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Analysis of the limitations to intermodal transport development in Poland

Prof. W. Rydzkowski
University of Gdańsk
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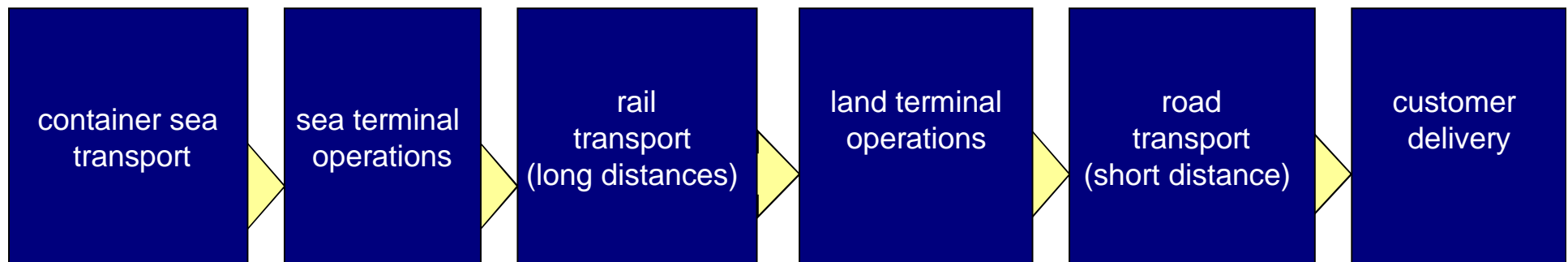
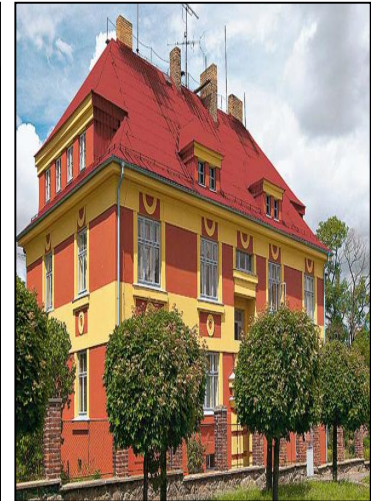


Agenda:

- Pros and cons of intermodal transport
- Intermodal transport environment
- Law/legislation
- Railway infrastructure
- Terminal infrastructure
- Rail network access charges
- Infrastructure charges in road transport
- Container supply in sea ports
- Conclusions

Intermodal transport

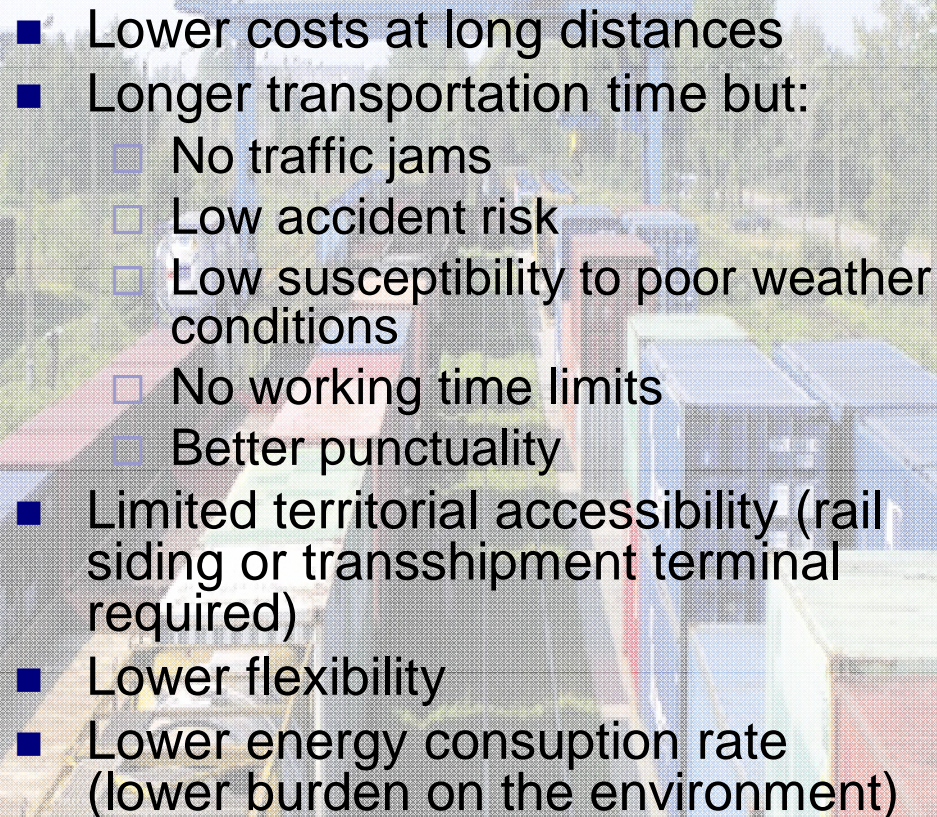
is an activity of organising transport, using more than one mode of transport



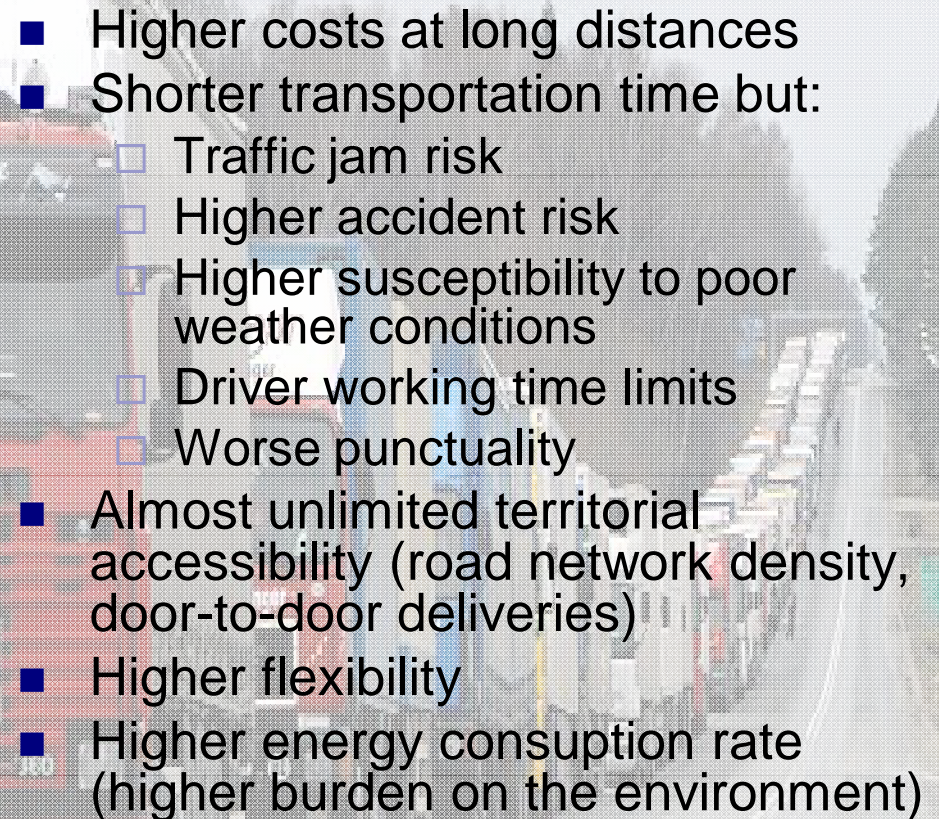


Pros and cons of intermodal transport

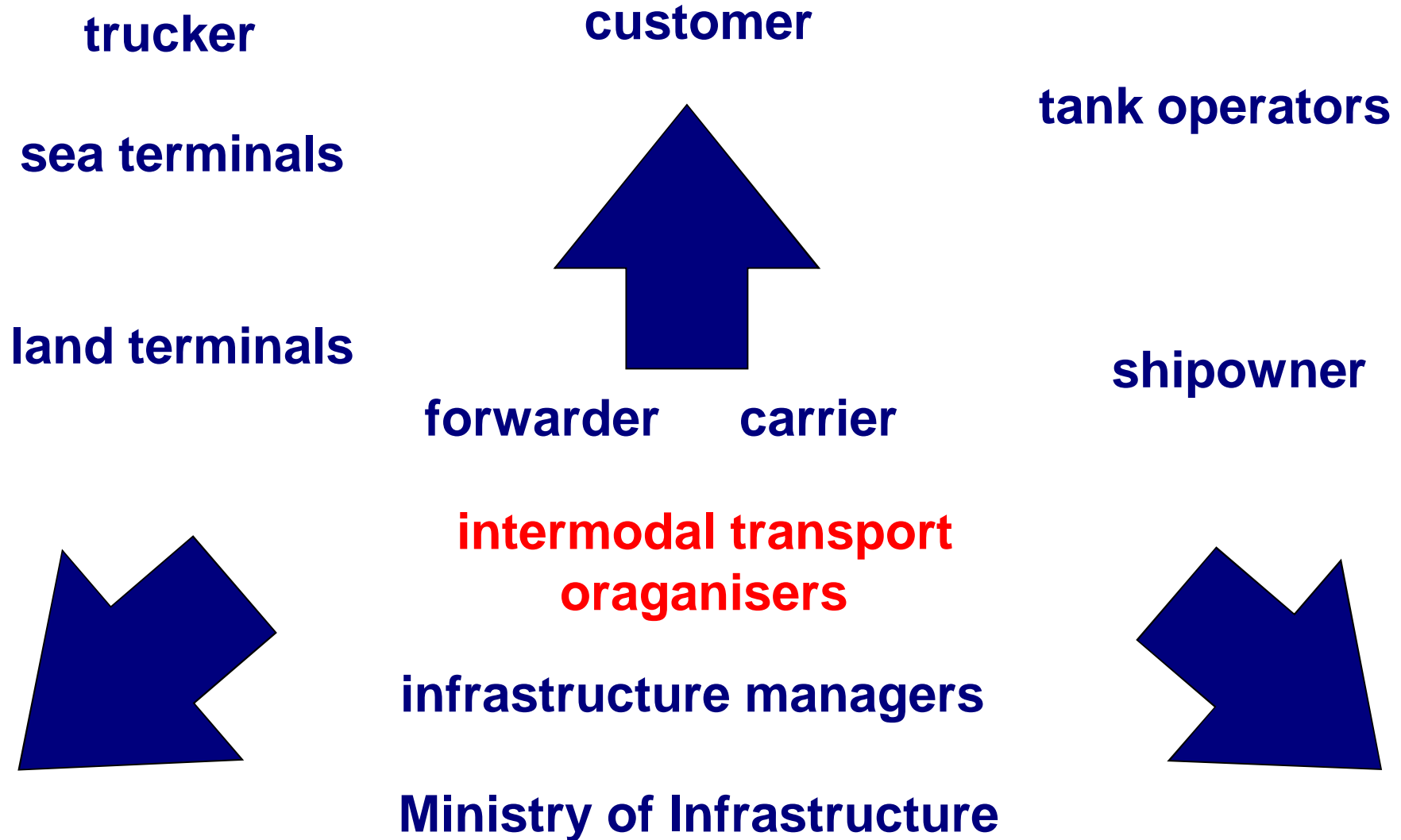
Rail transport

- 
- Lower costs at long distances
 - Longer transportation time but:
 - No traffic jams
 - Low accident risk
 - Low susceptibility to poor weather conditions
 - No working time limits
 - Better punctuality
 - Limited territorial accessibility (rail siding or transshipment terminal required)
 - Lower flexibility
 - Lower energy consumption rate (lower burden on the environment)

Road transport

- 
- Higher costs at long distances
 - Shorter transportation time but:
 - Traffic jam risk
 - Higher accident risk
 - Higher susceptibility to poor weather conditions
 - Driver working time limits
 - Worse punctuality
 - Almost unlimited territorial accessibility (road network density, door-to-door deliveries)
 - Higher flexibility
 - Higher energy consumption rate (higher burden on the environment)

Selected entities in the intermodal transport environment



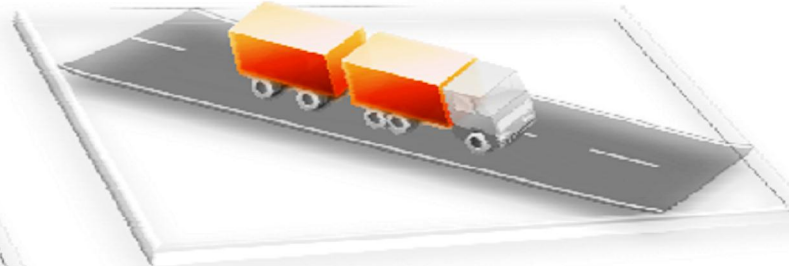
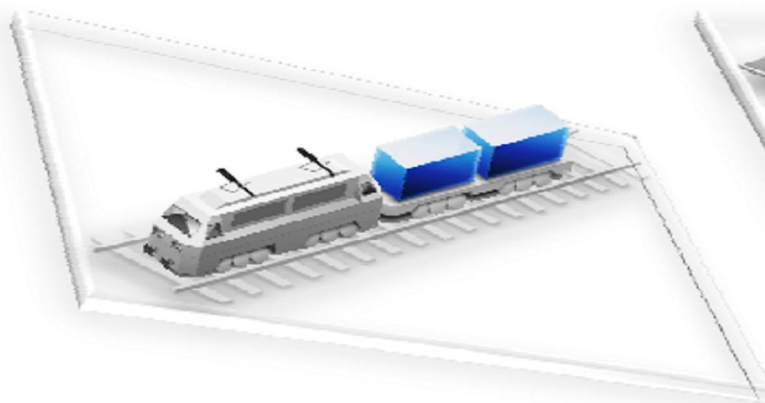


Law/legislation

- **no regulations** in the Polish law that would standardise transport organisers activity, such as:
 - ☐ detailed regulations concerning the activity
 - ☐ detailed description of responsibility
 - ☐ detailed description of general and specific rights
- domestic and international **intermodal waybill**
- **definition** of basic terms
- **understanding the specificity** of intermodal transport

Infrastructure

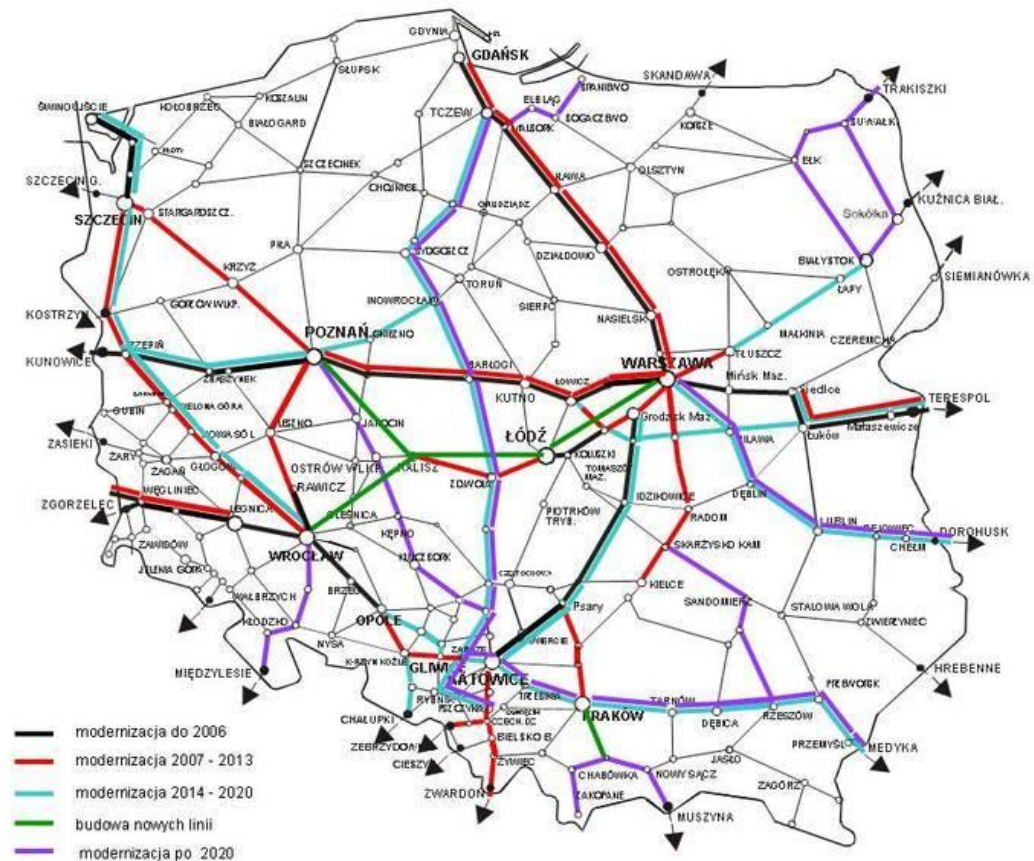
In **2009**, Polish tracks were used by approx. **7 thousand** trains each day, including slightly more than **100 intermodal** trains. In Poland, the share of intermodal transport in overall rail transport has remained on an **invariably low 2% level** for years, while the European average has been constantly **increasing** and exceeded the level of **ten-odd** percent a long time ago.



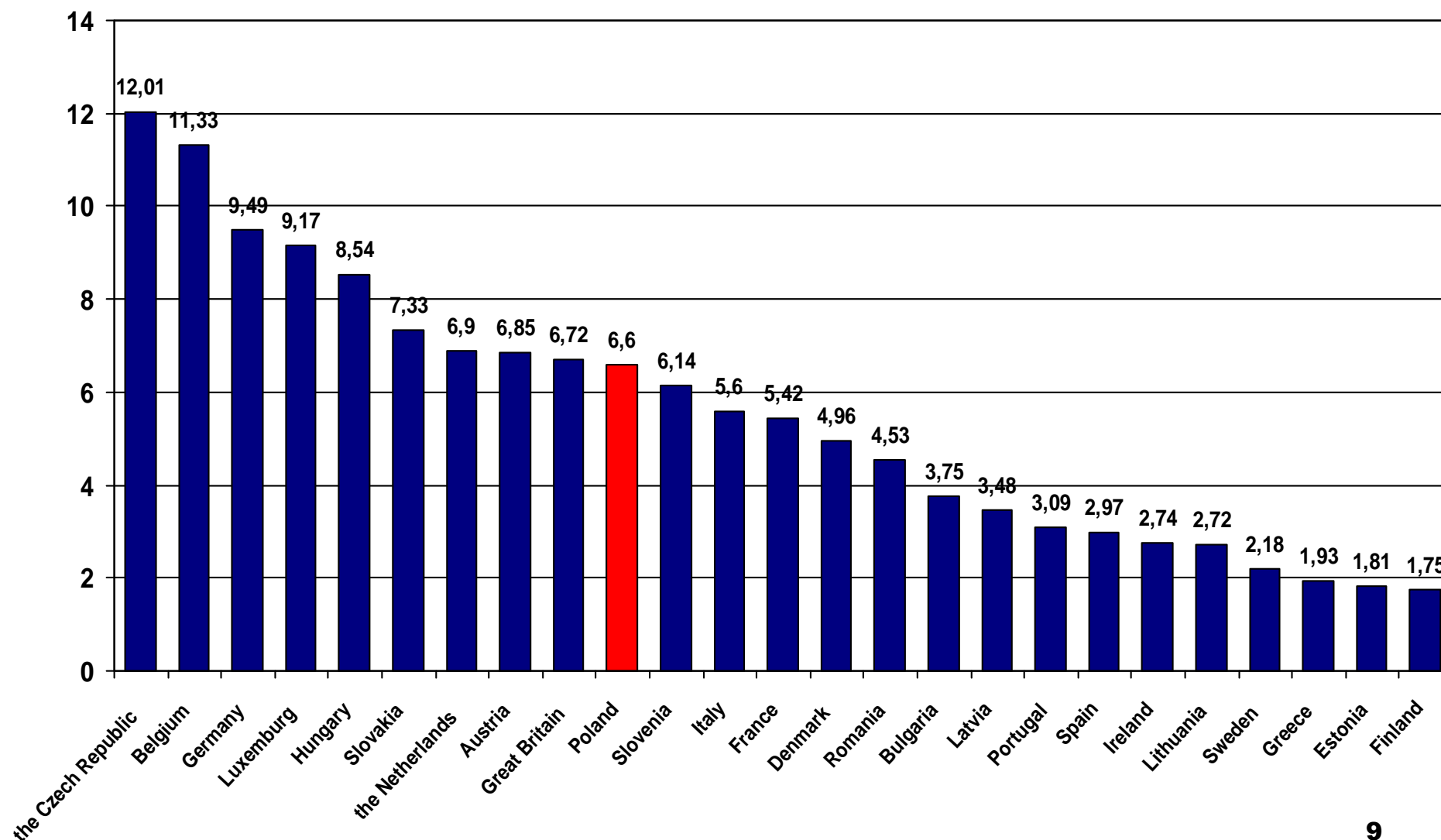
Rail infrastructure

- The condition of more than 25% of the infrastructure is unsatisfactory
- Average traction train speed does not exceed 30 km/h
- More than 1000 km of railway lines are currently being modernised or rebuilt

Polish rail network is one of the most extensive networks in Europe!!!



Rail line density in the EU states in 2008 (km/km²)



Domestic land container terminals:

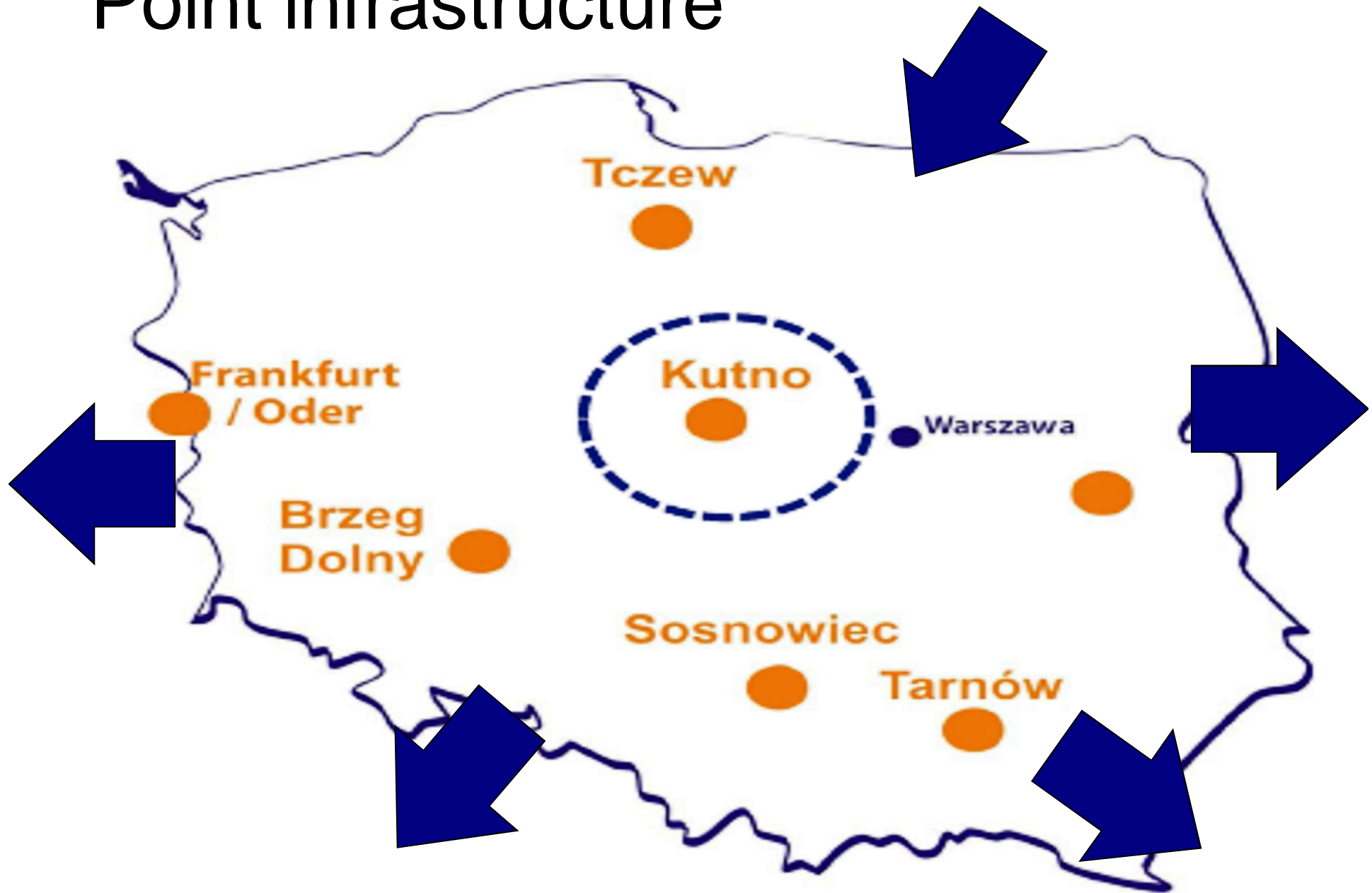
- **No. of terminals: 20**
- **Average area: 2,5 ha**
 - largest area: 8.4 ha
 - smallest area: 0.5 ha
- **Estimated total annual loading capacity: about 1 600 000 TEU**



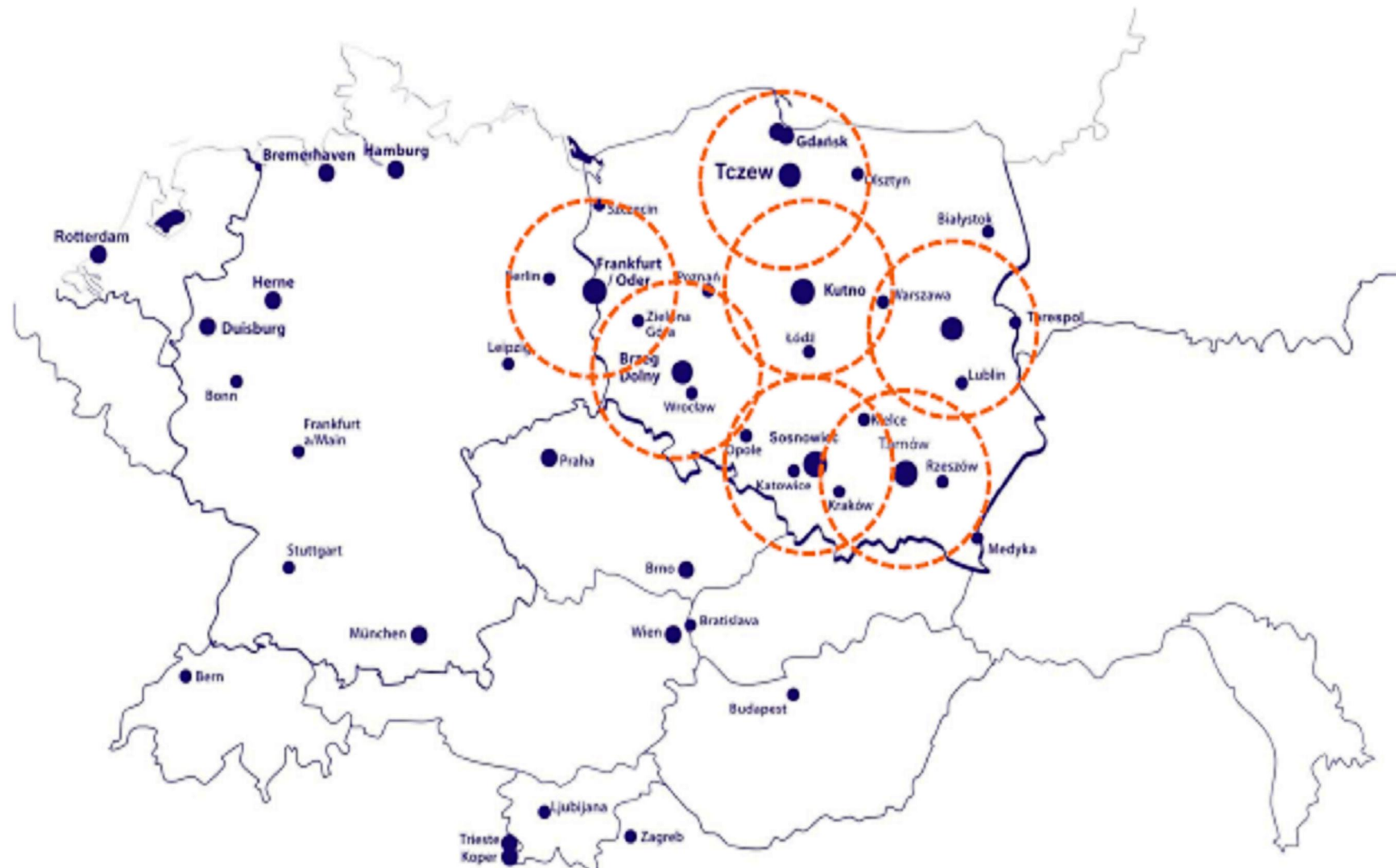
Terminal	Area
CL in Bremen	20.0 ha
CL in Dresden	6.5 ha
CL in Leipzig	11.0 ha
CL in Graz	2.5 ha
CL in Verona	16.3 ha
CL in Budapest	22.0 ha

Average area: 13,1 ha

Point infrastructure



Point infrastructure



PKP PLK access charges

connection	km	Intermodal 2009		Tariff 2009		Intermodal 2010 (-25%)		Access charge increase per train (in PLN)	Access charge increase per TEU (in PLN)
		price PLN 5.44/km		price PLN 16.43/km		price PLN 12.32/km			
		price per run (in PLN)	price per TEU (56 TEU) (in PLN)	price per run (in PLN)	price per TEU (56 TEU) (in PLN)	price per run (in PLN)	price per TEU (56 TEU) (in PLN)		
Gdynia GPF. Sjawków	584	3 176.96	56.73	9 595.12	171.34	7 196.34	128.51	4 019.38	71.77
Gdynia GPF. Brzeg Dolny	503	2 736.32	48.86	8 264.29	141.58	6 198.22	110.68	3 461.90	61.82
Gdynia GPF. Krzewie	334	1 816.96	32.45	5 487.62	97.99	4 115.72	73.49	2 298.76	41.05

Average cost of using 1 km of the PKP PLK rail infrastructure



- this shows the rise of rail infrastructure access charges by 127%
- transport on the Gdynia – Sławków route (tax / rail toll) costs more than PLN 340/40

Infrastructure access charges for road carriers

Vehicle type	Charges in PLN							
	day		week		month		year	
	EURO vehicle class depending on exhaust gas emission limits							
	max EURO 3	min. EURO 4	max EURO 3	min. EURO 4	max EURO 3	min. EURO 4	max EURO 3	min. EURO 4
Vehicles and vehicle units other than buses with DMC of at least 12t and 4 axles	46	46	189	160	580	522	3371	2782

Average
daily
charge
~ PLN 9.24

+

Certificate
of professional
competence
~ PLN 4.11 a day

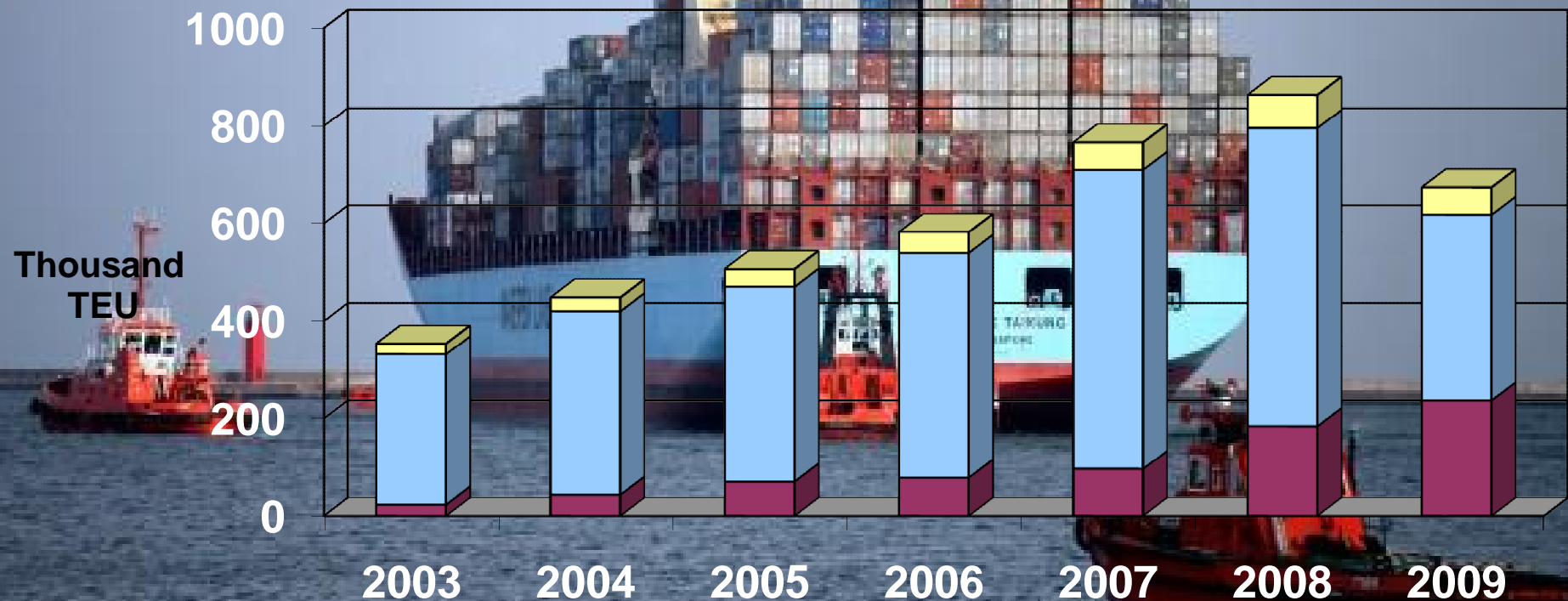
+

Licence for
domestic transport
~ PLN 2.50 a day

In domestic transport, the average cost equals ~ PLN 16 a day (without carriers liability insurance and excise duty on petrol)!

In international transport, the average cost equals ~ PLN 17 a day (plus road toll . no more than 20 eurocents per km)!

Container transshipments at Polish ports in 2003-2009



■ Gdańsk ■ Gdynia ■ Szczecin - winouj cie

Source: own analysis based on: the *Namiary na Morze i Handel* biweekly, special supplement 2 Feb. 2008; special supplement . Feb. 2010



Conclusions:

- No interest in the development of intermodal transport
- Lack of adequate legal regulations and transport policy supporting intermodal transport
- Sufficient density but poor quality of rail line and point infrastructure
- Too high rail infrastructure access charges for intermodal carriers
- Too low container supply at Polish sea ports



Thank you for your attention