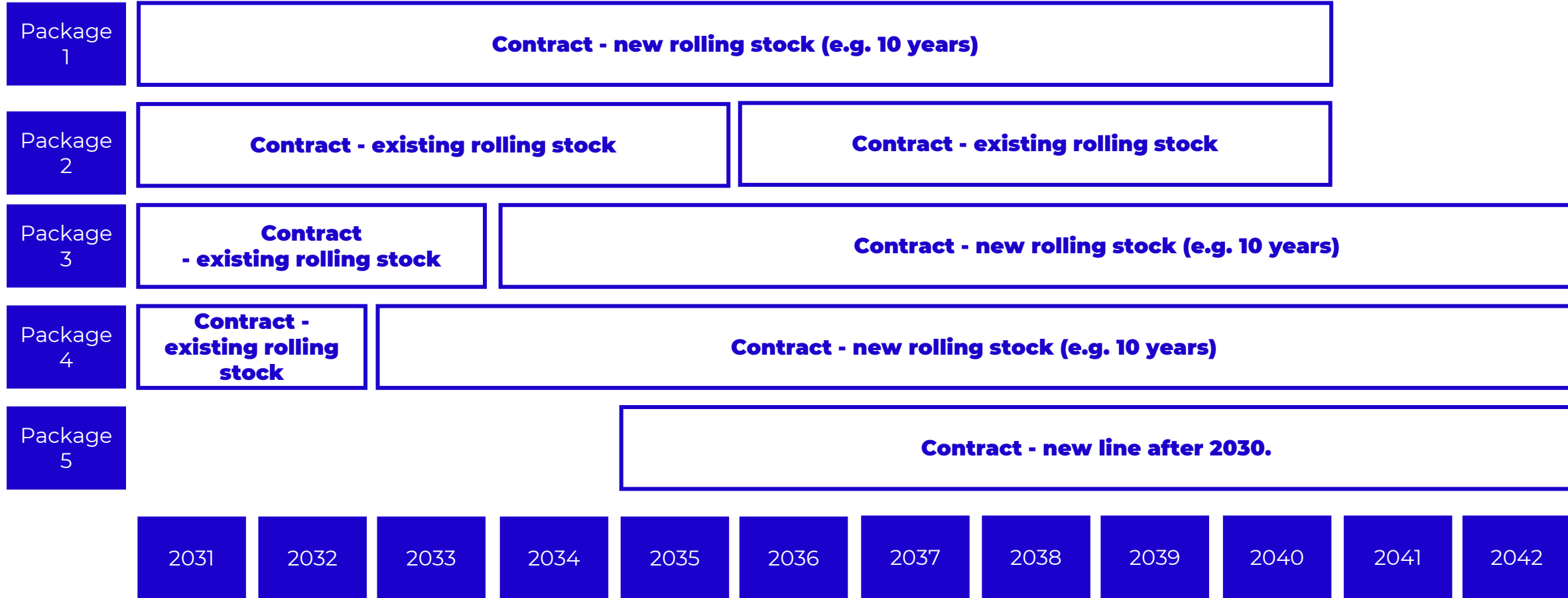
#### **– CHANGE MANAGEMENT**

- Change (line route, rolling stock, etc.) can be implemented either through a new contract or through options without changing the contract duration

Which contract duration solutions are preferable  
and in which case?

## Duration of the PSC contract – an example

**December 2030**



### Potential benefits of varying contract duration:

- For the transport authority: stimulating the market, keeping different operators, resulting in a lower price and higher quality
- For the operator: a more stable and predictable market

### **SOURCES OF ROLLING STOCK**

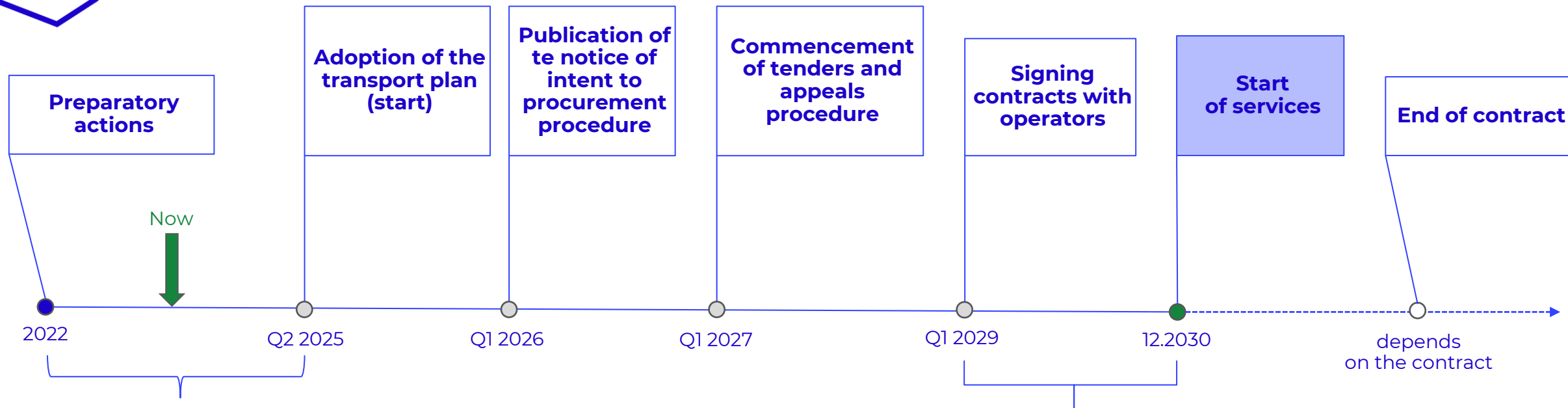
- New - procured by the operator
- New - from rolling stock pool
- Existing - settled by PKP Intercity overcompensation
- Existing - operator's own

### **ASSIGNING ROLLING STOCK TO A ROUTE**

- Definition of minimum parameters - speed, capacity, traction/power, in special cases definition of EMU/Push&Pull
- Defining parameters for the passenger - on-board services, accessibility for people with special needs, etc.
- Maintenance depots, circulation
- This issues will be analysed in detail in the next part of consultations, together with level of services and timetable

What other elements should we pay attention to?

## Schedule of procurement



- public consultations with transport authorities, potential operators, neighbouring countries, the public and industrial organisations and society
- iterative work on the Horizontal Timetable incorporating feedback from consultations
- development of a new transport plan
- necessary legislative changes
- preparation for the tender process

- Procurement of rolling stock and approval for operation
- Operators' internal actions

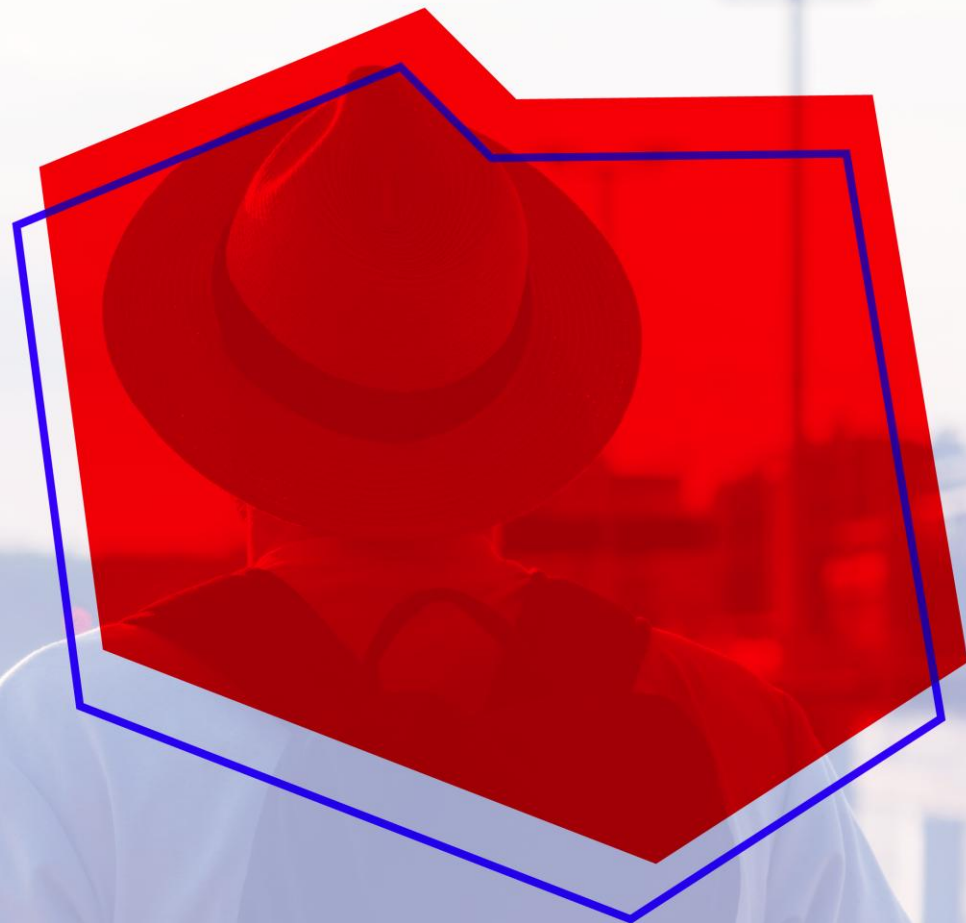
Are the assumptions made correct?



HORYZONTALNY  
ROZKŁAD JAZDY

**Q&A**

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**Thank you**

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