The role of Seaports as a Link between Inland and Maritime Transport
UNECE Conference
Piraeus, Greece
17-18 September 2008

The Hinterland Connections of the Baltic Seaports – Competition, Bottlenecks, Trends
The Example of the Polish Ports

Prof. Dr Wlodzimierz Rydzkowski
The University of Gdansk, Poland

Structure of Baltic maritime transport depending on type of cargo (2006)

Type of cargo	Total mio tons	Total share(%)	External Baltic transport (mio tons)	Internal Baltic (mio tons)
Liquid bulk foods	256,8	44,2	201,8	55,0
Container	139,8	24,1	103,6	36,2
Ro/Ro	69,7	12,0	46,2	4,4
Other cargo (breakbulk)	63,7	11,0	48,0	15,7
Total	580,6	100	413,1	167,5

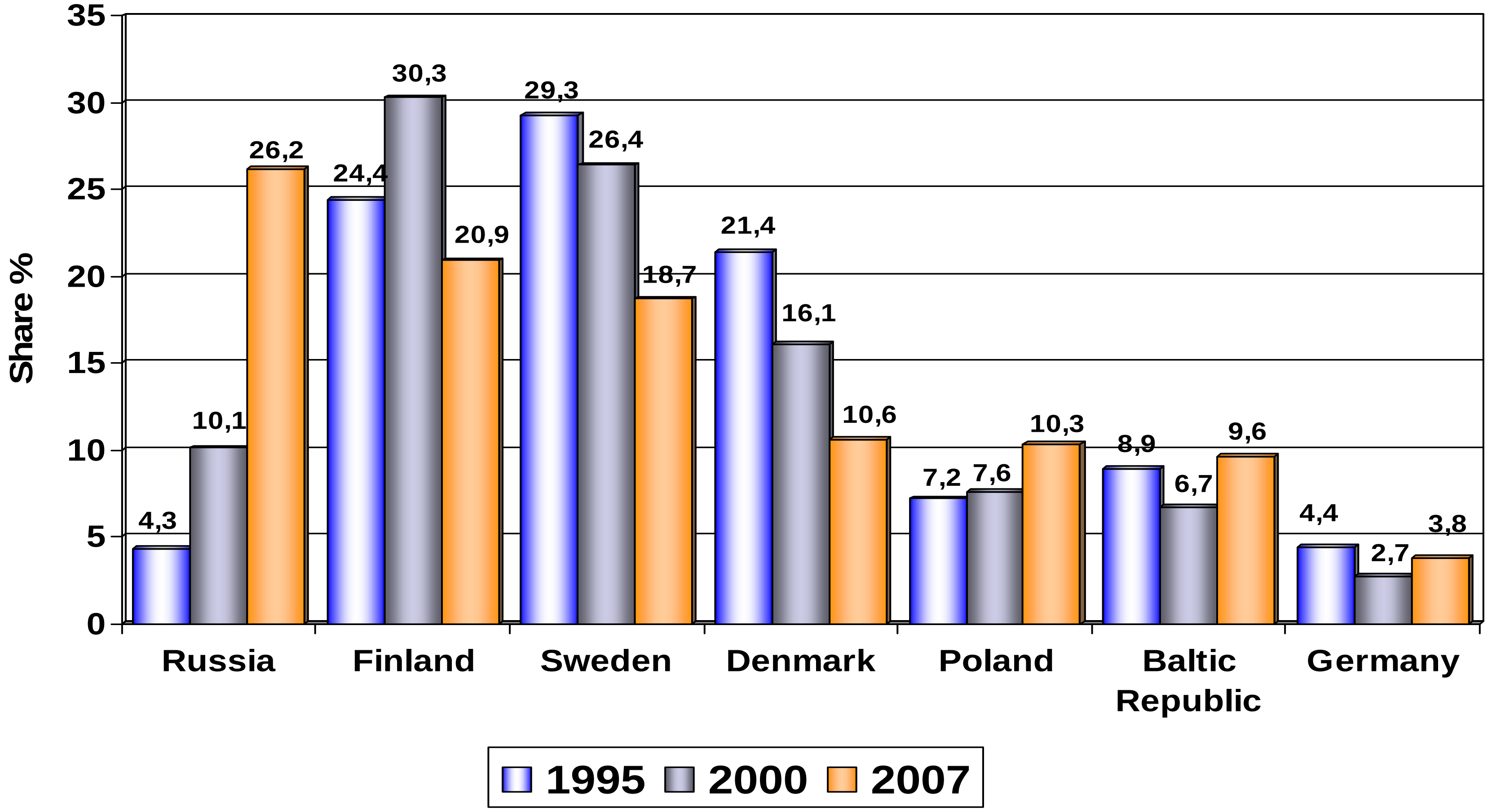
Structure of Baltic container traffic 2006

Segments	Turnover (Mio TEU)	Share (%)
1. Total transport	5,77	100,0
2. Baltic internal transport	0,61	10,6
3. Baltic external transport • With main ports In Germany, Netherlands, Belgium • With UK, Ireland, Norway, Island, Mediterranean, • Direct intercontinental transport, others	5,16 4,37	89,4 75,7

Container turnover in Baltic Sea Ports depending on country (in 1000 TEU)

Country/port	1995	2000	2004	2005	2006	2007
Germany	94	82	130	161	284	280
Denmark	456	487	538	614	684	789
Sweden	624	797	1110	1186	1286	1389
Finland	520	914	1297	1314	1393	1554
Russia	92	306	846	1227	1604	1950
Estonia	39	77	113	128	152	181
Latvia	120	85	152	156	177	212
Lithuania	30	40	174	214	232	321
Poland	154	228	449	502	582	768
Total	**2129**	**3016**	**4809**	**5502**	**6394**	**7444**

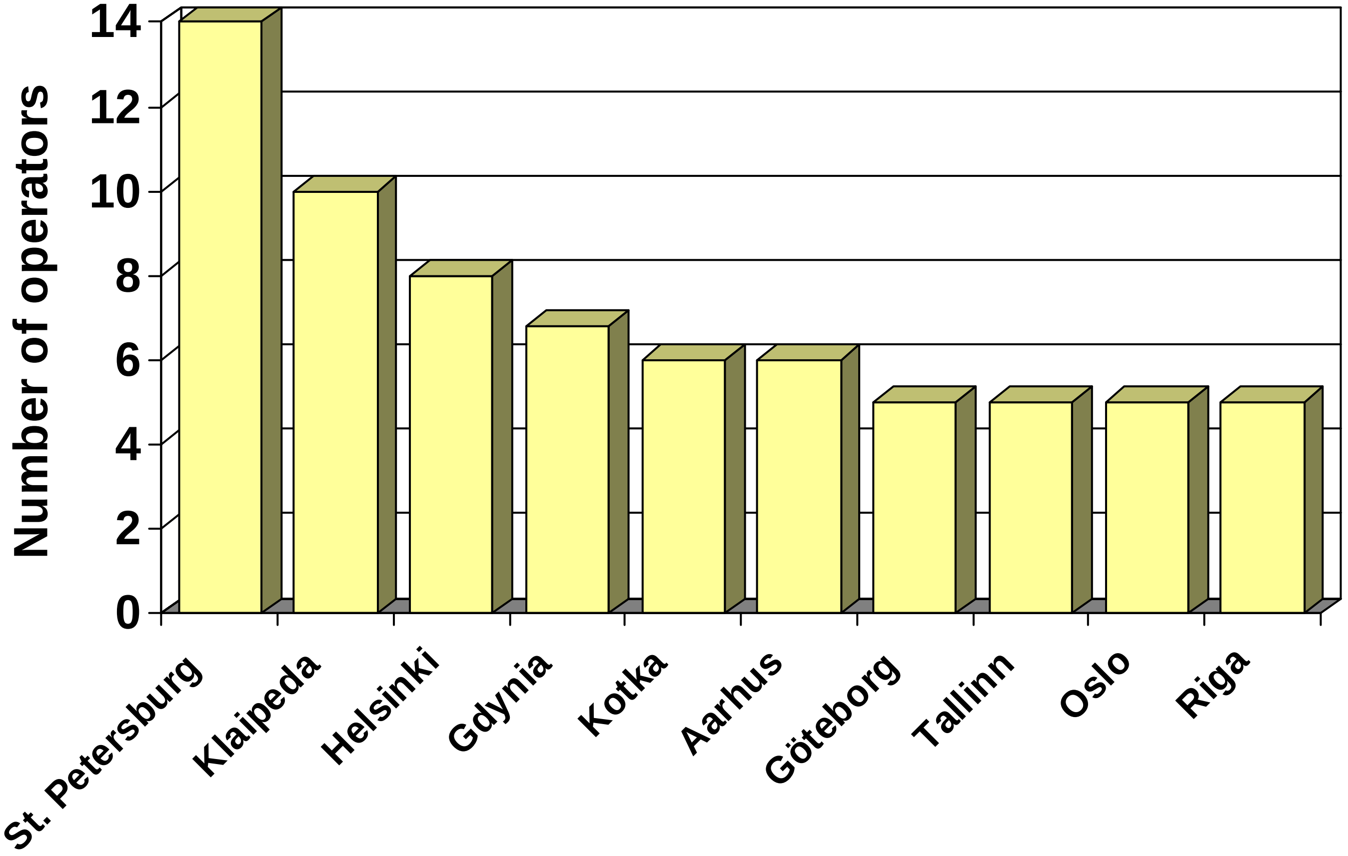
Shift of ratio in Baltic container transport depending on country



Structural changes in Baltic container transport according to countries

	1995	2000	2007
In 1000 TEU			
Developed market economies New market economies	1694 435	2280 736	4012 3432
Total	**2129**	**3016**	**7444**
In per cent			
Developed market economies New market economies	79,6 20,4	75,6 24,4	53,9 46,1
Total	**100,0**	**100,0**	**100,0**

Number of feeder operators calling in different Baltic ports

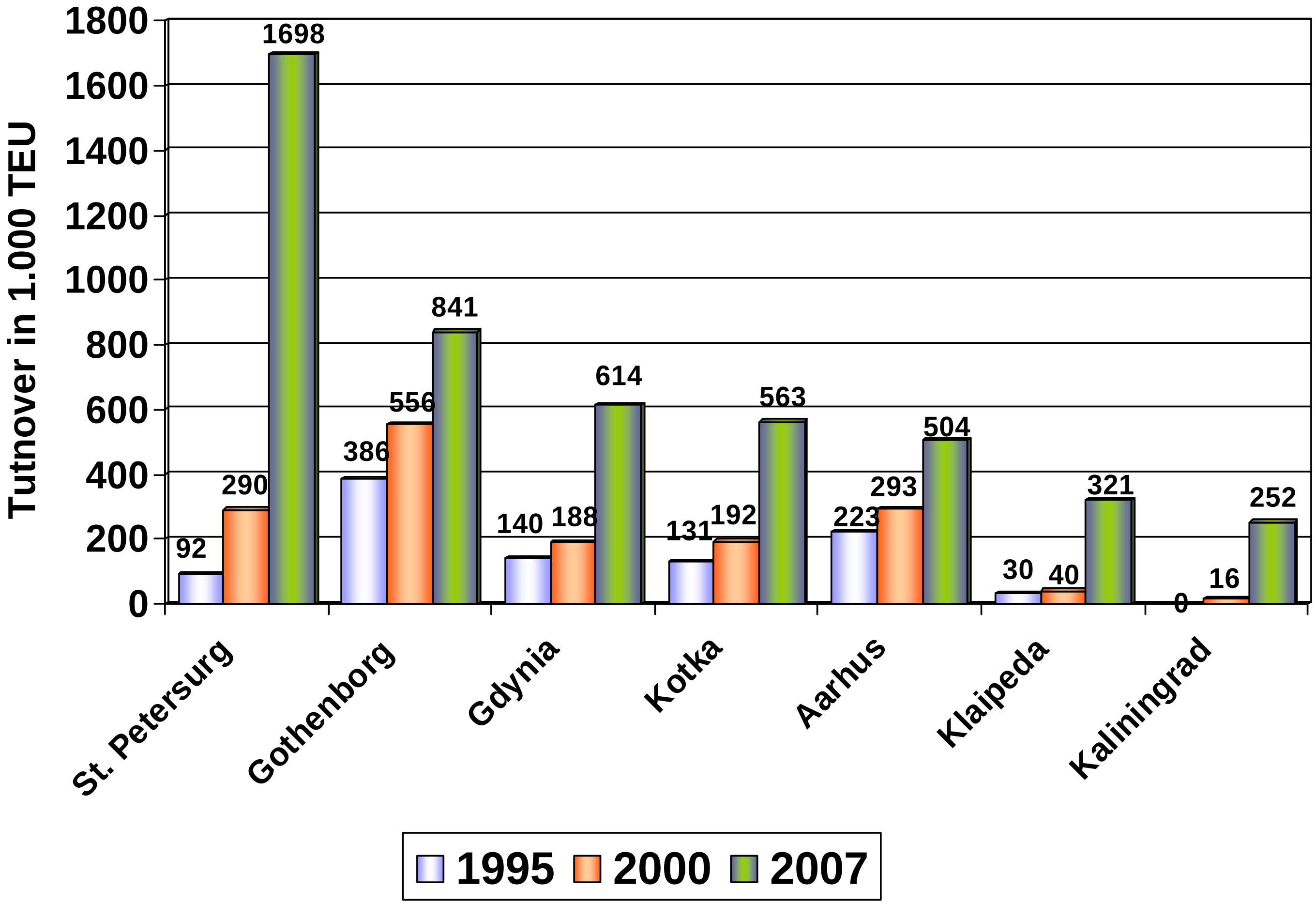


operators in the Baltic

- Feeder operators
  - Market leader
    - Unifeeder
    - Teamlines
  - Oversea shipping companies
    - APL
    - Evergreen
    - Maersk
    - MSC
    - NYK
    - OOCL
  - Niche suppliers
    - IMCL
    - Samskip
    - FESCO ESF
    - Stella Lines
    - MacAndrews
    - Seaconnect
    - X-Press Container Line
    - Tschudi Lines Baltic Sea AS
    - Trans-Baltica Container Line
    - Rederi AB Transatlantic
    - Eimskip
    - Balticon
    - NSC Arkhangelsk
    - DFDS LYS Line
    - Hacklin Seatrans
    - Delta Shipping Lines
    - Containerships Ltd OY
    - SL-Feeder Nordic Line
    - Swan Container Line

Source: K.-H. Breitzmann/Malte Rambow

Container turnover in Baltic Sea Ports



Container transport of Northwest-European main ports with the Baltic 2006 (1.000 tons)

Ports in	Hamburg	Bremerh.	Rotterdam	Antwerp	Total
Finland	4.318	1.923	996	401	7.638
Sweden	3.176	1.682	717	520	6.095
Denmark	1.522	895	154	373	2.944
Poland	2.210	1.696	74	153	4.133
Estonia	635	236	56	619	1.546
Latvia	575	323	23	535	1.456
Lithuania	495	564	189	56	1.304
Russia (Balitc)	4.940	2.418	2.053	1.623	11.034
Germany (Baltic)	1	1	5	-	7
Total	**17.872**	**9.738**	**4.267**	**4.280**	**36.157**
Share (%)	**49,4**	**26,9**	**11,8**	**11,8**	**100,0**

In 2007 Polish ports recorded an 31% increase in container traffic The share of Polish ports in Baltic Sea area was 10,2% in 2007 (9% in 2006) 4th place after Russia, Sweden and Finland

Containers	2000	2006	2007	2007/2006
Gdynia	188 272	461 170	614373	33,2%
Gdańsk	18 037	78 364	96 873	23,6%
Szczecin-Świnoujście	21 865	42 424	56 276	32,7%
Total	228 174	581 958	767 522	31,89%
Hamburg	4 248 000	8 862 000	9 890 000	11,6%

Two turning points of changes in Central and Eastern Europe:

- Political and economic changes in the late 80’
- Enlargement of the EU in 2004

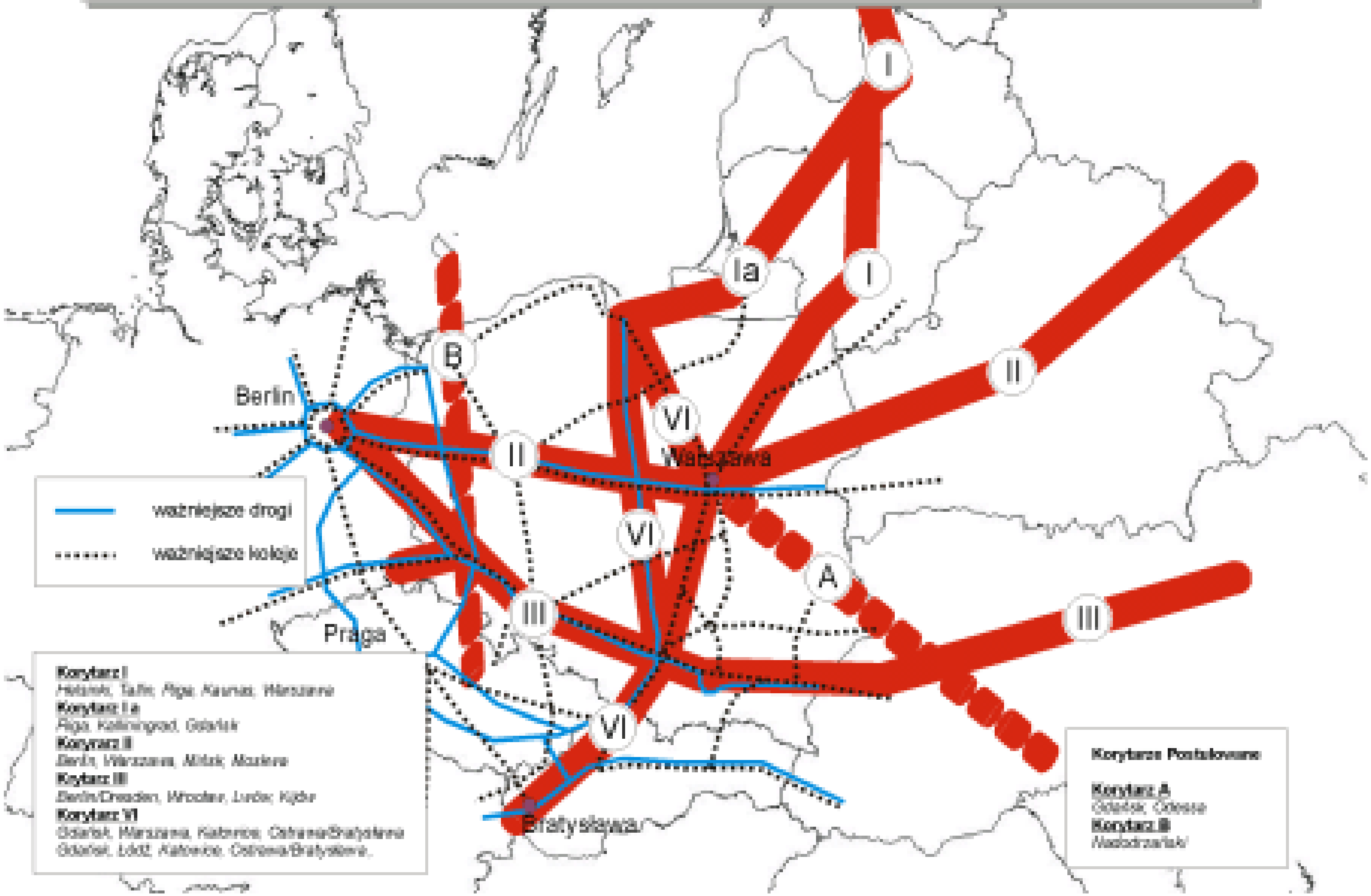
The winner of the changes was the port of Hamburg

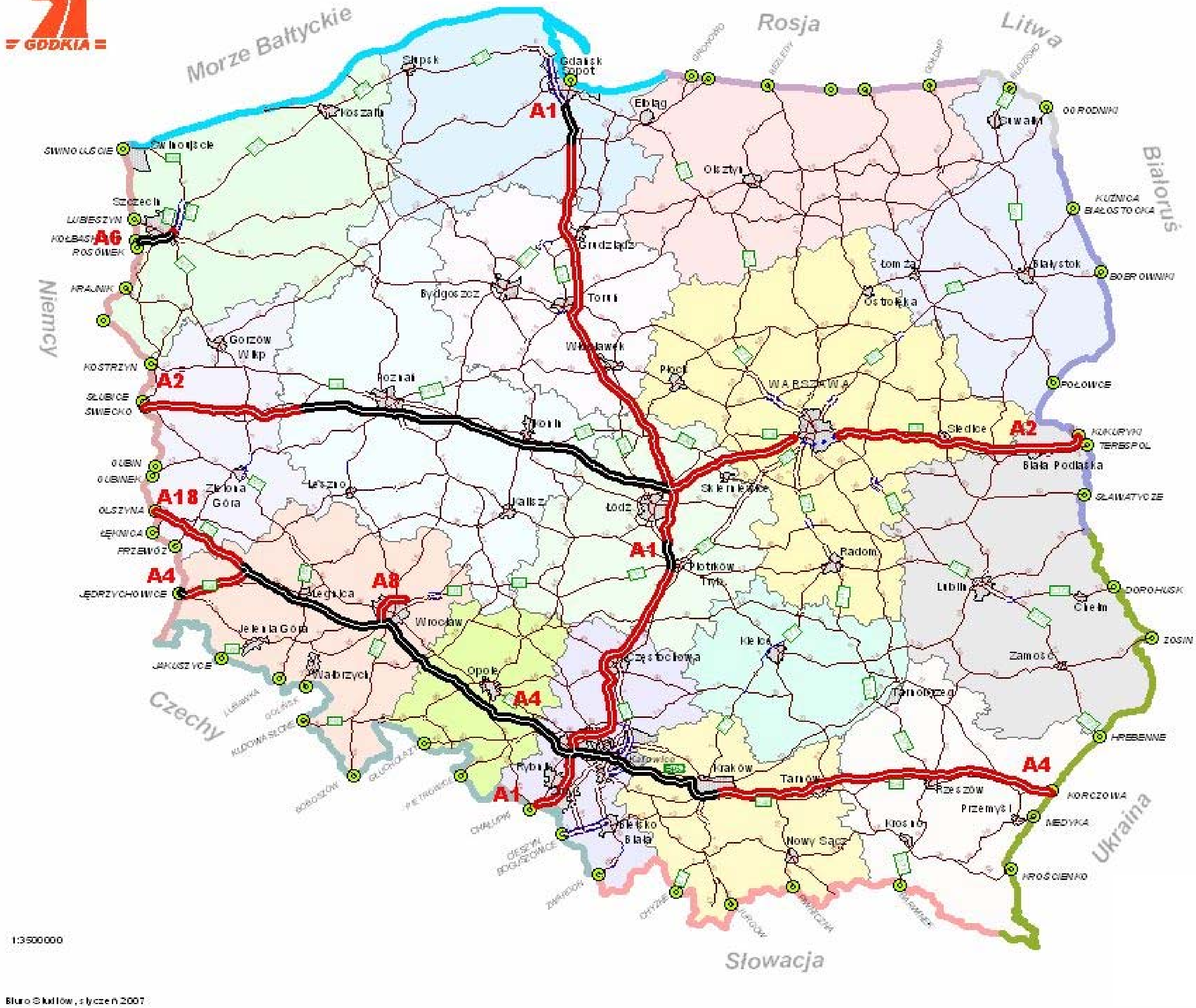
- Developed services to the Baltic ports
- Opened a direct rail connections
- Increase of transshipments to Poland and Russia
- Hamburg with 500 000 TEU was a leading container port for Poland

The situation has changed in the last two years:

- BCT in Gdynia crossed 500 000 TEU in 2007
- New terminal in Gdynia was opened in 2006
- New DCT terminal with the capacity of 500 000 TEU was opened in Gdansk
- The large investments in rail and road infrastructure in TEN corridor VI are under way

Pan-European Transport Corridors in Poland





Motorways in Poland (Final version)

- No major developments in infrastructure in the Hamburg’s hinterland
- Increase of capacity by better traffic management
- Is it a sufficient remedy for a congestion in Hamburg?
- Is it a chance for a Baltic ports to compete with Hamburg?

- What will be the relation between the large and the small North European ports?
- Will the large ports expand?
- Are there any limits of a port’s growth?
- Is there an optimal size of ports in certain region?

Impact on Baltic ports of a changes in supply chains

Contenerization, larger vessels, expanded hinterlands

- Larger container vessels implies fewer port calls (-)
- Intermodal rail and barge corridors has expanded gateway ports' geographical reach (-)
- Overlapping of ports' hinterlands – stronger competition (-)
- Switching ports is costly (-)

The emergence of global supply chains

- The players in various segments consolidate
- Shipping lines vertically integrate
- Port's market power become weaker

Effect of contenerization on port competition may be muted by congestion in ports and in their hinterland transport networks

Growth in traffic and rising congestion in hinterlands of large gateway ports might lead to an increase in the market share of smaller and less congested ports

The evidence shows that benefits from further concentration still overweigh costs of hinterland congestion (from the supply chain operators point of view)

Ineffective EU transport policy:

Modal split between rail and road is stable (Hamburg, Rotterdam, Antwerp, Marseilles-Fos)

Road share grows (Constanza, Dunkirk)

Policy push to achieve changes in modal split in the EU failed – modal shifts occurred only when transformation in the supply chain made them attractive to those involved

Rail and barge operators require cargo consolidation in order to provide economically viable service

Only combination of increased concentration at the level of shipping lines and terminal operators and increased vertical coordination stimulates a shift from road to rail and barge

The success of rail and barge will be limited to a fairly small number of corridors

Decoupling of transport demand from economics growth

the GDP

GDP		Container growth	
(2007)	3,5%	Rotterdam (2007)	11,36
Germany (2007)	2,5%	Hamburg (2007)	11,62
Belgium (2007)	2,7%	Antwerp (2007)	16,49

The adoption of systemic, transparent and more uniform policy frameworks is strongly desirable

Such frameworks need to be defined at central rather than on local levels of government

because local governments are not very powerful vis-à-vis large conglomerates

Global logistics companies are sufficient power to withstand or bypass fragmented policy approaches

strong concentration in supply chains

Piecemeal, untransparent, and not very effective policy will continue to be the norm

High energy prices effect the organization of supply chains

Re-relocation of manufacturing closer to home markets from overseas locations

Pressure on domestic transport systems – returns to infrastructure depends strongly on highly flexible production and trade patterns

Are supply chains to stretched out geographically?

Is there excessive growth in transport?

What will be the role of the Baltic ports?

Will they will be bound by their feeder port status?

Will they become a part of a large regional load center or remain isolated in a spatial and organizational sense?

Thank you for attention