



# Landscape after the battle. Post-*Interregio* cases of low-scale on-track passenger rail competition in Poland

New Mobility - High-Speed Transport  
Systems and Transport-Related Human  
Behaviour  
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# Polish passenger railway market vs. selected European markets



Data for 2016/2017

Country	Total number of rail passengers [million]	Total number of rail pass-km [billion]	Long-distance passengers [million]	Long-distance pass-km [billion]	Total number of passengers of the main rail line [million]
Poland	304	20.3	40 <sup>a</sup>	10.4	1.2 – 1.5 Warsaw-Cracow
Czech Republic	183	9.5	(115) <sup>b</sup>	(8.3) <sup>b</sup>	1.6 Prague-Ostrava
Austria	246	12.6	36	-	-
Germany	2 834	95.2	142	40.4	3.6 Berlin-Munich
Italy	849	38.4	-	19.9	-

<sup>a</sup> authors' own estimation; <sup>b</sup> passengers transported outside integrated transport systems (IDS)

Source: own elaboration of the authors on the basis of: UTK, Ročenka dopravy 2017 , ÖBB in Zahlen 2017, Statistik Austria, Destatis, Istat, www.forbes.pl, Die Zeit

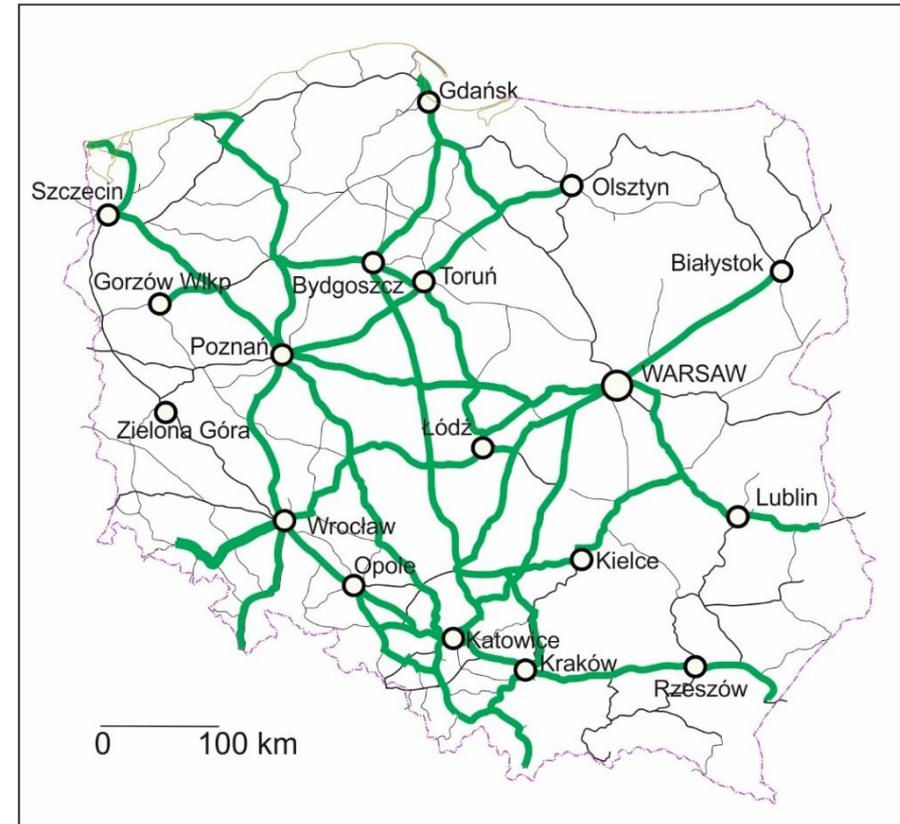


## Starting point of the study:

Król, M., Taczanowski, J. & Kotoś, A. (2018). The rise and fall of Interregio. Extensive open-access passenger rail competition in Poland, *Research in Transportation Economics*, 72, 37-48.



- ❑ The *Interregio* case: the competition that existed in long-distance services in Poland in 2009-2015.
- ❑ Fierce market rivalry between two SOEs answering to different levels of government.
- ❑ Aggressive low-cost entry, exceptional in terms of acquired market share (33%) and territorial reach.
- ❑ *Interregio* connected all main cities, several minor centres and tourist resorts.
- ❑ Served up to 62% of all possible direct connections between the largest cities.
- ❑ Incumbent used a differentiation strategy combined with a strategic use of political.
- ❑ Demise of *Interregio* in 2015.



Lines served by Interregio in 2012

Source: authors' own elaboration

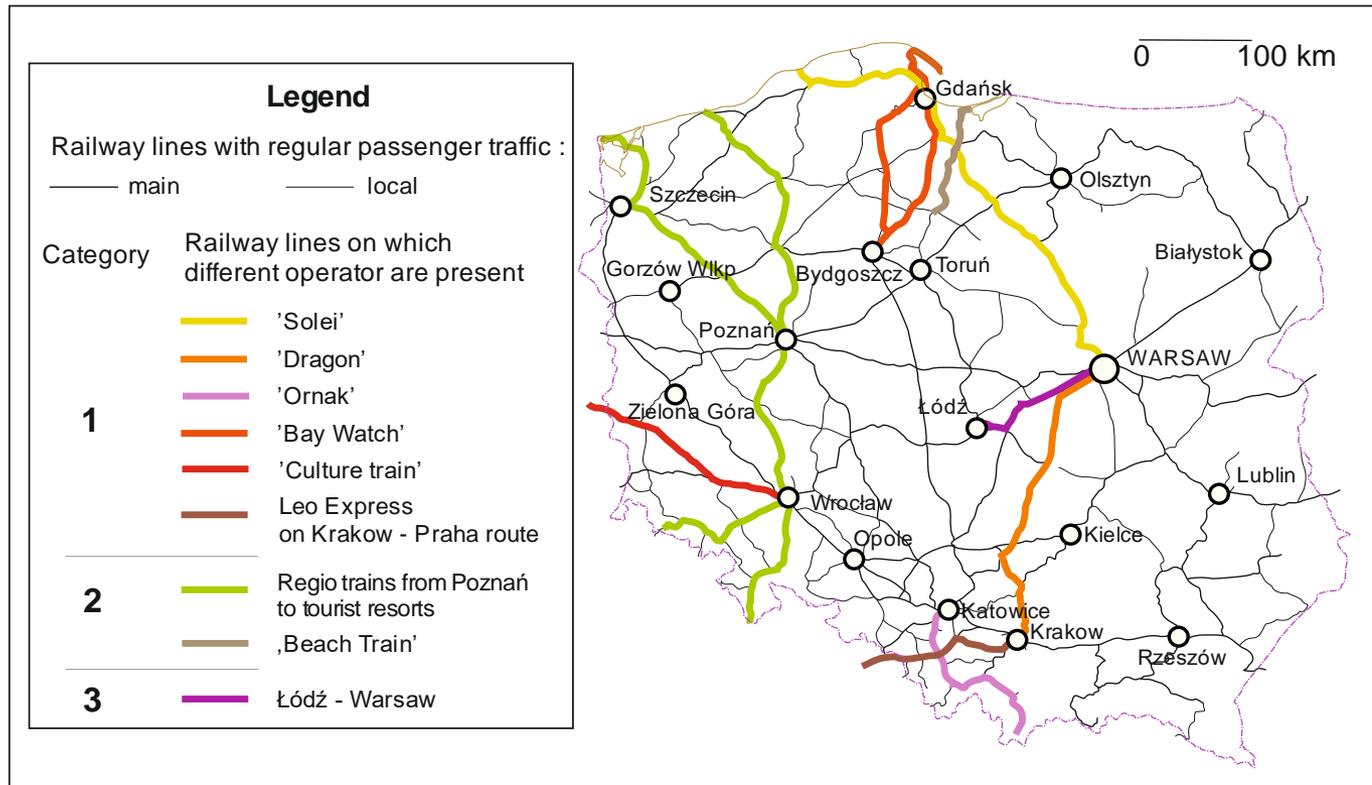


# Aim of the study:

to identify and analyse new examples of on-track passenger rail competition in Poland



- Our empirical study shows a significant number of **phenomena of on-track co-occurrence** in long-distance services in Poland.
- 11 of them can be identified as on-track competition.



Spatial range of newly-identified examples on-track passenger rail competition in Poland

Source: authors' own elaboration



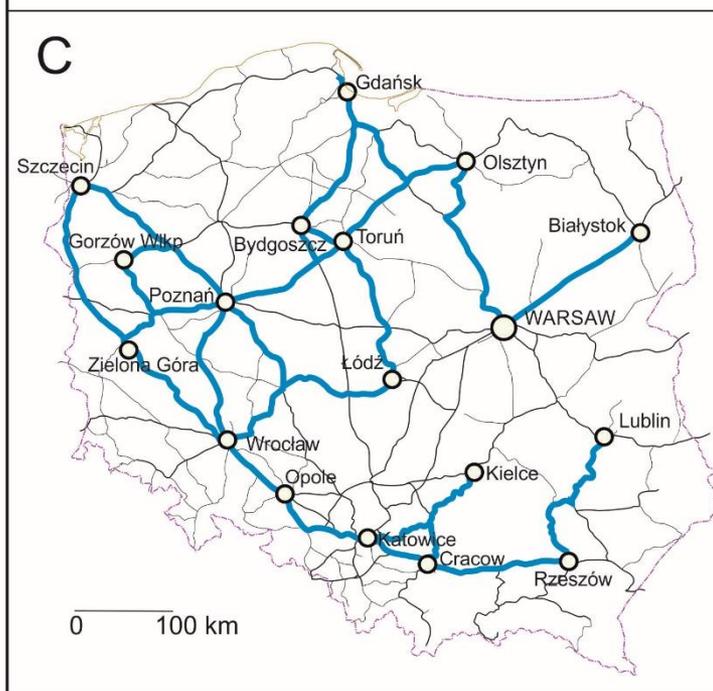
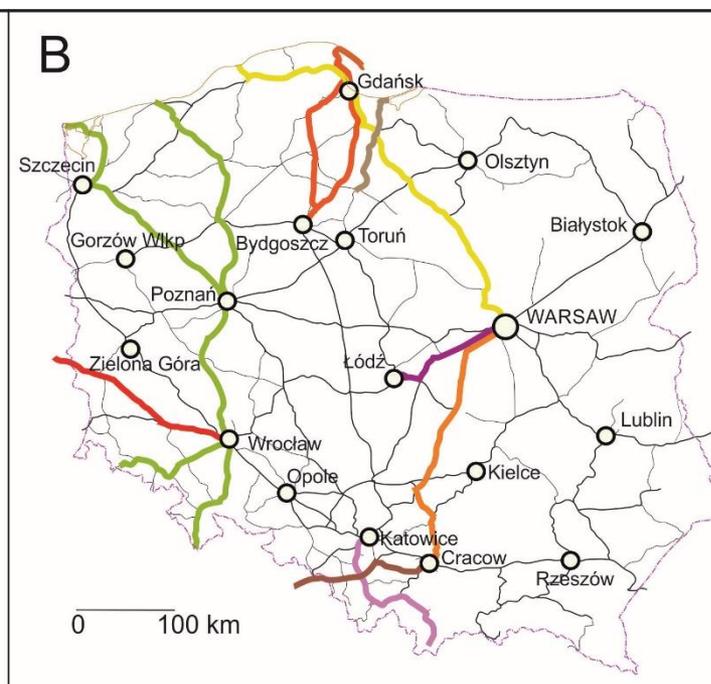
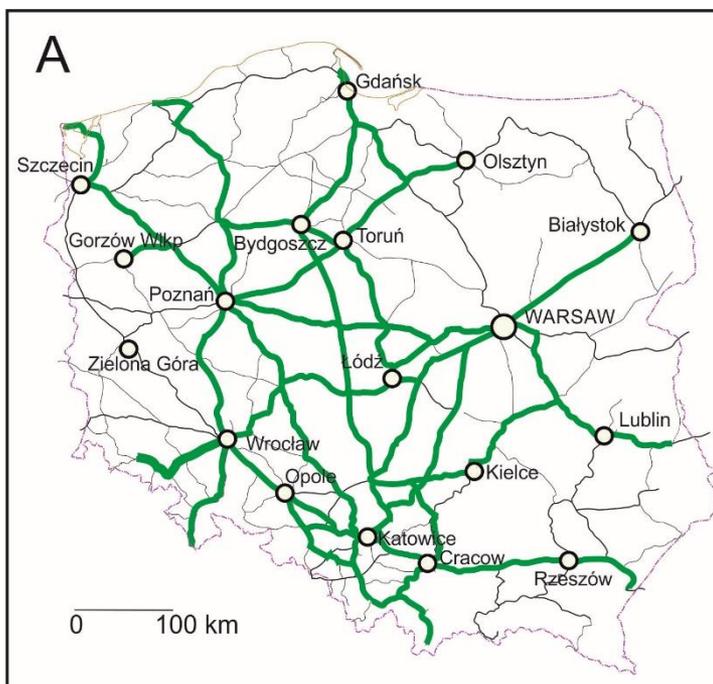
# Phenomena of on-track co-occurrence in long-distance services in Poland – categorisation



1. New commercial services started from scratch, targeting leisure segment:  
6 examples, made by 5 operators (region-owned operators, *Arriva* and *Leo Express*)
2. New services set up by combining the pre-existing regional services along the route, targeting leisure sector:  
5 examples, made by 2 operators (*PR*, *Arriva*).

They use regional PSO subsidization to finance (or co-finance) a market entry targeting the long-distance market

3. The last *Interregio* service on Warsaw–Łódź line where *PR* now co-operates with the local (region-owned) company *ŁKA*.
4. The *Interregio* 2009-2015
5. Co-occurrence of PR-operated regional trains and long-distance trains run by PKP Intercity on the routes connecting neighbouring capitals of regions in Poland



### Legend

Railway lines with regular passenger traffic :

— main — local

Map Category Railway lines on which different operator are present

Map	Category	Railway lines on which different operator are present
<b>A</b>	<b>4</b>	Interregio (service in 2012)
		'Solei'
		'Dragon'
		'Ornak'
<b>B</b>	<b>1</b>	'Bay Watch'
		'Culture train'
		Leo Express on Cracow - Prague route
<b>2</b>	<b>2</b>	Regio trains from Poznań to tourist resorts
		'Beach Train'
<b>3</b>	<b>3</b>	Łódź - Warsaw
<b>C</b>	<b>5</b>	Regio trains between regional capitals

Source: own elaboration of the authors



# Market evidence in a nutshell (1)



- ❑ The newly-analysed examples are numerous but low-scale.

(the combined market share of the challengers has never exceeded 2%)

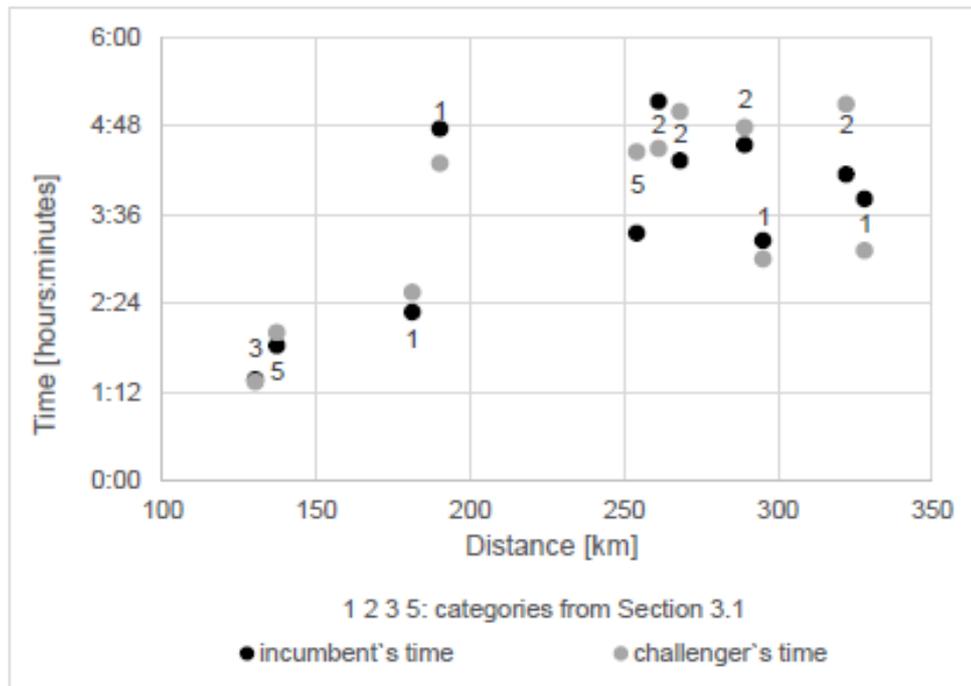
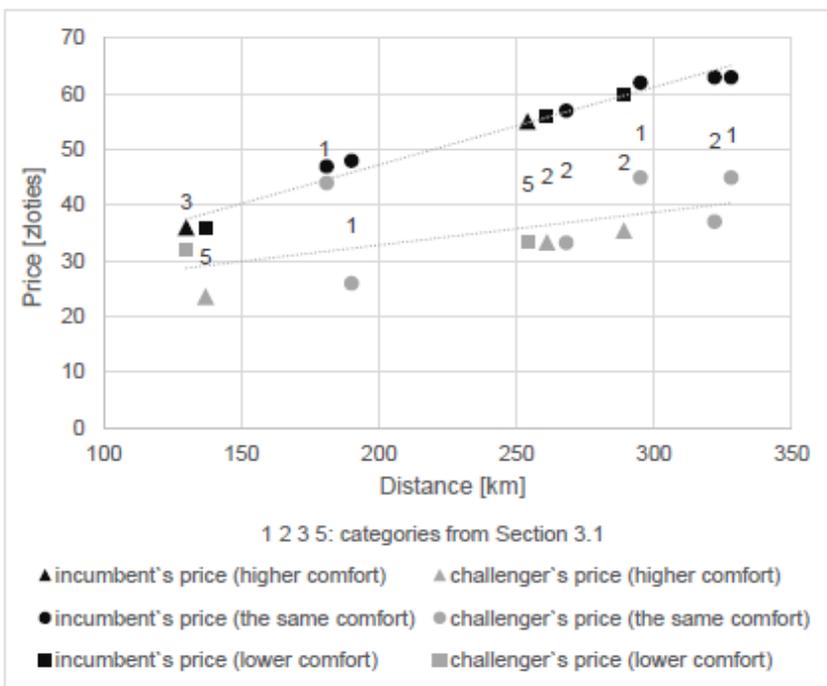
- ❑ The newly-analysed examples are strongly differentiated.
- ❑ All entries except one (*Leo Express*) were made by railway undertakings already operating in another segment of the passenger rail market (PSO regional services).
- ❑ The majority of these unusual intrusions were made not by the 'agile' private operators, but by the state-owned (*PR*) and region-owned (*Mazovian Railways*, *Silesian Railways*, *Lower Silesian Railways*) enterprises that dominate regional services in Poland.



## Market evidence in a nutshell (2)



- ❑ We have analysed main features of challenger's offers:
- ❑ Attractive (or very attractive in category 2 of examples) ticket prices combined with comparable or better comfort of service.
- ❑ Travel times comparable or better in category 1 of examples and typically worse in category 2 of examples.



Ticket prices and comfort for the analysed services in 2018

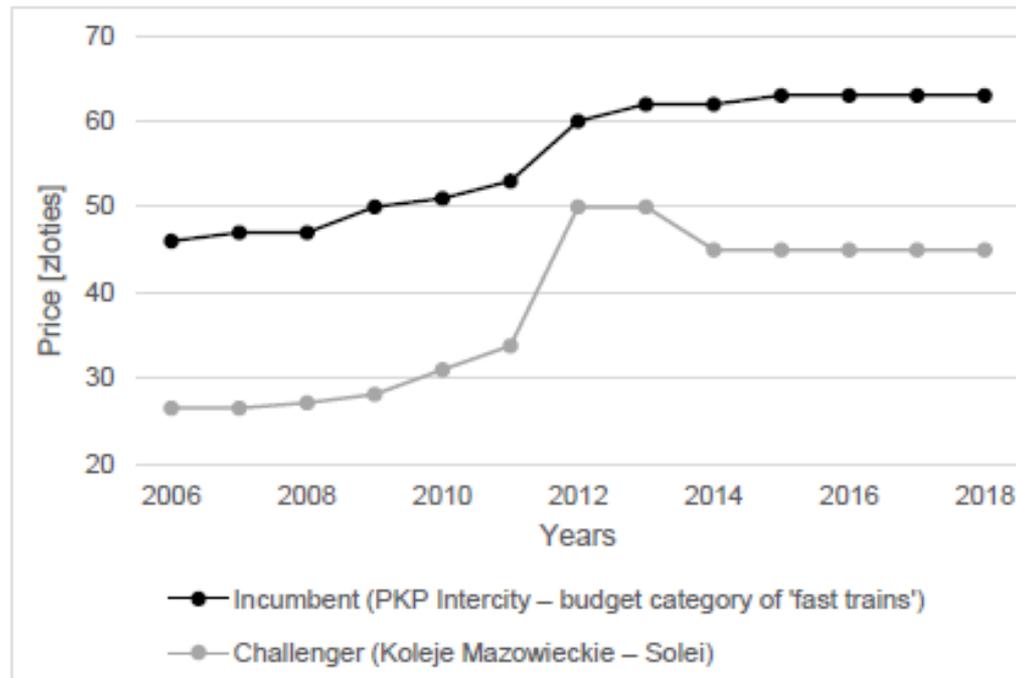
Average travel times for the analysed services in 2018



## Market evidence in a nutshell (3)



- ❑ No serious threats to the incumbent so its reactions were very moderate.
- ❑ No responsive price cutting in any of the analysed cases.
- ❑ Offer adjustments (e.g. implementing services in at a similar time slot).



Ticket prices on Warsaw-Gdańsk in 2006-2018



## Market evidence in a nutshell (4)



- ❑ We have observed interest in full-scale entries in Poland in a few recent years, especially on the ,flagship' Warsaw-Cracow route, however the regulatory body denied applications.
- ❑ These decisions were discretionary and controversial.

**Table 2. Open-access decisions issued by regulatory body in Poland**

	All decisions	of which decisions denying an application	Average time of processing an application
Total	55	4	-
of which			
decisions issued for the incumbent	35	0	96 days
decisions issued for challengers	19	4	203 days
other decisions	1 <sup>a</sup>	0	
of which decisions issued for challengers for important routes served by the incumbent	8	4	374 days <sup>b</sup>

Source: authors' database.

<sup>a</sup> – decision concerning heritage steam services (issued for PKP Cargo);

<sup>b</sup> – number of days for decisions denying an application.

- ❑ In addition, the applications made by *Leo Express* (Warsaw-Cracow) have been withdrawn (prior to the decision of regulatory body).



# Discussion and conclusions (1)



- ❑ Sample profile (the small scale of entry ) is a limitation of the study.  
( e.g. due to limited effects of competition, our results will certainly not help to answer fundamental questions about ‘the effectiveness of open-access competition as a way of improving the efficiency of passenger rail services’ (Johnson and Nash, 2012)
- ❑ Four entries to long-distance commercial services (category (1) of examples) have been made by region-owned enterprises set-up to operate in a different segment of the market (PSO regional services). A similar situation took place in the prior case of *Interregio*.
- ❑ Commercial services perceived by them as a ‘natural’ line of growth of their railway businesses.
- ❑ Not only ,new’ open-access operators challenge incumbents.
- ❑ Confining the ‘on-track competition’ to the activity of the ‘new’ open-access operators is fallacious.
- ❑ A bipolar regulatory approach (intentionally pro-competitive) that involves an unequal treatment of ‘old’ and ‘new’ operators can in fact hamper competition.

(e.g. allowing only ‘new’ operators to finance rolling stock from European funds – Proposal for a regulation)



## Discussion and conclusions (2)



- ❑ The difference between market shares acquired by *Interregio* only a few years ago (33% in 2012) and by the entrants in the newly-analysed (up to 2% in 2018) is striking.
- ❑ Ironically, our analysis shows that this may be partly result of a new legislation that has pre-empted the 4<sup>th</sup> railway package.
  - (i.e. introducing a ‘consideration’ of open-access applications by a regulatory body)
- ❑ Possibly, the new legislation has been used to engineer market foreclosures.





# References:



- Bergantino, A. S. (2015). Incumbents and new entrants, [in], Finger, M. & Messulam, P. (ed.), Rail economics, Policy and Regulation in Europe, Edward Elgar, Cheltenham, Northampton, 171-209.
- Beria, P., Redondi, R. & Malighetti, P. (2016). The effect of open access competition on average rail prices. The case of Milan – Ancona. Journal of Rail Transport Planning & Management, 6, 271-283.
- Beria, P., Quinet, E., de Rus, G. & Schulz C. (2012). A comparison of rail liberalisation levels across four European countries. Research in Transportation Economics, 36, 110-120.
- Finger, M. & Messulam, P. (2015). Rail economics and regulation [in], Finger, M. & Messulam, P. (ed.), Rail economics, Policy and Regulation in Europe, Edward Elgar, Cheltenham, Northampton, 1-21.
- Finger, M. & Rosa, A. (2012). Governance of Competition in the Swiss and European Railway Sector. Final research report to the SBB lab, University of St.Gallen, Firenze: European University Institute/Florence School of Regulation.
- Fröidh, O., & Nelldal, B-L. (2015). The impact of market opening on the supply of interregional train services. Journal of Transport Geography, 46, 189-200.
- Johnson, D. & Nash, Ch. (2012). Competition and the provision of rail passenger services: A simulation exercise. Journal of Rail Transport Planning & Management, 2, 14-22.
- Feuerstein, L., Busacker, T. & Xu, J. (2018). Factors influencing open access competition in the European long-distance passenger rail transport — A Delphi study. Research in Transportation Economics, 69, 300-309.
- Król, M., Taczanowski, J. & Kołoś, A. (2018). The rise and fall of Interregio. Extensive open-access passenger rail competition in Poland. Research in Transportation Economics, 72, 37-48.
- Nilsson, J-E. (2002). Restructuring Sweden’s railways: The unintentional deregulation. Swedish Economic Policy Review, 9, 229-254.
- Temple, S., (2015). Open Access Long Distance Passenger Rail Services in the United Kingdom: The Grand Central Experience. Transportation Research Procedia, 8, 114 – 124.
- Tomeš, Z. & Jandová, M. (2018). Open access passenger rail services in Central Europe. Research in Transportation Economics, 72, 74-81.
- Tomeš, Z., Kvizda, M., Jandová, M. & Rederer, V. (2016). Open access passenger rail competition in the Czech Republic. Transport Policy, 47, 203-211.
- Van der Velde, D. (2015). European railway reform: unbundling and the need for coordination [in], Finger, M. & Messulam, P. (ed.), Rail economics, Policy and Regulation in Europe, Edward Elgar, Cheltenham, Northampton, 52-88.

Sources of pictures:

Jakub Taczanowski; <https://bielskobiała.beskidy.news>; <https://dozer.kolej.org.pl>; [www.inforail.pl](http://www.inforail.pl); <http://katowice.wyborcza.pl>; [www.mazowieckie.com.pl](http://www.mazowieckie.com.pl) , [www.facebook.com/KolejBeskidzka/photos](https://www.facebook.com/KolejBeskidzka/photos)



Thank you for your attention!



# The average distance in kilometres that passengers travel by rail in one year

Country	2013	Difference between 2000 and 2013
Poland	475	- 24.2%
Czech Republic	640	- 8.0%
Slovakia	450	- 15.5%
Hungary	785	- 19.5%
Austria	1330	+ 25.3%
Germany	1040	+ 12.7%
Switzerland	2450	+ 54.3%

Source: Verkehrsclub Österreich.



# Soleil train



- ❑ A new connection from Warsaw via the Tricity to the Baltic sea coastal resorts
- ❑ Service introduced in 2005
- ❑ Very attractive ticket price: 45 zloties against 63 of the incumbent PKP Intercity's fast trains and 147 of its express train
- ❑ Very short travel time: 3h07min against 3h49min of fast train (express train 2h53min)
- ❑ High comfort – modern air conditioned push-pull double deckers against mainly old style carriages of PKP Intercity fast trains



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