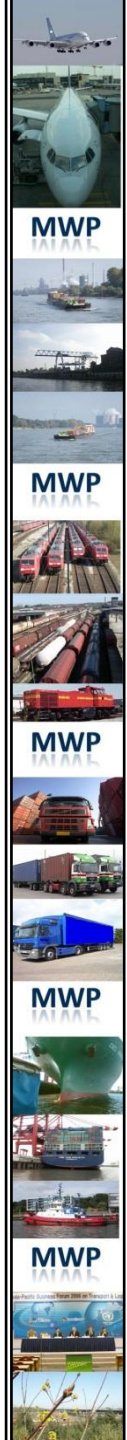
China´s One Belt/One Road-Initiative

- a serious competition for the maritime industry?

Dr. Jürgen Sorgenfrei
MWP GmbH
April 2018



Agenda

1. OBOR – BRI background
2. OBOR trade volumes
3. Transport cost comparison
4. Re-routing example
5. Conclusion

Khorgos Rail terminal at
Kazakhstan-Chinese border

Timeline of OBOR

- OBOR One Belt – One Road (or: BRI) announced by President Xi Jinping in Kazakhstan in 2013
- More than $900 billion **already** ploughed into Silk-Road oriented projects, from railways to power plants
- According to ADB, there is a $8 trillion funding gap for Asian infrastructure through 2020 – half of which is in China
- Beijing planners expect China's annual trade volume with OBOR partners to surpass $2.5 trillion by 2025
- Long term strategy

BRI map


BELT AND ROAD INITIATIVE 「一帶一路」倡議
EUROPE 歐洲
CENTRAL AND WESTERN ASIA 中亞及西亞
MEDITERRANEAN SEA 地中海
CHINA 中國
Reach out to 48% of the Belt and Road population within 5 HOURS
5小時內能抵達「一帶一路」地區48%人口
HONG KONG 香港
SOUTH ASIA 南亞
SOUTHEAST ASIA 東南亞
INDIAN OCEAN 印度洋
Over 62% of the world's population
佔全球人口超過62%
Over 34% of the world's merchandise trade
佔全球貨物貿易超過34%
Around 31% of the world's GDP
佔全球生產總值約31%
This preliminary map is based on the proposed geo-economic cooperation as described in the Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st Century Maritime Silk Road document. Actual routes may differ and may also extend to encompass other territories as the project develops.
本地圖乃根據《推動共建絲綢之路經濟帶和21世紀海上絲綢之路的願景與行動》
描述的地緣經濟合作建議而繪製，僅供參考。實際路線或會略有不同，
亦可能隨著項目發展而伸延至其他地區。

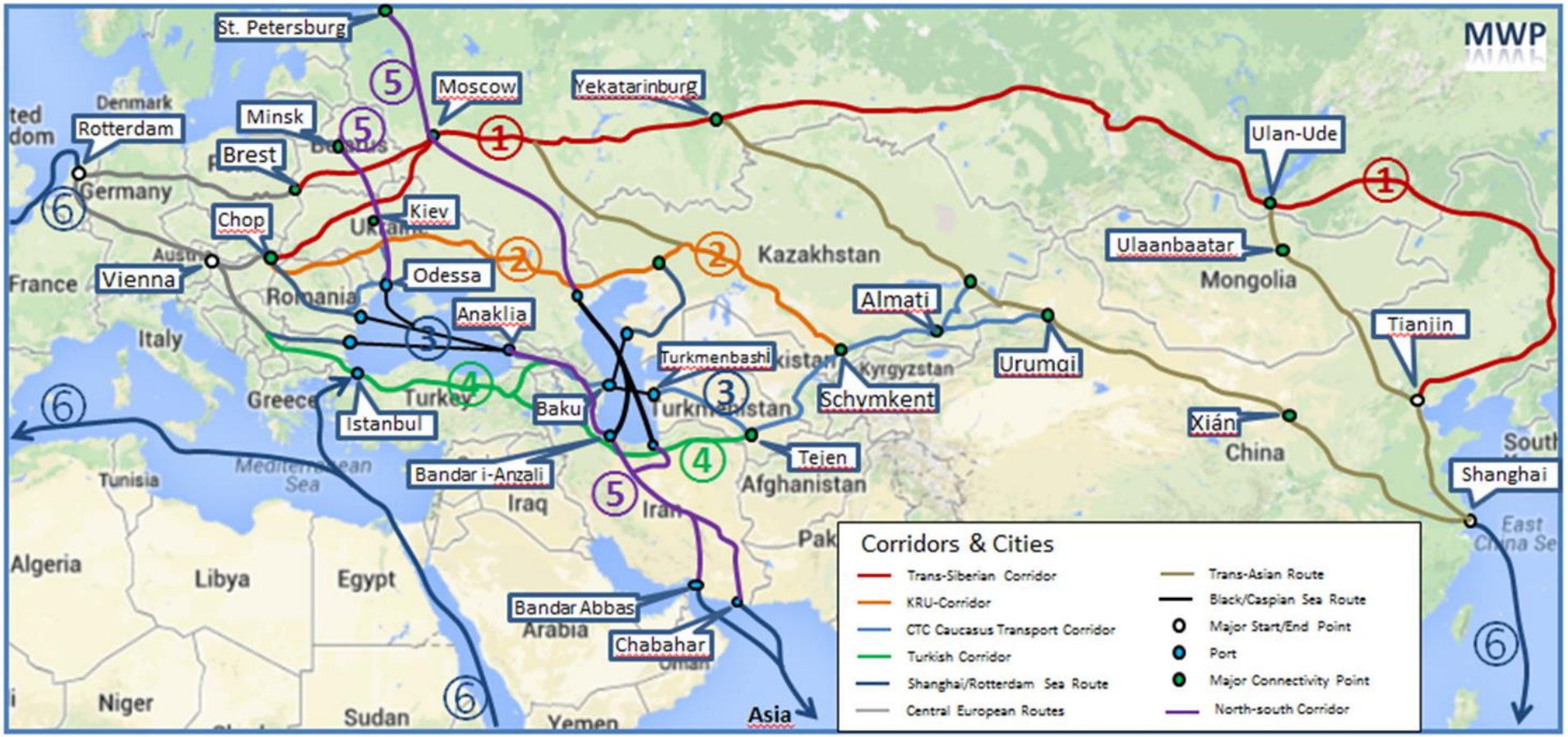
Why OBOR? Beijing's thinking…

- China built up substantial industrial capacity during its construction boom, but with the structural slowdown overcapacity is becoming a major concern, prompting efforts to seek alternative demand sources.
- The significant need for further infrastructure development in many developing countries in Eurasia and Africa present major opportunities that current financing mechanisms, e.g., Bretton Woods institutions, cannot meet. Founding the AIIB Asian Infrastructure Investment Bank in 2016 was one answer to this.
- Beijing has a strong desire to continue strengthening relationships and increasing its soft power with neighbors. Official rhetoric focuses on a "peaceful rise" and becoming a global political power.
- With OBOR, Beijing is creating a unifying framework for the many investment and strategic actions taken in the past (and continuing) and consolidate into a single overarching initiative.

OBOR projects aim to connect sub-regions in Asia, Europe, and Africa via infrastructure construction

- Infrastructure and facilities: construction of key passageways including **roads, ports, railroads, and civil aviation infrastructure**, linking of unconnected road sections, removing of transport bottlenecks, advancing road safety facilities and traffic management facilities and equipment
- Improved customs clearance and transport facilitation, as well as **energy infrastructure such as oil and gas pipeline construction**
- Cross-border supply networks and **power transmission routes**; regional power grid upgrading, IT cooperation in logistics
- Cross-border optical cables, including submarine optical cable projects, satellite information passageways
- **Industrial parks**, joint manufacturing and R&D, trade cooperation zones
- Financial integration and cooperation including a **stable currency system**, bilateral currency swap and settlements, joint financial regulation

Transport Corridors Europe - China



① **Trans-Siberian Corridor**

② **KRU-Corridor**

③ **CTC Caucasus Transport Corridor**

④ **Turkish Corridor**

⑤ **Iran-Black Sea-Corridor**

⑥ **Maritime Silk Road to Europe**

Corridor evaluation

CTC Caucasus Transport Corridor		
	Strengths	Weaknesses
Opportunities	shortest distance beween CA and Europe	multi-modal concept
	qualified performance record/high reliability	electronic goods declaration (customs)
	fast transit times	one-stop-shopping
	exclusive Caspian Sea access	
	low political risk	
Threats	limited road infrastructure	high security level
	competitive tariff	multiple unloadings / risk of damage
	partly COTIF compliant	low risk of fraud & theft

SWOT-analysis per corridor

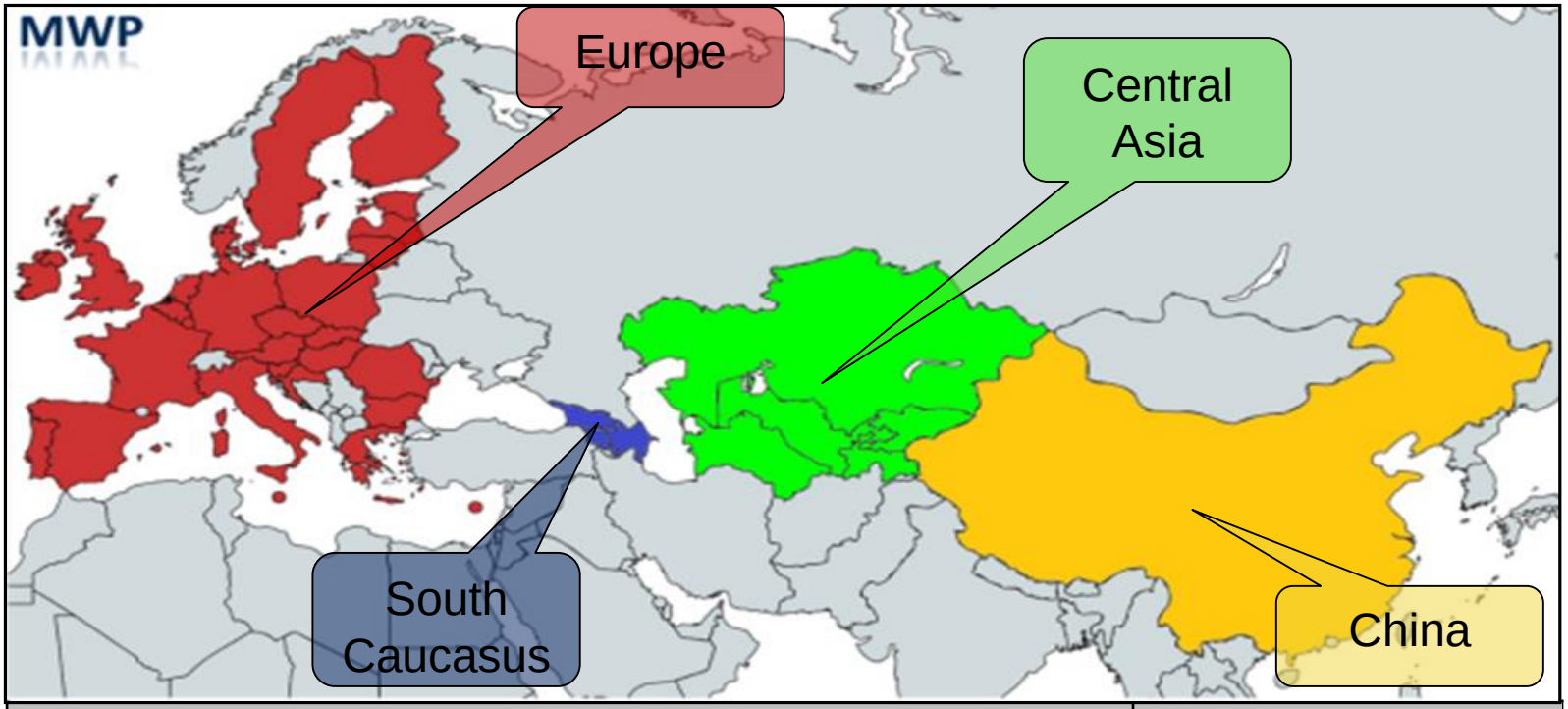
Agenda

1. OBOR – BRI background
2. OBOR trade volumes (Europe – Asia only)
3. Transport cost comparison
4. Re-routing example
5. Conclusion

Khorgos Rail terminal at
Kazakhstan-Chinese border

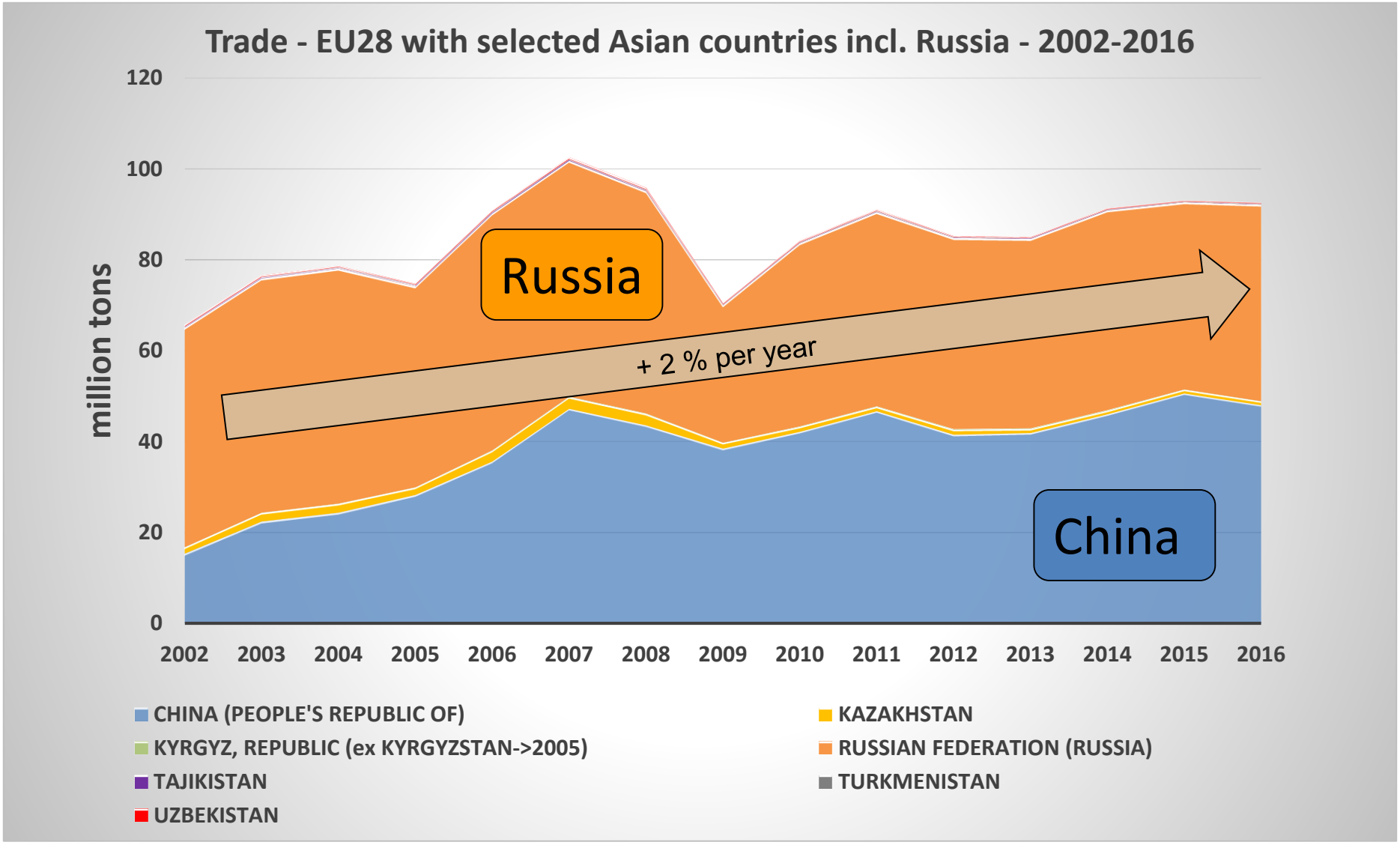
OBOR countries

The analysis includes the following countries / regions:

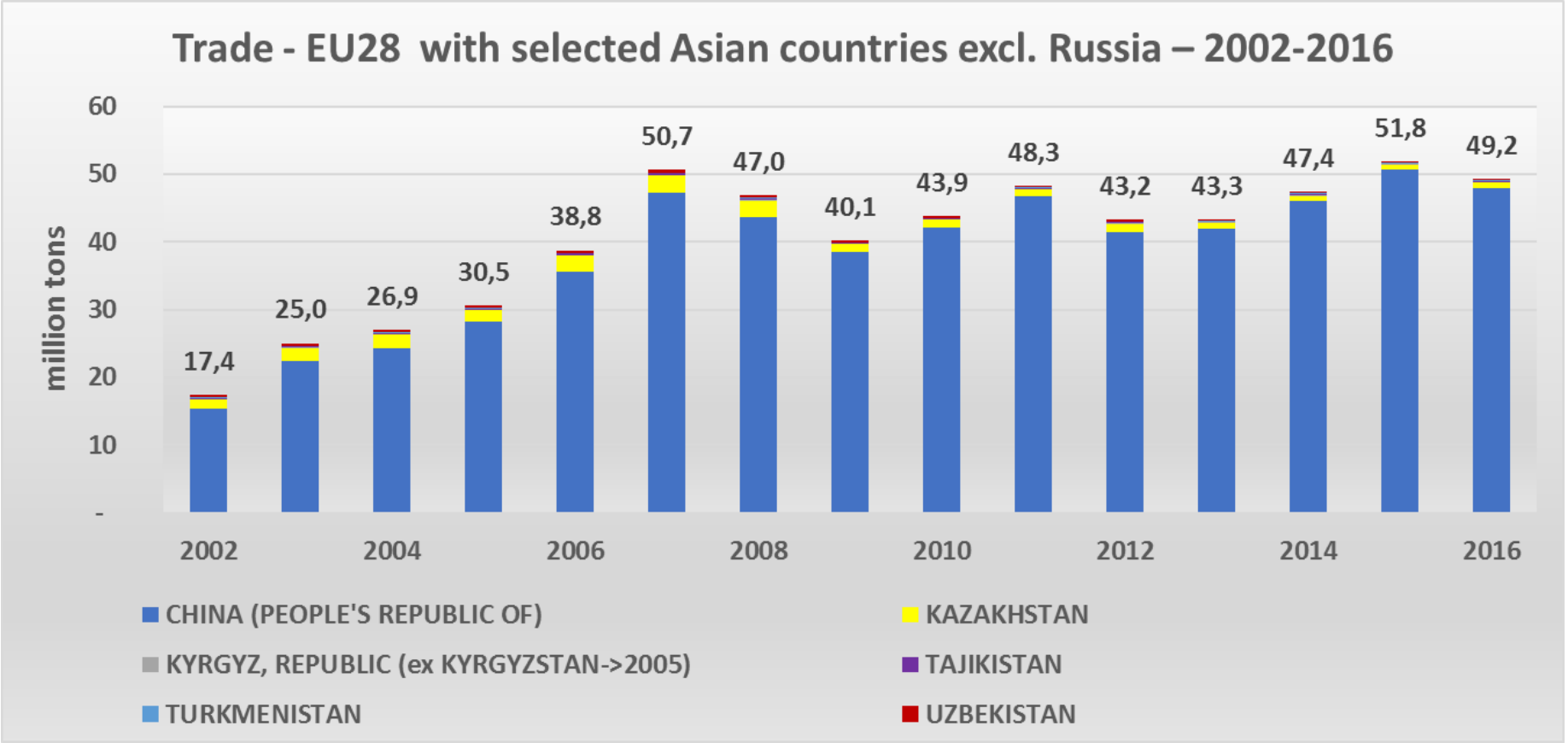


EU28 countries						Asian countries	
Austria	Czech Republic	Germany	Latvia	Poland	Spain	China	Tajikistan
Belgium	Denmark	Greece	Lithuania	Portugal	Sweden	Kazakhstan	Uzbekistan
Bulgaria	Estonia	Hungary	Luxembourg	Romania	United Kingdom	Turkmenistan	
Croatia	Finland	Ireland	Malta	Slovakia		Kyrgyzstan	
Cyprus	France	Italy	Netherlands	Slovenia		Russia	

Trade volumes EU28 with selected Asian countries



Trade volumes EU28 with selected Asian countries



Growth rates excluding Russia:

2016/2002 excl. Russia		
	total %	avr. % p.a.
Import	180%	8%
Export	184%	8%
Total	183%	8%

Imports and Exports: Asian countries and EU28

Significant imbalance between Imports to Asia from EU 28 and Exports from Asia to EU 28.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Import	37.1%	42.5%	37.8%	33.7%	25.8%	21.2%	23.2%	41.8%	37.0%	37.1%	42.2%	41.9%	38.7%	40.1%	36.7%
Export	62.9%	57.5%	62.2%	66.3%	74.2%	78.8%	76.8%	58.2%	63.0%	62.9%	57.8%	58.1%	61.3%	59.9%	63.3%

Product structure: Trade EU28 with selected Asian countries

Few product groups dominate the trade

Product Ranking by tons in 2016	k tons 2016	2010 -2016	
		Absolute tons growth	% annual growth
Machinery and transport equipment	16.309	3601	4%
Mineral fuels, lubricants and related materials	8.038	1065	2%
Crude materials, inedible, except fuels	6.468	-377	-1%
Manufactured goods classified chiefly by material	6.180	-2096	-5%
Miscellaneous manufactured articles	4.248	618	3%
Food and live animals	3.445	1843	14%
Animal and vegetable oils, fats and waxes	2.008	477	5%
Chemicals and related products, n.e.s.	1.131	383	7%
Beverages and tobacco	957	-87	-1%
Commodities not classified elsewhere	446	-64	-2%

Agenda

1. OBOR – BRI background
2. OBOR trade volumes
3. Transport cost comparison
4. Re-routing example
5. Conclusion

Khorgos Rail terminal at
Kazakhstan-Chinese border

Route Analysis

Example: Route analysis with quantitative and qualitative criteria.

Final Destination and via Points	Mode /Node Type	Link/ Node	Distance (KM)	Total Distance (KM)	Estimated Time (hr)	Condition /Capacity	Unit Cost (per km/20 ton dry cargo)	Segment Cost	Total Major Route Cost	Total Major Route Time (hours)	Time in Days	
						Current Condition						
China, Shanghai	Rail	A-B	379		5	good	1,08	$ 409				
	Border	B	N/A		5	N/A	280	$ 280				
	Rail	B-C	500		7	good	1,08	$ 540				
	Rail	C-D	191		3	good	1,08	$ 206				
	Border	D	N/A		5	N/A	280	$ 280				
	Rail	D-E	1700	11.670	24	operable	1,26	$ 2.142	$ 6.000	262	11	
	Border	E	N/A		9	N/A	0	$ -				
	Rail	E-F	3500		72	operable	1,26	$ 4.410				
	Border	F	N/A		36	N/A	100	$ 100				
	Rail	F-H	5400		96	good	1,08	$ 5.832				
China, Qingdao	Rail	A-B	379		5	good	1,08	$ 409				
	Border	B	N/A		5	N/A	280	$ 280				
	Rail	B-C	500		7	good	1,08	$ 540				
	Rail	C-D	191		3	good	1,08	$ 206				
	Border	D	N/A		5	N/A	280	$ 280				
	Rail	D-E	1700	11.220	24	operable	1,26	$ 2.142	$ 6.000	238	10	
	Border	E	N/A		9	N/A	0	$ -				
	Rail	E-F	3500		72	operable	1,26	$ 4.410				
	Border	F	N/A		36	N/A	100	$ 100				
	Rail	F-G	4950		72	good	1,08	$ 5.346				
a Almaty, Kazakhstan	Rail	M-O	1734		54	good	1,08	$ 1.873				
	Border	O	N/A		5	N/A		N/A				
	Ferry	O-A	1300		55	good	1,08	$ 1.404				
	Border	A	N/A	6.444	5	N/A		N/A	$ 6.960	196	8	U
	Rail	A-C	863		12	good	1,08	$ 932				
	Border	C	N/A		10	N/A		N/A				
	Ferry	C-L	469		12	good	1,08	$ 507				
	Rail	L-P	2078		43	good	1,08	$ 2.244				

Major Findings:

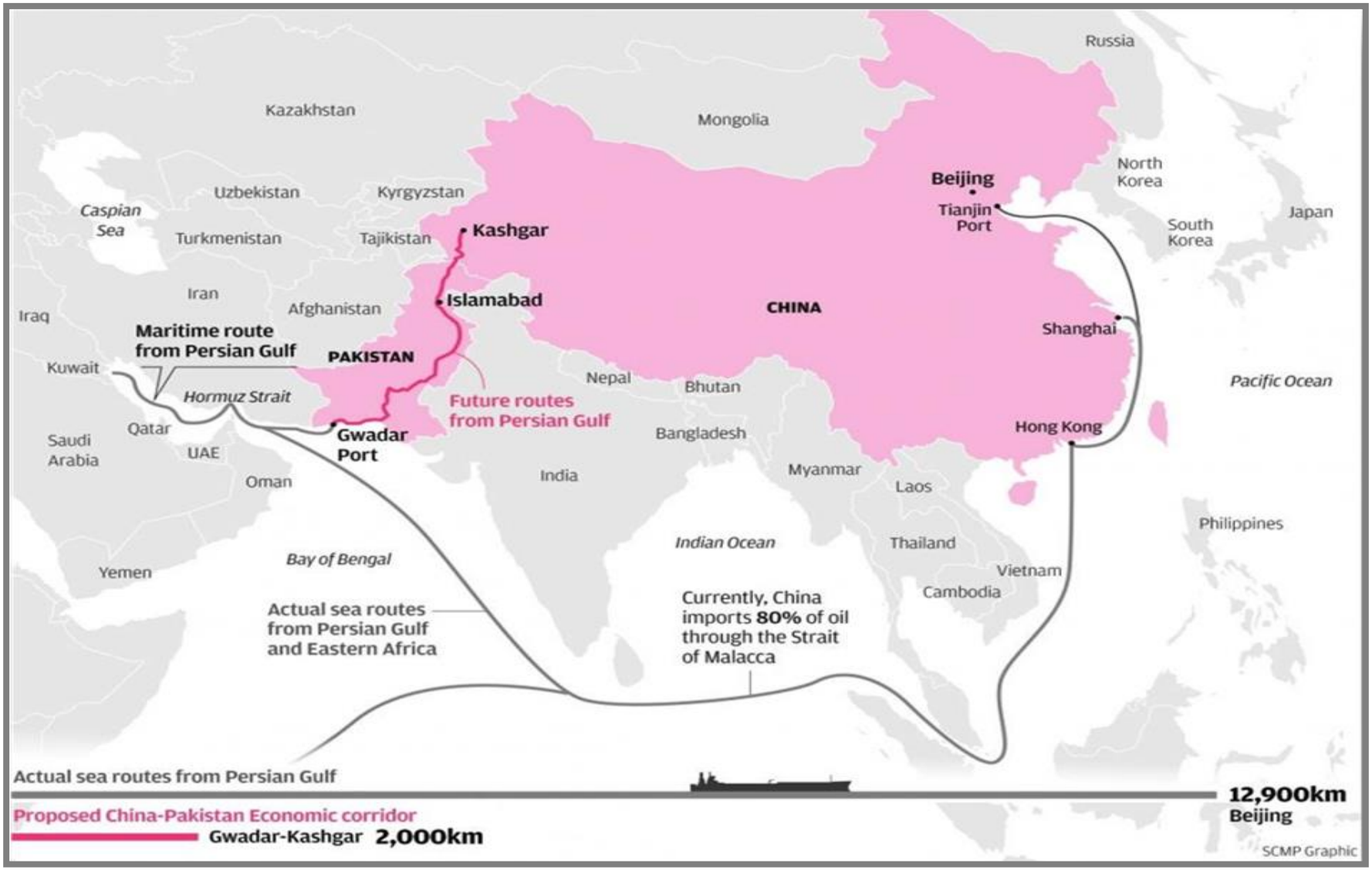
- Comparison only serious point – to – point and under defined conditions (e.g. for 1 TEU out of 10,000)
- General finding: supply chains including maritime trade are in most cases cheaper compared with rail or road transport
- Coastal region to coastal region up to 30 % cheaper
- Problem: “costs” in rail business don´t exist; just tariffs
- Problem: safety / non-tariff barriers (NTB´s)
- Often heard argument: just-in-time is more important than speed

Agenda

1. OBOR – BRI background
2. OBOR trade volumes
3. Transport cost comparison
4. Re-routing example
5. Conclusion

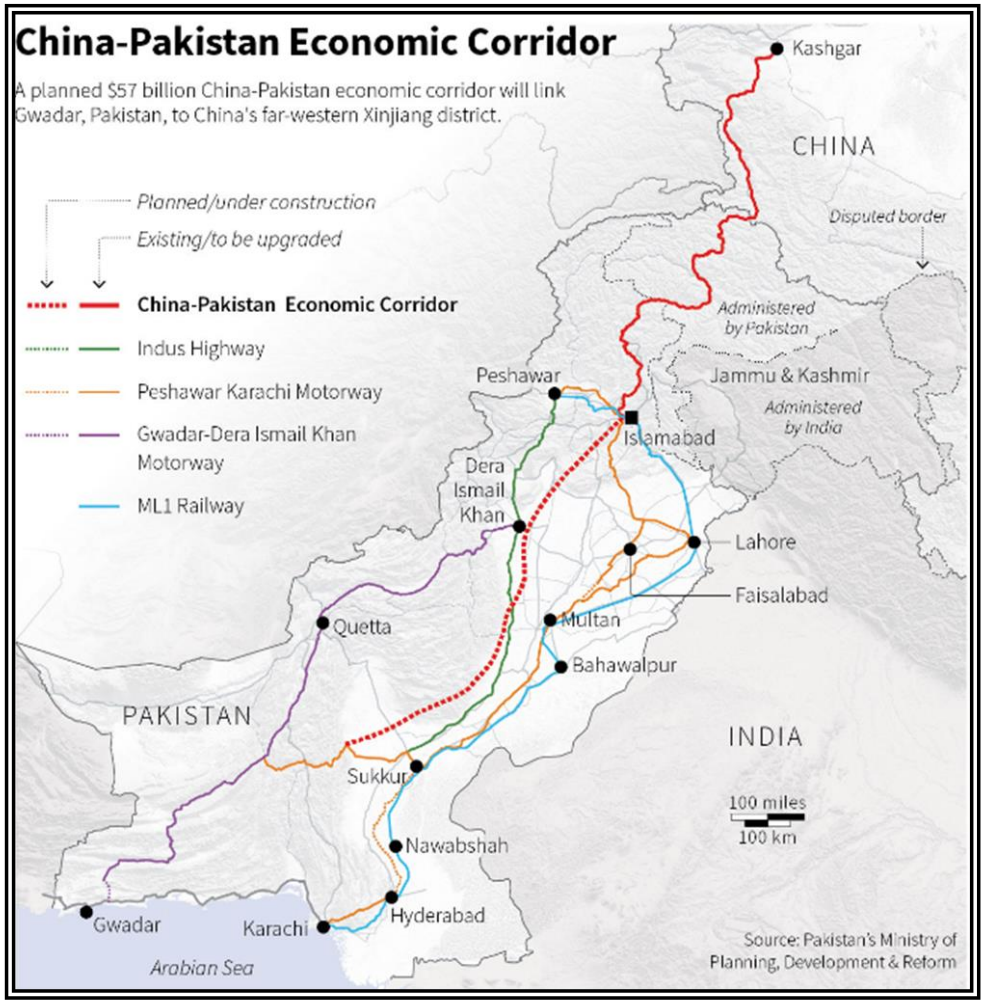
Khorgos Rail terminal at
Kazakhstan-Chinese border

Central and Western China energy supply



Port of Gwadar and CPEC

- **CPEC** China-Pakistan Economic Corridor links western China to the Arabian Sea
- The Port of Gwadar is the final destination of Makaran Coastal Highway
- The Port of Gwadar will be developed as maritime link from China/Kashgar to the Indian Ocean
- Most important for oil



Port of Gwadar

In April 2015 China has won the right to operate Pakistan's Gwadar port for a period of 40 years.

Located right at the mouth of the Persian Gulf, the Gwadar port is just outside the Strait of Hormuz, which is the gateway for about 20 percent of the world's oil.

Gwadar: a strategic maritime location

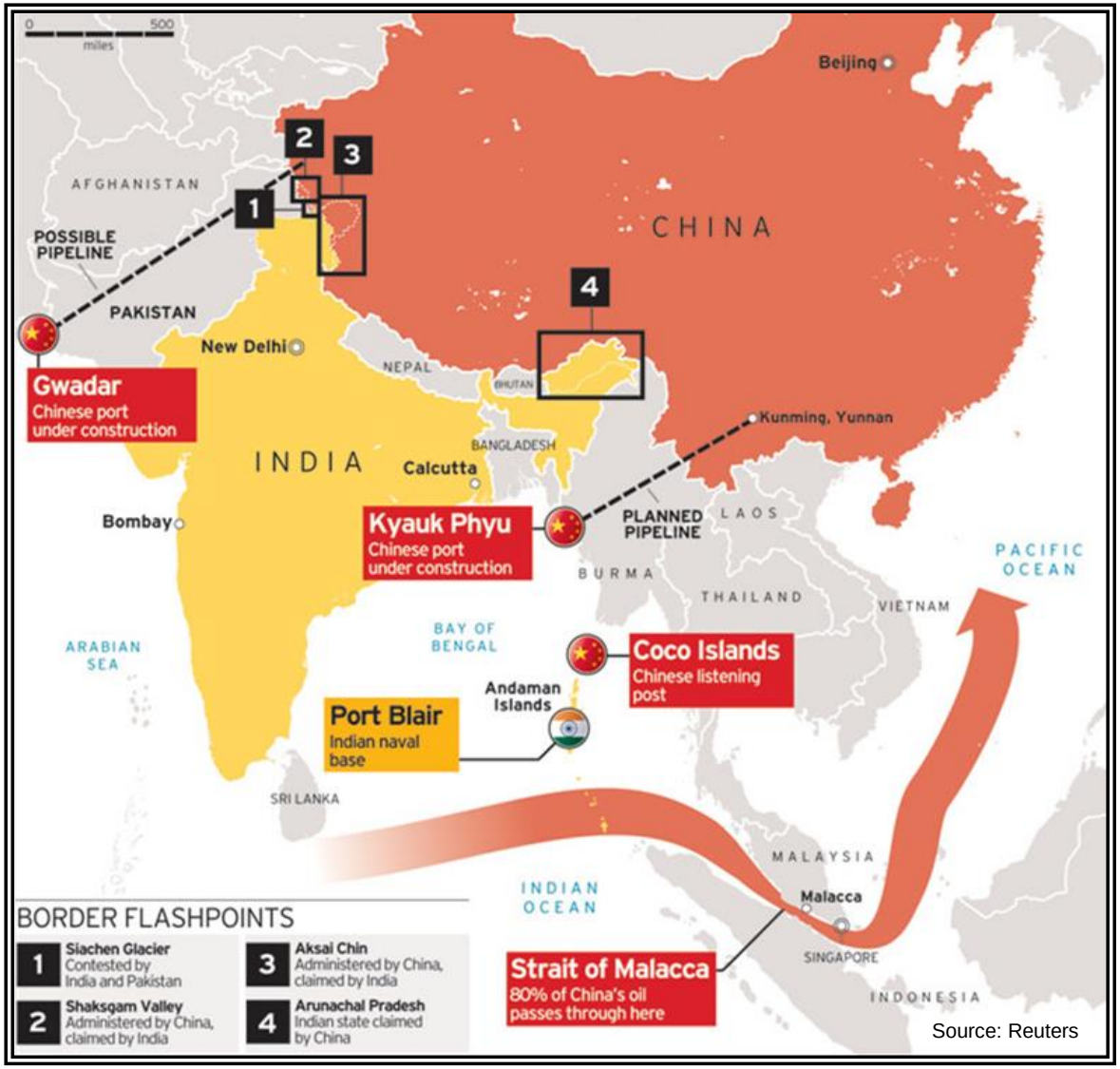
- China is set to invest $1.62 billion on further development of the Gwadar project, which includes construction of an eastern expressway linking the harbor and coastline, an international airport, breakwater and nine other projects expected to be complete in three to five years.

- A container terminal measuring 1,200 metres is projected and will soon be built by Gwadar along with a 300-meter-long cargo terminal that can harbor four berths.

- This project will give China access to Gulf countries, and the possibility of building a naval base on the Arabian Sea in future.

Strategic targets

- Creating access to Indian Ocean:
  - Gwadar
  - Kyauk Phyu
- Less dependent on Strait of Malacca
  - Piracy
  - Indonesia
  - Vessel size
  - Thailand Canal



Agenda

1. OBOR – BRI background
2. OBOR trade volumes
3. Transport cost comparison
4. Re-routing example
5. Conclusion

Khorgos Rail terminal at
Kazakhstan-Chinese border

OBOR: serious competition for the maritime industry?

- On the short run = No!
- For the high-volume Far East-Europe trade = not really
- Key target markets for OBOR like CA are already today no maritime markets
- Largest potential for Kazakhstan
- For Africa: huge chances for future export markets, but dangerous …
- For liquid bulk shipping Arabian Gulf – China = increasingly YES
- For North-European ports = not on the short run, but serious risk potential!
- For South-European ports = chance to act as partner

The Police: Every breath you take, every move you make, every bond you break, every step you take …. I'll be watching you

Thank you for your attention

Dr. Jürgen Sorgenfrei
MWP GmbH
Große Elbstraße 38
22767 Hamburg
Germany

Tel.: +49 40 39109030
Mobil : +49 170 777 2278
E-Mail: Sorgenfrei@MWP-Hamburg.de