



Future Potentials of the New Silk Rail Routes for automotive and machinery supply chains

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October 22nd, 2020

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- 1 Profile Buck Consultants International**
- 2 The New Silk Route**
- 3 Assessment of the Silk Route**
- 4 COVID-19 Impact**
- 5 Mid-term Perspectives**
- 6 Conclusions**
- 7 Q & A**

1 Introduction Buck Consultants International



Corporate clients

- Manufacturing footprint strategy
- Supply chain optimization
- Location advice
- Business strategy development
- Strategic outsourcing
- Real estate strategy and projects

Profile

- Established in Nijmegen, the Netherlands in 1985
- Offices in
 - Asia: Shanghai, Singapore
 - Europe: The Netherlands, London, Frankfurt
 - US: Atlanta, San Mateo, Los Angeles
- Performed studies in more than 50 countries worldwide



Samples of our Industries & our Clients

Clients in High Tech, ICT & Electronics



Clients in Industrial & Automotive Industry

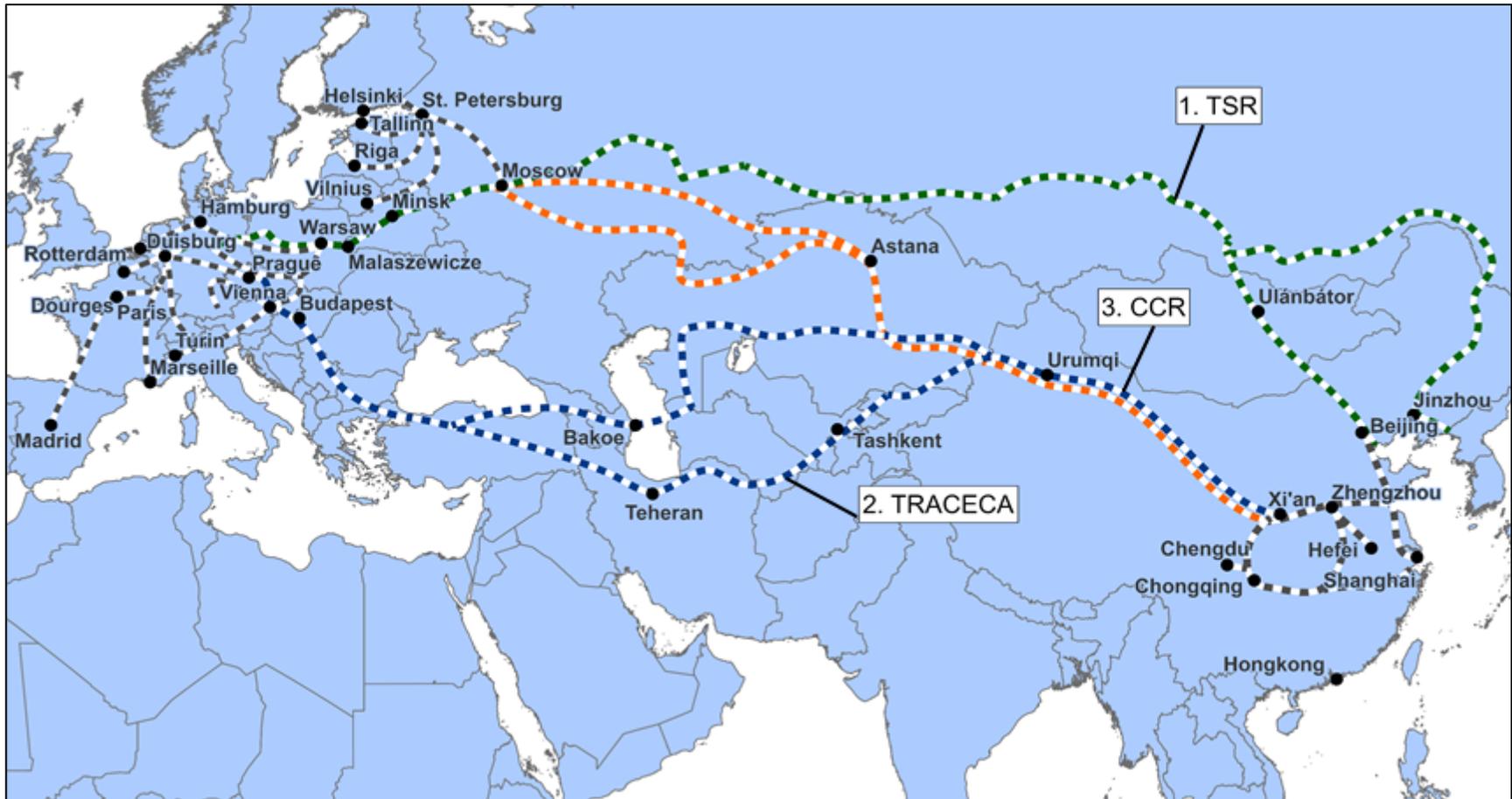


Clients in Logistics



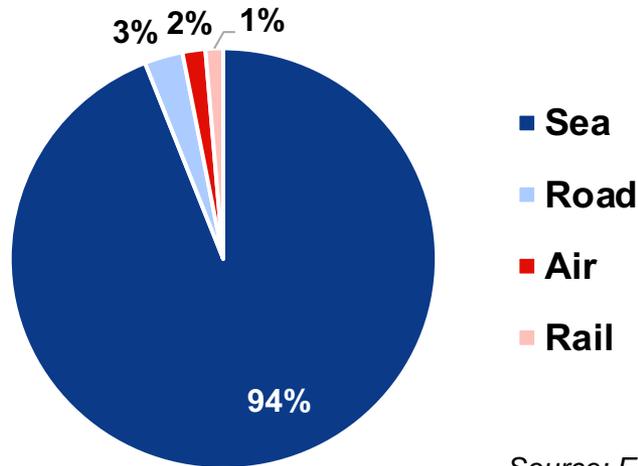
2 The New Silk Route

The New Silk Route: expression of a new role for China in the global economy



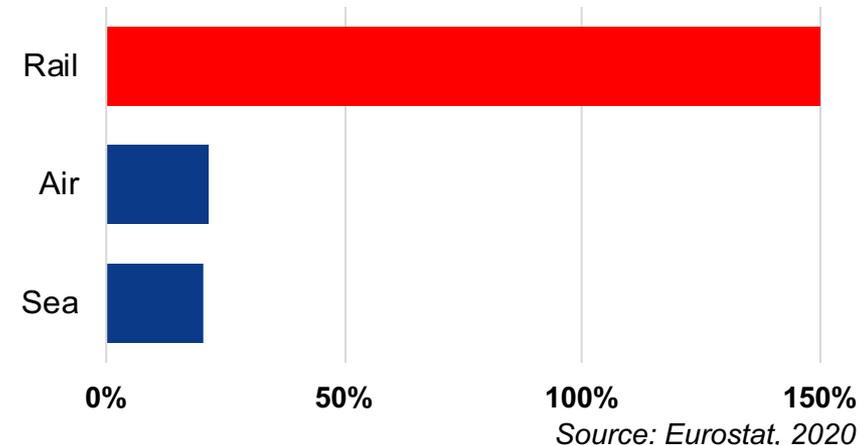
Position of rail transport in China – Europe trade

Trade volume per transport mode in 2019
(import and export)



Source: Eurostat, 2020

Growth trade volume per modality
2015 – 2019 (in %)

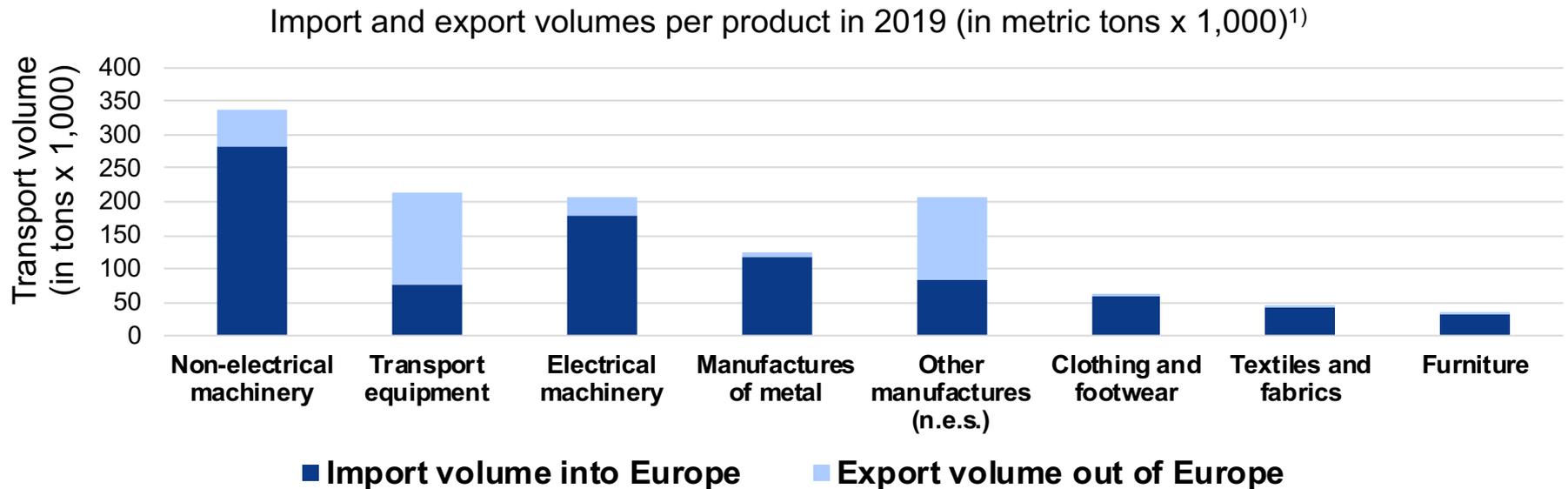


Source: Eurostat, 2020

Sea transport is dominant in PRC-EU trade, but rail shows huge growth between 2015 - 2019

- Deep sea transport is responsible for 94% of trade volumes and 63% of trade value
- Import is 69% of total trade volume
- **Rail transport has a minor role in the China - Europe trade: rail accounts for 1% of trade volume and 3% of trade value (import and export)**
- Rail transport increased by 150% in terms of volume and 200% in term of trade value
- Strong reduction of transit times for rail transport
 - Transit times are now 12-18 days (compared to 30+ days in 2006)
 - The new transit times position rail transport between sea transport (35 – 42 days) and air transport (4-7 days)

Type of products transported by rail



1) Metric ton = 1,000 kg

Source: Eurostat, 2020

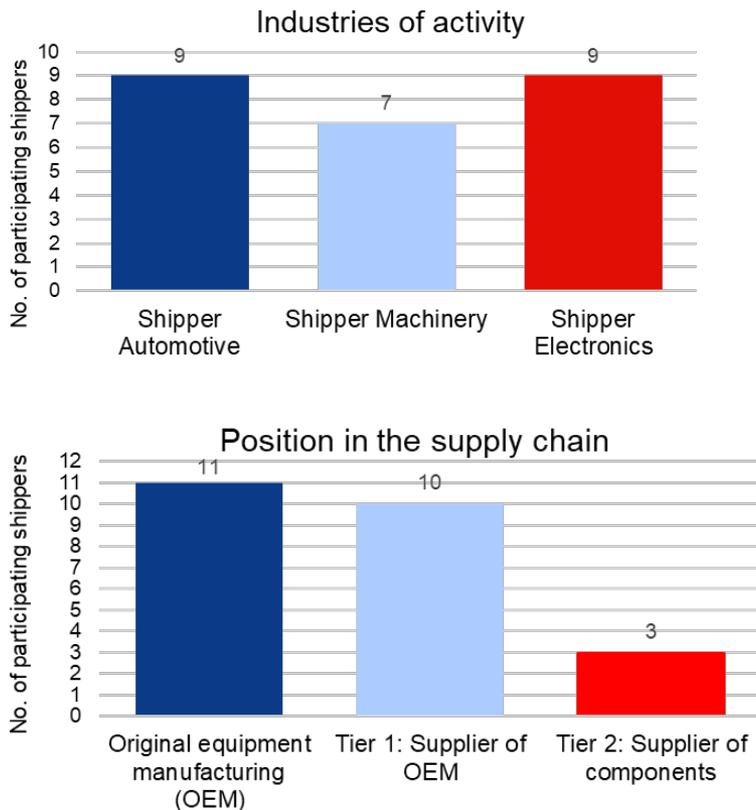
Focus of transport via rail of non-electrical and electrical machinery and transport equipment

- 75% of total trade volume is related to machinery and transportation equipment
- Trade of machinery and transport equipment is both import and export

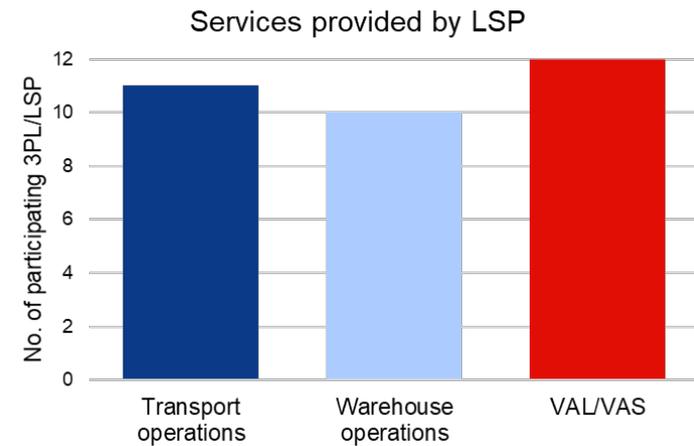
3 Assessment of the New Silk Route

30 participating companies in the research from China, The Netherlands, Belgium, Germany, UK, Switzerland, France

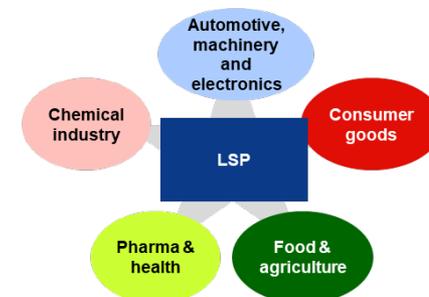
Shippers (n=17)



Logistics Services Providers (n=13)

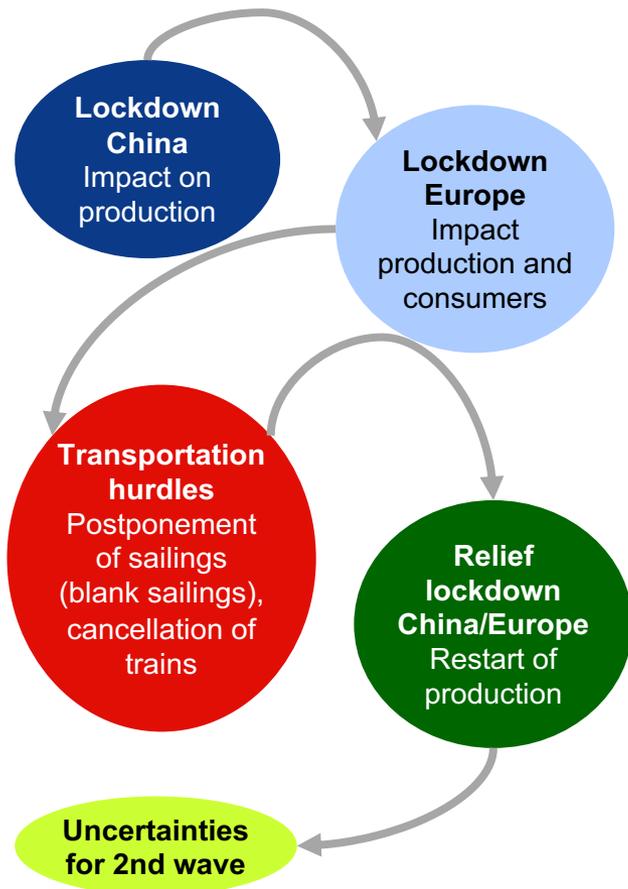


Client base of LSP for rail transport
China-Europe vv



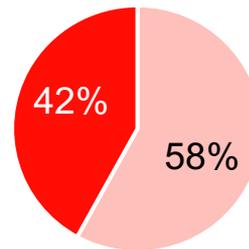
4 COVID-19 Impact

Overview COVID-19 crisis



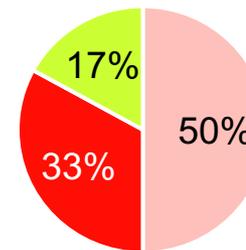
What is the direct impact of Covid-19 for your business?

Shippers (n=17)

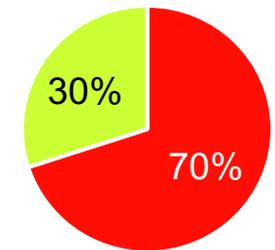


- V-shape: decrease and quick recovery
- Decrease of market
- Small/medium decline (0-10%)
- Large decline (>10%)
- Small growth (0-5%)

What results do you expect at the end of the year?

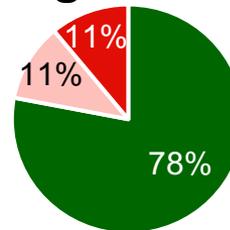


What do you think is the structural impact of Covid-19?

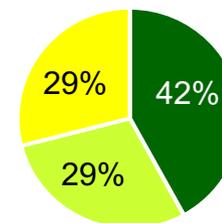


- Decline of markets
- Limited impact

Logistics Services Providers (n=13)



- Growth rail transport
- V-shape: decline and recovery
- Decline of markets

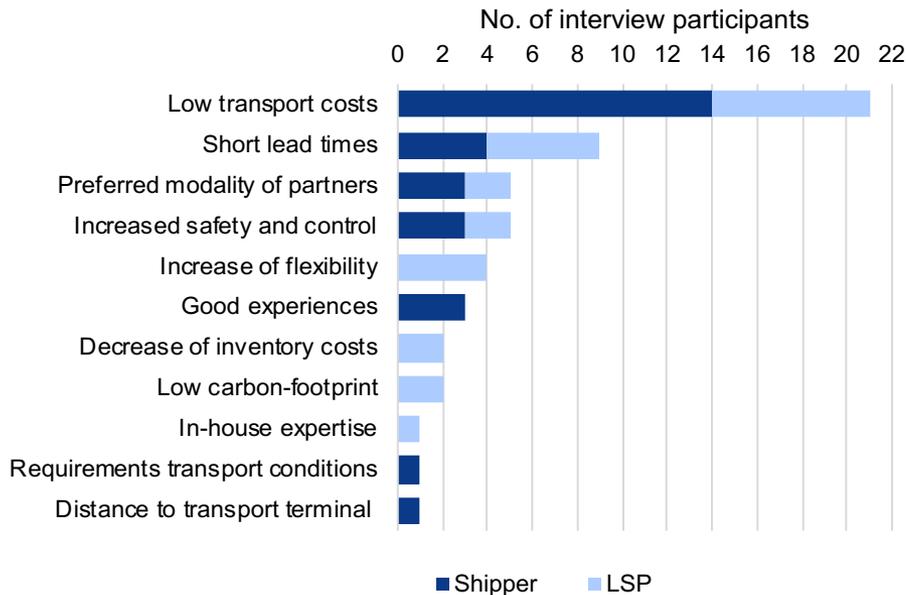


- Increase of rail transport +50%
- Increase of rail transport 20-30%
- No change compared to 2019
- Structural growth of rail
- Decline of markets
- Period of (economic) uncertainty

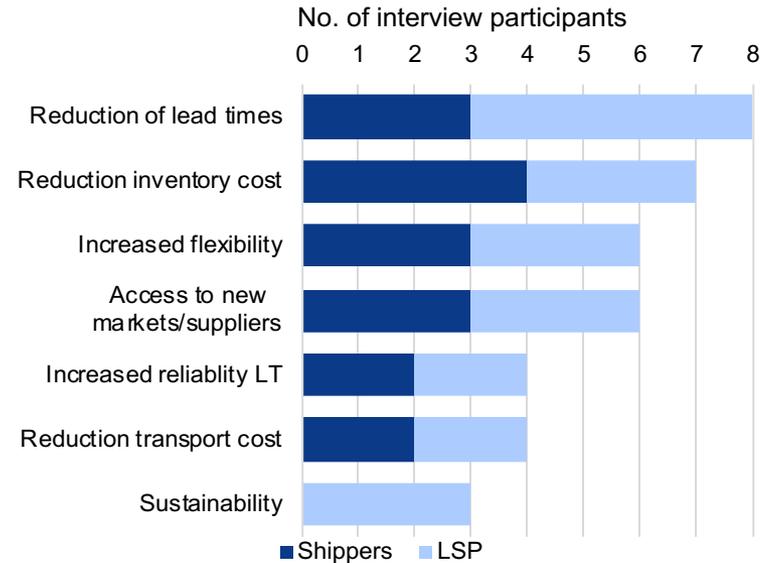
5 Mid-term Perspectives

The main driver for the modal choice for the shipper are transport costs
The main driver to choose for rail is the reduction of lead times

Drivers for transport mode



Drivers for rail transport



Shippers and LSP have almost opposite experiences with current rail transport between China – Europe vv

	Shippers	3PL/LSP
Cost	👎	👍
Lead times	👎	👍
Reliability	👍	👎

Trends impacting the New Silk Route

Top 10 supply chain trends

Opportunity	Drivers	Impact on The New Silk Route	
1. Regionalisation in supply, production and inventory	Flexibility and resilience, Market opportunities, Operational costs, Trade tariffs / China-USA Trade war	Reduction of intercontinental transport of components and end products. Risk for rail, due to lower total transport volumes	
2. Diversification in sourcing	Flexibility and resilience, Trade tariffs / China-USA Trade war	Reduction of intercontinental transport and divergence of transport flows. Risk for rail, due to lower total transport volumes.	
3. Lower inventory and smaller shipments, higher frequency in supply	Flexibility and resilience, Operational costs	Rail could serve as preferred modality because of reliability and reduction of lead times	
4. Go-West strategy of production in China	Lower production costs in central and western China	Improved competitiveness for rail transport, compared to sea cargo in term of total transport costs and lead times.	
5. Shoring to low cost countries in SE Asia as well as Central and Eastern Europe (CEE)	Operational costs	Rail services in SE Asia is not in place. Accessibility for sea cargo	
		Production locations in CEE benefit from connectivity of Silk Route	
6. Emerging markets in China/Asia	Market opportunities	Increasing eastbound transport of luxury goods and components for Asian markets and production	
7. Improvement of rail product to reduce transport costs and congestion	Flexibility and resilience, Operational costs, Product/Market innovations	Rail is likely to become more competitive and becomes more known and attractive to shippers	
8. Supply chain management innovations (e.g. direct deliveries, contingency plans, sustainability)	Flexibility and resilience, Operational costs, Product/Market innovations	Opportunity for rail, if it improves reliability and service level and develops a competitive proposition for LCL and direct delivery	
9. 8. Transparency and digitalisation in the supply chain	Flexibility and resilience, Operational costs, Product/Market innovations	Rail has to improve transparency and visibility to meet new requirements	
10. E-commerce automation and channel development	Operational costs, Product/Market innovations	Rail has to develop supply chain solutions that fit with the replenishment strategy of e-fulfillment centers.	

 Risk for rail transport via The New Silk Route  Challenge for rail transport via The New Silk Route  Opportunity for rail transport via The New Silk Route

The Future of the New Silk Rail Route

The future of the New Silk Route will be determined by the LSP and not by the shippers

- **LSP are focusing focus on improvement of the rail product**
 - Improvement of services for LCL and the integration of rail transport with the continental road network
- **LSP will expand the network of the New Silk Route, by developing new hubs for accessibility to new regions**
- **Impact of the development of the rail product on the strategic choices of shippers is very limited**
 - For the vast majority, sea cargo is the default transport mode and accounts for 90-95% of total transport
 - Shippers are well positioned in Europe and the supply chain networks of the shippers are customized for sea cargo
- **Shippers moreover challenge LSP to develop logistics products that meet new demands, in terms of flexibility, contingency and the reduction of total logistics costs**
 - Expected growth of rail transport in the next 5-10 years: 3-5% of total volume

6 Conclusions

- 1 Rail in China – Europe trade is 1% in volume and 3% in value. The volume could grow to 2030 to maximum 3 – 5% of the transport volume**
- 2 COVID-19 has shown the benefit of a third transport mode**
 - Shippers need an alternative due to blank sailings and high transport costs for air cargo
 - Rail transport has proven to be effective in contingency planning for shippers
- 3 The sectors Automotive, Machinery and Electronics have high volumes rail transport China – Europe vv. but 2 out of 3 face substantial challenges**

Automotive

- Decline of the European market
- China is the top electric vehicles (EV-)market; producers have to be there with production plants
- China wants supplier plants to move to China

Machinery

- Regionalisation of production results in shorter supply chains and less China – Europe vv transportation
- Producers in machinery focus on regional production in South-East Asia, more than production in Europe, as part of a China + 1 strategy

- 4 Geographical hotspots, related to the New Silk Route, are determined by accessibility to markets and expansion logistics networks by LSPs**

Questions?



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