

# Euro-Asian Transport Links Expert Group Meeting - Fifth Session



United Nations  
Economic Commission  
for Europe



Ministry of Foreign  
Economic Relations,  
Investments and Trade of  
the Republic of Uzbekistan



Organization for  
Security and Co-  
operation in Europe

*EATL Comparison Study:  
Maritime versus Inland Transport Options*

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**Objective of the Study**

**Methodology**

**Maritime Transport**

**Rail Transport - Block Trains**

**EATL Routes and Scenarios**

**Scenario Presentation**

**North South Route**

**Economics of the trains**





**Objective of the Study**

# Objective of the Study



*“The aim of this study is to compare the existing Euro-Asian maritime routes with selected rail routes identified in the EATL project. The methodology used for the analysis strives to be simple and pragmatic. It compares Euro-Asian maritime and rail links from the perspective of a logistics manager of a company that produces in some location and needs to deliver the goods produced to some other location.”*



# Methodology



What kind of block trains are we talking about?

Euro Asia transport is about connecting China with Germany!

Is there any cargo? Why to perform trains on this route?

What do we really compare, when we compare Maritime with inland transport options?...apples with oranges...!

# Methodology



What do we compare?

Rail Transport : 1.500 USD?



Maritime Transport : 500USD?



# Maritime Transport





## Maritime Transport cost structure



# Maritime Transport Time Schedule



## Shanghai - Istanbul

Distance: 8,003 nm  
Duration: 33.35 days



Source: [www.axsmarine.com/](http://www.axsmarine.com/)

# Maritime Transport Freight Rates - THC

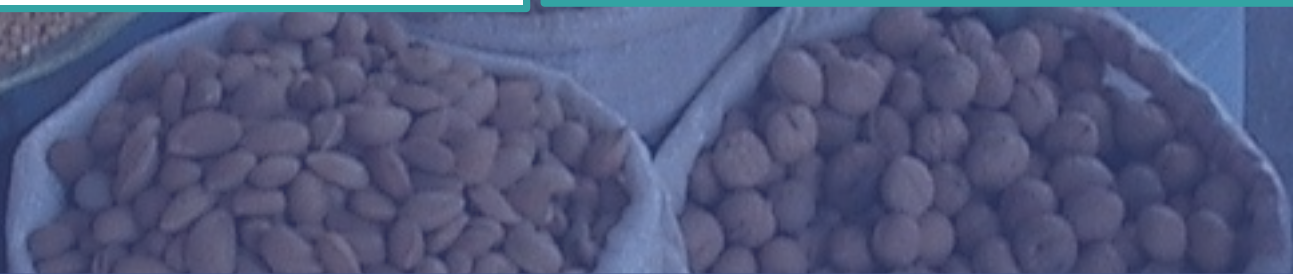


		Shanghai	
		20ft	40ft
1	Maersk/SAF	RMB 475	RMB 750
2	MSC	At cost	At cost
3	CMA CGM	RMB 1,297	RMB 1,297
4	Evergreen	RMB 370	RMB 560
5	Hapag Lloyd	RMB 460	RMB 720
6	COSCO	RMB 374	RMB 564
7	APL	RMB 476	RMB 750
8	China Shipping		
9	NYK	RMB 880	RMB 1,300
10	MOL	RMB 480	RMB 720

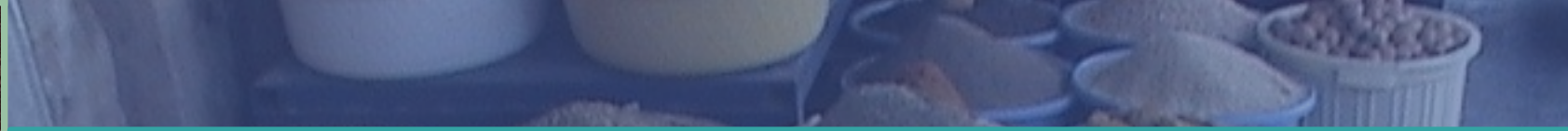
		Istanbul	
		20ft	40ft
1	Maersk/SAF		
2	MSC		
3	CMA CGM	Free in	Free in
4	Evergreen		
5	Hapag Lloyd	\$ 219	\$ 219
6	COSCO		
7	APL	\$ 100	
8	China Shipping	FIO	FIO
9	NYK		
10	MOL	Free in	Free in

		Rotterdam	
		20ft	40ft
1	Maersk/SAF	€ 185	€ 185
2	MSC	€ 175	€ 175
3	CMA CGM	€ 160	€ 160
4	Evergreen	€ 160	€ 160
5	Hapag Lloyd	€ 200	€ 200
6	COSCO	€ 140	€ 140
7	APL	€ 190	€ 190
8	China Shipping	€ 170	€ 170
9	NYK	€ 160	€ 160
10	MOL	€ 200	€ 200

		ST. Petersburg	
		20ft	40ft
1	Maersk/SAF	\$ 290	\$ 290
2	MSC		
3	CMA CGM	\$ 370	\$ 370
4	Evergreen	\$ 250	\$ 250
5	Hapag Lloyd	\$ 220	\$ 220
6	COSCO	\$ 200	\$ 200
7	APL	\$ 300	\$ 300
8	China Shipping	\$ 300	\$ 300
9	NYK	\$ 250	\$ 250
10	MOL	\$ 220	\$ 220



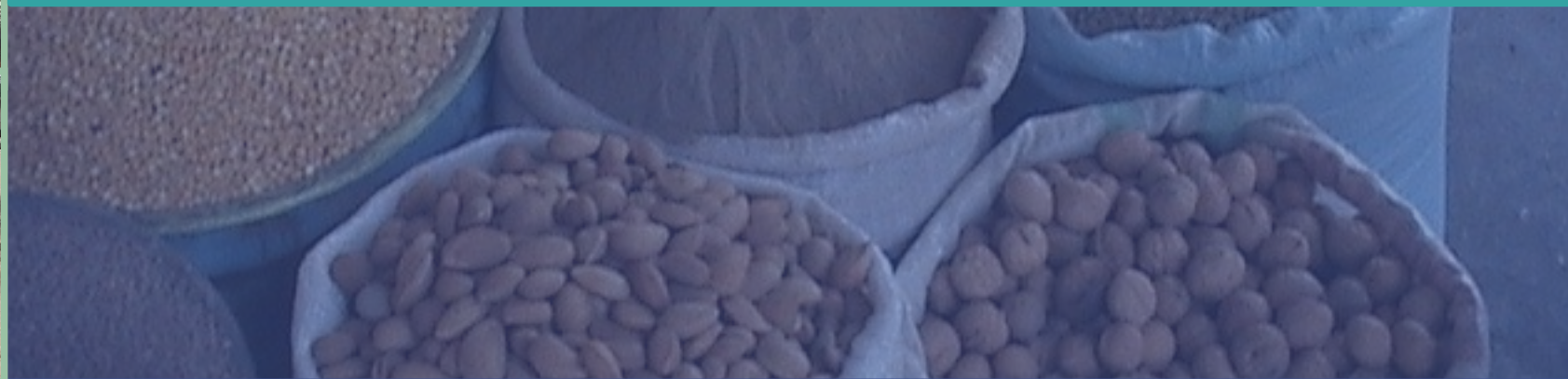
# Maritime Transport Freight Rates - Other Port Costs



Ports	Unloading of Containers (\$)	Loading of Containers (\$)	Customs Formalities (\$)
Kostanta	70	75	55

Other Costs	P	(\$)
Entrance cost	<input checked="" type="checkbox"/>	35
Parking cost	<input checked="" type="checkbox"/>	20
Loading to truck cost	<input checked="" type="checkbox"/>	65
Unloading from truck	<input checked="" type="checkbox"/>	70
Other documents	<input type="checkbox"/>	45
Other cost/ Specify	<input type="checkbox"/>	
THC CONSTANTA	<input checked="" type="checkbox"/>	175
DETENTION FEE	<input checked="" type="checkbox"/>	45
DELIVERY ORDER	<input checked="" type="checkbox"/>	50

Source: Romanian Forwarders Association 2010



# Maritime Transport Freight Rates



## FROM

Xingang / Qingdao / Dalian [China] (USD\$)

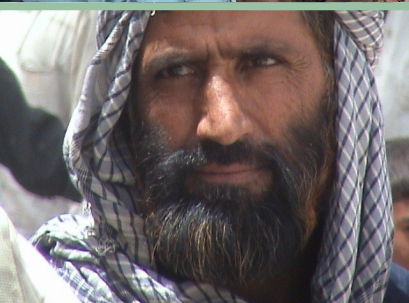
## TO

Middle East	20` / 40/ 40`HC		20` / 40/ 40`HC
DUBAI / JEBEL ALI	1,500/2,400/2,400	B.ABBAS	1,600/2,500/2,500
ABU DHABI	1,700/2,800/2,800	SHARJAH	1,700/2,800/2,800
DAMMAM	1,600/2,500/2,500	RIYADH	1,800/2,900/2,900
BAHRAIN	1,800/2,900/2,900	DOHA	1,900/3,100/3,100
KUWAIT	1,700/2,800/2,800	MUSCAT	1,800/2,900/2,900
UM QUASER	2,300/3,700/3,700		





**Rail Transport - Block Trains**



1

Transport of container by truck from original shipper to main train station to be loaded on the train, loading/documentation expenses

2

Rail transport of container from station of origin to station of destination

3

Delivery of the container by truck from the final unloading station to the final shipper. Unloading / documentation expenses



# Rail Transport Time Schedule



EU	Asia	CIS
26 km/hour	21 km/hour	34 km/hour

id	Route	Distance (km)	Time (hours)
1	Bandar Abbas - Sirjan	359	52
2	Sirjan - Mobarakeh	321	
3	Mobarakeh - Tabas	275	
4	Tabas - Torbat Heydarieh	334	
5	Torbat Heydarieh - Sarakhs	330	
Total		1,619	



# Rail Transport Tariffs



- ✓ Different tariffs for the same routes are quoted by forwarders and state rail organizations
- ✓ State rail organizations charge different clients differently. A forwarder, a shipper, a small trader with one container or a big manufacturer with 1000 containers per year pay / ask for different tariffs
- ✓ The actual - charged - tariffs are different than the published tariffs

## Tariffs differ depending whether:

it is bulk or container cargo

it is carried in wagons or by a block train

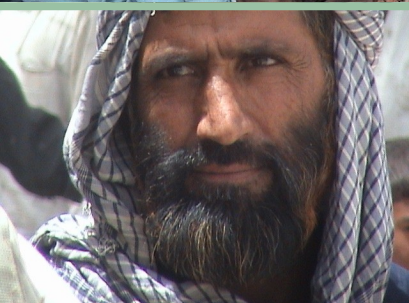
the client is a forwarder or a shipper

the amount cargo is large

it is long term contract with a guarantee for the quantity

terms of payment are favourable or not

\$/€ per train kilometer or per container, or container kilometers etc



# Rail Transport Tariffs

	20'' full container (per container)	40'' full container (per container)	20'' full container (per km)	40'' full container (per km)	20'' empty container (per km)	40'' empty container (per km)
Afghanistan			-	-		
Armenia			0.52	0.64		
Azerbaijan			0.52	0.64		
Belarus			0.48	0.55		
Bulgaria			0.75	0.85		
China			0.40	0.50		
Georgia			0.48	0.55		
Germany			0.75	0.85		
Greece			0.75	0.85		
Iran	747	1,093	0.46	0.68	0.23	0.34
Kazakhstan	614	989	0.64	1.03	0.31	0.48
Kyrgyzstan			0.48	0.55		
Latvia			0.75	0.85		



# Rail Transport Tariffs

	20'' full container (per container)	40'' full container (per container)	20'' full container (per km)	40'' full container (per km)	20'' empty container (per km)	40'' empty container (per km)
Moldova			0.48	0.55		
Mongolia			0.40	0,50		
Poland			0.75	0.85		
Romania			0.75	0.85		
Russian Federation			0.48	0.55		
Tajikistan			0.55	0.75		
Turkey	621	822	0.31	0.41	0.23	0.29
Turkmenistan	692	1,254.8	1.4	2.6		
Ukraine			0.48	0.55		
Uzbekistan	462.58	832.2	0.64	1.4	0.38	0.67

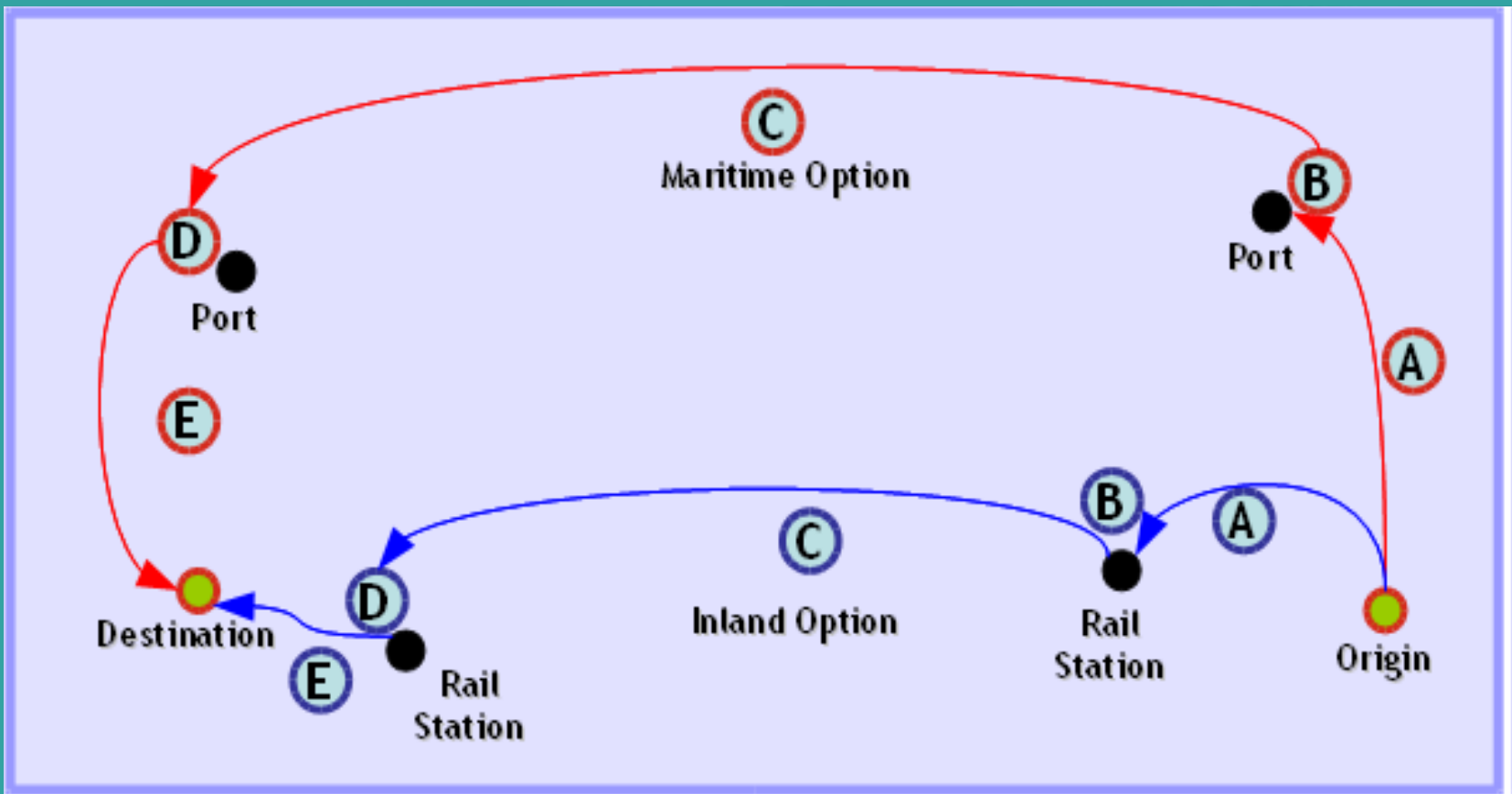
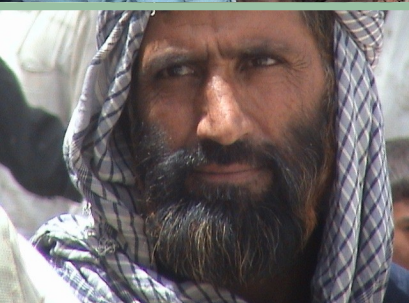
# Road Transport Costs



Country	Cost of road transport (in \$)
Afghanistan	150
Armenia	140
Azerbaijan	160
Belarus	180
Bulgaria	195
China	100-200
Georgia	180
Germany	250-350
Greece	250
Iran	50-150
Kazakhstan	120-180
Kyrgyzstan	130
Latvia	230
Moldova	150
Mongolia	120
Poland	200-280



## EATL Routes and Scenarios



Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

# EATL Rail Route 1.

## Scenario 1.



# EATL Rail Route 2.

## Scenario 2.



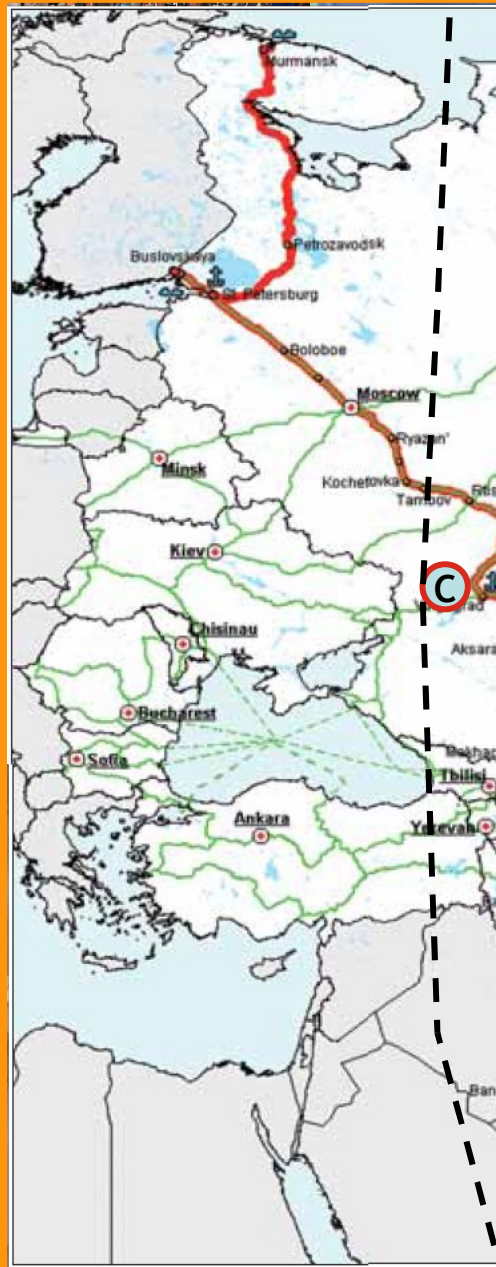






# EATL Rail Route 5.

## Scenario 5.



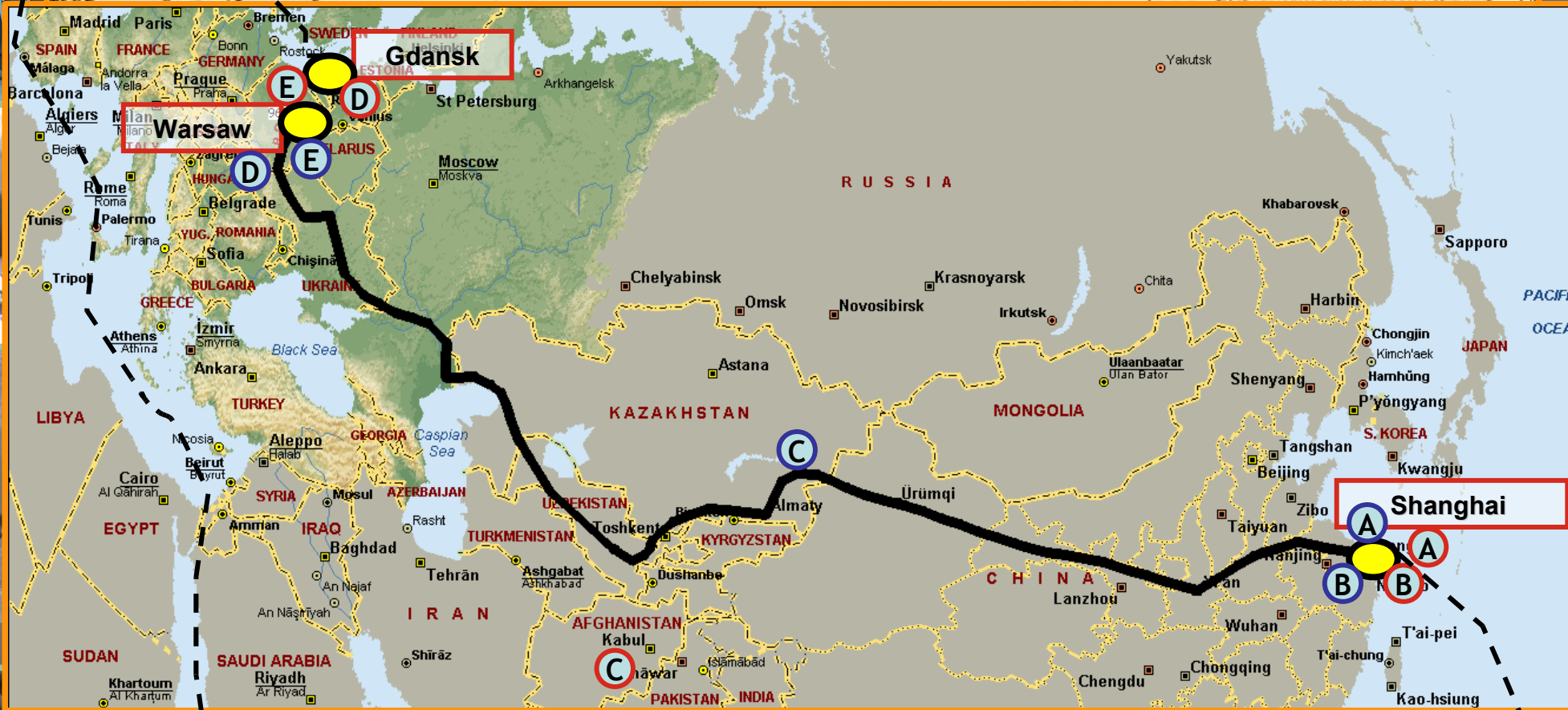
# EATL Rail Route 6.

## Scenario 6.



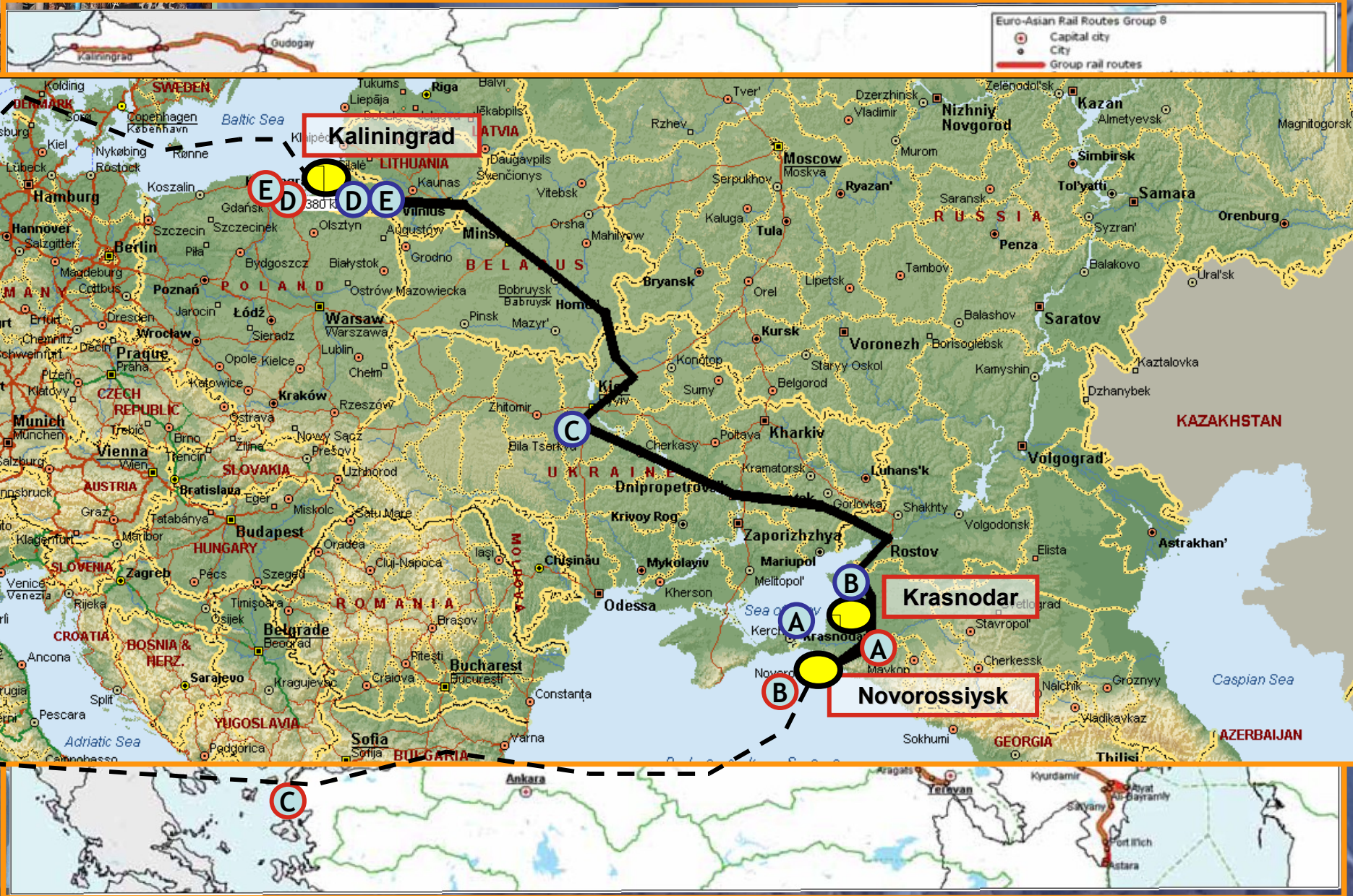
# EATL Rail Route 7.

## Scenario 7.



# EATL Rail Route 8.

## Scenario 8.



# Case Study

## Scenario 9.





# Results.....

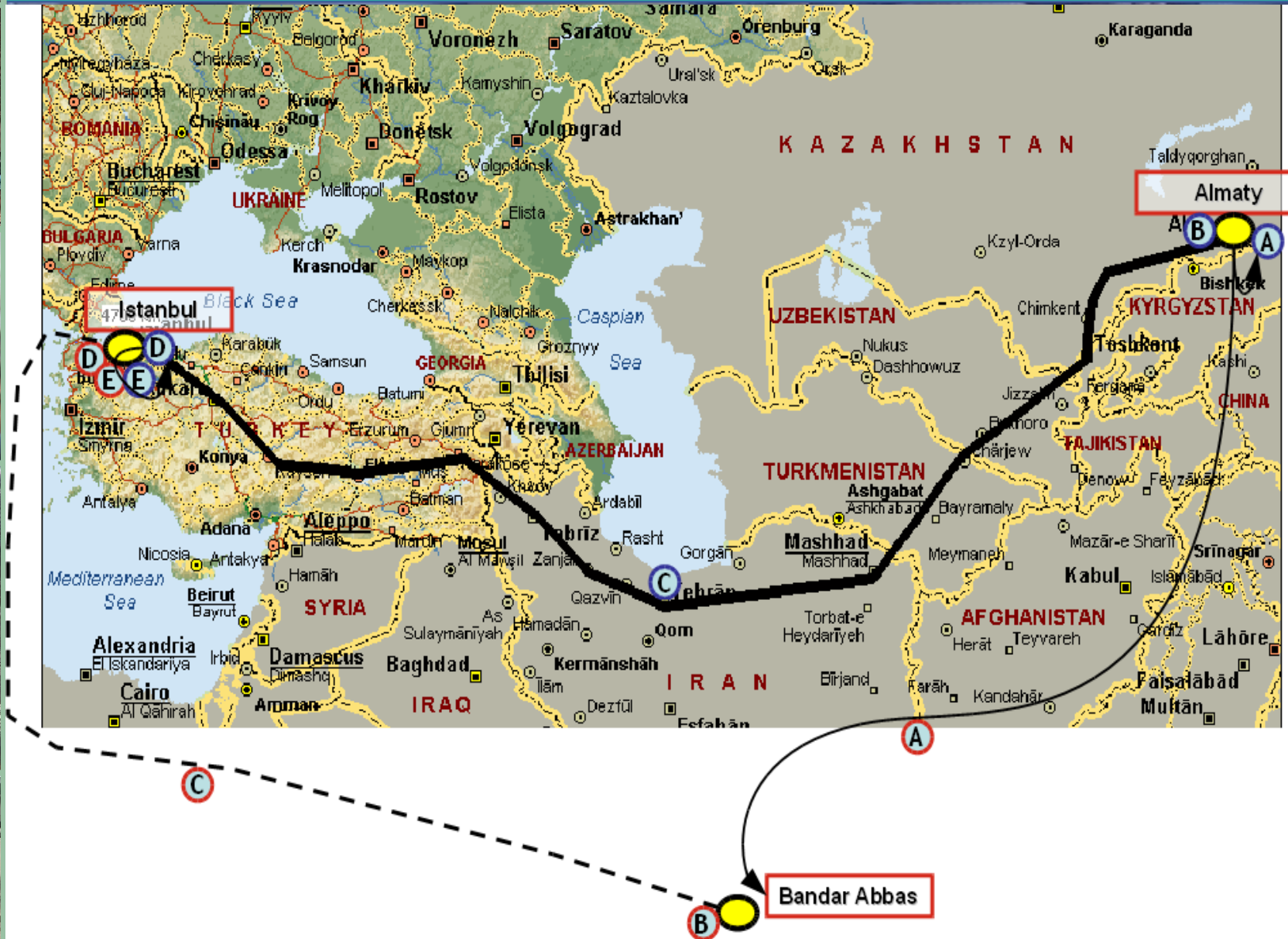
Scenarios	Route	Rail		Maritime		Best Transport Means	
		Cost (\$)	Time (hrs)	Cost (\$)	Time (hrs)	Cost	Time
Scenario 1: EATL Route 1	Khabarovsk (Russia) to Potsdam (Germany)]	6,967	341	6,533	589	Maritime	Rail
Scenario 2: EATL Route 2	Hangzhou (China) to Kaluga (Russia Fed.)	4,714.65	277	6,786	624	Rail	Rail
Scenario 3: EATL Route 3	Tashkent (Uzbekistan) to Varna (Bulgaria)	5,946	165	7,550	529	Rail	Rail
Scenario 4: EATL Route 4	Almaty (Kazakhstan) to Istanbul (Turkey)	5,881	250	4,970	672	Maritime	Rail
Scenario 5: EATL Route 5	Morvarid (Iran) to Pushkin (Russia)	6,390.5	256	3,310	374	Maritime	Rail
Scenario 6: EATL Route 6	Ussuriysk (Russia) to Kiev (Ukraine)	5,857	289	6,290	463	Rail	Rail
Scenario 7: EATL Route 7	Shanghai (China) to Warsaw (Poland)	8,937	446	6,300	569	Maritime	Rail
Scenario 8: EATL Route 8	Krasnodar (Russia) to Kalinigrad (Russia)	1,595	70	5,050	225.2	Rail	Rail
Case Study /Car Manufacturer	Vesoul (France) to Kaluga (Russia)	2,107	101	6,300	163	Rail	Rail





**Scenario Presentation**

# Scenario Presentation



# Scenario Presentation

## MARITIME TRANSPORT: Almaty (via Bandar Abbas port) - Istanbul (via Istanbul port)

Route	km	Cost(\$)	Time(hrs)
Almaty - Bandar Abbas port by road	2873	2,300	71
Bandar Abbas port THC costs	-	150	-
Bandar Abbas port other costs	-	150	-
Bandar Abbas port - Istanbul port by sea	6,711	1,650	25 days
Istanbul port THC costs	-	220	-
Istanbul port other costs	-	220	-
Istanbul port - Istanbul by road	20	300	1
<u>Total maritime transport</u>	<u>6,711</u>	<u>2,370</u>	<u>600</u>
<u>Total road transport</u>	<u>2,893</u>	<u>2,600</u>	<u>72</u>
<b>TOTAL</b>	<b>9,604</b>	<b>4,970</b>	<b>672</b>

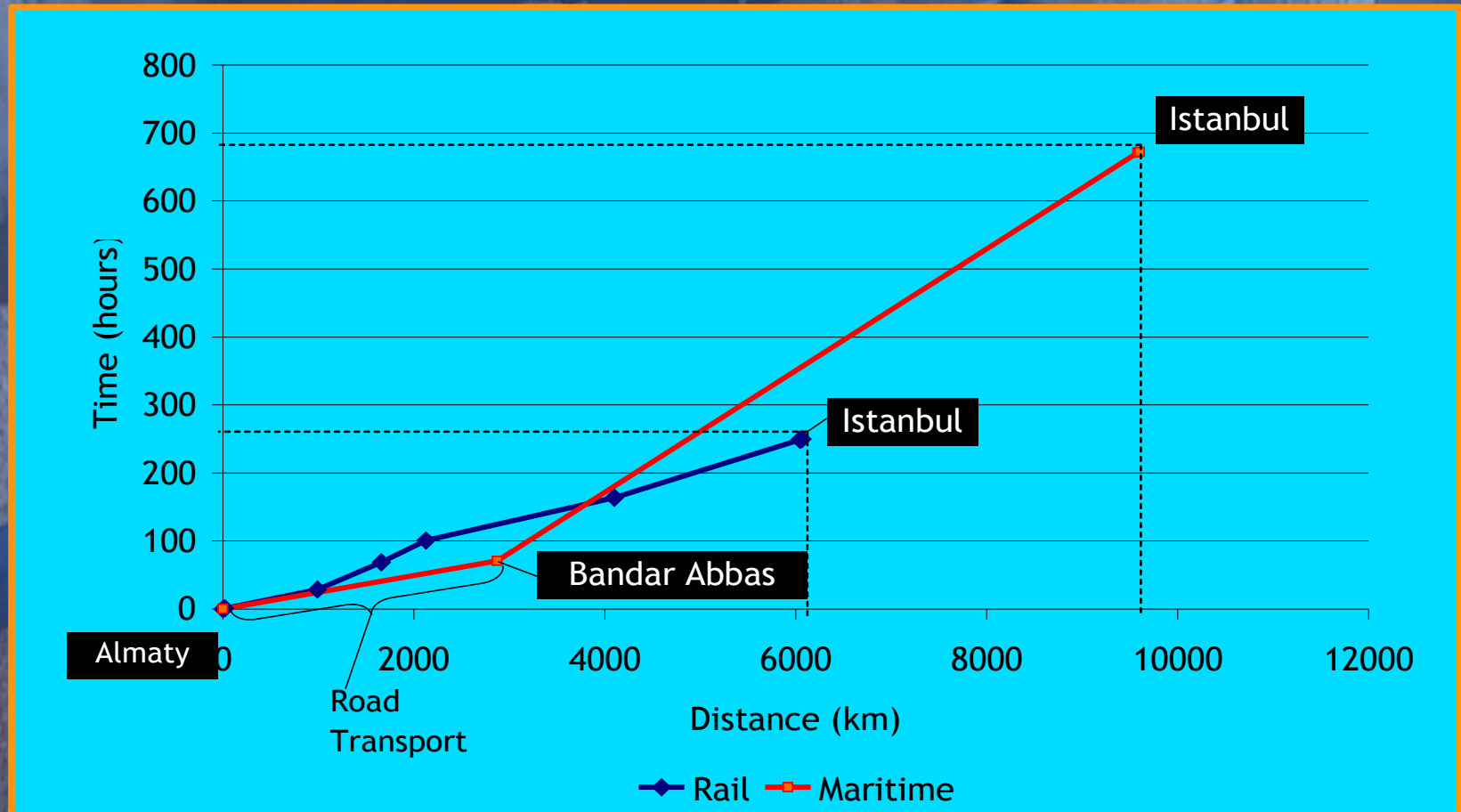


# Scenario Presentation

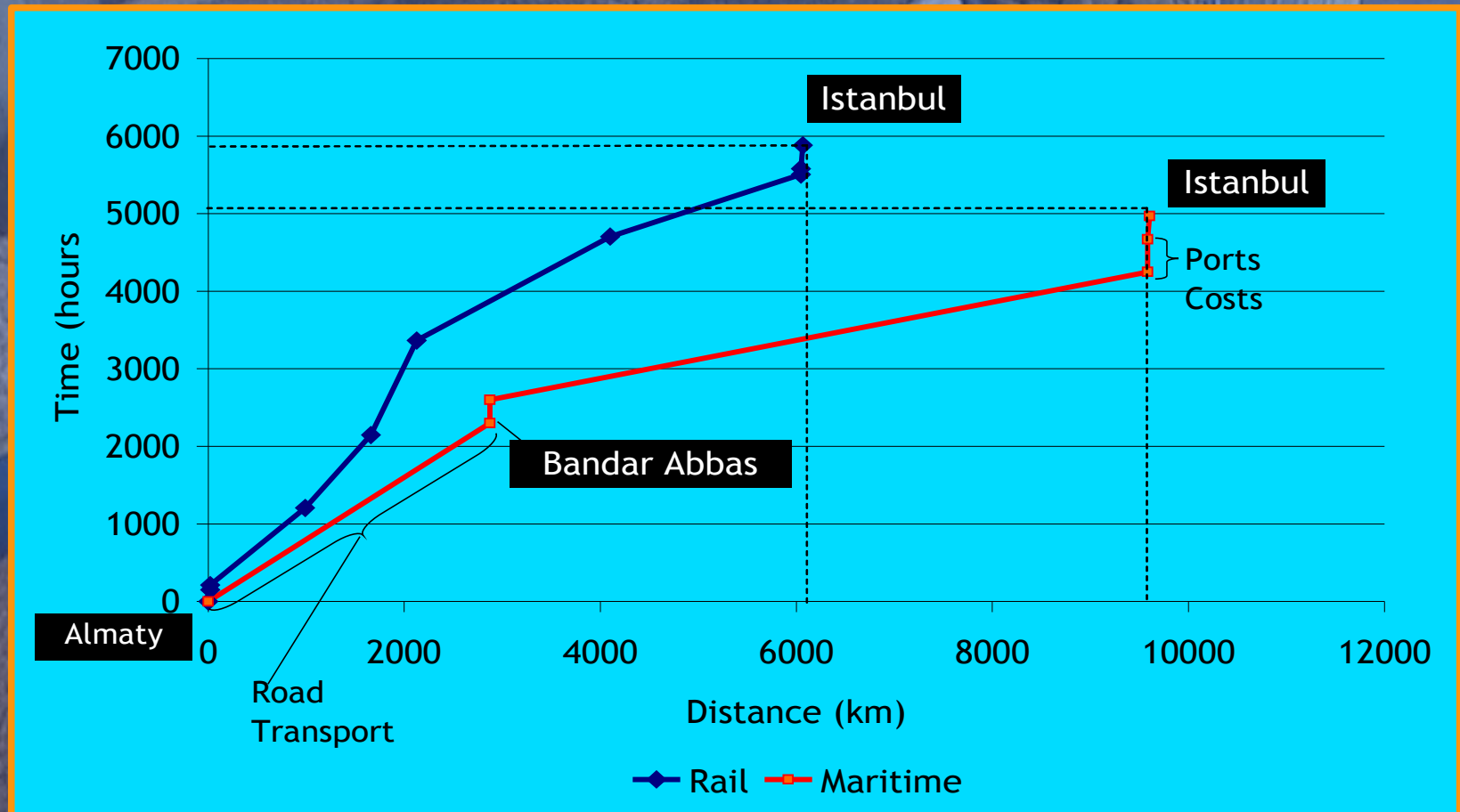
## RAIL TRANSPORT: Almaty - Istanbul

Route	km	Cost(\$)	Time(hrs)
Almaty - Almaty rail station by road	20	150	1
Almaty rail station loading cost	-	30	-
Almaty rail station other costs	-	30	-
Kazakhstan by rail	969	998	28
Uzbekistan by rail	670	938	40
Turkmenistan by rail	469	1,220	32
Iran by rail	1,972	1,340	63
Turkey by rail	1,945	800	85
Istanbul rail station unloading cost	-	30	-
Istanbul rail station other costs	-	45	-
Istanbul rail station - Istanbul by road	20	300	1
<u>Total rail transport</u>		<u>5,431</u>	
<u>Total road transport</u>	<u>40</u>	<u>450</u>	<u>2</u>
<b>TOTAL</b>	<b>6,065</b>	<b>5,881</b>	<b>250</b>

# Scenario Presentation



# Scenario Presentation

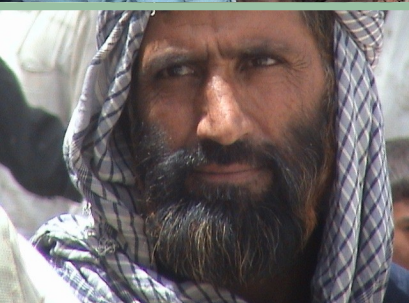




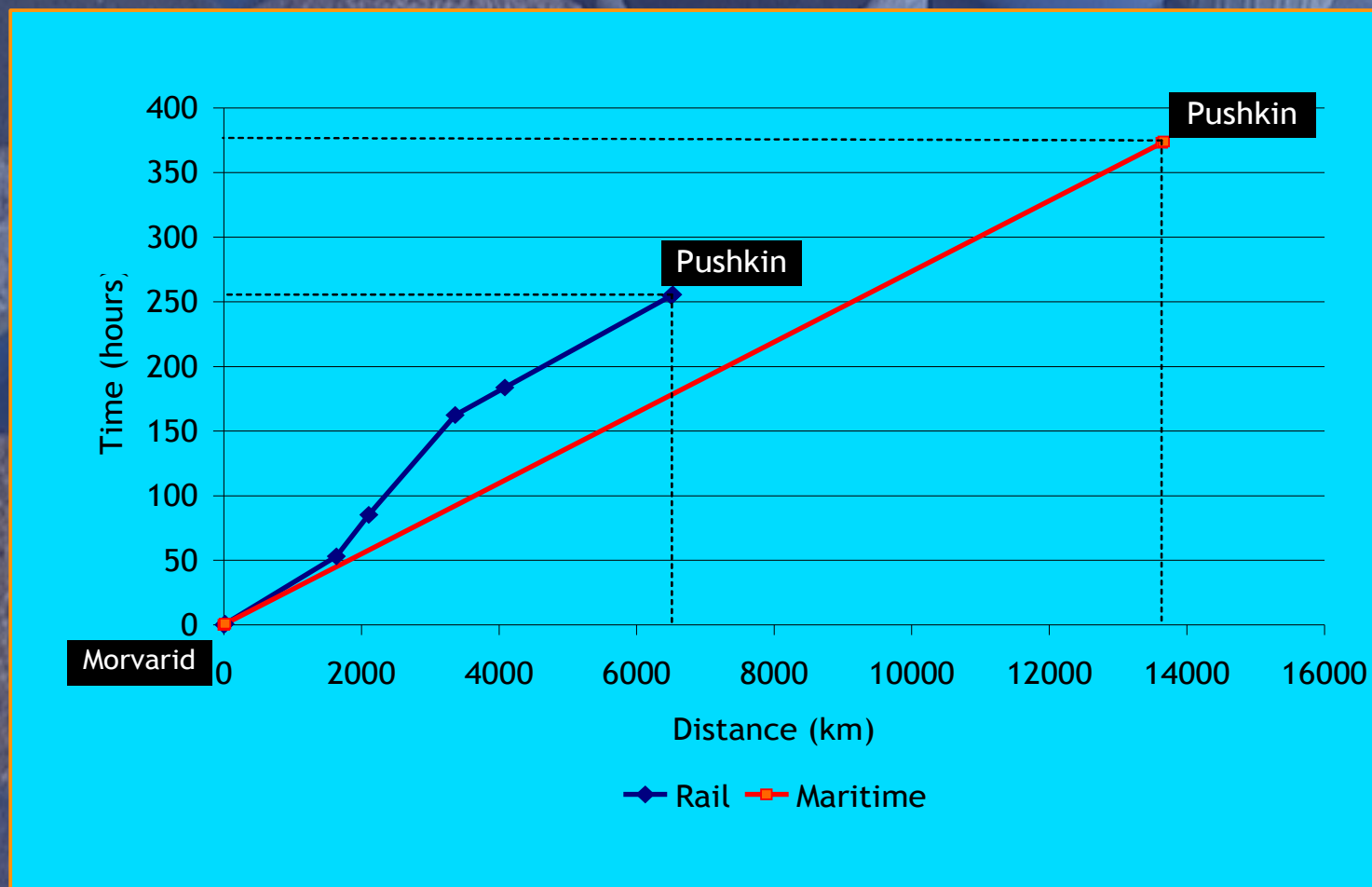
**North South Route**

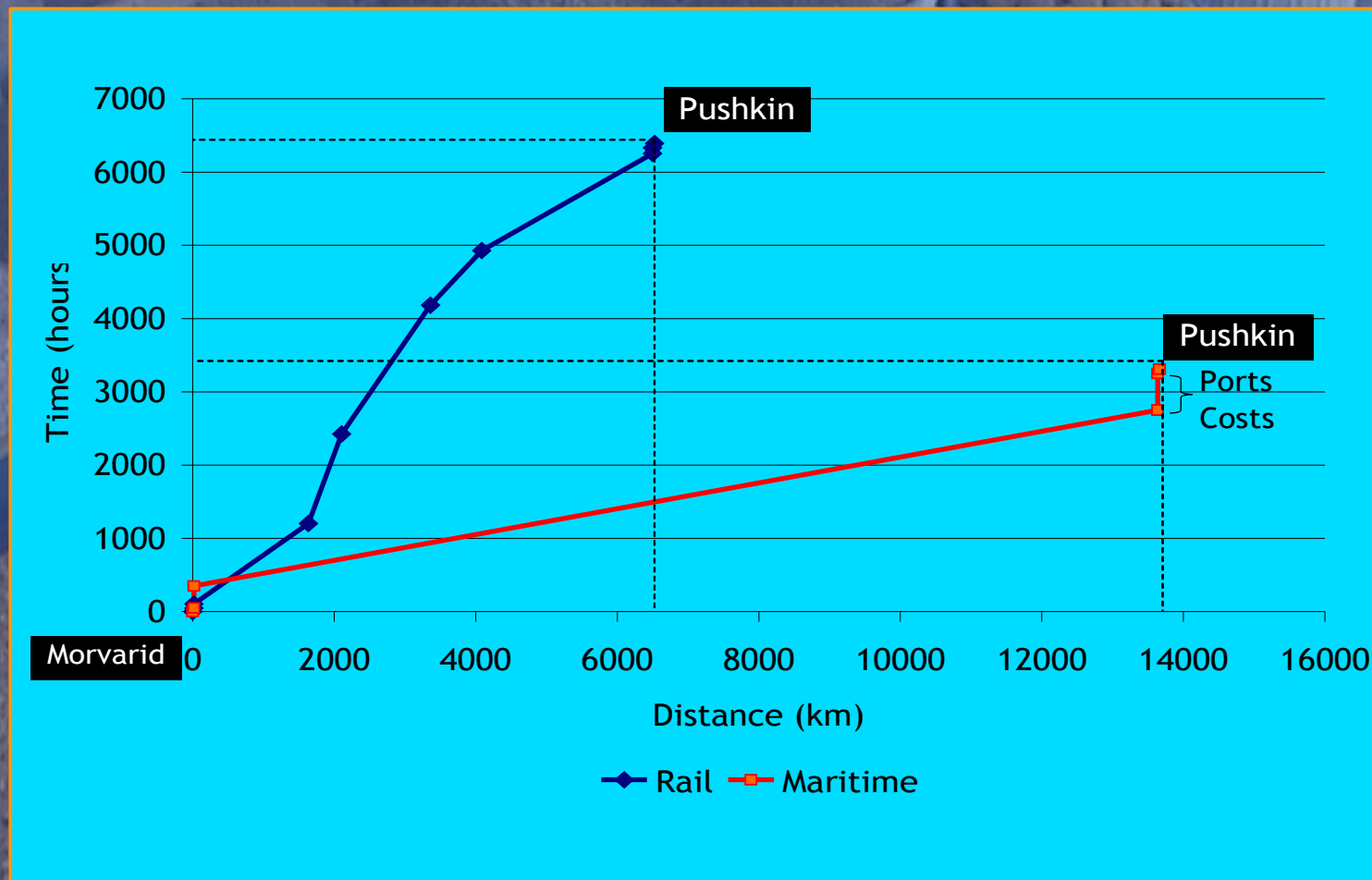






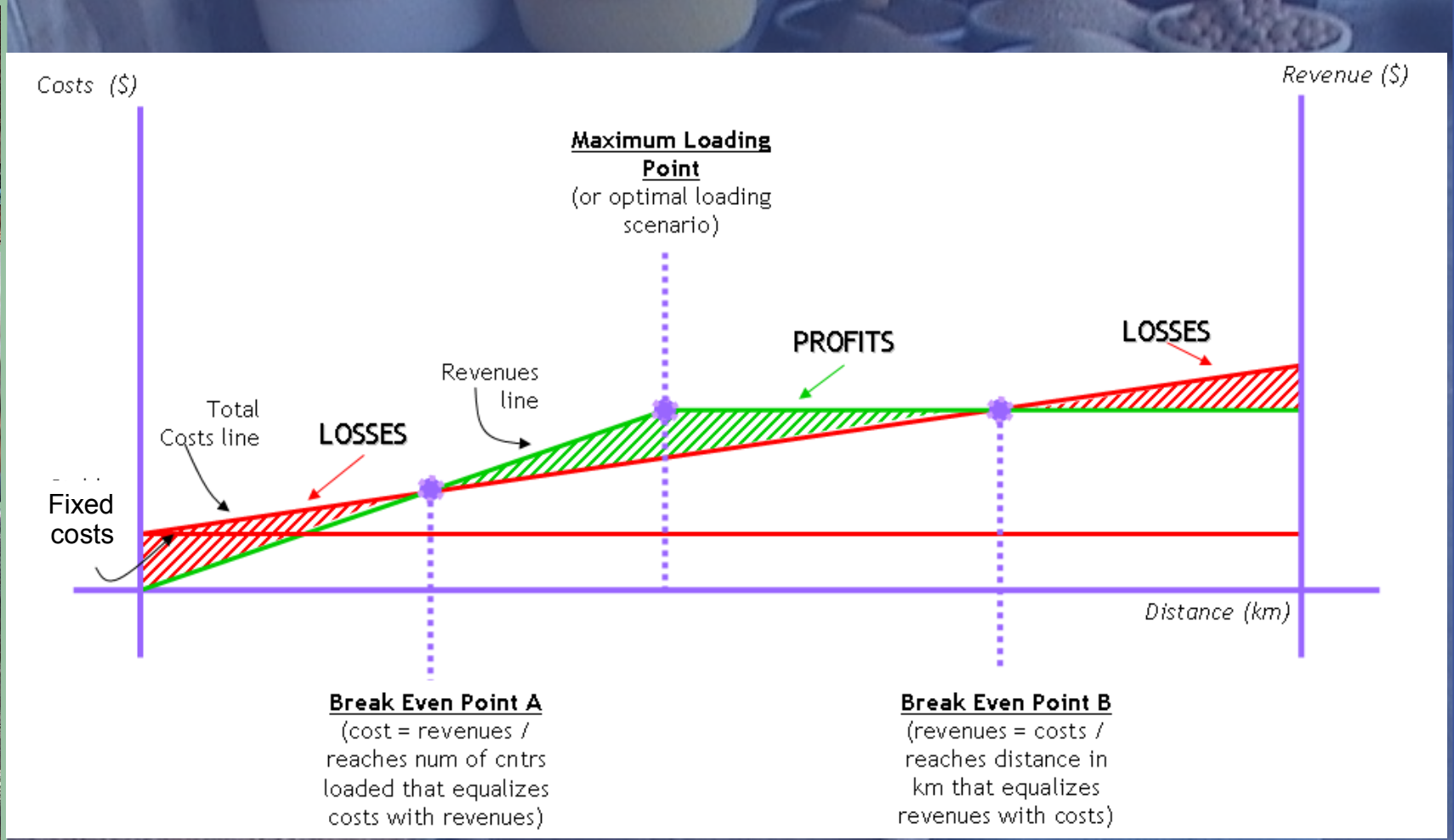
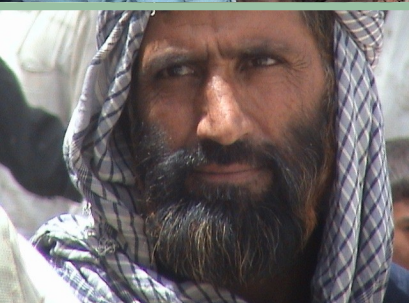
Scenario 5: EATL Route 5	Morvarid (Iran) to Pushkin (Russia)	6,390.5	256	3,310	374	Maritime	Rail
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**Economics of the trains**





**Thank you!**