



# Transeurasien Schienengüterverkehr

## 32. Tagung des Plenums der IBS 30. Mitgliederversammlung der IBS

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## China in the World Market

Exported growth in value between 2005-2010 – 10.7% p.a

### Commodity

• Steel	498.590,0 kt	+12,1%
• Equipment for producing cement	694,4 kt	+24,6%
• Copper products	8.640,0 kt	+20,9%
• Civil vessels	38.750,0 kt	+38,8%
• Cars	12.799,4 thousands	+43,2%
• Computer units	174.440,0 thousands	+23,9%
• Units for mobile communication	27.500,0 thousands	+112,8%

## Export from China to Europe

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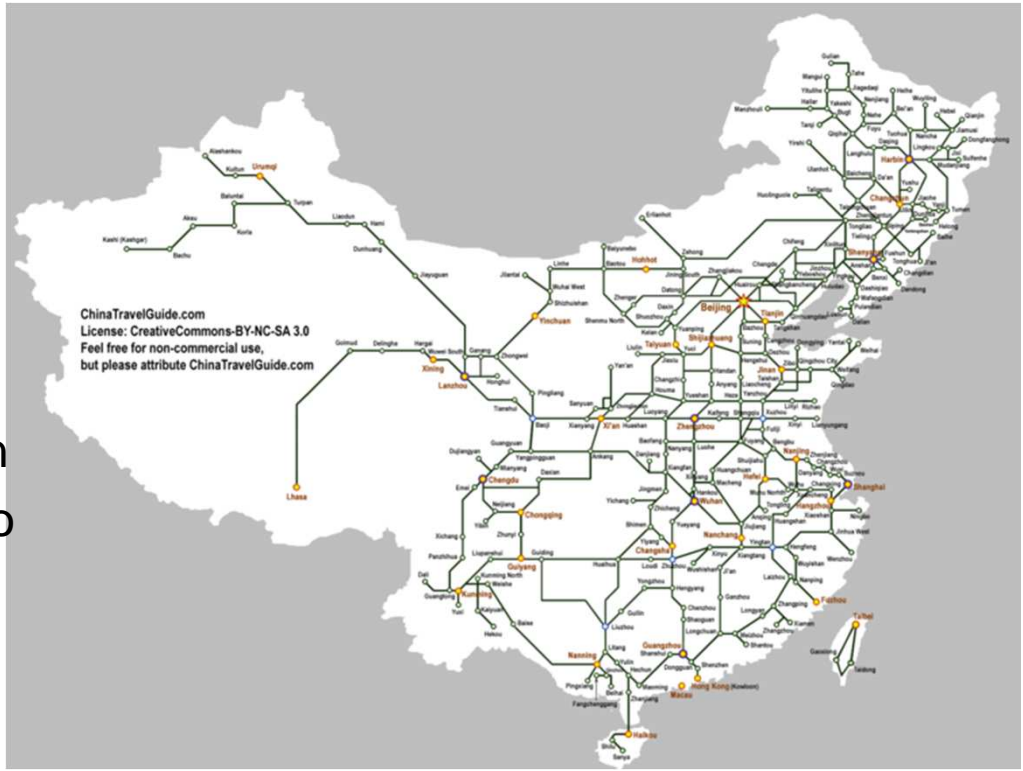
1. Increase of total export value (FH 2010) + **29,2%**  
(China Ministry of Commerce)
2. Share of export to the European Union (27) in 2010 = **19.7%** of the total world export
3. Chinese Export Growth in Value to the Main European Trade Partners (2009 – 2010, %):
  - Russia – 139,0%
  - Ukraine – 161,0%
  - Poland – 141,0%
  - Italy – 47,7%
  - Germany – 16,0%

# Asia Pacific – C.I.S. / Europe rail corridor

## Major Railway Transportation Stations in China

### *The Chinese rail network*

- Serves all provinces except Macau
- 110'000 km total
- 55'000 km are electrified
- Grid for container-trains 16000 km
- 18 new Container rw station hubs
- investment up to 2025 USD 730 billion
- 200 stations can dispatch export cargo
- 16 stations can dispatch import cargo
- 10 stations can dispatch transit cargo



# Asia Pacific – C.I.S. / Europe rail corridor

## Major Railway Transportation Stations in China

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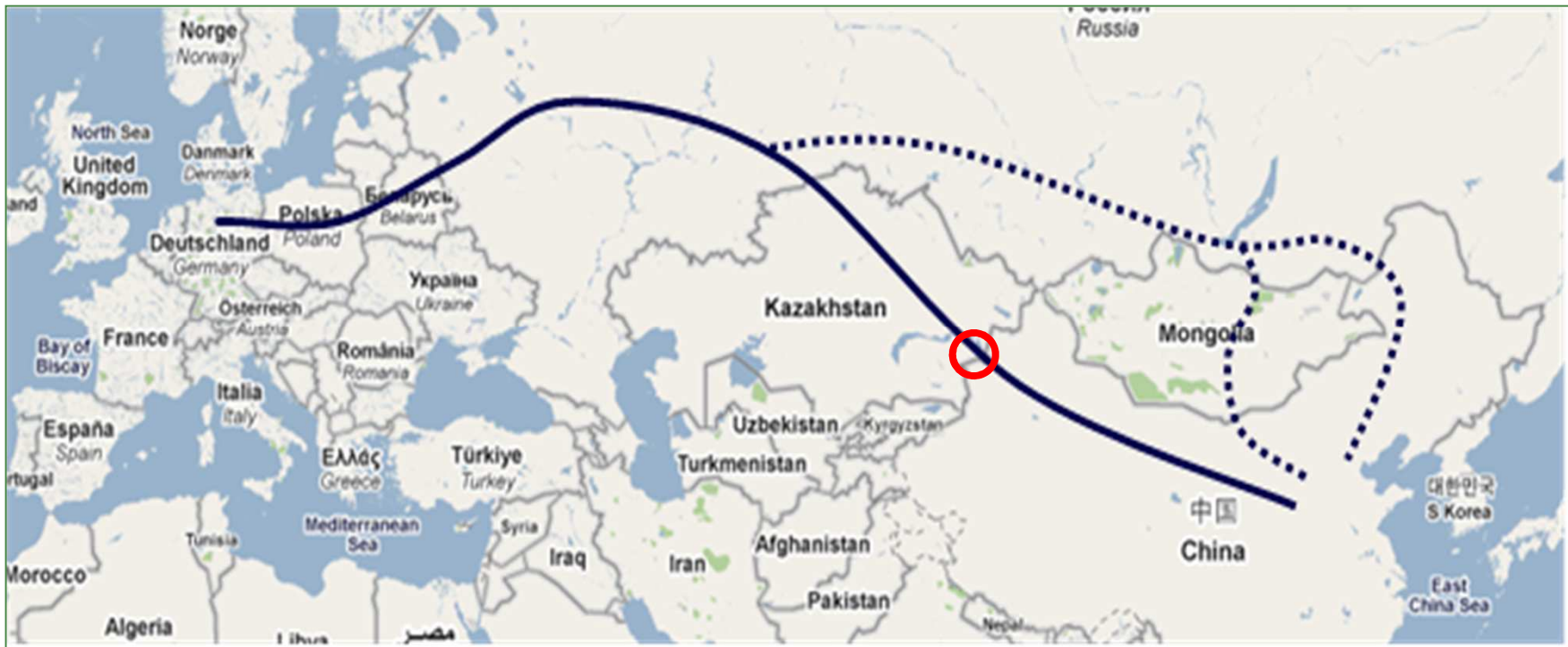
## Asia Pacific – C.I.S. / Europe rail corridor

Three Major International Gateways for Railway Transportation from/to China



# Asia Pacific – C.I.S. / Europe rail corridor

## Southern Route via Alashankou / Dostyk





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## Asia Pacific – C.I.S. / Europe rail corridor

### Reasons for concentration on this route

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- Daily trains from different Chinese ports to Alashankou / Dostyk
- Regular departures from different inland hubs to Alashankou / Dostyk
- Urumqi, as new production location and Free Trade Zone is very close to Alashankou / Dostyk, 500 km
- Intensive development of Dostyk by construction of 8 new container terminals with modern facilities and equipment
- New border point “Horgos” very close to Dostyk
  - Planned with similar facilities and capacities as in Dostyk,
  - Expected opening for rail transports by Mid of 2013
- Shortest rail route to Europe

# Asia Pacific – C.I.S. / Europe rail corridor

## Direct rail between China, Russia, Central Asia and Europe





## Asia Pacific – C.I.S. / Europe rail corridor

### Major ports in China and their linkage to Dostyk

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- **Tianjin**

- Distance to Dostyk 3980 km
- Transit time ~ 8 days

- **Qingdao**

- Distance to Dostyk 4350 km
- Transit time ~ 9 days

- **Lianyungang**

- Distance to Dostyk 2990 km
- Transit time ~ 6 days

- **Shanghai**

- Distance to Dostyk 3350 km
- Transit time ~ 7 days

## Asia Pacific – C.I.S. / Europe rail corridor

### Distances and transit times from Dostyk to various stations

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- Yekaterinburg (RU): 2756 km ~ 9 days
- Moscow (RU): 4324 km ~ 14 days
- Novosibirsk (RU): 1887 km ~ 7 days
- Almaty (KZ): 1419 km ~ 6 days
- Astana (KZ): 875 km ~ 4 days
- Bishkek (KG): 1453 km ~ 6 days
- Tashkent (UZ): 1841 km ~ 7 days
- Ashgabat (TM): 3181 km ~ 11 days
- Dushanbe (TJ): 2931 km ~ 10 days
- Brest border (BY): 5496 km ~ 15 days



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## **Asia Pacific – C.I.S. / Europe rail corridor**

### **Relevance of Alashankou / Dostyk for the Corridor**

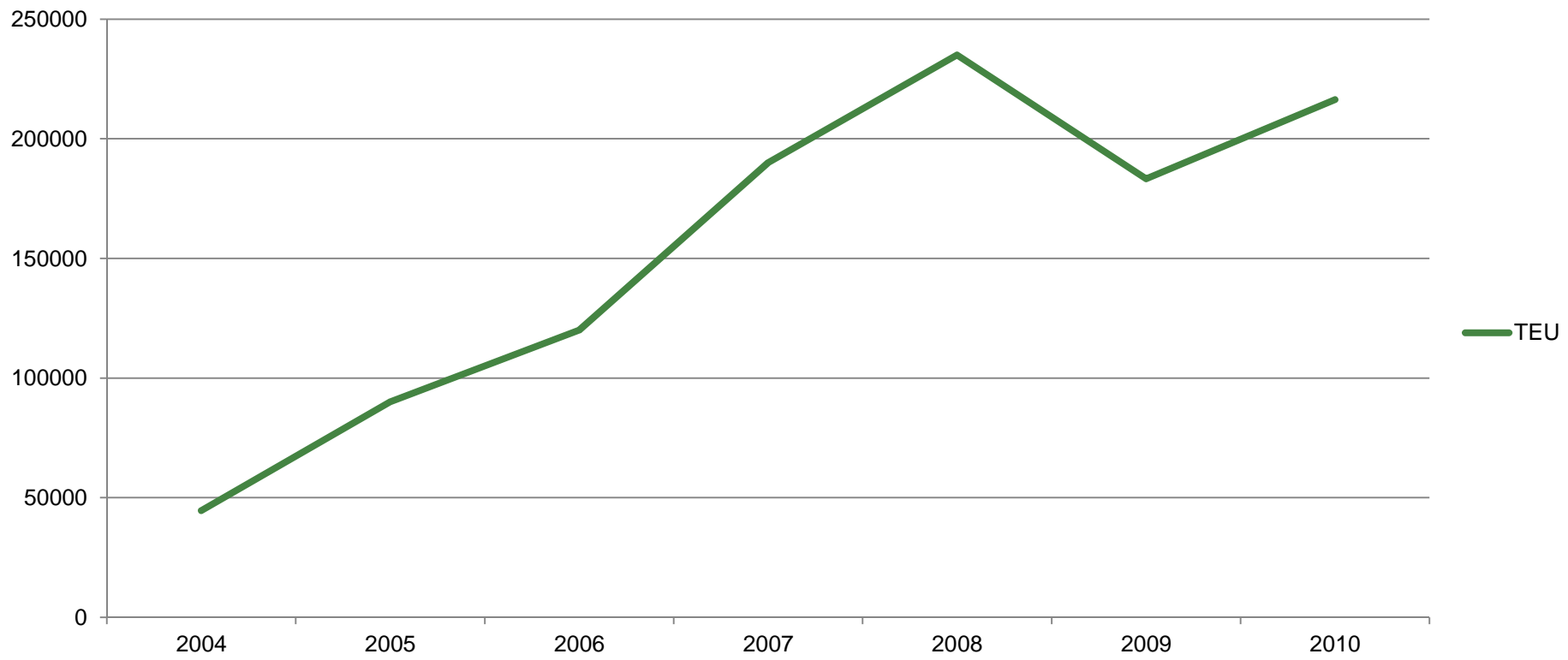
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Border point plays a significant role in realization of transport potential

- 5.2 times increase of transport volumes between 2004 – 2008
  - 2004: 44'592 TEU
  - 2008: 235'001 TEU
- Drop by 22% in 2009
- Regain of volumes in 2010
  - 2010: 220'279 TEU
- A yearly increase of at least 16% of the container-movements, crossing Alashankou / Dostyk is expected

# Asia Pacific – C.I.S. / Europe rail corridor

## Relevance of Alashankou / Dostyk for the Corridor



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## Asia Pacific – C.I.S. / Europe rail corridor

### Alashankou Terminal – reloading for containerized cargo



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# Asia Pacific – C.I.S. / Europe rail corridor

## Alashankou Terminal – reloading for bulk cargo





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## **Asia Pacific – C.I.S. / Europe rail corridor**

### **Aktuelle Operateure über verschiedene Korridore**

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Nordroute über Manzhouli / Zabaikalsk:  
FELB Far East Land Bridge

Nordroute über Mongolei:  
HUPAC

Südroute über Alashankou / Dostyk:  
TEL Trans Eurasia Logistics

Südroute über Alashankou / Dostyk:  
Kühne + Nagel



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## Asia Pacific – C.I.S. / Europe rail corridor

### Probleme

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- Unterschiedliche Sprachen
- Unterschiedliche Abfertigungen
- Unterschiedliche Spurbreiten
- Unterschiedliche Frachtbriefe
- Unterschiedliches Frachtrecht
- Zoll
- Ungenügendes und fehlendes Rollmaterial
- hohe Transportkosten

# Asia Pacific – C.I.S. / Europe rail corridor

## Transportkosten Beispiel 1, Shanghai - Duisburg

<b>Maritime Transport</b>		Transport mode	Distance	Cost	Transittime	
			in km	in USD	in days	
Route	Shanghai - Shanghai	rail	150	350	1 days	
	Shanghai - Hamburg	sea	19900	2600	32 days	
	Hamburg - Duisburg	road	385	400	2 day	
	<b>Total</b>		<b>20435</b>	<b>3350</b>	<b>35 days</b>	
<b>Railway Transport</b>		Transport mode	Distance	Cost	Transittime	
			in km	in USD	in days	
Route	Shanghai- Dostyk	rail	3350	3800	7 days	
	Dostyk - Brest	rail	5496	4400	15 days	
	Brest - Duisburg	rail	1320	1250	3 days	
	<b>Total</b>		<b>10166</b>	<b>9450</b>	<b>25 days</b>	

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### Transportkosten Beispiel 2, Chongqing - Duisburg

<b>Maritime Transport</b>		Transport mode	Distance	Cost	Transittime	
			in km	in USD	in days	
Route	Chongqing- Shanghai	rail	1792	1600	3 days	
	Shanghai - Hamburg	sea	19900	2600	32 days	
	Hamburg - Duisburg	road	385	400	2 day	
	<b>Total</b>		<b>22077</b>	<b>4600</b>	<b>37 days</b>	
<b>Railway Transport</b>		Transport mode	Distance	Cost	Transittime	
			in km	in USD	in days	
Route	Chongqing- Dostyk	rail	3031	3500	4 days	
	Dostyk - Brest	rail	5496	4400	15 days	
	Brest - Duisburg	rail	1320	1250	3 days	
	<b>Total</b>		<b>9847</b>	<b>9150</b>	<b>22 days</b>	

## Asia Pacific – C.I.S. / Europe rail corridor

### Transportkosten Beispiel 3, Urumqi - Duisburg

<b>Maritime Transport</b>		Transport mode	Distance	Cost	Transittime	
			in km	in USD	in days	
Route	Urumqi- Shanghai	rail	3590	2500	4 days	
	Shanghai - Hamburg	sea	19900	2600	32 days	
	Hamburg - Duisburg	road	385	400	2 day	
	<b>Total</b>		<b>23875</b>	<b>5500</b>	<b>37 days</b>	
<b>Railway Transport</b>		Transport mode	Distance	Cost	Transittime	
			in km	in USD	in days	
Route	Urumqi - Dostyk	rail	500	1200	2 days	
	Dostyk - Brest	rail	5496	4400	15 days	
	Brest - Duisburg	rail	1320	1250	3 days	
	<b>Total</b>		<b>7216</b>	<b>6850</b>	<b>22 days</b>	



## Rail service between Asia Pacific and Europe

### Example of capital binding costs rail vs. sea freight

Assumption interest rate            3 – 8%  
 Lead time advantage                15 days

Potential saving costs

Value per Container	USD 400'000	USD 800'000	USD 1'200'000
Interest rate 3%	USD 494	USD 987	USD 1'480
Interest rate 5%	USD 822	USD 1'644	USD 2'466
Interest rate 8%	USD 1'316	USD 2'631	USD 3'946



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## **Asia Pacific – C.I.S. / Europe rail corridor**

### **Produktionsstandorte West-China**

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Neue Produktionsstandorte in West-China bieten Potential für europäische Bahnspeditionen

- Entfernung
- Transitzeit
- Support der lokalen Provinzregierung



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## **Asia Pacific – C.I.S. / Europe rail corridor**

### **Herausforderungen**

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- Lange Vorbereitungszeit
- Tiefe Temperaturen im Winter
- Handling von Gefahrgut
- Wagonverfügbarkeit, evtl. Einsatz von Privatwagon
- Preisstabilität
- Vereinheitlichung der Begleitdokumente
- Container Management
- Gleiches Volumen für westbound / eastbound



## Asia Pacific – C.I.S. / Europe rail corridor

### Optimierungspotenzial

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- Flexiblere Preise
- Bessere Kommunikation zwischen den Operateuren
- Unterschiedliche Zuglängen betreffend Anzahl Container
- Aufbau Round-trip, gleiches Volumen für westbound / eastbound
- Verringerung der staatlichen Abhängigkeit
- Bessere Zusammenarbeit mit lokalen Behörden



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## Asia Pacific – C.I.S. / Europe rail corridor

### Types of available services

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- **China**
  - Daily block trains from different ports and requested stations
  - Daily departures from different requested stations
  - Blocktrain size 45-50 x 40' / 90-100 x 20' Container
- **C.I.S.**
  - Block train service from Dostyk by special request
  - No scheduled service, container-trains will be build based on volume
  - Blocktrain size 57-71 x 40' / 104-142 x 20' Container
- **Europe**
  - Block train service from Brest and Chop by special request
  - No scheduled service, container-trains will be build based on volume
  - Blocktrain size 36-44 x 40' / 72-88 x 20' Container



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## Asia Pacific – C.I.S. / Europe rail corridor

### Vorteile

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- Kürzere Laufzeit verglichen mit Seefracht
- Tiefere Kosten verglichen mit Luftfracht
- Einsparung Zinskosten dank schnellerer Transitzeit
- Gut ausgebaute Transportwege
- Transitsendungen werden von Regierungen gefördert



## Asia Pacific – C.I.S. / Europe rail corridor

### Fazit

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- Zum heutigen Tag nur Testzüge und keine regulären Züge
- Getestete und funktionierende Verbindungen für single Container / Container-Gruppen
- Südroute via Dostyk durch neue innerchinesische Produktionsstandorte bevorzugt
- Von diversen globalen Logistikern hohes Interesse, regelmässige Züge zu bedienen

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## Asia Pacific – C.I.S. / Europe rail corridor

### Diskussion

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Sind die europäischen Bahnspeditionen für dieses neue Geschäftsmodell schon ausreichend aufgestellt?



**Vielen Dank  
für Ihre Aufmerksamkeit**

