

# Young Researchers Seminar 2023

LNEC, Lisbon, Portugal, 15-17 May

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## Evaluating the socio-economic aspects of public services in railway passenger transport

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Host and organiser:



Supporting organisations:



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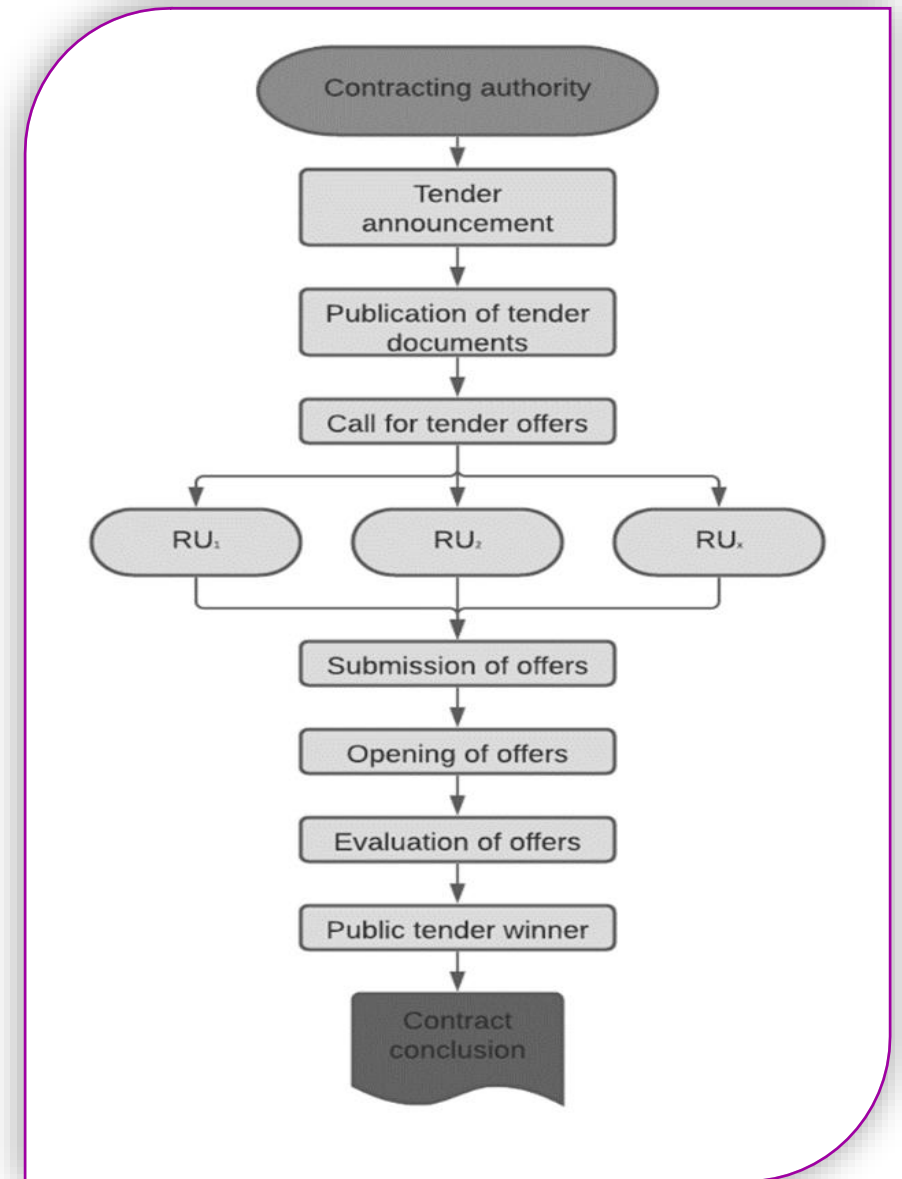
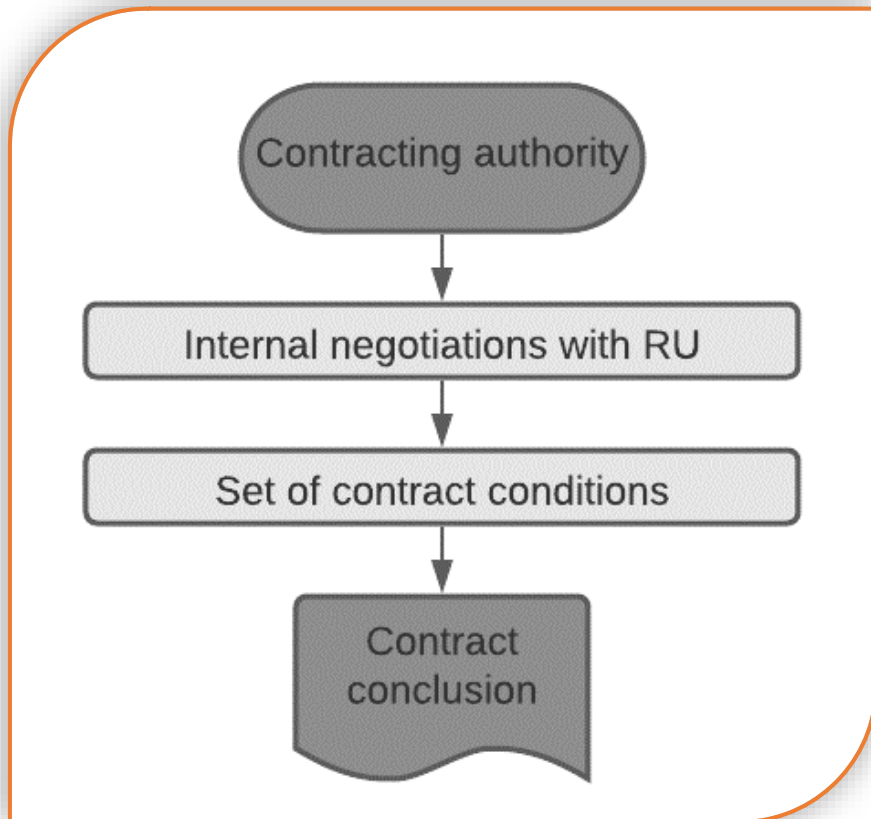
# Introduction

- PSO in rail passenger transport
- literature review
- efficiency of current PSO contracts?
- what is the optimal model of PSO contracting?
- public tenders – several barriers in some EU countries

# Models of PSO contracting

- direct award

- public tender



# Aim, purpose, objective

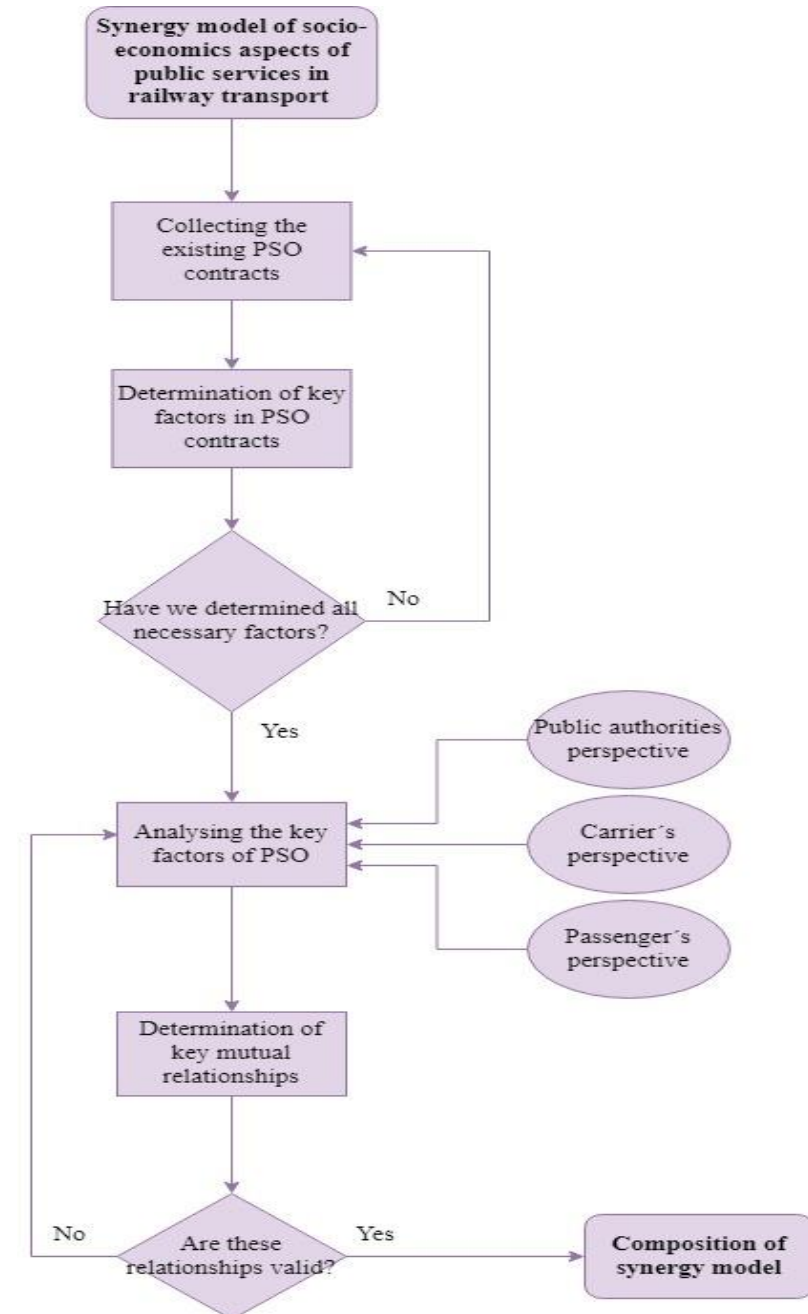
- **aim:** identify the mutual relationships between all subjects on the PSO rail passenger market, and subsequently propose the synergy model considering all socio-economics aspects of PSO contracts from the perspective of contracting authority, railway undertaking and passengers
- **research question:** What are the synergic effects of socio-economic aspects of public services in passenger rail transport under public obligation. Synergy model in general describes the main relationships between all subjects and their mutual influences.

# Methodology

**input data:** PSO contracts in V4 countries

*Differences in PSO contract conclusion across V-4 countries*

Country	Long-distance PSO	Regional PSO	Way of contracting
Slovakia	central	central	direct award, market consultation
Czech Republic	central	local	direct award, market consultation, public tender
Poland	central	local	direct award
Hungary	central	central	direct award



# Public tenders – were they successful?

Public tender in SLOVAKIA	Year of announcement	Time period of operation	Number of participants	Successful participant	Final amount of contract
Žilina – Rajec	2018	10 years	1 (incumbent)	none	-
Košice – Moldava and Bodvou	2018	10 years	rejected before offers submission		
Bratislava – Komárno	2018	10 years	1 (Regio Jet)	none	-
Bratislava – Komárno	2020	10 years	1 (incumbent)	none	-
Žilina – Rajec	2020	10 years	0	rejected due to zero participants	
Bratislava – Komárno (market consultation)	2021	10 years (from 2023)	3 (ZSSK, Leo Express, Yosaria Trains)	Leo Express	111,796 mil. EUR (11,89 EUR/train-km)

# Key PSO indicators

different perspectives

Contracting authority	Railway carrier	Passenger
Way of contracting	Time period of the contract	Quality requirements (rolling stocks, regularity...)
Character of services	Operational performance of railway services [train-km]	Timeliness and accuracy requirements
Time period of the contract	Operational performance of railway services [seat-km]	Amount of regulated fare
Operational performance of railway services [train-km]	Way of compensation payment	
Operational performance of railway services [seat-km]	Agreed amount of the compensation for PSO	
Way of compensation payment	Timetable requirements	
Agreed amount of the compensation for PSO	Rolling stock requirements	
Compensation per performance unit [EUR/km, EUR/seat]	Quality requirements	
Timetable requirements	Timeliness and accuracy requirements	
Rolling stock requirements		
Transactional costs of the contract conclusion process		
Opportunity costs saving		

# Comparison of PSO indicators

Example of centrally concluded contracts

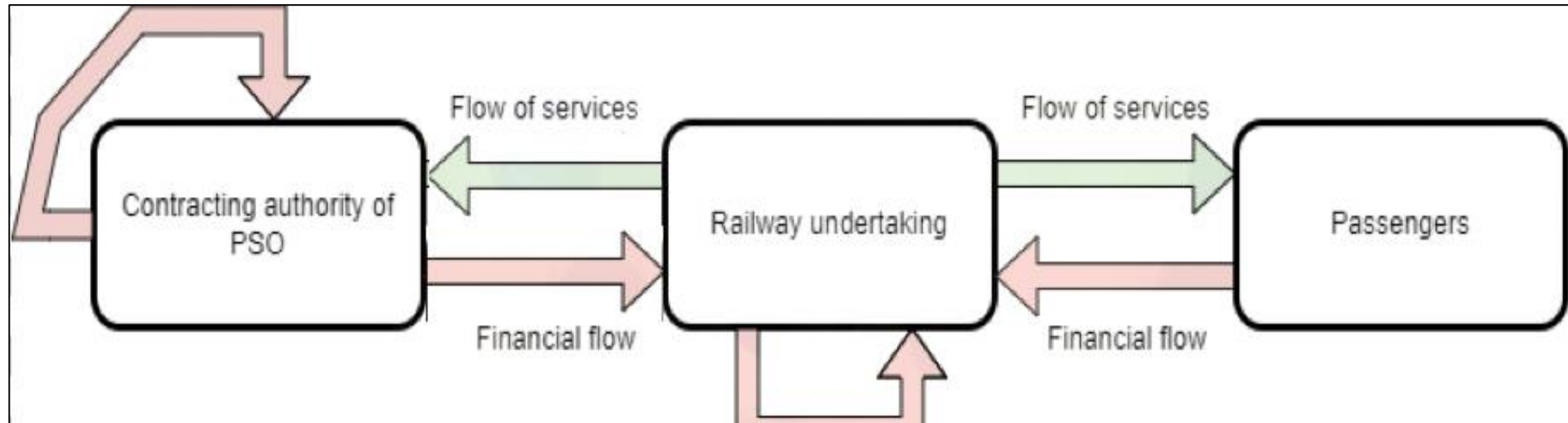
Indicator/PSO contract	Slovakia Ministry of Transport and ZSSK	Czech Republic Ministry of Transport and ČD (Ex2 + R18)	Czech Republic Ministry of Transport and Regiojet (R8)
Way of contracting	Direct award	Direct award	Public tender
Character of services	Long-distance and regional	Long-distance	Long-distance
Time period of contract	10 years	10 years	8 years
Operational performance	35 mil. train-km/year	4,4 mil. train-km/year	2,1 mil. train-km/year
Amount of compensation	503 mil. EUR/year	18,9 mil. EUR/year	10,5 mil. EUR/year
Compensation per performance unit	14,37 EUR/train-km	4,3 EUR/train-km	5 EUR/train-km
Timetable requirements	Not defined in contract	Defined timetable of trains on all lines	Defined timetable of trains on the line
Rolling stock requirements	Not defined in contract	Capacity requirements according to individual trains (including first class)	Capacity requirements according to individual trains (including first class)
Quality requirements	Defined for selected trains (express trains on route Bratislava – Košice)	Accessibility of trains for disabled person, hot food on board, 230V plugs	Accessibility of trains for disabled person, 230V plugs, Wi-fi access, snacks on board
Timeliness and accuracy requirements	Timeliness – 98 % required Accuracy – 98,3 % required	90 % accuracy level of trains required	90 % accuracy level of trains required



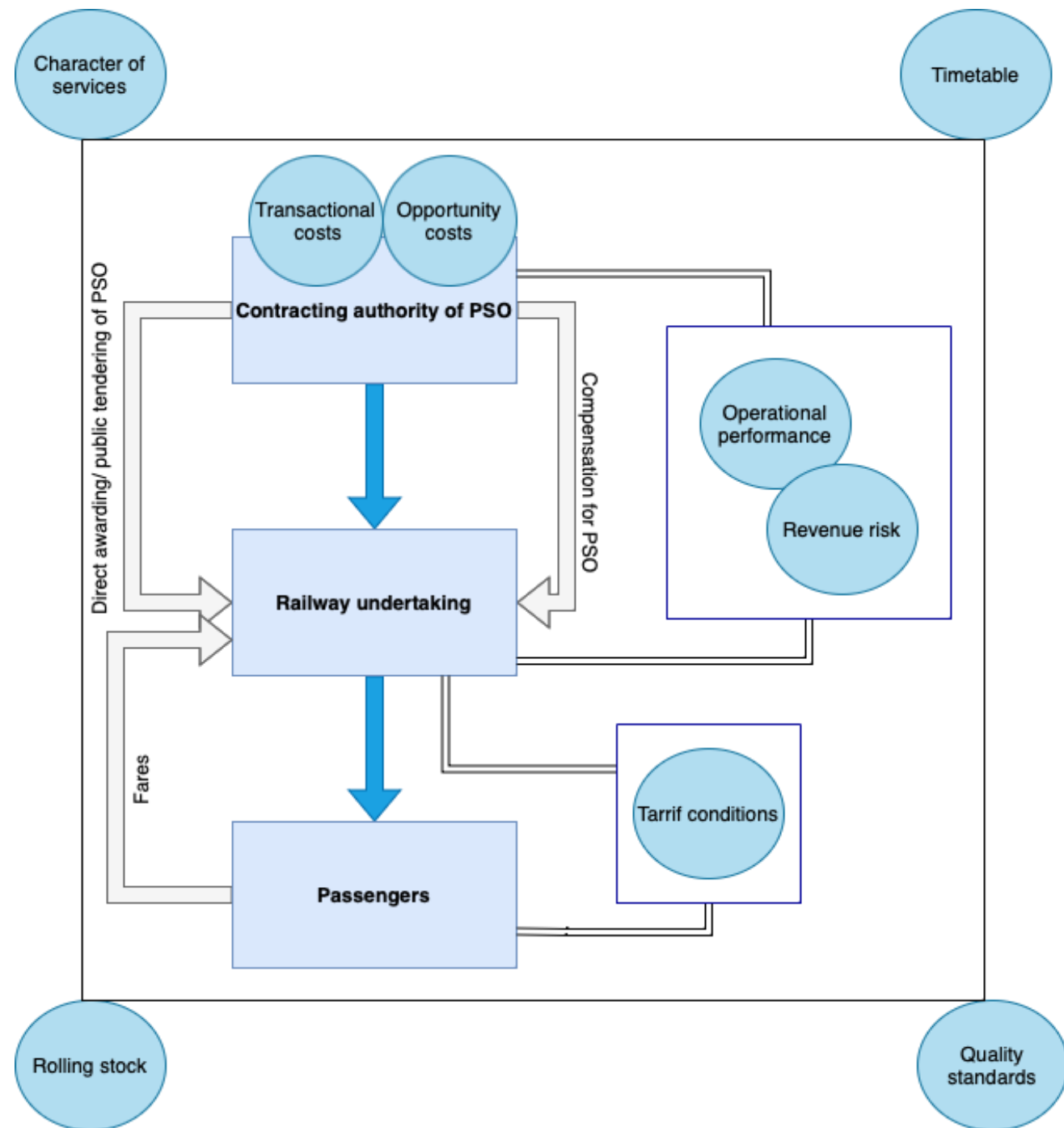
# Results

- determination of relationships between subjects on PSO market
- synergy model

# Determination of mutual relationships



# Synergy model



# Synergy effects

- **timetable / rolling stock / quality standards** → influence the character and range of PSO contract itself, and as a result satisfaction of passenger with the available service
- **transactional and opportunity costs** → enter the process of PSO contracting and affect the resulting contract price for both contracting authority and carrier
- **compensation / revenue risk** → as a result it is included not only in the costs and revenues of contract subjects, but also in passenger fares and tariff conditions

# Discussion

- applicable in EU-system countries
- mixed approach needed
- short experience with organizing the public tenders for PSO in V4 countries
- first step for determining the main factors entering the PSO efficiency model

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# Thank you for your attention

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