

ChemLog Working Group Meeting

Presentation of Feasibility Studies

14 April 2010, Leuna

Partner: Usti Region

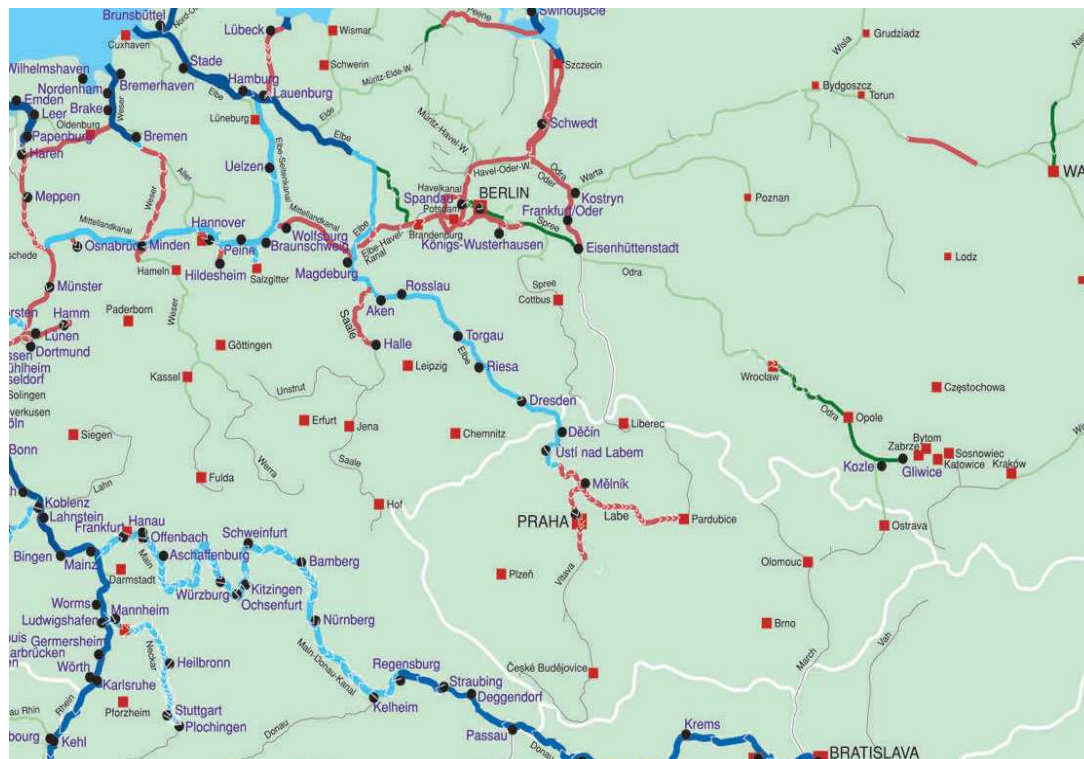
1. Introduction

- The feasibility study will focus on measures leading to improvement of the situation of chemical goods logistics with higher participation of inland waterway transport on Elbe river.
- Obstacles restraining better utilization of this inland waterway will be reviewed and remedial measures will be proposed.

2. Description of the Corridor/transport situation

Elbe waterway

- E20 European waterway of national importance according to AGN Agreement
- Part of IV. Trans-European multimodal corridor



UN/ECE-Klassen

















- VII
- Vla, b, c
- Va, b
- IV
- III
- I, II
- Sonstige

Classification of Elbe waterway:

- Middle Elbe from Přelouč to Mělník - class IV
- Section from Mělník to Wittenberge – class Va
- Section from Wittenberge to outfall into North Sea – class VIb

2. Description of the Corridor/transport situation

Parameters of European waterways of international importance according to classes

Type of inland waterway	Classes of navigable waterways	Motor vessels and barges					Pushed convoys					Minimum height under bridges ^{2/}	Graphical symbols on maps
		Type of vessel: General characteristics					Type of convoy: General characteristics						
		Designation	Maximum length L (m)	Maximum beam B (m)	Draught ^{3/} d (m)	Tonnage T (t)		Length L (m)	Beam B (m)	Draught ^{4/} d (m)	Tonnage T (t)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
OF INTERNATIONAL IMPORTANCE	IV	Johann Welker	80-85	9.5	2.50	1,000-1,500		85	9.5 ^{5/}	2.50-2.80	1,250-1,450	5.25 or 7.00 ^{4/}	
	Va	Large Rhine vessels	95-110	11.4	2.50-2.80	1,500-3,000		95-110 ^{1/}	11.4	2.50-4.50	1,600-3,000	5.25 or 7.00 or 9.10 ^{4/}	
	Vb							172-185 ^{1/}	11.4	2.50-4.50	3,200-6,000		
	Vla							95-110 ^{1/}	22.8	2.50-4.50	3,200-6,000	7.00 or 9.10 ^{4/}	
	Vlb	^{3/}	140	15.0	3.90			185-195 ^{1/}	22.8	2.50-4.50	6,400-12,000	7.00 or 9.10 ^{4/}	
	Vlc						 	270-280 ^{1/} 195-200 ^{1/}	22.8 33.0-34.2 ^{1/}	2.50-4.50 2.50-4.50	9,600-18,000 9,600-18,000	9.10 ^{4/}	 
	VII							275-285 ^{1/}	33.0-34.2 ^{1/}	2.50-4.50	14,500-27,000	9.10 ^{4/}	

2. Description of the Corridor/transport situation

Chemical industry

- Statistics of transport of chemical substances on inland waterways in the states of the Elbe corridor – Germany and Czech Republic

Czech Republic

Export by inland waterways (thousands of tons)

	2000	2004	2005	2006	2007	2008
Total	622	253	546	378	256	182
Chemical substances, preparations, products and artificial fibers; rubber and plastic products; nuclear fuel	155	81	88	90	55	35

Import by inland waterways (thousands of tons)

	2000	2004	2005	2006	2007	2008
Total	482	299	364	336	248	173
Chemical substances, preparations, products and artificial fibers; rubber and plastic products; nuclear fuel	44	66	46	12	4	11

Germany

Transport volume – inland waterways (thousands of tons)

Binnenschifffahrt				
	Transportaufkommen gesamt	Chemisch-pharmazeutische Erzeugnisse	Anteil an Gesamt	
1998	236 365 + 1,2	24 434 + 3,3	10,3	
1999	229 136 - 3,1	25 882 + 5,9	11,3	
2000	242 223 + 5,7	27 305 + 5,5	11,3	
2001	236 101 - 2,5	24 390 - 10,7	10,3	
2002	231 746 - 1,8	24 564 + 0,7	10,6	
2003	219 999 - 5,1	23 455 - 4,5	10,7	
2004	235 861 + 7,2	25 556 + 9,0	10,8	
2005	236 765 + 0,4	26 098 + 2,1	11,0	
2006	243 495 + 2,8	25 856 - 0,9	10,6	
2007	248 974 + 2,3	27 647 + 6,9	11,1	
2008	245 662 - 1,3	26 923 - 2,6	11,0	

2. Description of the Corridor/transport situation

Land transport of chemical substances according to international regulations

- Regulation ADR (road transport)
- Regulation RID (railway transport)
- Regulation ADN (inland waterway transport)



3. Bottlenecks / Challenges / Barriers

Full utilization of Elbe for freight transport is intercepted by 40 km long section in the Czech Republic from Usti nad Labem to state borders CZE/GER.

Following table shows the so-called „water stage ensurance“

Annual overview of water stage ensurance (no. of days)							
	2003	2004	2005	2006	2007	2008	2009
draught less than 110 cm	176	107	28	30	76	125	52
draught less than 140 cm	218	184	122	137	177	202	152
draught less and equal to 140 cm	224	198	134	161	183	182	165
draught more than 140 cm	141	167	231	204	182	154	199

- draught less than 110 cm – days of practically stopped navigation for low water level
- draught less than 140 cm – days of allowed draught under economic interface for operation
- draught less and equal to 140 cm – days of allowed draught under economic interface for operation including days of water stage of 200 cm – draught 140cm
- draught more than 140 cm – navigable days in profitable regime

4. Feasibility of selected projects and measures

Děčín water dam

- improvement of navigability conditions on Elbe – Děčín water dam
- currently is the EIA process in the phase of EIA documentation elaboration
- estimated overall construction costs – 190 mil. €

Fig. Current situation and visualization of Děčín water dam



4. Feasibility of selected projects and measures

Přelouč II water dam

- making Elbe navigable to Pardubice
- project is currently intercepted (disputes with environmentalists)
- proposed overall costs c. 95 mil. €

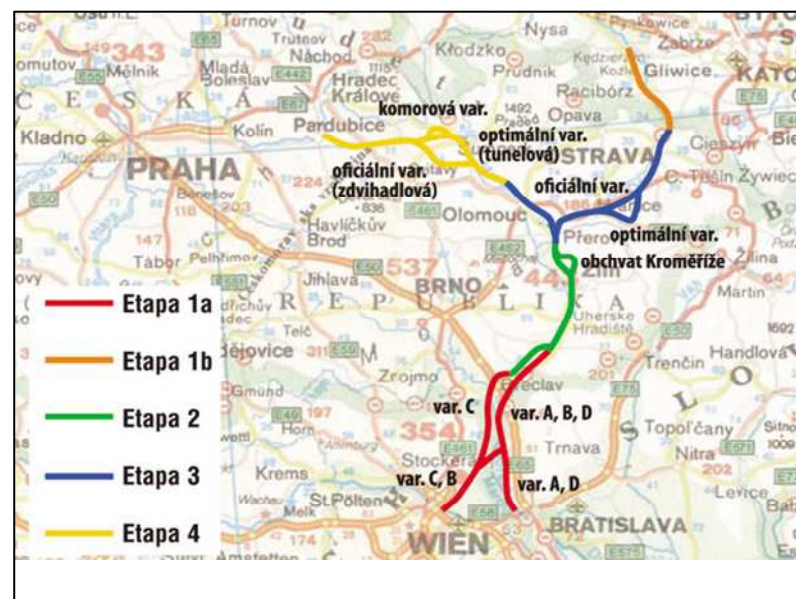
Fig. Current situation and visualization of Přelouč II water dam



4. Feasibility of selected projects and measures

Dunaj – Odra – Labe waterway corridor

- project of connection of these three rivers has a long history but its realization has a number of opponents and its construction in near future is improbable
- estimated construction costs c. 12 bill. €



4. Feasibility of selected projects and measures

Finance plan - Projects funding

- Děčín water dam
- Přelouč II water dam
- Dunaj – Odra – Labe waterway corridor



EUROPEAN UNION
European Regional
Development Fund

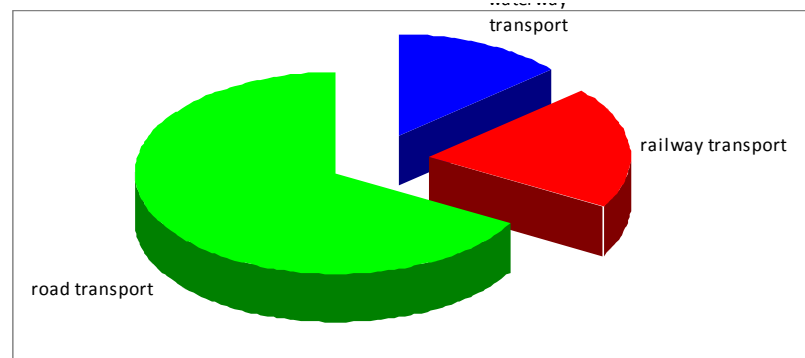
5. Conclusions for implementation (summary)

The main cause of disconsolate situation of inland waterway transport on the Elbe waterway is the conflict of ecologic and economic interests even despite the water transport is proved to be environmentally friendly.

• Energy consumption

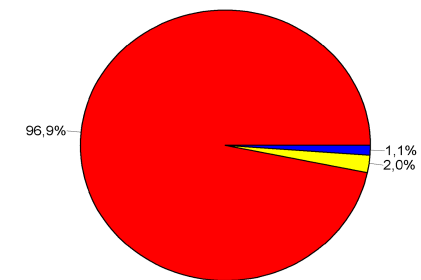


• Emissions



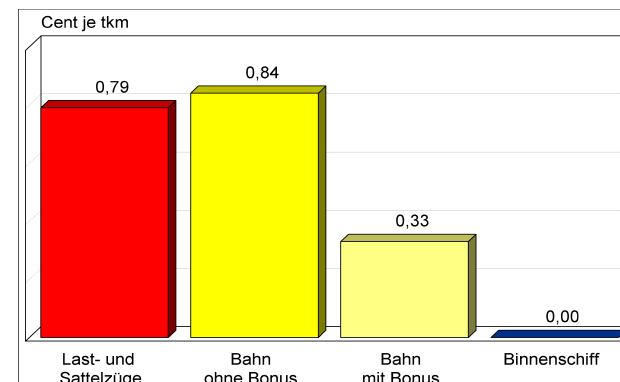
• Transport safety

- roads
- railways
- water



Summe Unfallkosten 2000 – 2005

• Noise



5. Conclusions for implementation (summary)

Economic conditions for transport mode selection

- Comparison of prices for a delivery route in road, railway and inland waterway transport

Czech Republic - DELIVERY ROUTE PRICING					
road		railway		waterway	
performance pricing		maximum price for railway route		no pricing for waterway use	
<i>motorways and expressways</i>	<i>I. class roads</i>	<i>railway route operation</i>	<i>route operability ensurance</i>		
0,2476 EUR/km (fri 15.00 – 21.00)	0,1179 EUR/km (fri 15.00 – 21.00)	1,6765 EUR/km/train	2,2213 EUR/1 000 gross/tons/km		
0,1619 EUR/km	0,077 EUR/km				

- Comparison of prices of individual transport modes in concrete relation

DĚČÍN - HAMBURG : transport cost			route length [km]	guide price of bulk tranport [€/t]
1 loď nosnost 1050 t při ponoru 2,2 m			740	12 - 15
22 vagonů o nosnosti 47 t			552	23
42 tahačů s návěsem o nosnosti 25 t			563	54

Feasibility Study Budget

Contracted budget and payment dates:

	05-10/10	11/10-04/11	total
Ústi Region:	23.990	25.990	49.980

April - submission of the preliminary stage of Feasibility study – fragment of study.

The first billing will slip from May till October.

Foreseen Meetings

- Regional Stakeholder Meetings for discussion of Feasibility Studies
 - 8th – 10th June – Hamburg
 - 1st – 2nd December - Prague
- Other relevant activities information
 - 21th June - Moscow
 - 29th – 30th June – WG Slovakia ?
 - 22th – 23th September – WG Italy

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Thank you for your attention