



Railway transportation between Europe and China

The railway in the future - Intermodal Strategies

Risks, difficulties, Challenges, Solutions

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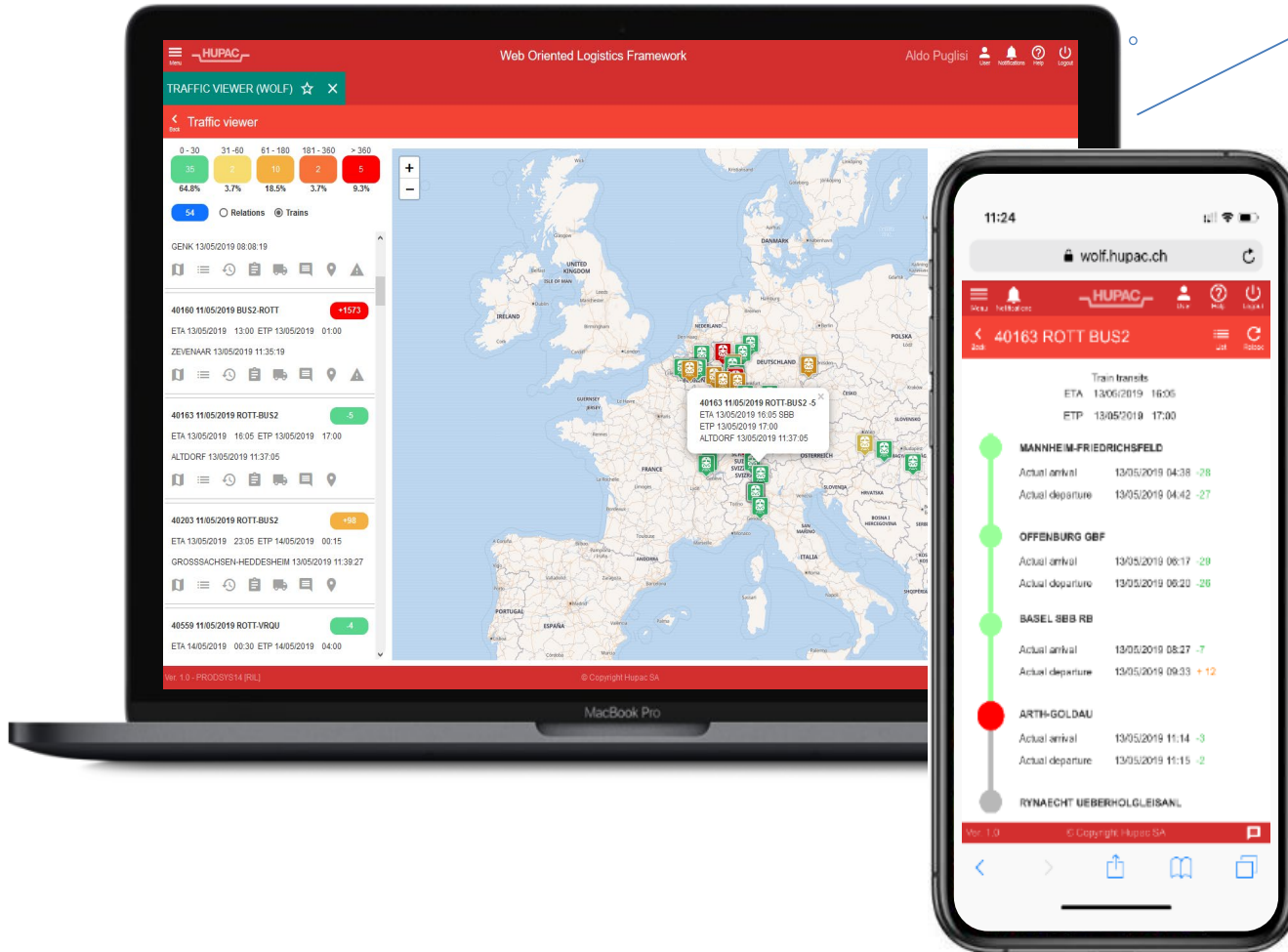


A good development of logistics is high important for all countries

Becoming, modern, efficient, productive, fast, reliable.



- **Competitiveness and Innovations**
- **Digitalization**
- **Productivity – Locomotive running free in the rail network as trucks are going on the road**



Precise localisation of trains with tracking of train movements



Notification when train enters and leaves defined areas (terminal, border station, etc.)



Train ETA: Estimated Time of Arrival
Unit ETP: Estimated Time of Pick-up

Competitiveness of road and alternative modalities

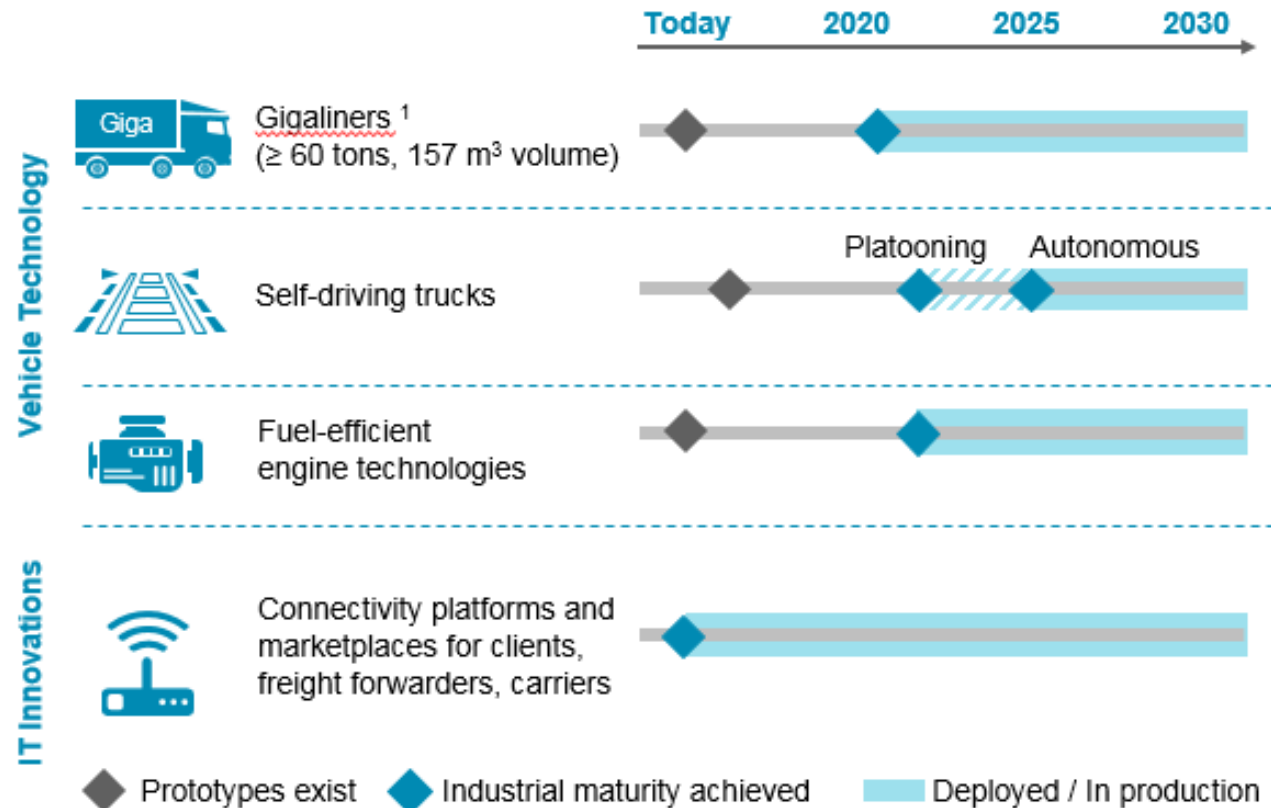


Production costs

Low fuel prices: impact minus 5-7%

Innovations

Enormous productivity boost: potentially up to minus 25%



Increase of the productivity of Multimodal transport

Infrastructure

- Longer and heavier trains: in addition harmonisation in Europe as well as between 1435 EU, 1520 and in China

Simplification of communication among the railways in the Eurasian platform

- Telegraph.....among all the railways.....solutions to overtake this system
- Customs clearance operations: please just one language and one form.

Cost of empty positioning

- A reduction of costs for empty container and empty wagon positioning

Harmonization of rules

- Harmonization among all railway networks

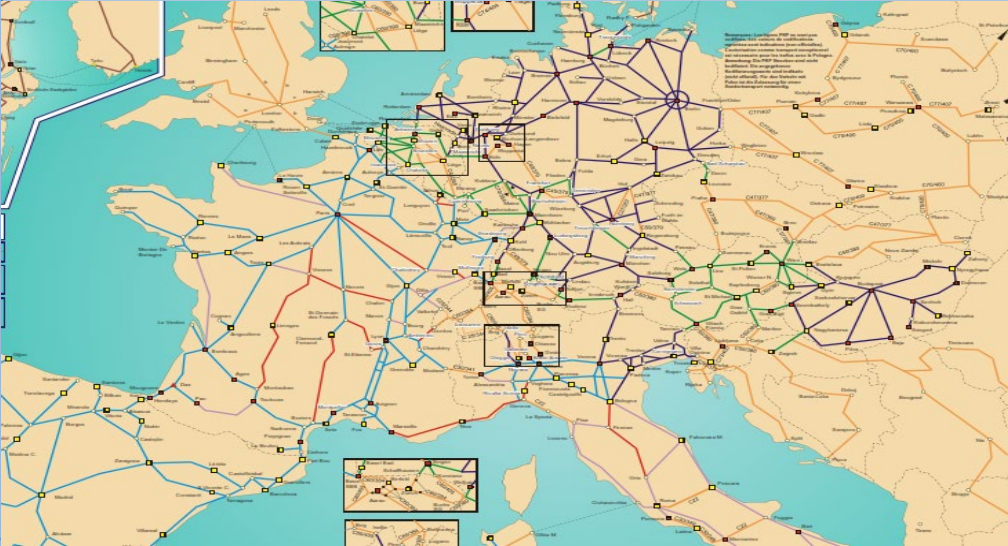

BIG DREAM

- Even Russian RZD locomotive running in Europe

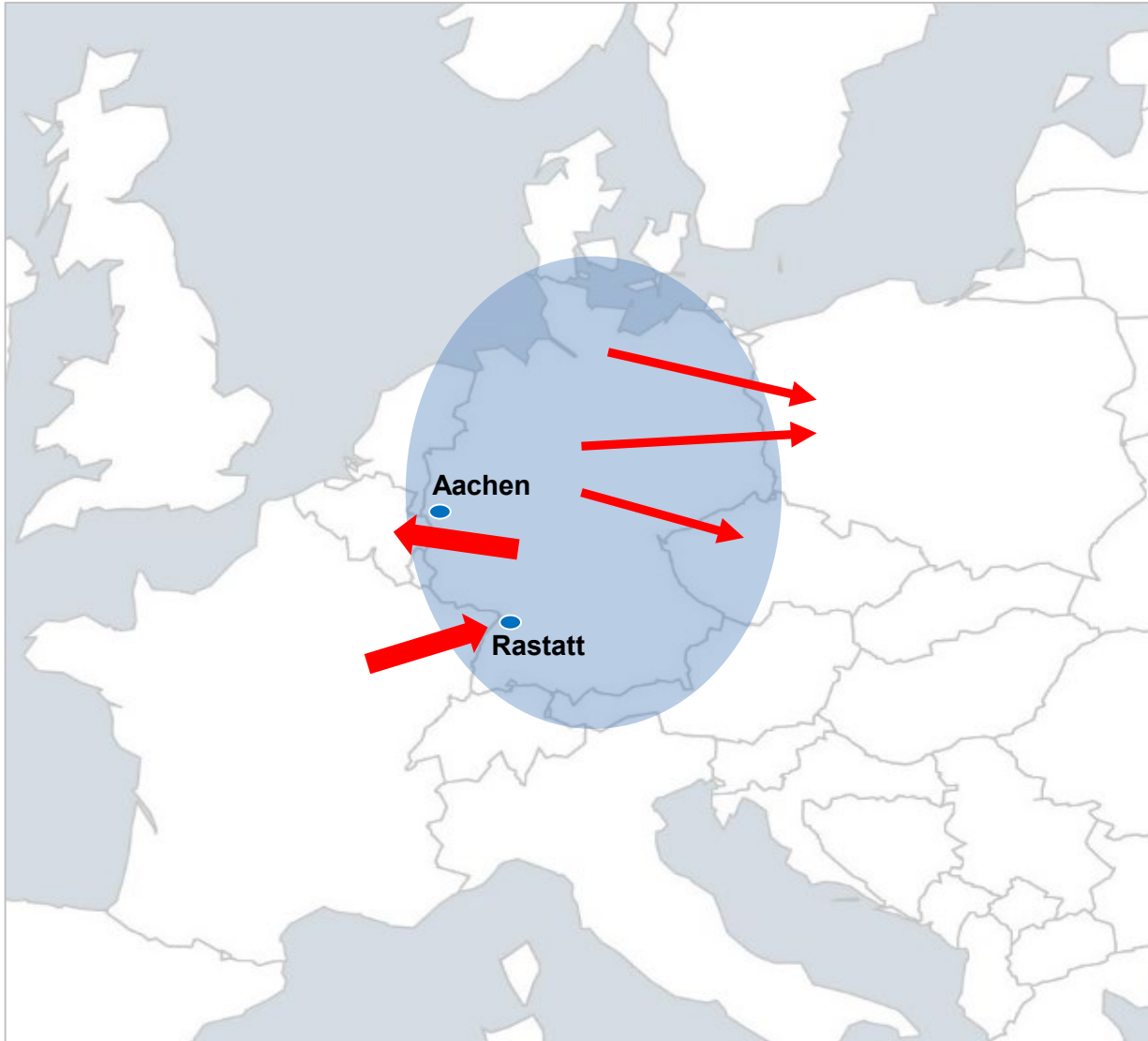
Combined transport – future-oriented system

EU target: transportation > 300 km on rail or ship; 2030 = 30%, 2050 = 50%

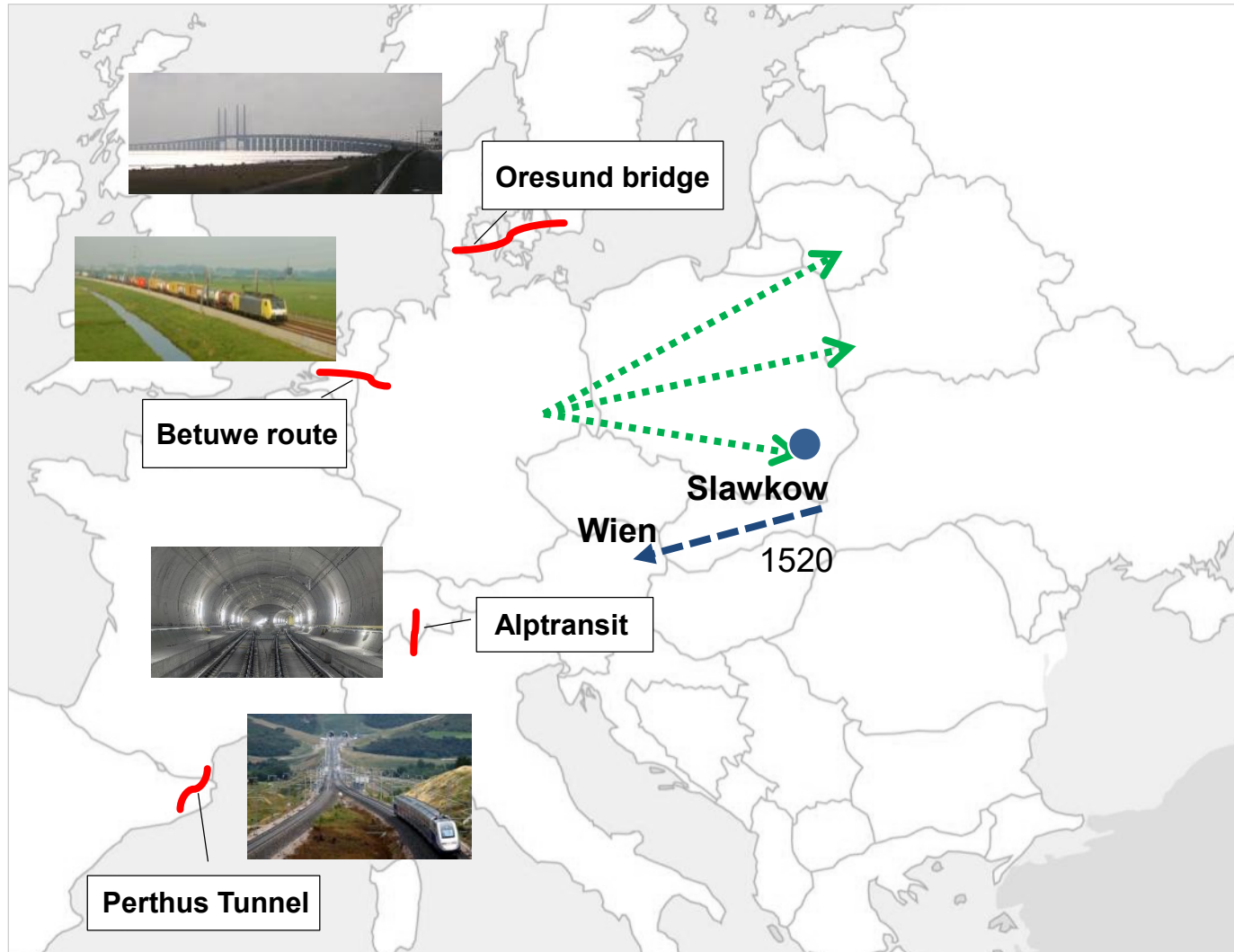
Transiberian route Target: 2 Mio. Teus in transit within 2025

Standardized system	Advantages for all
	
<ul style="list-style-type: none"> > Hundreds of thousands of standard loading units (containers, swap bodies, semi-trailers) > 700 terminals and ports > 60,000 rail platform > 2,000 cargo locomotives > Long-term system commitment 	<ul style="list-style-type: none"> > 5.9 billion EUR turnover > 41,000 jobs > 18.1 million tons CO₂ reduction > 2.2 billion EUR less external costs

Germany border bottlenecks – examples of difficult railway infrastructure



The usage of new railway infrastructures and the readiness for new ones



Productivity increase and enhancement of the competitiveness of Multimodal transport

Infrastructure

- Longer and heavier trains: in addition harmonisation in Europe as well as between 1435 EU, 1520 and in China

Simplification of communication among the railways in the Eurasian platform

- Telegraph.....among all the railways.....solutions to overtake this system
- Shorter block intervals: more trains, better use of the network capacity

Rolling stock

- Higher payload: harmonisation of axle load 22.5 and increase to 25 t

Transportation of dangerous cargo

- Harmonization among all railway networks

Transportation of tank container and chemical goods

- Better harmonization among all the railways networks

Transportation of tank containers on the silk road



60' Wagon

2 x 7.82m-tanks
Transportation of low-density
chemicals



60' Wagon

2 x 20' ISO-tank and wide body tank

- Finding a solution that offers stability and possibility to carry out this type of transportation in a reliable way.
- Potential of at least 2 Mio. Teus/year = about 24'000 block trains a year! that, without a clear policy, of respect of the existing international agreement cannot be transported by rail.

Problems by transporting tank container by rail to/from China

- Majority of terminal in China reject any tank container
- China rail pretend next to the international standard of the MSDS papers a further NON DG Certificate issued ONLY by 1 authorized and recognized laboratory by China Rail
- China Rail refers to the ISO Universal serie 1 for the Tank container and therefore the ones with more than 30480kg max weight always subjected to acceptance special registration and specific solutions – it may take months to get it
- Dangerous cargo, completely rejected. In 2010 we transported 2 tank loaded with class 3 cargo after 3 years of “fight” for obtaining a special permission.

Achievements

- We transported some block trains of tank container loaded with NON DG cargo from China to Germany and Belgium
- We transported group of tank loaded with NON DG chemical liquids between China and Russia
- We organized a solution for transporting DG CARGO via the Transiberian line and the port of Vladivostok and Vostochny with short ship to China.
- **RESULT**
We have several solutions, but NOT yet a standardized one, due to the previous spots.

Solutions

All stakeholders from the market shall cooperate to push Chinese Railways and Railway Ministry

To follow the standard of the international agreements that they accepted:

- 1. Acceptance all the ISO CERTIFICATE OF TANK and any tank certified.*
- 2. Opening of all terminal for transportation of tank for Domestic and International connections*
- 3. Accepting the mixed loaded of box and tank container in the international block trains*
- 4. Recognized the international MSDS paperwork*
- 5. Finally authorize the transport of DG Cargo according to SMGS General Terms and RID.*

WE NEED TO BE TOGETHER –

***ANY LEVEL OF THE LOGISTICS SUPPLY CHAIN INCLUDING CARGO SHIPPERS AND OWNER
WE NEED TO WORK TOGETHER***

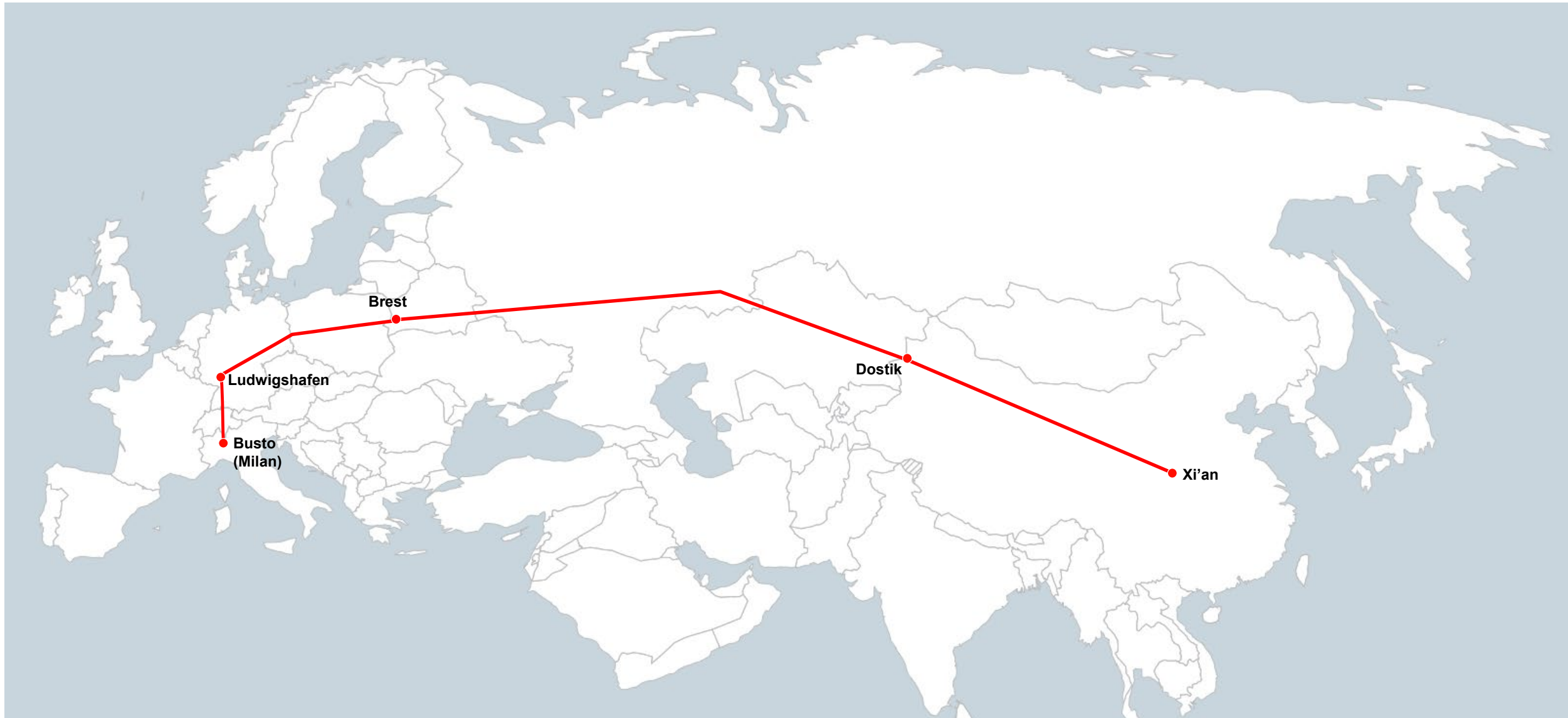
THE ONLY WAY FOR A STANDARDIZATION OF THIS TRANSPORT TECHNOLOGY.



Good and valuable experiences



First train Busto (Milan) - Xian



Industrial clusters inteconnected

Chongqing – Ufa – Antwerp

For chemical tank container





Thank you for your attention!

