INTERNATIONAL UNION
OF RAILWAYS

unity, solidarity, universality

# UIC Corridors activities 2017 - 2018

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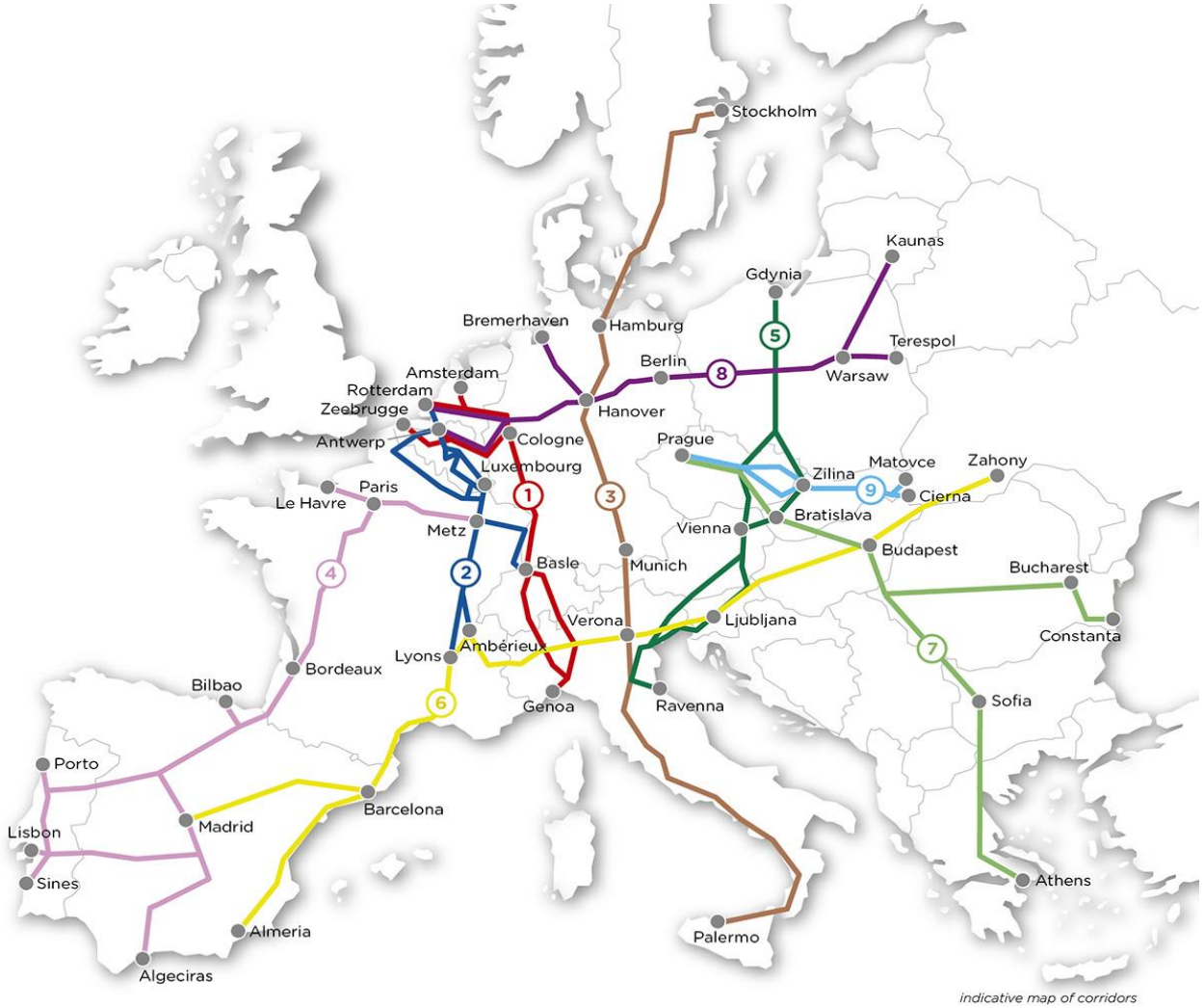
# European Rail Freight Corridors – State of play




- ❑ European Regulation 913/2010 established 9 Freight Corridors implemented between 2013 and 2015
- ❑ Corridor structures governance have been put in place
- ❑ During 2017 the last 3 RFC's including extensions will be operational

# Current challenges for the rail freight industry – as presented to CEOs at the HLF meeting (April 2013)

**BUSINESS**

- Melting full train business
- Wagonload unsustainable
- The Intermodal challenge: rail logistics
- New market developments (eastern land bridges )
- Innovation (IT , business models etc.)
- Delivering Green Logistics

**REGULATORY**

- Remoteness of infrastructure IM – lack of dialogue with freight RU
- Internalization of external costs: level playing field between modes
- Costly interoperability
- Economic consequences of freight corridors

**ORGANISATIONAL**

- Shortage of experts
- Experts lack support – CEO priorities not supported when turned into projects

# 4 years later…

**Corridor structures have been implemented but:**

- **Lack of coordination between Corridors**
- **Scarce harmonisation of rules**
- **Corridors concept not fully "customer oriented"**

**Coordination between Corridors is not mandatory in the legislation**

**<u>Impacts on:</u>**

**Increasing of costs RUs**
**Reliability**
**Interoperability**
**Productivity**
**Customer satisfaction**

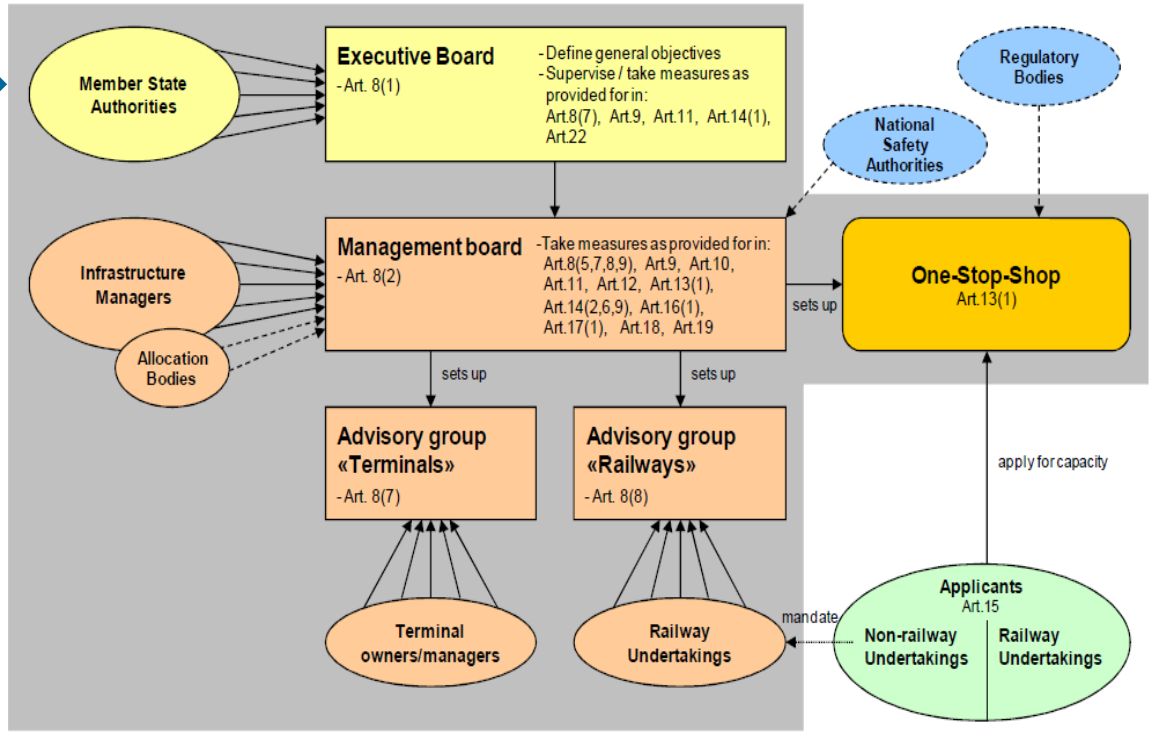
# ECCO 3 Project aims

Sector Statement 2016
Commission decision to postpone the revision of Regulation 913/2010

RU dialogue
PRIME
RFC - ECCO

CEOs Task Force
↓
ECCO – **"RU voice" in corridor governance**

a) Provide the necessary **coordination and exchange of information** between the Advisory Boards
b) On the basis of CEOs Task Force mandate, provide the **required support and coordination from Rus side** with all the platform dialogue involved
c) Support a coordinated sectoral activity



# The added value of a sector led project

- Harmonization
- Standardization
- Monitoring
- Coordination

1. Corridors harmonisation as a gain for RUs
2. Productivity of Rail Freight Corridors
3. Development of rail as a « system »

- Increased operational efficiency
- Reduced costs
- Improved interoperability
- Improved reliability
- **Improved customer satisfaction**
- Growth potential

# Silk Road Development & Interconnection with RFCs

Results

Paris, May 2017

# The study assesses the viability and the actions needed to promote existing and South-Eurasian routes and their connection to RFCs

## Background and project objectives

- With the continuing economic development, cargo traffic flows between Asia and Europe are expected to increase
- Rail transport on the Asia-Europe route is increasing as well but its share stays small. Disadvantages regarding border crossings, reliability, infrastructure and other factors are still holding it back. Dropping sea freight rates aggravate the competition with sea freight
- Nevertheless, business initiatives to improve the competitiveness and quality of rail transport are growing on the Northern Eurasian rail routes and, more recent, on the Southern routes
- Especially China, Iran and Turkey are investing and promoting the Southern infrastructure links to Europe along the former Silk Road trading routes
- At the same time, Europe is investing in its cargo rail by creating common standards for the interoperability of networks in the nine Rail Freight Corridors and the Trans-European Transport Networks

**Assessment of the viability of the Eurasian rail freight routes, with a focus on Southern routes and the interconnection with European Rail Freight Corridors**

1. Overview on the traffic volumes, market players, infrastructure and performance of the rail routes – forecasting their development and potential until 2027
2. Assessment of key success factors, best practices and impeding factors for the initiatives
3. Recommendations for stakeholders on how to improve/reset their business activities and market the new alternatives as well as migration plan for UIC to support its members

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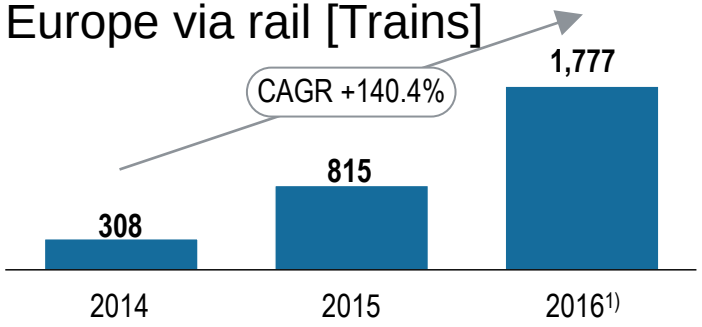
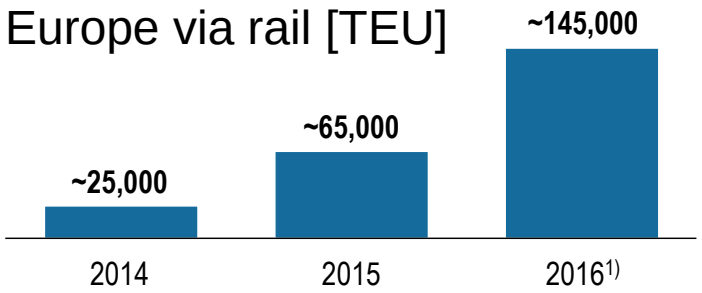
# Eurasian rail cargo transports have grown significantly, but still have a low intermodal market share

## Development of rail freight between Asia and Europe

### Transport between China and Europe via rail [Trains]




### Transport between China and Europe via rail [TEU]



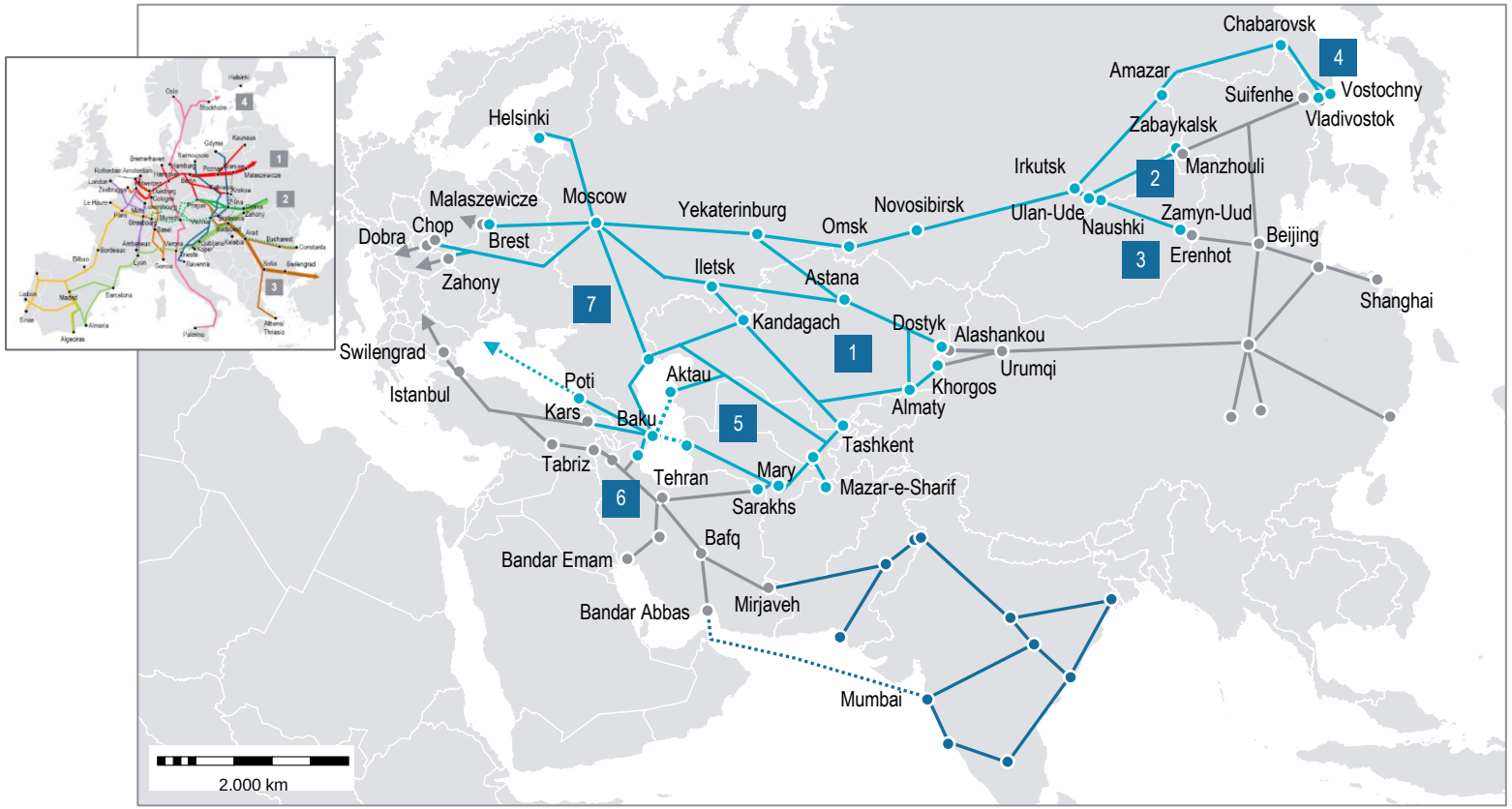

> Improvements driving volume development on Eurasian rail routes
- Reduction of transit time and increased punctuality
- Increase of destinations to 15 in Europe and 16+ in China
- Reduction of freight rates, subsidies from China's OBOR initiative
- Targeting of suitable customers and regions e.g. Western China
- Ease of border crossings through common consignment note, Eurasian Customs Union and local improvements
- Upgrading and extension of infrastructure e.g. in Kazakhstan

> However, market development and competition from other transport modes prevent rail transport from reaching higher market share
- Freight rates for container shipping have fallen significantly since 2011. Price level of rail transport is now 3 to 4+ times higher than shipping (Shanghai Shipping Exchange rate SCFI for Europe in March 2017 under USD 900 per TEU)
- Economic growth rates in China cooled down and the overall trade between Asia and Europe stagnated in 2015 and 2016
- Still room for efficiency and quality gains in waiting times and processes for border crossings and customs, reliability and client information etc.

1) Roland Berger calculations based on interviews with several players, e.g. DB Cargo, TEL
Source: EATL, DB Cargo, CRIMT, press research, Roland Berger

# In addition to the Europe-Asia routes in place in North Asia, new routes via Iran and Turkey are developed for rail freight

## Main Eurasian routes with track gauge (schematic)[1)]

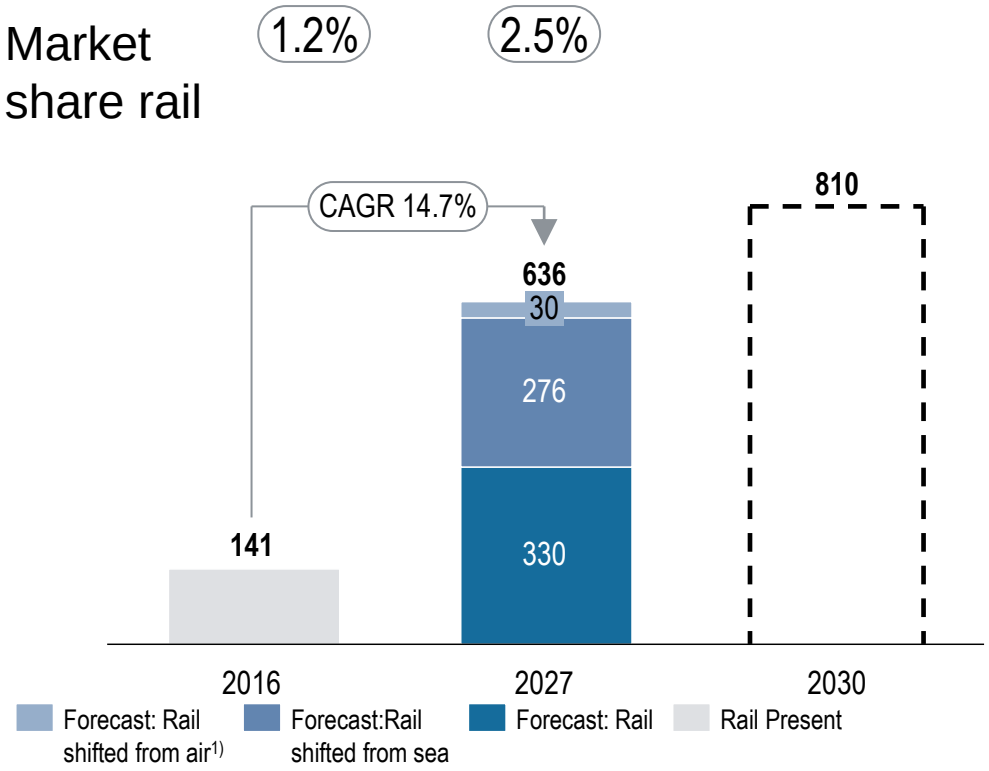



1) Conical projection to minimize visual distortion of distances; numbering based on route usage for Eurasian rail freight transport

Source: UNESCAP, Roland Berger

# For 2027, a total rail potential of around 636,000 TEU is forecasted – Significant amount coming from shift from sea

## Rail potential base case forecast ['000 TEU]




- Total rail potential includes
  - Existing rail volumes increasing over time
  - Shift from sea to rail, including growth of sea transport
- Shift from Air as potential, but small (in terms of volumes) upside
- 636 k TEU can roughly be translated into 21 trains per day in 2027 (assumption: 82 TEU per trains[2])
- Due to separate analysis TEU volumes of South Asia, Turkey and Iran trade with EU 28 not included
- Extrapolated forecast until 2030 shows a total rail freight volume of 810 k TEU

1) Rough estimate based on shift factors of 5% from overall Asia-Europe air traffic 2) Length of an European train

Source: Eurostat, RB Model, Roland Berger

# Timing and reliability stay key success factors – Operations have improved but market still sees more potential

## Prioritization of parameters – Analysis of interviews

| Parameter | Importance for rail link | Gap 2017[1)] | Changes since 2011 and comments |
|---|---|---|---|
| **Transport time** | ● | ◔ ↗ | > Speed gains of approx. two days since 2011<br>> Gaps seen mostly inside Europe (slow transportation, delays) |
| **Reliability** | ● | ◑ ↗ | > Rail now more reliable than sea<br>> Especially shippers still see need for improvement and more information |
| **Balanced quantities** | ◕ | ◕ → | > Continuously smaller eastwards transport volumes, changing only slowly<br>> Alternatives like stepwise returns make transport more complicated |
| **Target goods** | ◕ | ◑ → | > Suitable goods are targeted and LCL offers were introduced<br>> Still potential in chemicals, temperature controlled goods and air freight |
| **Price** | ◕ | ◑ ↘ | > No pure price competition but more competition through low sea freight rates |
| **Frequency, flexibility** | ◕ | ◑ ↗ | > Potential for more cost efficiency and less dependence on subsidies<br>> Many trains are still on request instead of regular trains |
| **Target geogra-phical coverage** | ◑ | ◑ → | > Network has increased in past years<br>> Next step should be consolidation for more efficient geographical coverage |
| **Availability** | ◑ | ◑ ↗ | > Imbalance of traffic complicates return of platforms/containers |
| **Customs** | ◑ | ◑ ↗ | > Improvements in customs in the last years, partly seen as "solved problem"<br>> More potential at Chinese border and through electronic documentation |

Legend: Higher filling of harvey balls shows higher importance; higher filling of gap shows higher gap, direction of arrow shows progress since 2011 (upwards = positive, downwards = neg.)
1) Gap depicts overall view of established and therefore in general addresses Northern routes, progress arrow can be flat/negative if expectations have risen at the same time as results
Source: Expert interviews, Roland Berger

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# The traffic potential for 2027 on the Southern routes is projected to 19,000 TEU corresponding to 3% of Eurasian rail traffic

## Trade volume distribution 2027 ['000 TEU]


Origin and destination (O/D) countries

Source: Oxford Economics Global Economic Database, RB Model

Methodology

> Countries identified as preferred partners for Eurasian rail freight through South Routes: Bulgaria, Greece, Romania,

> Calculated share of 3% of forecasted EU 28 GDP for 2027

Preconditions for upside expansion case

> Higher infrastructure capacity is needed to make Eurasian rail freight possible in bigger quantities and requires further investments on Southern routes

> Shorter transit times as well as lower rail prices for international transit is necessary to make Southern Routes competitive, especially in Turkey, and requires a clear political will

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# Four European RFCs directly relevant for Eurasian rail transport – Only Malaszewicze/Brest with significant volume today

## Schematic map of RFCs[1)]


**Interconnection points of routes from Asia to European Rail Freight Corridors**

1. Malaszewicze - Brest
2. Cierna (Dobra) - Chop and Zahony - Chop
3. Swilengrad - Kapikule
4. Via Stockholm

**European Rail Freight Corridors[2)]**

- RFC 1: Rhine – Alpine
- RFC 2: North Sea Mediterranean
- RFC 3: Scandinavian – Mediterranean
- RFC 4: Atlantic
- RFC 5: Baltic – Adriatic
- RFC 6: Mediterranean
- RFC 7: Orient – East Mediterranean
- RFC 8: North Sea – Baltic
- RFC 9: Rhine – Danube or Czech – Slovak[3)]
- RFC 11: Amber[4)]

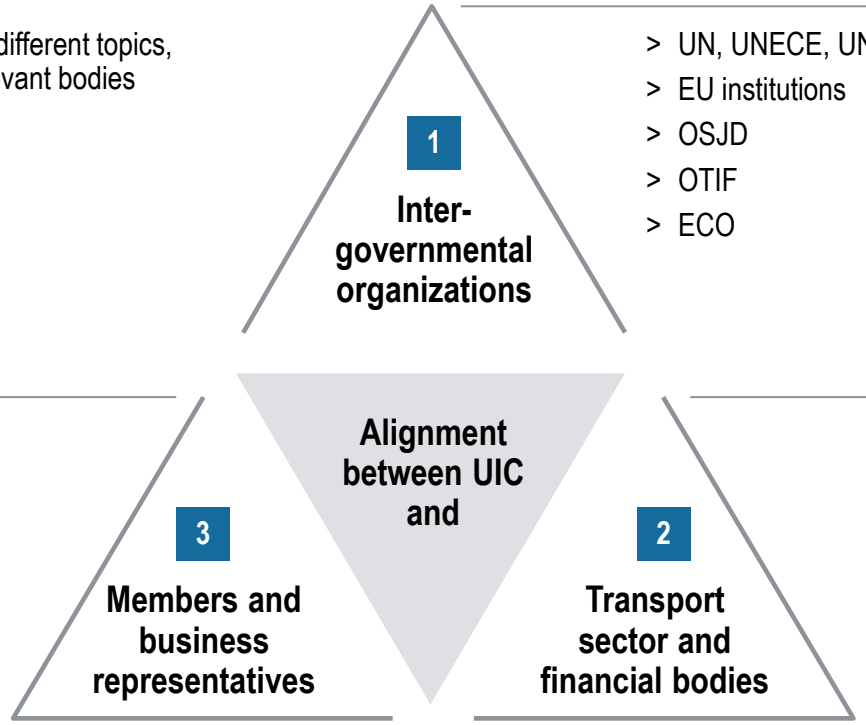
1) Schematic map does not include all potential RFC connections, sections in the focus of this study shown by bold lines 2) Initiatives regarding RFC 10 exist, but no official implementation decision 3) Only the part Cierna to Prague implemented, other routes to be implemented by 2020 3) To be launched in 2018

Source: Austrian Ministry for Transport, Innovation and Technology, RNE, Press Research, Roland Berger

# Strong alignment of UIC work with other working bodies needed to spread knowledge and positively impact international rail freight

## Recommendations for the UIC – Collaboration

Cooperation has to be tailored to different topics, activities and regions – not all relevant bodies can be named here




> UN, UNECE, UNESCAP
> EU institutions
> OSJD
> OTIF
> ECO
> BSEC
> EEC
> CIT
> etc.

> RFCs
> ADB
> CAREC
> TRACECA
> etc.

> Freight Forum
> Regional Assemblies
> BIRC
> CCTT
> Representatives from business
> etc.

Border crossing – International Railway Corridors (BIRC working group), Coordinating Council on Transsiberian Transportation (CCTT), Economic Commission for Europe (UNECE), The Economic and Social Commission for Asia and the Pacific (UNESCAP), Organization for Cooperation of Railways (OSJD), Intergovernmental Organization for International Carriage by Rail (OTIF), Economic Cooperation Organization (ECO), Back Sea Economic Cooperation (BSEC), Eurasian Economic Commission (EEC), International Rail Transport Committee (CIT), Asian Development Bank (ADB) , Central Asia Regional Economic Cooperation (CAREC), Transport Corridor Europe-Caucasus-Asia (TRACECA)

# FREIGHT 2017-2018 KEY DATES




Freight Forum
Paris
23.11.2017


*Genova*
*20-22 June 2018*

*« Modal Integration at the Service of Global Distribution »*

# Thank you for your attention