



The Danube waterway: Experiences and needs of the industry

Alexandru Capatu

Danube Strategy: Inland waterways - 4th meeting of Working Groups, 16. – 17.04.2013

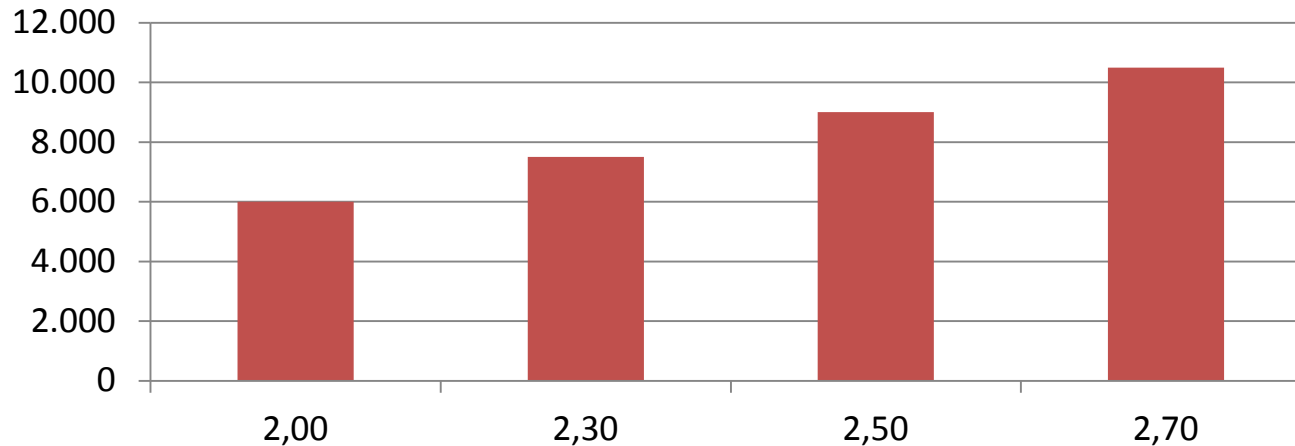
Loading capacity depending on draft

Convoy : pusher + 6 barges Europa II type

Transport : Constanta - Hungary - Constanta

	Draft (m)			
	2,00	2,30	2,50	2,70
Loading capacity / barge (mts)	1.000	1.250	1.500	1.750
Loading capacity / convoy (mts)	6.000	7.500	9.000	10.500

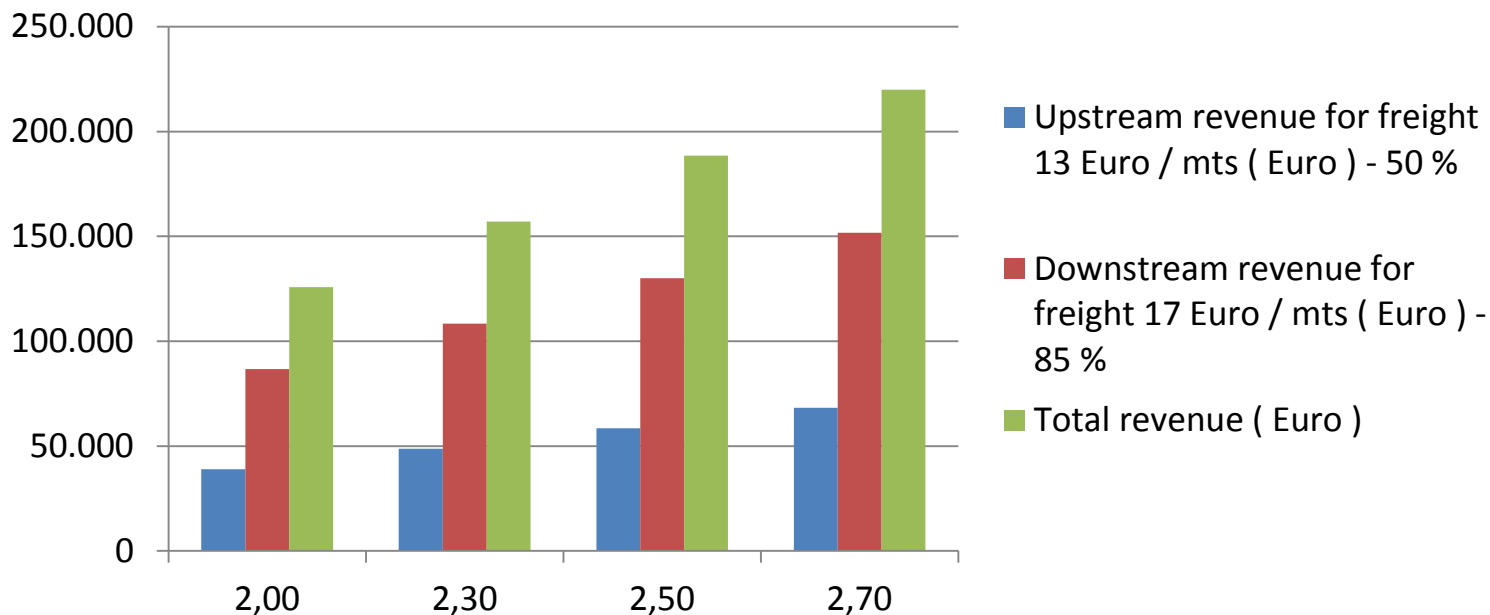
Convoy capacity



Annual average revenues per convoy depending on draft

Draft	2,00	2,30	2,50	2,70
Upstream revenue for freight 13 Euro /mts (Euro) 50%	39.000	48.750	58.500	68.250
Downstream revenue for freight 17 Euro /mts (Euro) 85%	86.700	108.375	130.050	151.725
Total revenue (Euro)	125.700	157.125	188.550	219.975

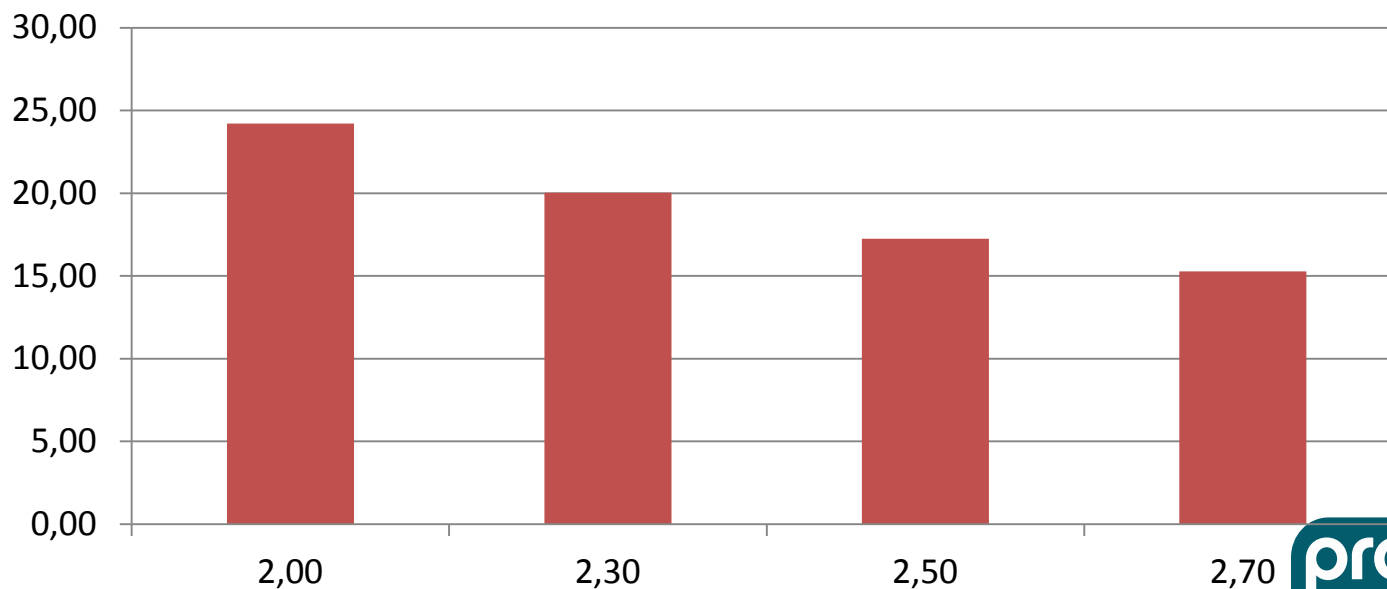
Average total revenue per to.: 20,95€



Total costs(€/ton depending on draft

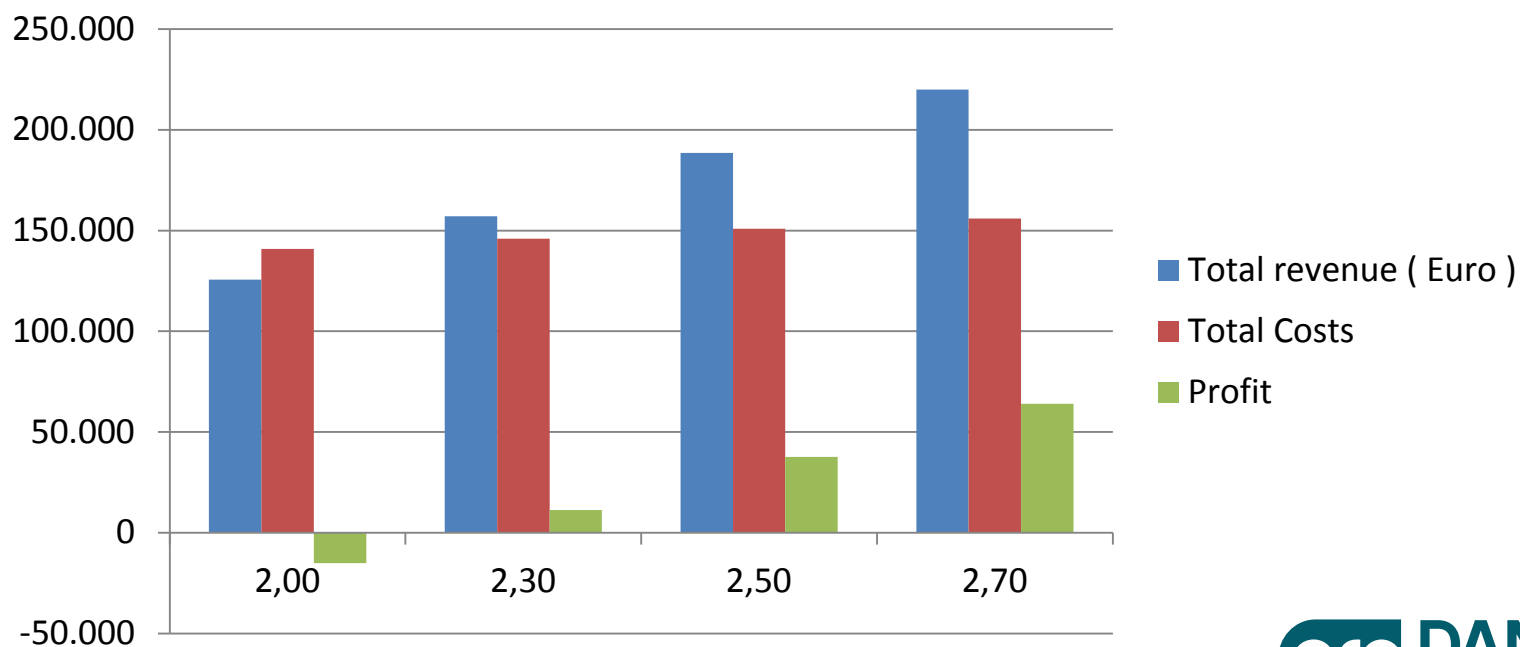
Fix costs round trip Constanta - HU - Constanta	49.500	49.500	49.500	49.500	salaries, maintenance, depreciation a.o.
Variable costs round trip Constanta - HU - Constanta	78.557	83.128	87.699	92.270	
General & administration costs	12.806	13.263	13.720	14.177	Diesel price : 850€/ to
Total costs	140.863	145.891	150.919	155.947	
Total costs / ton (up + down)	23,48	19,45	16,77	14,85	
Draft	2,00	2,30	2,50	2,70	

Total costs / tonne (up + down)



Profit in Euro (%) depending on draft

Draft	2,00	2,30	2,50	2,70
Total revenue (Euro)	125.700	157.125	188.550	219.975
Total Costs	140.863	145.891	150.919	155.947
Profit	-15.163	11.234	37.631	64.028
Profit %	-12,06%	7,15%	19,96%	29,11%
Profit per to	-2,53	1,50	4,18	6,10



Fairway depths during period 01.09 - 31.12.2012

Sector	Km	Standard station	Calculation	Required gauge for having min. depth of 250 cm	Number of days at depths below 250 cm
GERMANY:					
Pfelling	2303-2306	Pfelling	Depth = Gauge -140 cm	390	87
Vilshofen- Hofkirchen	2249-2261	Hofkirchen	Depth = Gauge - 40 cm	290	77
AUSTRIA:					
Kienstock	2013-2015	Kienstock	Depth » Gauge	250	53
Wildungsmauer	1882-1897	Wildungsmauer	Depth = Gauge+20 cm	230	52

Fairway depths during period 01.09 - 31.12.2012

Sector	Km	Standard station	Calculation	Required gauge for min. depth 250 cm	Number of days at depths below 250 cm
HUNGARY					
Szob upstream	1711,3-1710,7	Budapest	Depth=Gauge+70cm	180	47
Dötös	1701,0-1700,0		Depth=Gauge+75cm	175	46
Nagymaros upstream	1698,9-1697,8		Depth=Gauge+60cm	190	55
Horany	1667,5-1666,8		Depth=Gauge+70cm	180	47
Ujpesti	1653,0-1651,8		Depth=Gauge+90cm	160	28
Budapest	1638,4-1637,4		Depth=Gauge+110cm	140	11
			Depth=Gauge+120cm	130	4
			Depth=Gauge+110cm	140	11
Ercsi	1615,9-1615,1	Dunaujvaros	Depth=Gauge+210cm	40	58
Kulcs	1590,7-1590,1		Depth=Gauge+230cm	20	23
Dunaujvaros	1581,5-1580,5		Depth=Gauge+230cm	20	23
Dunaegyhaza	1567,3-1566,4	Dunaföldvar	Depth=Gauge+320cm	-70	42
Dunaföldvar upstream	1561,0-1560,0		Depth=Gauge+350cm	-100	13
Dunaföldvar	1559,8-1559,7		Depth=Gauge+355cm	-105	11
Solt	1558,5-1557,5		Depth=Gauge+385cm	-135	-
Solt downstream	1555,8-1554,6			Depth=Gauge+315cm	-65
		Depth=Gauge+365cm		-115	1
		Depth=Gauge+355cm		-105	11

Fairway depths during period 01.09 - 31.12.2012

Sector	Km	Standard station	Calculation	Required gauge for min. depth 250 cm	Number of days at depths below 250 cm
BULGARIA / ROMANIA					
Băloiu	629	Corabia	Depth = Gauge + 225 cm	25	21
Liuta-Milka	568	Zimnicea	Depth = Gauge + 150 cm	100	68
Belene	563		Depth = Gauge + 120 cm	130	80
Vardin	543		Depth = Gauge + 190 cm	60	30
Gâasca upstream	538		Depth = Gauge + 190 cm	60	30
Batin	528	Giurgiu	Depth = Gauge + 210 cm	40	58
Batin downstream	523		Depth = Gauge + 265 cm	-15	17
Riahovo (Mishka)	455		Depth = Gauge + 300 cm	-50	6
Oltenița aval (Popina)	420-424	Oltenița	Depth = Gauge + 240 cm	10	8
Cernavodă upstream	345-305	Cernavodă	Depth = Gauge + 200 cm	50	78

CROATIA/SERBIA:

During the investigated period, fairway depths were above 250 cm, but in several other periods, the sectors Apatin (km 1405-1401), Mohovo (km 1310-1308) and Novi Sad (km 1269-1268, km 1266-1265 and km 1248) caused restrictions

Draft of Navrom convoys which left Constanta

Date	Cargo	Destination	Draft
23.08.2012	Coal	Hungary	1,75 m
04.09.2012	Phosphate	Austria	1,80 m
	Coal	Hungary	1,90 m
06.09.2012	Phosphate	Austria	1,95 m
07.09.2012	Phosphate	Austria	1,95 m
	Coal	Hungary	2,00 m
	Coal	Bulgaria (Russe)	2,35 m
	Soybean meal	Bulgaria (Svistov)	2,00 m
09.09.2012	Coal	Hungary	2,15 m
10.09.2012	Coal	Hungary	2,15 m
11.09.2012	Coal	Bulgaria (Russe)	2,45 m
	Coal	Hungary	2,05 m
22.09.2012	Coal	Hungary	2,15 m

Navrom lost more than 150.000€ in revenues when operating these convoys

Conclusions

- There was a high number of days with a fairway depth below 250cm despite favourable water conditions in the investigated period
- This clearly shows significant shortcomings in waterway maintenance on several sections of the Danube
- The failure in waterway maintenance results into direct financial losses for the barge operators or reduce significantly their earnings
- The transport users become deprived of the cost advantages of barge operations, are effected by delays in the supply and consequently have to pay higher transport costs which reduces their own competitiveness
- Without proper maintenance barge operators cannot earn depreciation of modern equipment consequently there is only maintenance investment (hardly any room for innovation except cost advantages of LNG can be exploited)
- Competitive and sustainable Danube transport requires:

PROPER FAIRWAY MAINTENANCE AND GUARANTED MINIMUM FAIRWAY DEPTHS OF AT LEAST 2.5 m which must be ensured **IMMEDIATELY**

Low water periods cannot be avoided but...



... safe and cost-efficient transport can be ensured
if all Danube States would
respect the existing international regulations

And in addition...

... unnecessary **administrative barriers** for river shipping companies **will be removed**

Romania: excessive formalities and fees for customs and other authorities causing additional costs and waiting times, e.g. :

- Obligation to use T2L document for national cargo transport
- Restrictive opening hours of custom offices in several important ports(e.g. Cernavoda)
- Tariff scheme of Canal Administration ACN punishes operators when using additional barges for compensation of low water conditions (charging system per ton capacity instead of cargo tons)
- Unique fees and procedures in Europe imposed by RNA/Harbor masters “services” like:
 - traffic supervision and control of safety of navigation
 - to allow ship repairs
 - for arrival/departure in Romanian ports
 - for authorization/approval/supervision of vessels bunkering
 - for annual endorsement of operation permit

Hungary: restrictions concerning the size of the ship convoy

Bulgaria: problems with custom clearance caused by restrictive opening hours

Further information

Alexandru Capatu
Chairman Pro Danube International
Email: capatu@prodanube.eu
Mobil: +436643025874

Manfred Seitz
General Secretary
Pro Danube International
Email: seitz@prodanube.eu
Mobil: +436764067878



The image shows a promotional banner for Pro Danube International. At the top, the logo features the word "pro" in a white lowercase font inside a dark teal rounded square, followed by "DANUBE" in a large, bold, white uppercase font, and "INTERNATIONAL" in a smaller, white uppercase font below it. Below the logo is a horizontal strip of three images: a construction site with yellow cranes, a large yellow crane on a barge, and a map of the Danube river basin. The bottom half of the banner has a dark teal background with the text "THE VOICE FOR BETTER INFRASTRUCTURE AND INNOVATION IN DANUBE TRANSPORT" in white, bold, uppercase letters. At the very bottom, the website address "www.prodanube.eu" is written in a yellow, lowercase font.