UIC Symposium

30 November – 1 December 2021

MIDDLE EAST FOCUS
Panel 1: Development of freight corridors

- Moderator: Mr. John Preston, Professor of rail transport, University of Southampton

- Dr. Seyed Miad Salehi, Deputy Minister for Roads and Urban Development, Chairman of the Board and President of Iranian Railways, RAI
- Mr. Weimin Ren, Director, Transport Division, ESCAP
- Mr. Alberto Grisone, Director, Hupac Intermodal SA
- Mr. Giordano Bruno Guerrini, Chairman, BIC

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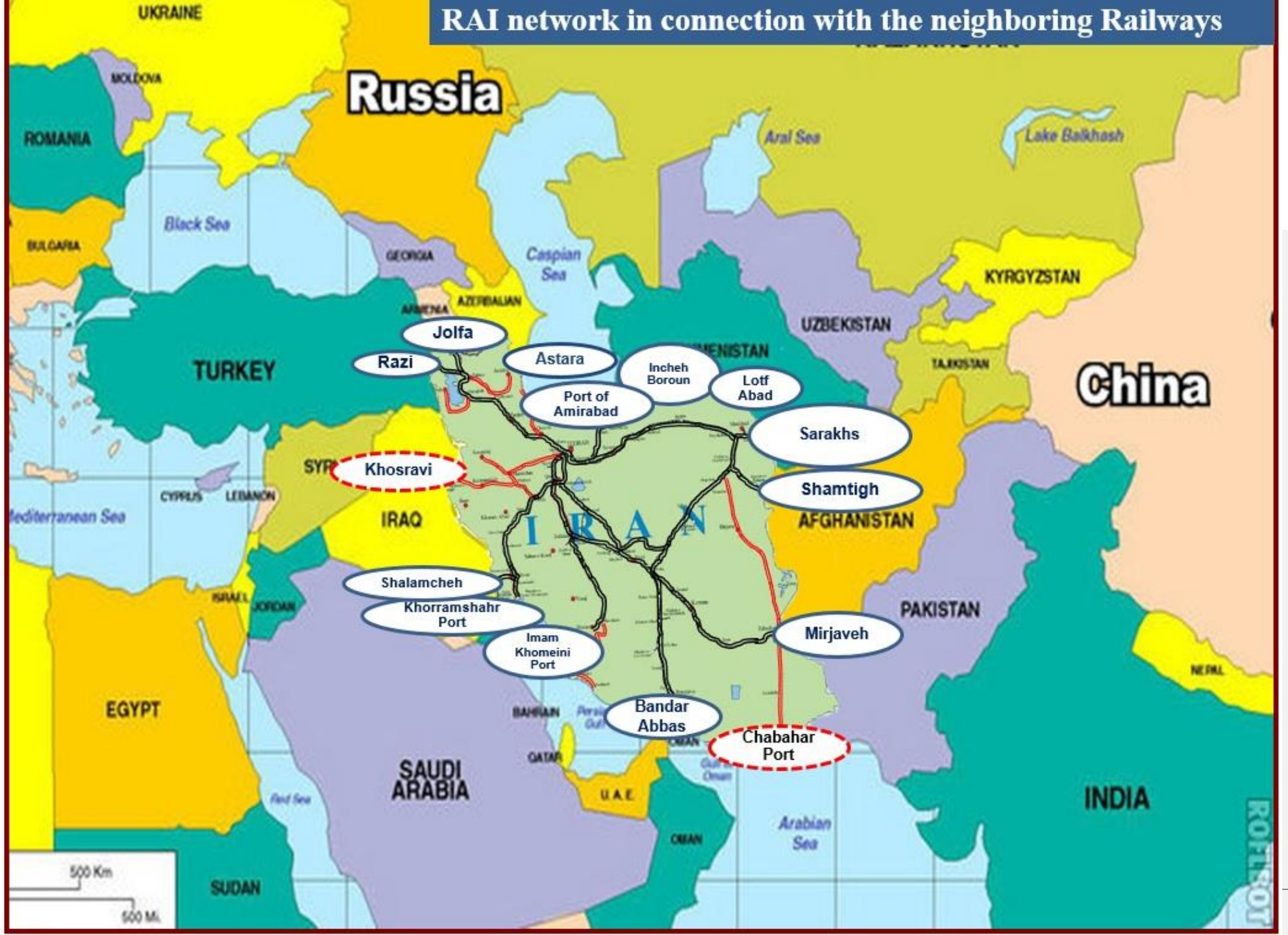
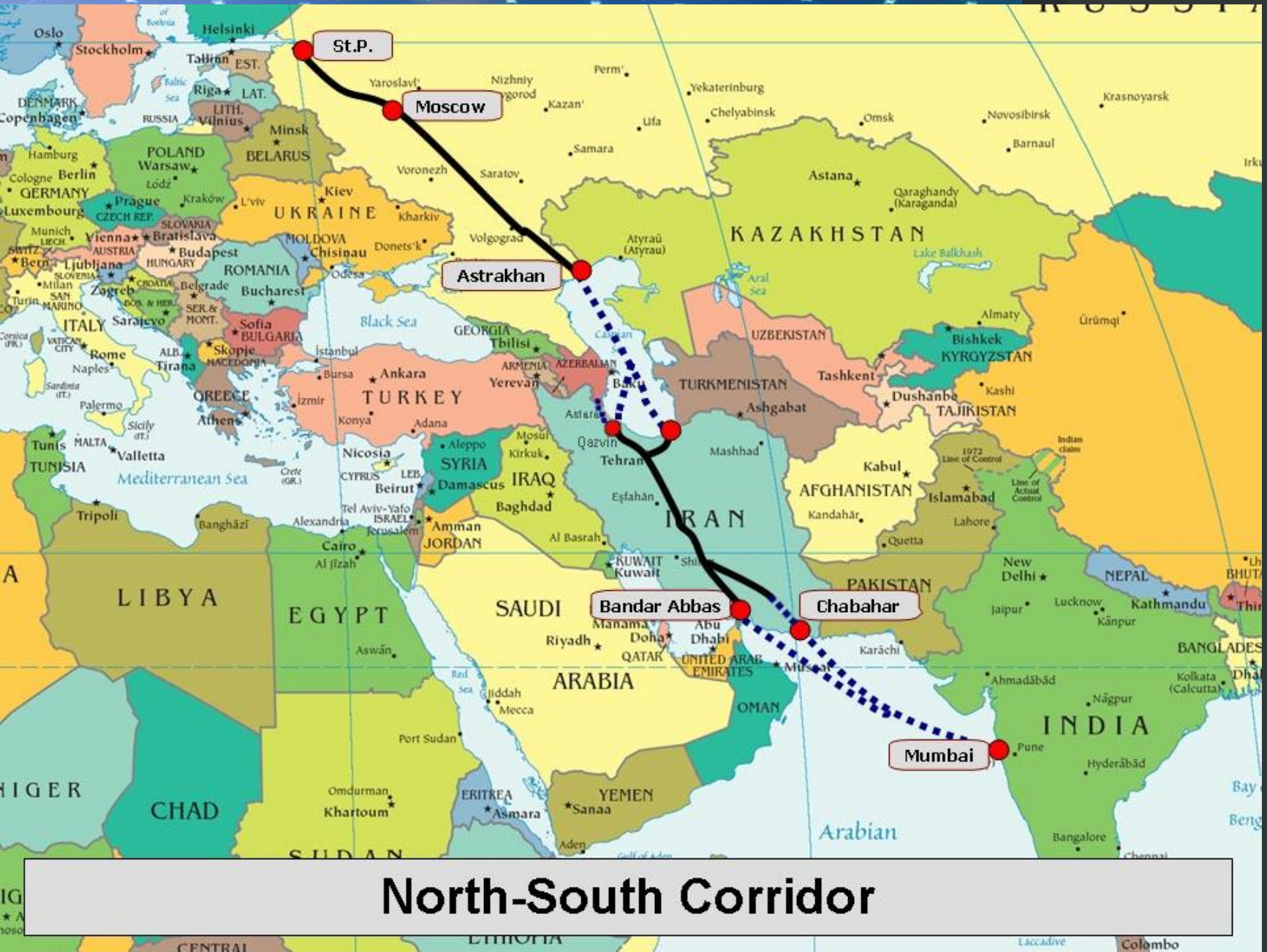
Dr. Seyed Miad Salehi, Deputy Minister for Roads and Urban Development, Chairman of the Board and President of Iranian Railways, RAI

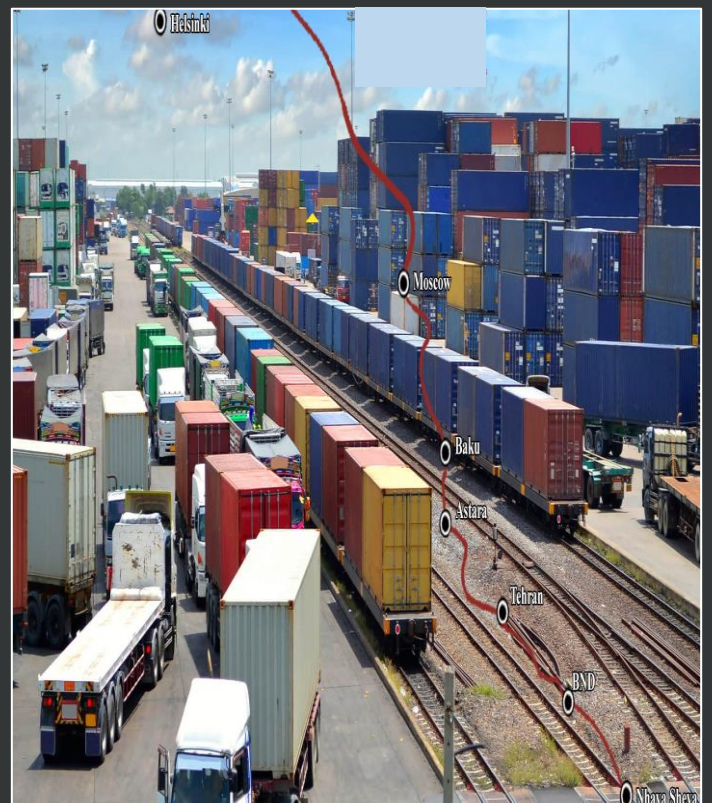
RAI network in connection with the neighboring Railways



North-South Corridor

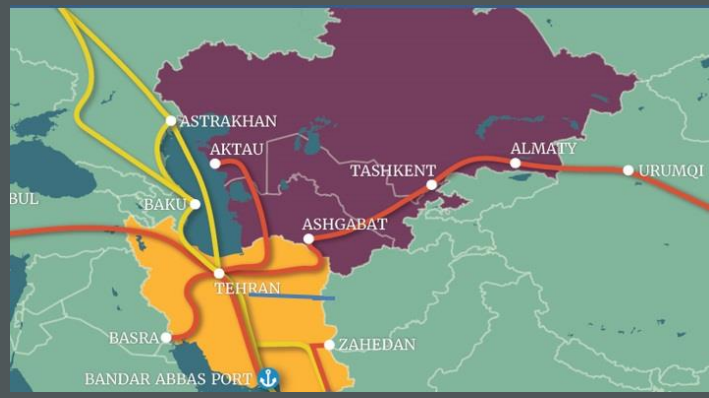


Train from Helsinki on towards India with 32 containers



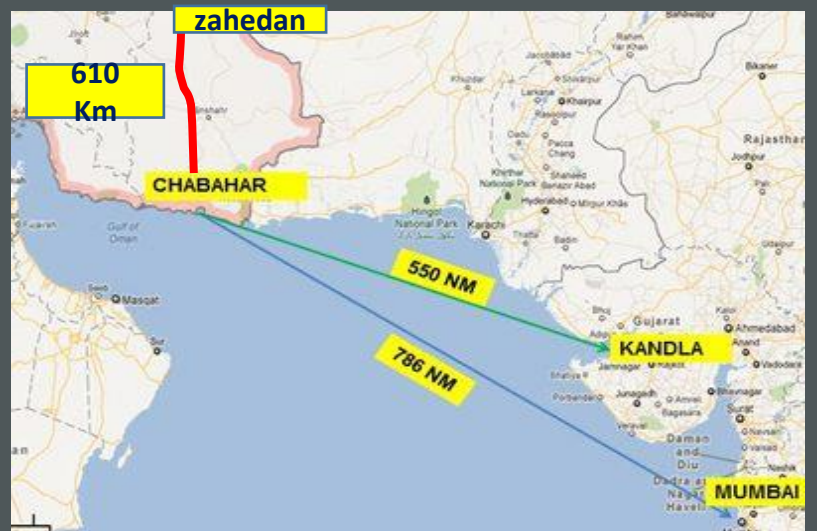
Islam Abad-Tehran-Istanbul Freight Train

Trains from Pakistan towards CIS, Russia



Rail link with Afghanistan

Chabahar-Zahedan Rail Project



Kazakhstan-Turkmenistan- Iran Railway Project

Lenght of Routh (İstanbul-Almaty)

Turkey	: 1950 km
Iran	: 2016 km
Turkmenistan	: 449 km
Uzbekistan	: 732 km
Kyrgyzstan	: 6 km
Kazakhstan	: 956 km
Total	**: 6109 km**

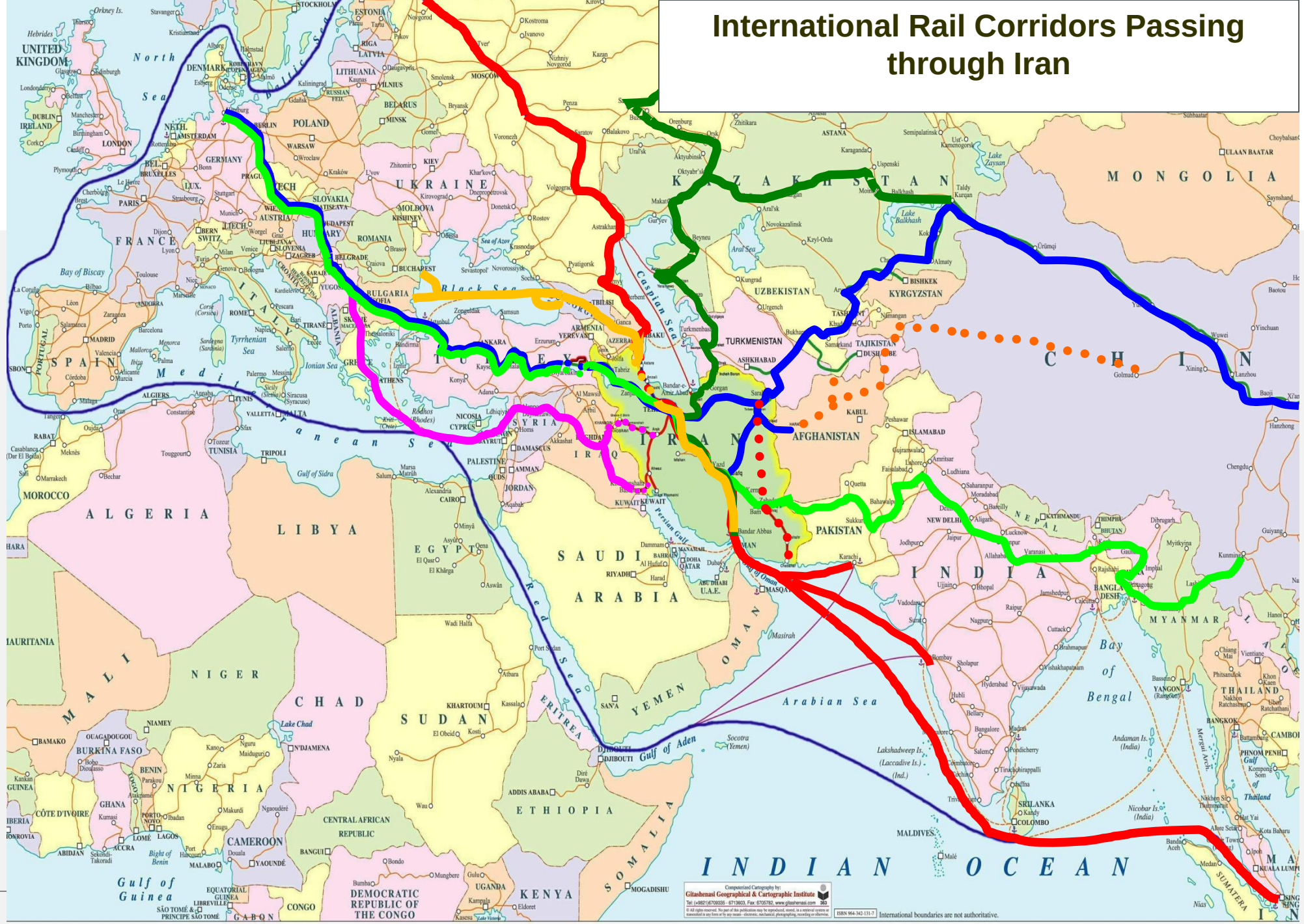
Connection with CIS Countries

China-Kazakhstan-Turkmenistan-Iran to Europe (Silk Road Branch)- East-West

The route approximate length: 10400 km

Time reduction: 14 days from Ivou in China to Tehran in Iran

International Rail Corridors Passing through Iran



Thank you for your attention

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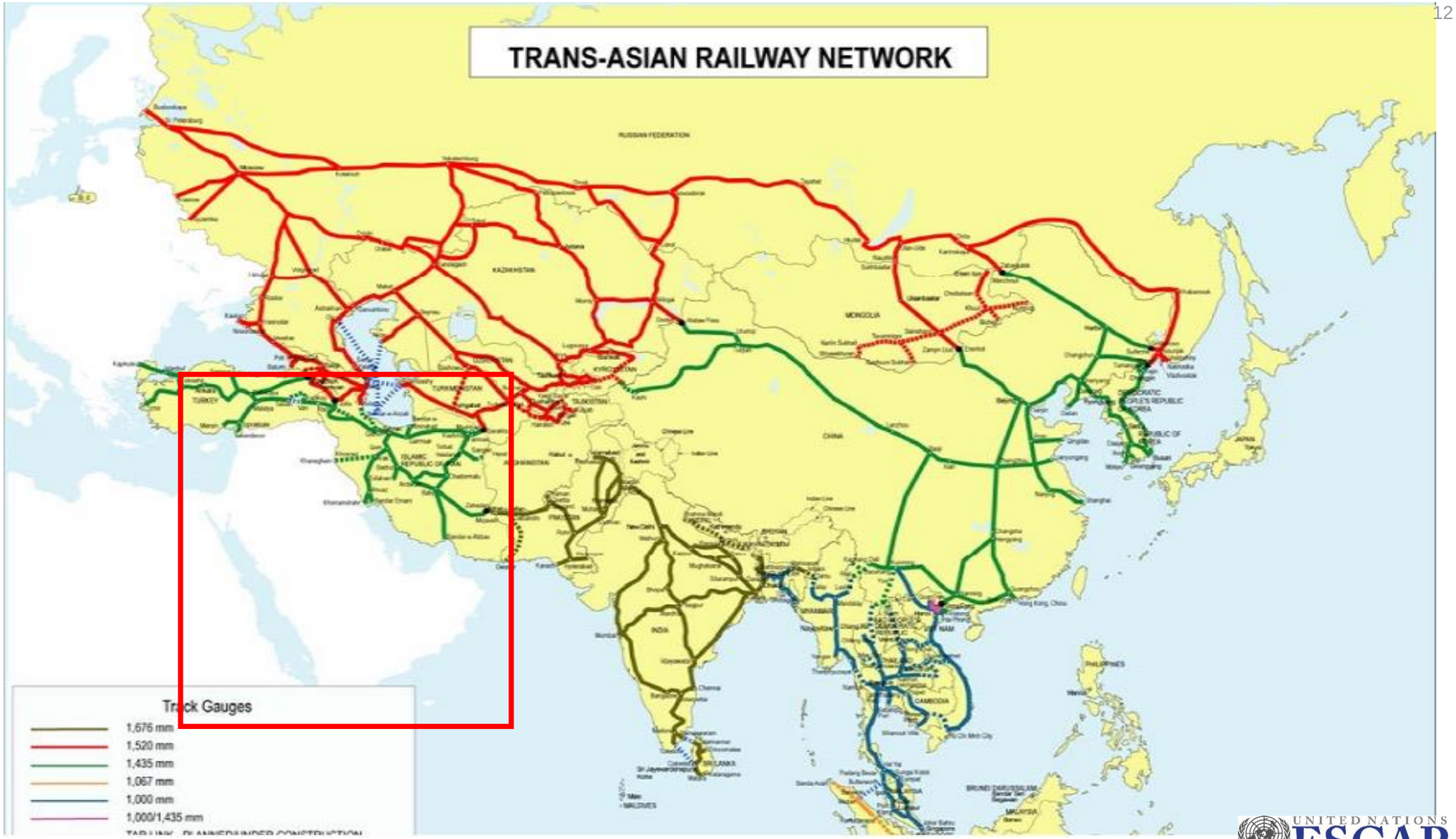
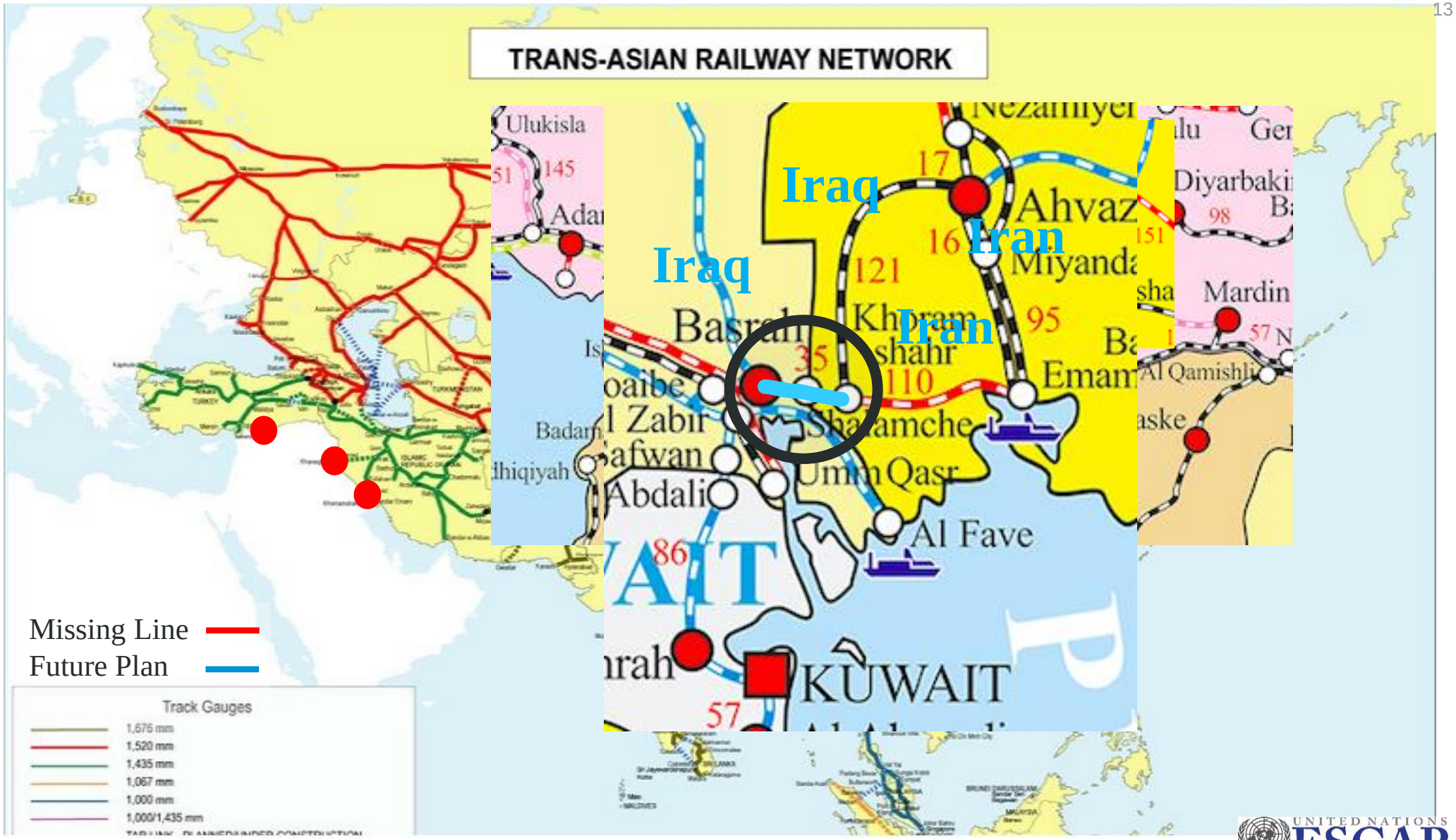
Mr. Weimin Ren, Director, Transport Division, ESCAP



UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific



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Thank you for your attention

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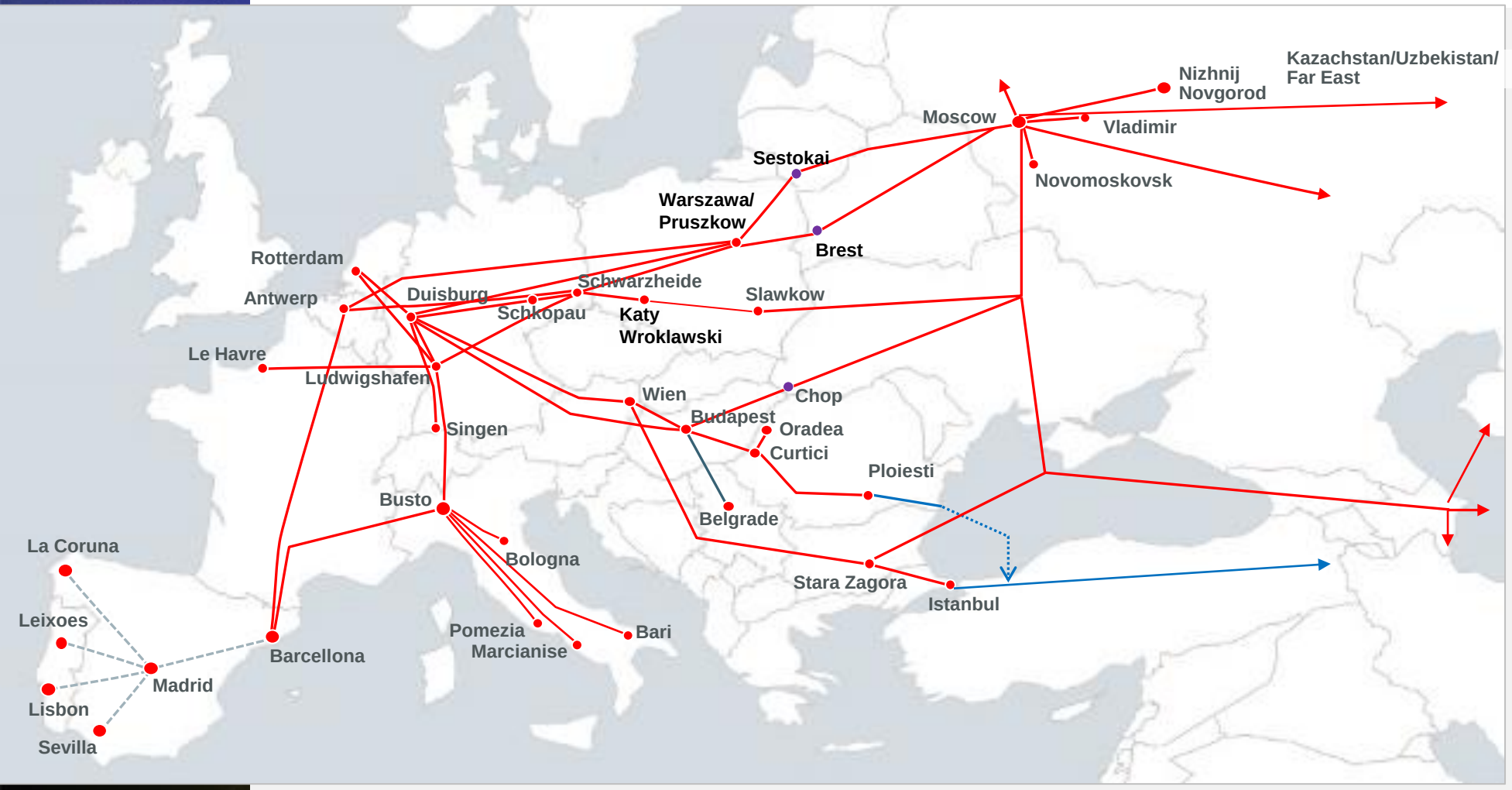
Mr. Alberto Grisone, Director, Hupac Intermodal SA

Our network connecting corridors to Middle East and Central Asia



Train per week

Creation of Network through Hub

- Istanbul
- Wien
- Belarus
- Solutions via Black Sea
- Astara

Needs

- ✓ Stable line connections
- ✓ Solutions for Van Lake
- ✓ Bosphorus
- ✓ Terminal Capacities
- ✓ Market oriented solutions through the Turkish Ports
- ✓ Easy customs solutions

Six steps help get the digital transformation going together with customers

Mission

Ground control

Booster

1. **Start from the customer**: Prioritize key customer journeys and digitize end to end
2. **Break your functional silos**: Build a cross-functional team with a clear mandate and digital talent
3. **Create measurable targets**: Develop quantitative targets for each team/projects
4. **Translate digital ambition into resource allocations and budgets:** Significantly reallocate investments
5. **Focus on talent:** Infuse new leaders into organization; retain existing digital talent
6. **Maximize value of two-speed IT:** Digitally enable your legacy infrastructure

Source: McKinsey Analysis

Increase of the productivity of Multimodal transport

- Improvement of Infrastructure
- ❖ Better usage of existing, improving capacity, in case of new infrastructure harmonized access rules

- Longer and heavier trains: in addition harmonisation in Europe as well as between 1435 EU, 1520 and in Middle East
- Faster Trains
- Reducing number of needed interfaces and transhipments

➢ Simplification of communication among the railways in the Eurasian platform

- Customs clearance operations: please just one language and one form.

- Reduction of costs for empty container and empty wagon positioning

- Harmonization among all railway networks

➢ **BETTER COOPERATION FOR DEVELOPMENTS AMONG THE STAKEHOLDERS.**

Thank you for your attention

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Mr. Giordano Bruno Guerrini, Chairman, BIC

Middle East

- The concept of Middle East being somewhat eurocentric includes or excludes countries : we consider for container purpose *Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, Turkey the United Arab Emirates and Yemen*
- *The trend after pandemic shows significant increase of container codes request : in Middle East only in 2021 we registered 20 New codes*
- *AI adds powerful items to support innovation in the container carriage also by rail*

Middle East : digitalization

- The Drive towards sustainability in container business requires the adoption of standards and the availability of digitalization driven operations. BIC supports both.
- Global Container Operators , Local HUB operators , Rail facility operators and Cargo Owners have to share a proportionate amount of common efforts facing digital disruption
- Packing and bracing of cargo requires the adoption of a unique code of conduct eg the U.N. sponsored CTU code available now as quick guide in 7 languages

Middle East : freight corridors

- Container operators do not have any longer to use long communication chains in order to identify the technical characteristics of the container by using digitalized one stop shops available at the fingertip. Silos solutions in IT and infrastructures should be avoided.

- The identification of Container Owners and major technical details including a ‘’passport’’ to safely cross borders is provided by the adoption of uniform international identification according to ISO 6346 now available as digitalized information via BIC database. The Istanbul convention grants temporary admission to containers on freight corridors.

Middle East Summary

- Adoption of standards facilitates drive to digitalization.
- Instant access to data brings efficiencies to supply chain.
- Future digitalization will rely on AI : Resource Discovery.
- The BIC has an important role to play as a trusted, neutral party, bringing together stakeholders and providing a data resource accessible to all rail operators
- The BIC encourages shippers, ocean carriers and leasing companies , rail stakeholders and combined transport operators to participate and make use of these resources.

Thank you for your attention

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MIDDLE EAST FOCUS
Panel 2: High-Speed rail for Regional integration

- Moderator: Mr. John Preston, Professor of rail transport, University of Southampton

- Mr. Metin Akbaş, Acting Chairman of the Board and Director General, Turkish State Railways,TCDD
- Dr. Bashar Al Malik, CEO, Saudi Railway Company, SAR
- Mr. Ibon García Neill, CAF Group Executive Committee Member CEO Rail Services
- Dr. Melody Khamen Sameni, Assistant Professor School of Railway Engineering Iran University of Science and Technology

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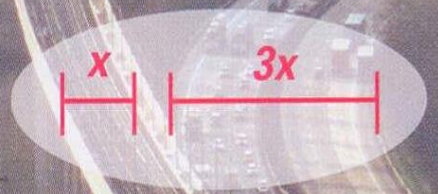
Mr. Metin Akbaş, Acting Chairman of the Board and Director General, Turkish State Railways,TCDD

Advantages of High Speed Railways

- HIGH SPEED
- TRAVEL TIME
- ENVIRONMENTALLY FRIENDLY
- COMFORT
- HIGH SAFETY



Railway Double Track	Road three-lane
25 m	75 m
every hour 2X12 train	every hour 2x4500 vehicle
2X666 passenger/train	2X1,7 passenger/vehicle
2X8000 passenger/hour	2X7650 passenger/hour

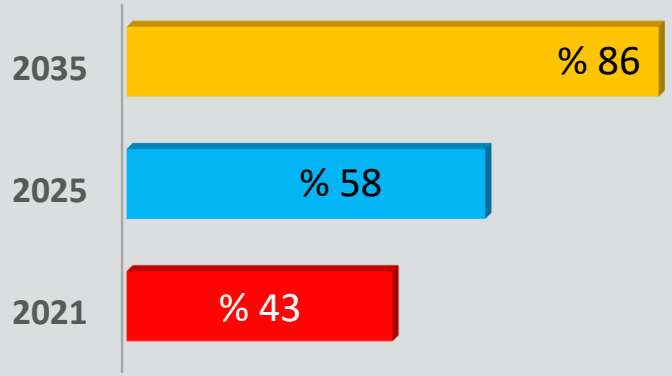
High speed, capacity, environmental respect and high safety are the important advantages of High Speed Railway system

Regional Overview

Information on High Speed Railway Operation

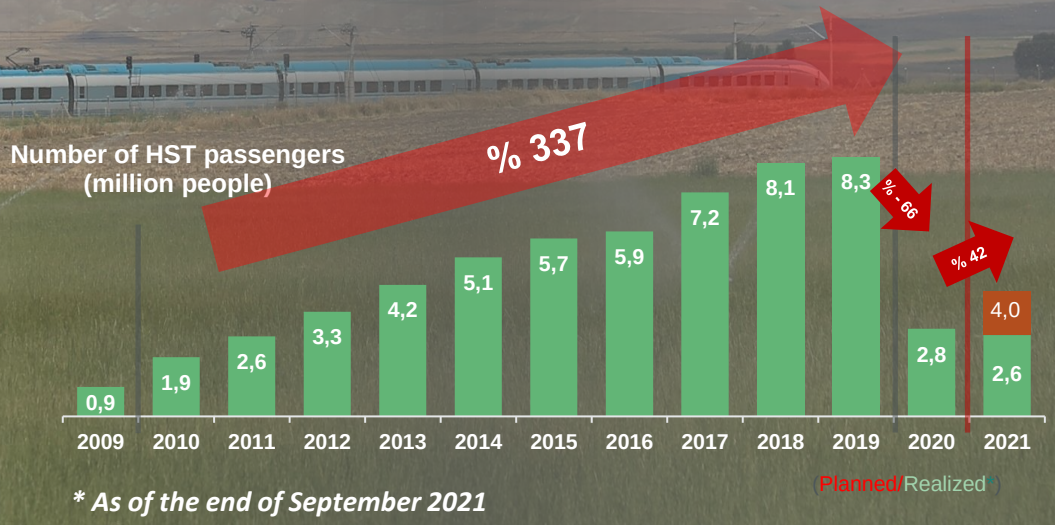
HSL Parkour	Commissioning Date
Ankara-Eskişehir	13.03.2009
Ankara-Konya	24.08.2011
Ankara-İstanbul (Pendik)	27.07.2014
Konya-İstanbul (Pendik)	18.12.2014
Ankara-İstanbul (Halkalı)	13.03.2019
Konya-İstanbul (Halkalı)	13.03.2019

In 13 provinces;
HST/Rapid train service is provided to 43% of the Country's population. Our targets are:



Total number of travels by HSTs:

58.6 million passengers

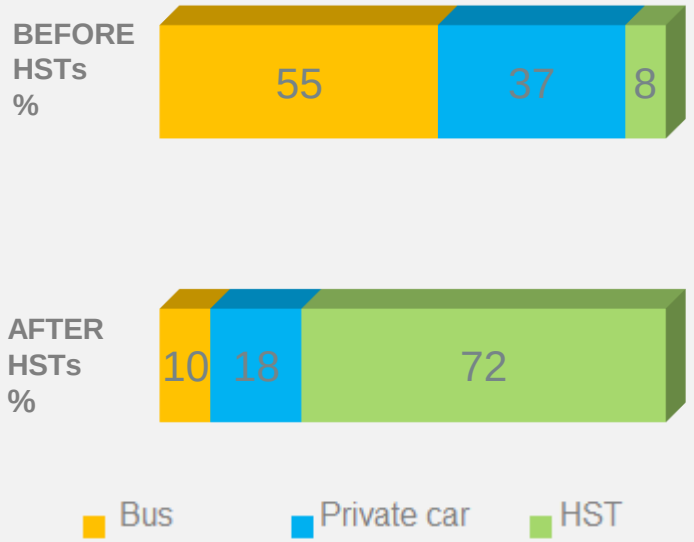


** As of the end of September 2021*

It is expected that 4.0 million passengers will be transported by HSTs in 2021

Information on High Speed Railway Operation

Passenger shares changed with High Speed Train*



*According to a study conducted for Ankara-Eskişehir High Speed Railway Line

Thank you for your attention

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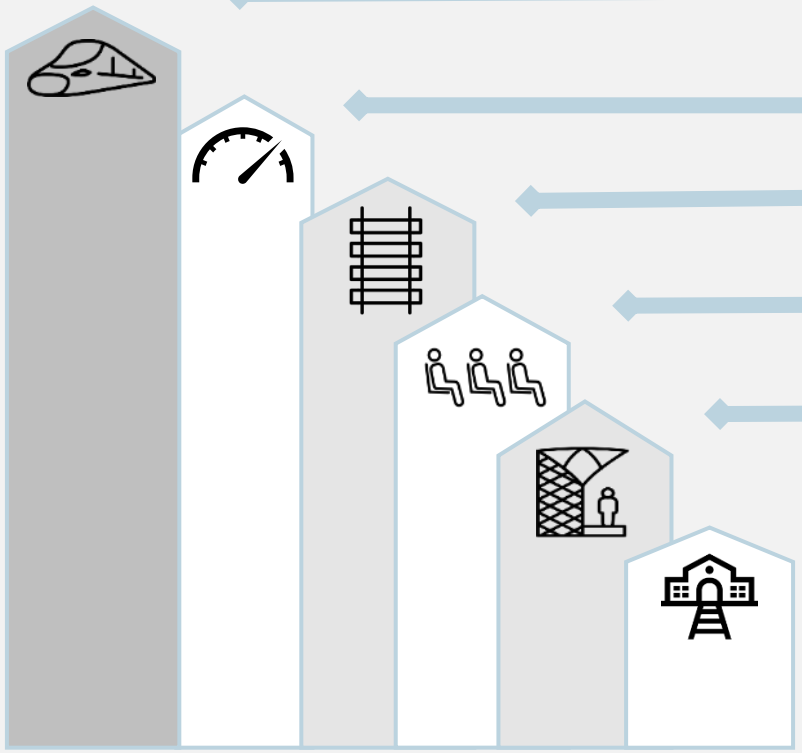
Dr. Bashar Al Malik, CEO, Saudi Railway Company, SAR

Haramain High Speed Railway

HHR is a KSA Government initiative to provide a fast, comfortable, reliable and safe mode of transport between the Cities of Makkah and Madinah

- Connects the cities of **Makkah** and **Madinah** via **Jeddah**
- The first high speed railway in the region
- Forecast to transport **17 million passengers per year** by 2030

Haramain High Speed Railway



- **36** Passengers Trains
- Commercial operating speed of **300** km/h
- **+1000** KM Railway track, **138** Bridges, **850** Culvert
- **417** Passengers per train, **304** Economy, **113** Business
- **5** Train Stations (**2.0** millions SQM)
- **2** Depots (**850,000** SQM)

Haramain High Speed Railway

The railway will remove the need for over **1,200** buses during Hajj season to transport the pilgrims

The railway is becoming the **primary** method of transport for residents and visitors to Makkah and Madinah

HHR is a key **enabler** of the Kingdom's 2030 vision

VISION رؤية 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

By 2060 the Kingdom will be **carbon neutral**

By 2030 **50%** of all the Kingdom's electrical energy will be from renewable sources

Stations have been designed to maximize available **natural light**

Haramain High Speed Railway

- During the design phase priority was given to:
  - Minimizing noise levels, particularly in urban areas
  - Reducing ground borne vibration to a minimum
  - Minimizing waste pollutants
  - Ensuring drainage systems are effective and have zero impact on the local environment

- Some of HHR Project features are:
  - Advance technology using ERTMS level 2, one of the most advance protection systems in the world, with complete interoperable solution.
  - Aluminum construction enables the train to be lightest train in its type, which makes a combination of journey time and energy efficiency.
  - Special designed slab track in certain sections along the track to reduce the sand effects

Thank you for your attention

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Mr. Ibon García Neill, CAF Group Executive Committee Member CEO Rail Services

Sustainable mobility is one of the greatest challenges facing society today.

High-capacity transport systems are needed for a cleaner and healthier environment targeting the ZERO Carbon emissions worldwide. Railway will provide higher levels of comfort for passengers and connectivity to other modes of transport.

CAF is in the core of the mobility transformation with the ambition to contribute as a technological partner for this vision 2030 towards a sustainable mobility.

CAF Contribution to the development of a greener mobility

1- RAILWAY Vehicles and Components, Battery and Hydrogen

2- BUSES, Hybrid, Electrical and Hydrogen

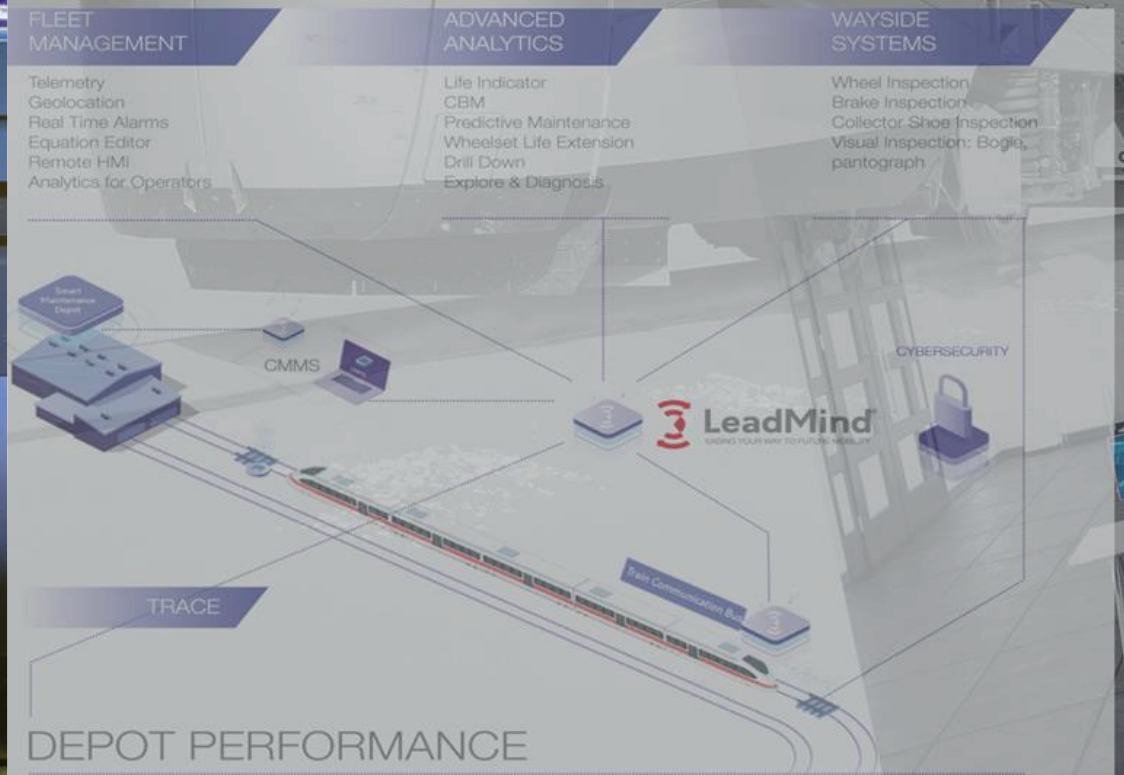
3- SIGNALLING & AUTOMATION

4- DIGITAL SERVICES

CAF contribution in the megatrend of digital transformation

/ **Digital** Mobility

/ Seamless Interconnectivity



MEA

CAF experience in the Middle East based in KSA High Speed Regional Development

Digitalization driving the Operation and Maintenance of 123 coaches and 26 Locomotives

Interconnecting North and East areas with the Capital

Thank you for your attention

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Dr. Melody Khamen Sameni, Assistant Professor School of Railway Engineering Iran University of Science and Technology

HSR Plans in Iran

High-speed lines under construction in Iran

LINE	MAXIMUM SPEED (km/h)	YEAR	DISTANCE (KILOMETRES)
Tehran - Qom - Esfahan	250	2023 / 2024	410
Tehran - Mashhad	200	2025	926
			Total km = 1,336

High-speed lines planned in Iran

LINE	MAXIMUM SPEED (km/h)	YEAR	DISTANCE (KILOMETRES)
Qom - Arak	250	2025	117
			Total km = 117

High-speed lines with long-term planning in Iran

LINE	MAXIMUM SPEED (km/h)	YEAR	DISTANCE (KILOMETRES)
Tehran - Hamedan	-	-	284
Tehran - Zanjan - Tabriz	-	-	613
Esfahan - Shiraz	-	-	470
Esfahan - Yazd	-	-	284
			Total km = 1,651

Source: (UIC,2021)

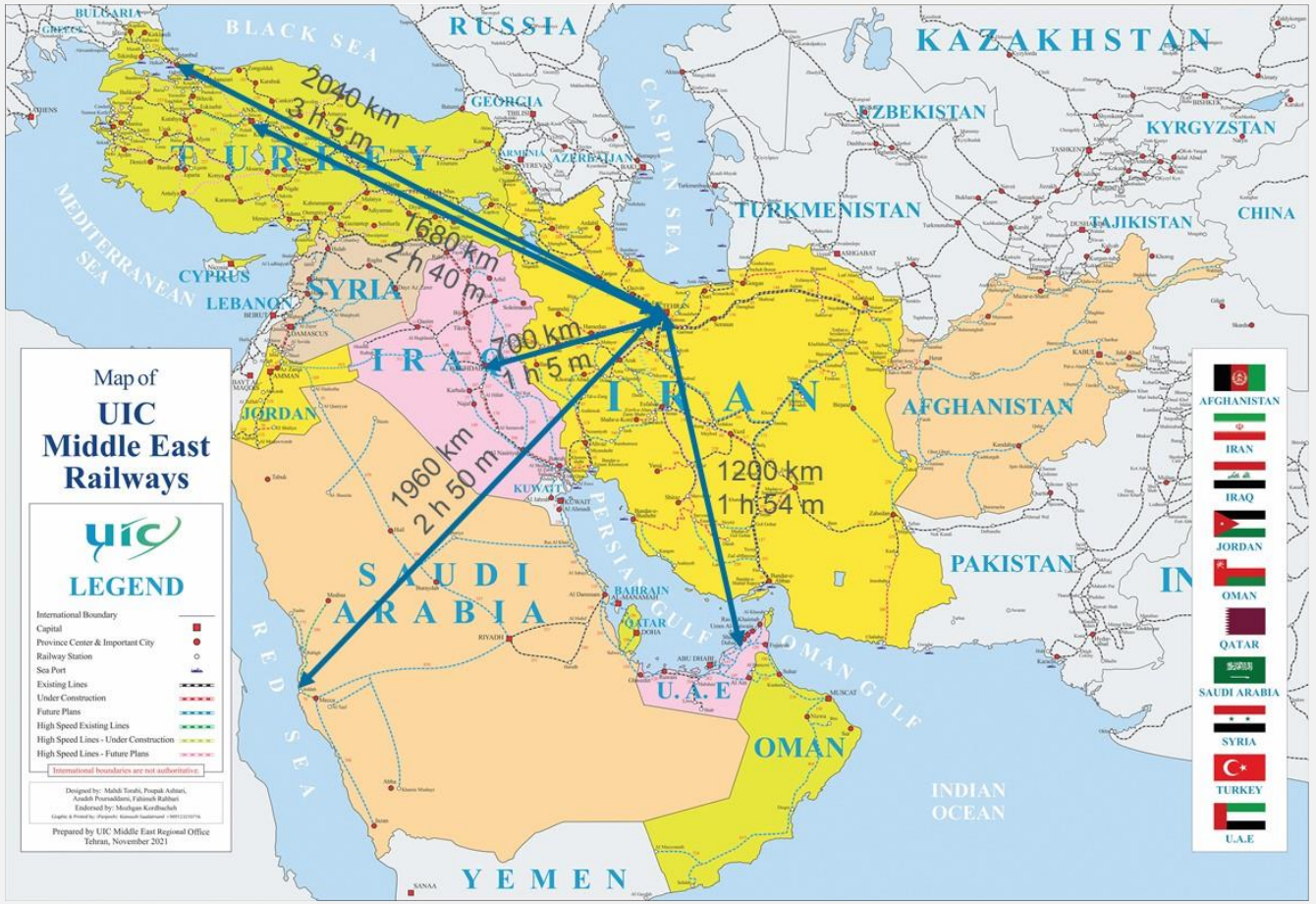
Future Impacts of HSR

Access time
Before HSR

Access time
After HSR

Source: (RAI ,2018)

A Short Glimpse of the region



Population

Iran: 83 m
Iraq: 40 m
Turkey: 84 m
Saudi Arabia: 34 m

Total GDP

Over 1.7 Billion US$

HSR Network in the ME Region

Pros	Cons
High population	Distance between centers of population: Tough competition with air mode
Cultural and religious ties	Topographical challenges
Relatively high GDP of countries	Instability in the region
Successful implementation of HSR in two countries and under construction in another one	Cheap fuel price in the oil exporting countries

Thank you for your attention