

## Response to Consultations on Next Steps in the Operationalization of Euro-Asian Transport Links

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Some practical recommendations on the way forward for Eurasian rail freight service development in the Belt and Road era should be noted.

On a strategic level, high-level collaborations among the government of countries and railway stakeholders along the Belt of BRI are required to foster favourable legal and technical agreements to facilitating Eurasian rail freight operations.

On an operational level, keep rail freight rates low to maintain competitiveness, optimise routing to lower transit times, target market to seize profit, improve public awareness to gain business are recommended for Eurasian rail freight operators to keep developing in this new Belt and Road era.

From an academic perspective, further research needed:

- Investigate traffic volume on the different rail routes to capture the Eurasian rail freight market landscape, thus identifying market demand for rail and providing recommendations for further route optimisation. However, the present scarcity and opaqueness of statistics available to the public make it almost impossible to determine the impact of BRI to the full extent.
- Collect more detailed data of freight costs and transit time which enables to compare total logistics cost of shipping goods from specific origins to destinations by rail, sea, air, and sea/air respectively.
- Besides transit cost and transit time, some other key attributes of service quality such as transit time reliability or service availability could be assessed. However, to raise representative data in this respect needs a tight collaboration by major market players engaged in Eurasian container block train operations alike the Clean Cargo Working Group (<https://www.clean-cargo.org/>) in liner shipping as yet, no public data like detailed train schedules or geolocations of block trains is available at all.

e) The Government of Austria suggested that any further work in EATL operationalization considers and addresses environment, energy and climate change related aspects as well as issues pertaining to supply chain resilience, reshoring and trade/ transport flow diversification between Europe and Asia.

- During the current pandemic, rail freight has shown its strength and resilience in global shipping. Since the global economy continues to slow down, the world searches for new engines to drive trade growth. Eurasian rail freight service is an emerging competitive solution – faster than sea and significantly cheaper than air. However, rather than being seen as a threat, it provides a potential alternative for companies that no longer like to consider air (or sea/air) as the only option when shipping high-value

and/or more time-sensitive goods. This offers a cost-efficient option to tailor freight lead time relevant to production.

- This is especially critical for perishable or time-sensitive goods with frequent changes in consumer preferences. Eurasian rail freight with shorter transit time than conventional sea and higher reliability can help shippers to reduce total logistics costs and gain more flexibility on cash flow and liquidity.
- Bring agility to supply chains. Shorter and more reliable transit times give Eurasian rail freight advantage of higher accountability. On one hand, this will allow companies to have more control over their logistics operation and production forecasting; on the other hand, it will encourage companies to conduct 'just-in-time' business practices with timely delivery to reduce production costs by minimising inventory. Besides, with more frequent scheduled container block trains and adding more terminals of origin and destination, the Eurasian rail freight service can offer a variety of end-to-end routing options, which again gives shippers more flexibility than sea and air. Moreover, high reliability of service delivery and flexibility of service availability will bring agility to the company's supply chains, which potentially offer companies a chance to tailor their supply chains based on different product categories.

For more detail please see our paper '*Assessing the market niche of Eurasian rail freight in the belt and road era*' (Zhang and Schramm, 2020) -

<https://www.emerald.com/insight/content/doi/10.1108/IJLM-12-2019-0351/full/pdf?title=assessing-the-market-niche-of-urasian-rail-freight-in-the-belt-and-road-era>

Some other findings from our paper might be interested:

### Major market players in Eurasian rail freight container transport

It is important to understand who the major players in this Eurasian container block train market are. Container transports along these Eurasian rail freight corridors comprise a variety of different market players due to the railway systems spanning multiple countries and operators, which forms a complex contractual network.

Market player	Function	Example
Shipper	Cargo owner, clients of forwarders	Siemens-Fujitsu, BSH, BMW, HP*, Apple*, Acer*, Foxconn*, Haier*, Samsung*, Audi*, Volkswagen*, Volvo*, Decathlon*etc.
Forwarder	Organise transport on behalf of shippers	Kuehne & Nagel, DB Schenker, DHL*, GEFCO*, HAL Logistics*, Cosco Logistics*, Sino Railway*, Sinotrans*, Kerry Logistics*, Pantos Logistics*, DSV*, Belintertrans*, Silvirom*, Gebr. Weiss*, Panalpina*etc.
Container operator	Container carrier, organise dedicated block trains or single container transports	InterRail Services, Russkaya Troyka, Hupac International Logistics, Far Eastern Transport Group (DVTG)*, Far East Land Bridge (FELB)*, China Railway Express (CR Express)*, Sino Railway*, Hunan Xiang Ou Express Logistics*, Hao Logistics*, YuXinOu Logistics*, Yiwu CF Intl. Logistics*, HLT Intl. Logistics Ningbo (H&T)*, Wuhan Asia–Europe Logistics (WAE)*etc.
National railway company	Provision of traction, infrastructure, wagons tariff policy	Russian Railways (RZD), Belarussian Railways (BC), Kazakhstan Railways (KZH)*, Chinese Railways (KZD)*, Deutsche Bahn (DB)*, Polish State Railways (PKP)*, Latvian Railways (LDZ)*, Railcargo Austria*
Affiliated company for container transport	Organise and operate intermodal transport on behalf of railways	DB Intermodal, TransContainer, KTZ Express*, United Transport & Logistics Company (UTLC)*, CRIntermodal*, China Railway Container Transport (CRCT)*, Trans Eurasia Logistics (TEL)*, YuXinOu Logistics*
Container owners	Own containers for own transport and/or leasing; shipping companies, leasing companies	Maersk, Evergreen, Seaco, China Railway Express*, Far East Land Bridge (FELB)*, TransContainer*, Far Eastern Transport Group (DVTG)*, Pantos Logistics*, China Railway Container Transport (CRCT)*etc.
Terminal operator	Handling of containers on behalf of container transport companies and container owners	Deutsche Umschlaggesellschaft Schiene-Straße (DUSS), TransContainer, Duisport*, Russian Railways (RZD)*, Far Eastern Transport Group (DVTG)*, CRIntermodal*, China Railway Container Transport (CRCT)*, PKP Cargo*, KTZ Express*
Railway agency	Book transport on behalf of train operators	Kaztransservice, Transrail, Belintertrans*
Customs agents	Customs clearance on behalf of forwarders	Far Eastern Transport Group (DVTG)*, PKP Cargo*, United Transport & Logistics Company (UTLC)*, TransContainer*, Pantos Logistics*, Belintertrans*

**Table 2.**  
Major market players  
in Eurasian rail freight  
container transport

Source(s): Pieriegud (2007), Davydenko *et al.* (2012), updates by the authors indicated with “\*”

## Bottlenecks and improvements identified in Eurasian rail freight operations

Bottlenecks in Eurasian rail freight operations. Operating long-haul container block trains across multiple countries in a short time is not easy, as complex legal environment, technical limitations, physical constraints, capacity limits and imbalanced cargo volumes post bottlenecks in Eurasian rail freight operations.

	Bottlenecks identified	Improvements
Complex legal environment	Differences in transport and customs law lead to arbitrary transport documentation and lengthy border crossing procedures (Kallas, 2012, Galushko, 2016, Jakóbowksi <i>et al.</i> , 2018; Zhu and Filimonov, 2018)	The International Rail Transport Committee (CIT) established a combined CIM-SMGS consignment note as a commonly accepted transport document along the Belt route (Galushko, 2016) The foundation of the Eurasian Customs Union (EACU) including the Russian Federation, Belarus, and Kazakhstan in 2010 eased transit through these countries and China joined the TIR Carnet transit framework in 2017 which allows end-to-end transit operations (UIBE and IRU, 2017)
Technical limitations	Lack of unified standardisation (e.g. railway gauge) hinders the interoperability of railway systems (Galushko, 2016; Panova <i>et al.</i> , 2018) The technical infrastructure of railways en route such as double track lines or electrification might hinder an uninterrupted transport (Liu, 2014)	The wide-spread use of intermodal containers ease these interoperability issues considerably – but it still takes about 2–21 h to complete the trans-load for a container block train (UTLC, 2020)
Physical constrains	Extreme weather condition with minus 40°C in Siberia can be a challenge for many sensitive goods (Woods, 2015)	Containers for such block trains are equipped with thermal insulation and active temperature control systems whenever necessary (InterRail, 2017; UTLC, 2020)
Capacity limits	In China, a block train can carry around 55 FEUs, on the TSR up to 75 FEUs, while in Europe, they are usually limited to max. 44 FEUs, and also all freight trains have to give priority to passenger trains (Jakóbowksi <i>et al.</i> , 2018) Limit on the structure gauge. This also prevents to transport containers double-stacked to add on capacity due to limited clearance	–
Imbalanced cargo volume	The number of westbound block trains is about three times of the eastbound ones (InterRail, 2017; Besharati <i>et al.</i> , 2017; Vinokurov <i>et al.</i> , 2018; Jakóbowksi <i>et al.</i> , 2018)	A general trend towards a more balanced ratio of westbound and eastbound cargo volumes has been witnessed (Woods, 2015; InterRail, 2017). Since 2018, only block trains with more than 40 full containers are allowed to depart and are eligible for subsidies (van Leijen, 2018a)

Source(s): Authors' own