

Hupac solutions

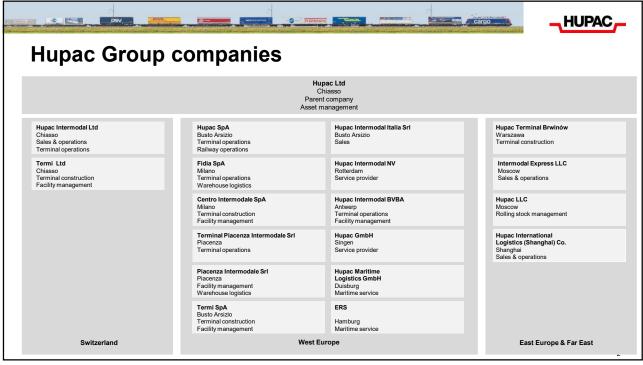
Girona, 28.01.2019

Dr. Alberto Grisone – Director Business development Russia, CIS, Far East and Middle East





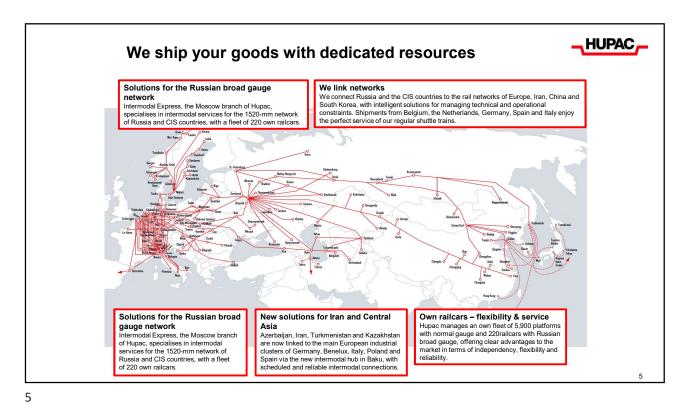
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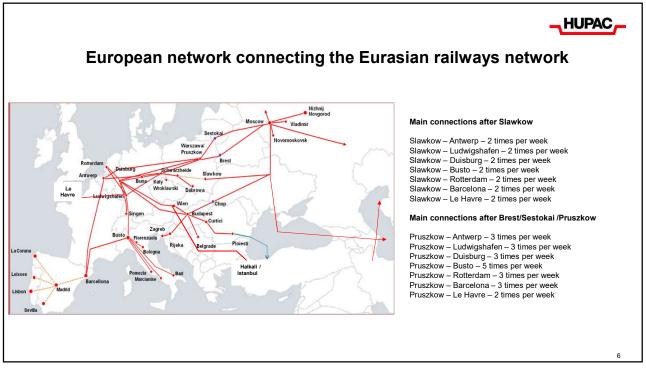


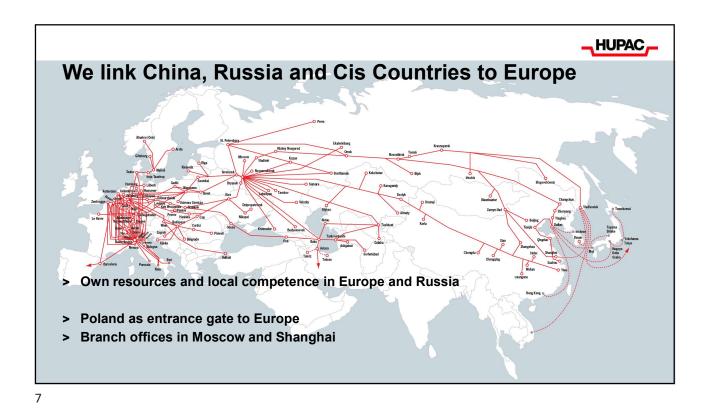




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Traffic bundling via Gateway

Terminal A

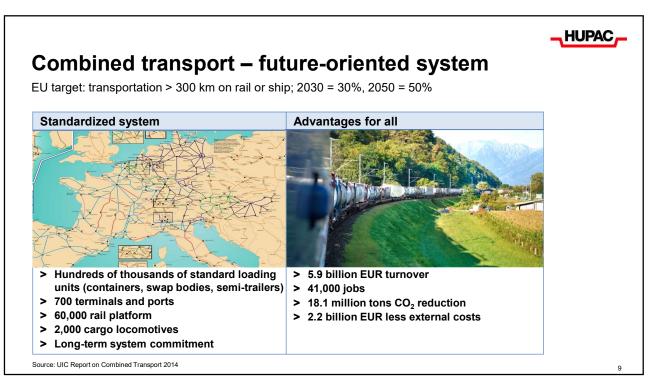
Terminal C

Transhipment of the loading units from one train to another

Bundling of traffic volumes

Connection of remote areas (e.g. southern Italy) to the European shuttle network

First introduced by Hupac on the Cologne/Mannheim-Busto-Pomezia line in 1992



Production costs

Low fuel prices: impact minus 5-7%

Innovations

Enormous productivity boost: potentially up to minus 25%

Today 2020 2025 2030

Platooning Autonomous

Fuel-efficient engine technologies

Connectivity platforms and marketplaces for clients,

Prototypes exist Industrial maturity achieved

9



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

Betuwe route
Slawkow
Aptransit
Perthus Tunnel

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

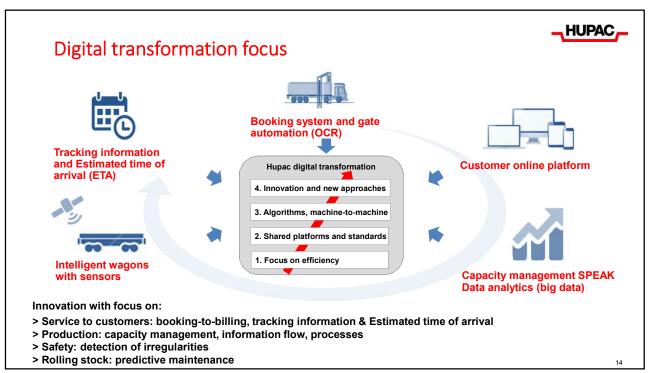
> Harmonization among all railway networks

Transportation of tank container and chemical goods

> Better harmonization among all the railways networks

13

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Thank you for your attention!



