



**DECADE  
OF >>>  
ACTION**



## Supporting rail digitalization in ESCAP region

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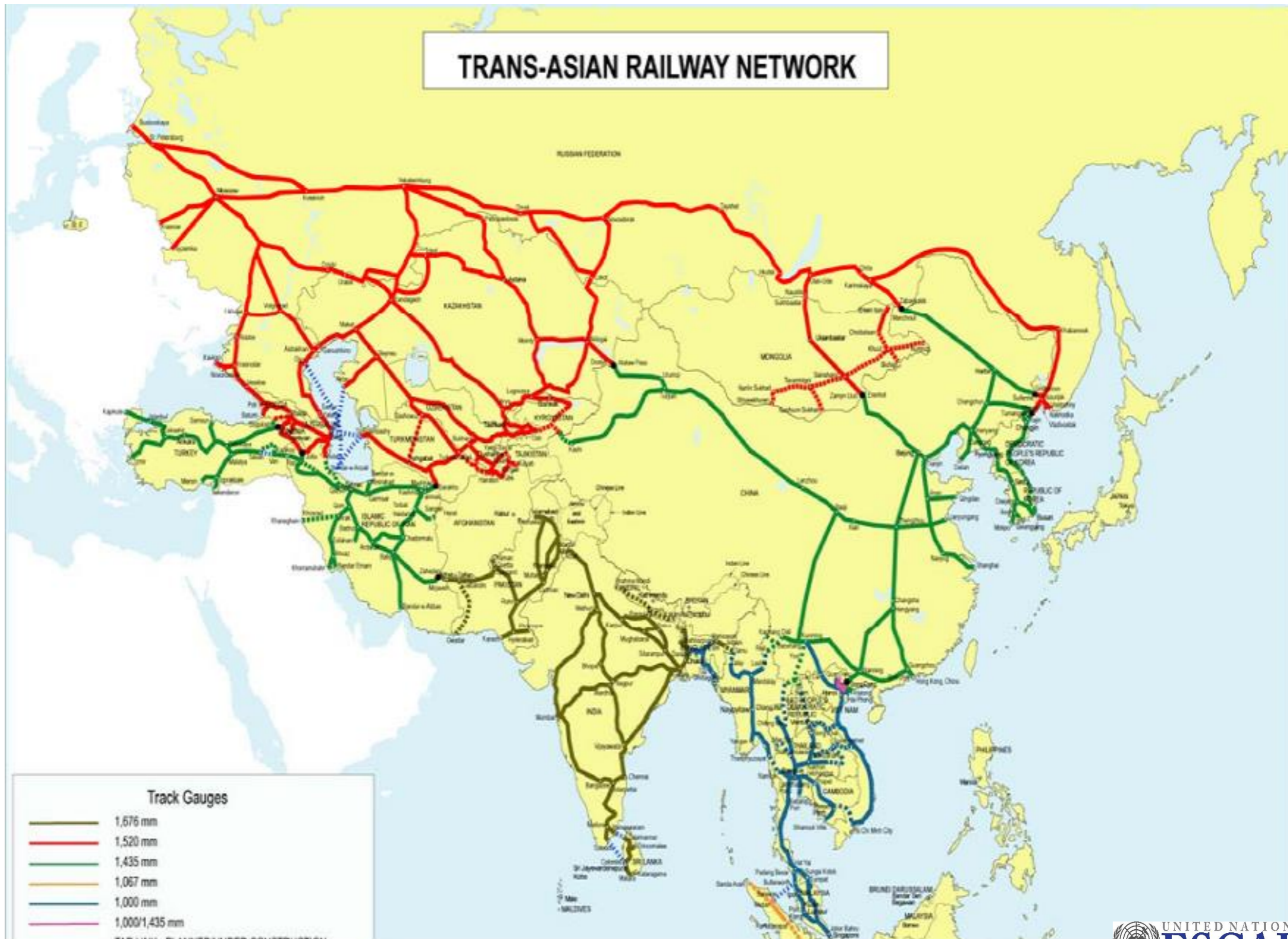
## Outline

- Background- pre covid situation
- Initiatives on rail digitalization under the project
- Way forward





# TRANS-ASIAN RAILWAY NETWORK



## Track Gauges

- 1,676 mm
- 1,520 mm
- 1,435 mm
- 1,067 mm
- 1,000 mm
- 1,000/1,435 mm

TABLE 1.1.1. UNCLASSIFIED CONSTRUCTION

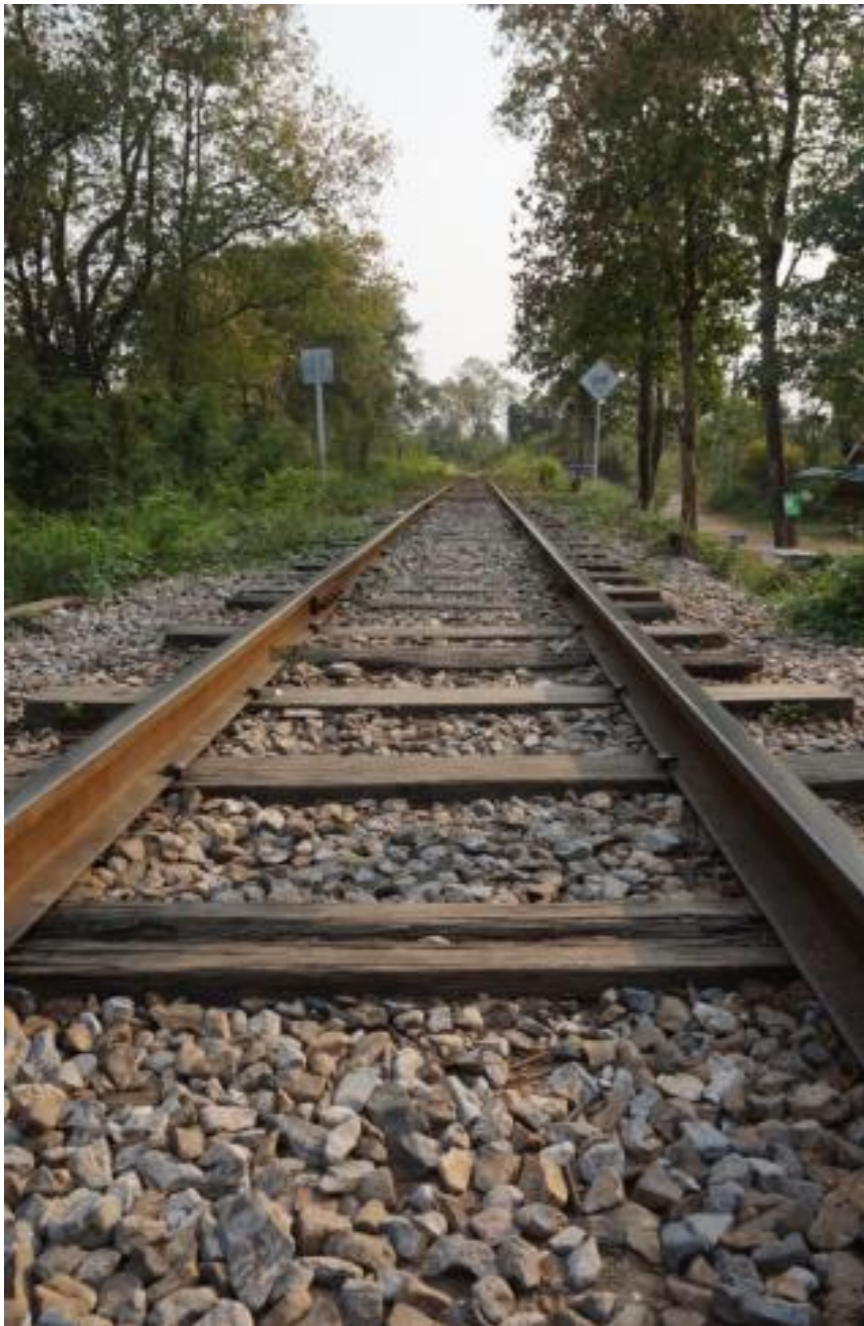


# Intergovernmental Agreement on Trans-Asian Railway Network

Trans-Asian Railway Network formalized through intergovernmental agreement entered into force in 2009. Has now 21 contracting parties

Developed by ESCAP members as a *coordinated plan* to develop a *regional railway network* to meet the growing needs of *intra and interregional trade and transport*

The Working Group under the agreement provides a *regional platform* for the member countries to discuss *persistent and emerging issues in* international railway transport along the *network*. Seven meetings-  
operational issues

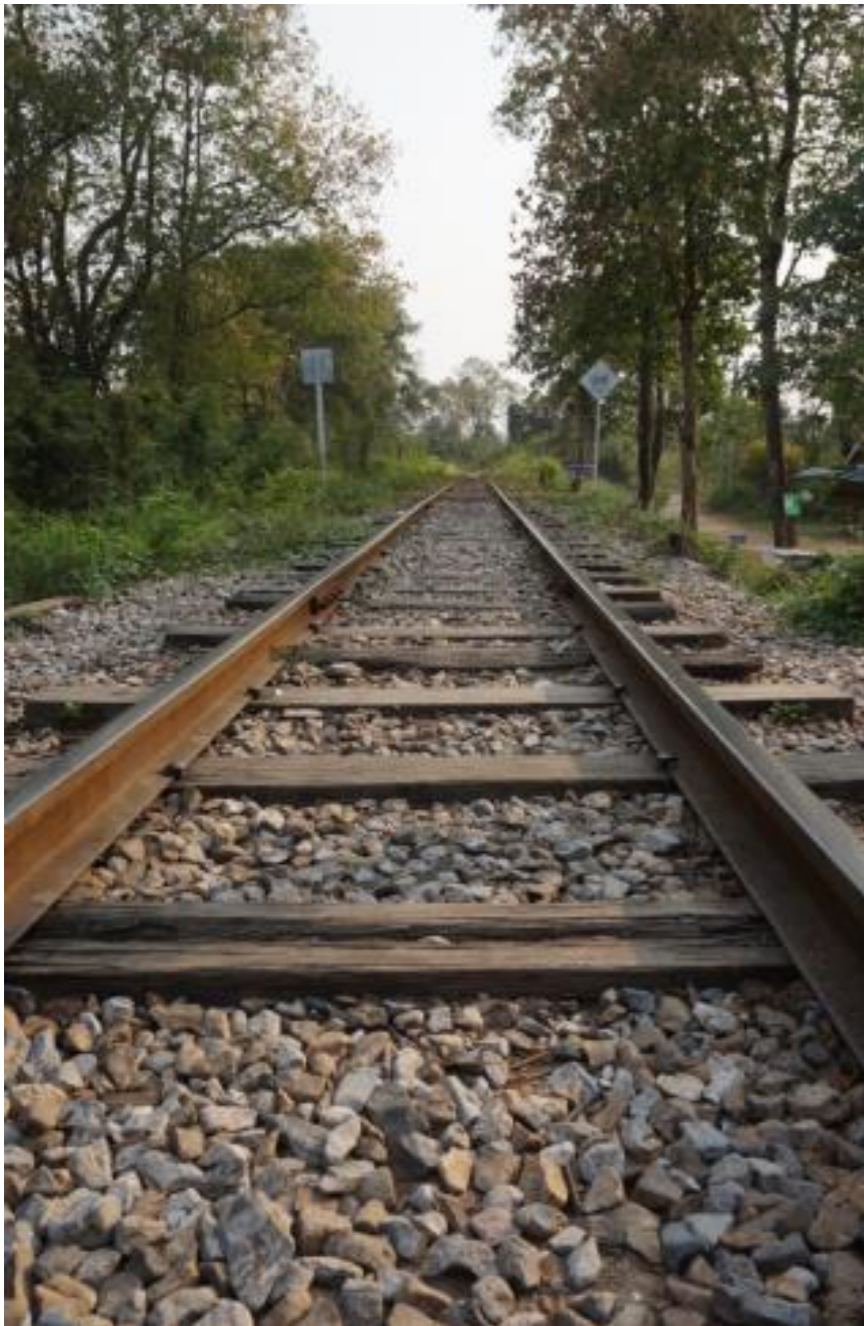




## Pre-COVID situation

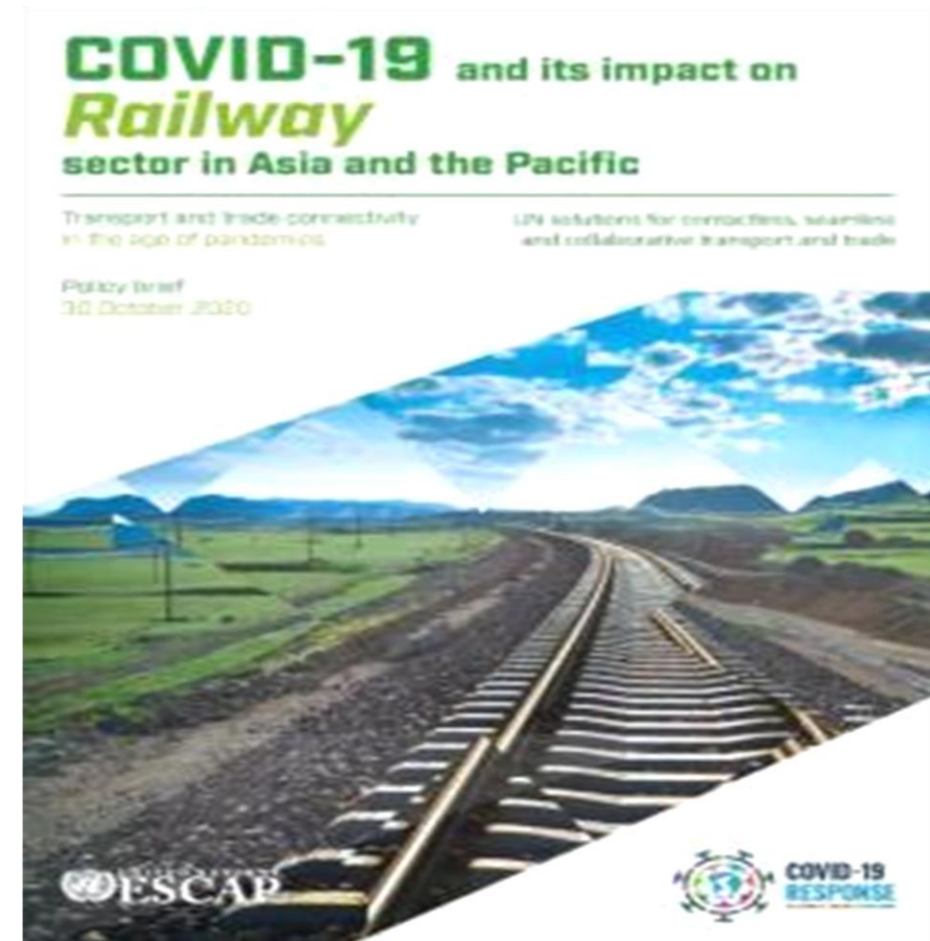
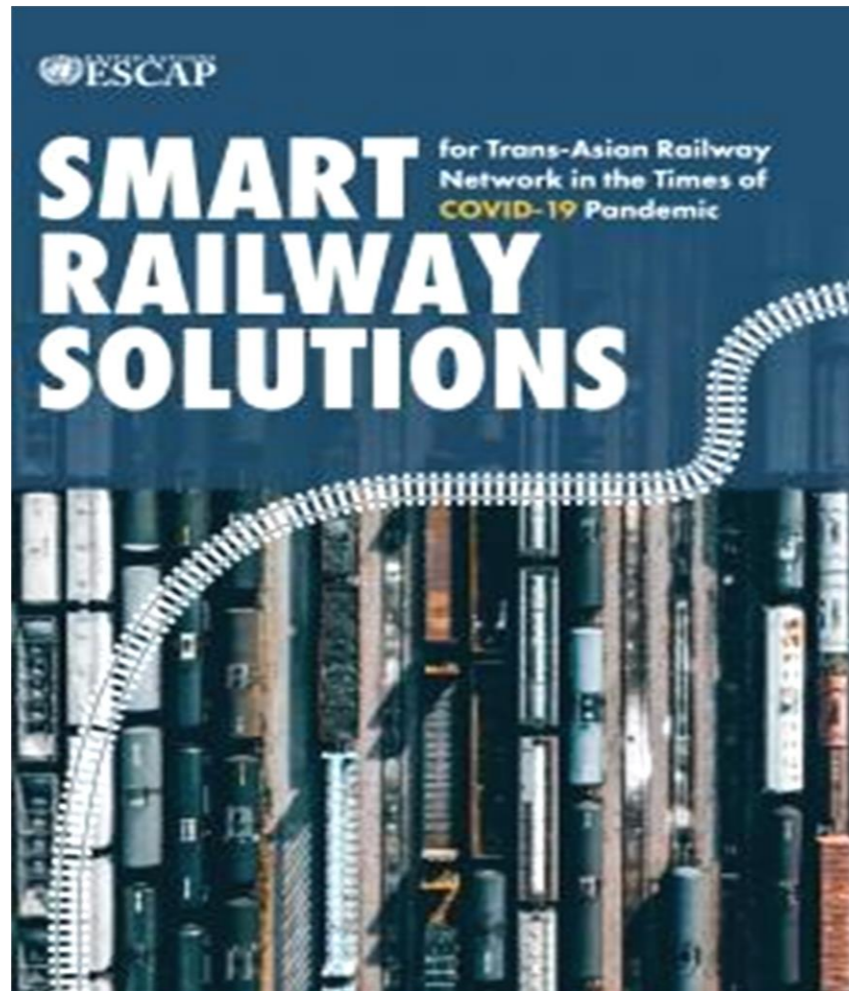
The Committee on Transport in 2018 and the Sixth Meeting of the Working Group on Trans-Asian Railway network in December 2019

Already highlighted importance of *electronic information exchange* to facilitate rail border crossing formalities and digitalization of transport corridors as an issue of importance to members of TARN





# Initiatives under UNDA COVID project on rail digitalization



UN COVID project give further momentum to rail digitalization

Policy Note on COVID 19 and it impact of railway sector in Asia

SMART RAILWAY SOLUTIONS

Dissemination at national and regional meetings



## Smart Railway Solutions



Emerging trends in international railway transport along Trans-Asian Railway Network

- ✓ New routes for international railway transport
- ✓ New rail infrastructure
- ✓ New services along the Trans-Asian Railway network
- ✓ New alliances to promote international railway freight





## Smart Railway Solutions



Common priorities of the railways of members of Trans-Asian Railway Network

- ✓ Railway network development
- ✓ International railway transport
- ✓ Sustainability-Shift to rail initiatives and rail decarbonization
- ✓ *Digitalization and automation*



# Smart Railway Solutions



## Smart Railway Border Crossing

- D1 - Electronic Information/Data Exchange
- D2 - New Technologies for Efficient and Secure Border Crossing (Electronic seals)
- D3 - Railway Consignment Note as a Customs Document
- D4 - Joint Border Controls
- D5- Railway - Customs electronic interface

Smart Railway Customer Orientation  
Smart Railway Asset Management  
Smart Railway Maintenance

# Impact of work done on rail digitalization under the UN COVID project

Railways of Iran set up an internal working group for electronic information exchange

Proposed a new annex to TAR agreement on guiding principles of electronic information exchange among railways and between railways and control agencies at the seventh meeting on the WG on TAR

The WG on TAR supported and agreed to work on the new annex

The WG on TAR also requested the secretariat for developing a regional strategy on rail transformation





# Partnership with UN DA 12 Tranche project on shift towards sustainable freight

UN DA 12 has an overarching objective for shift towards sustainable freight

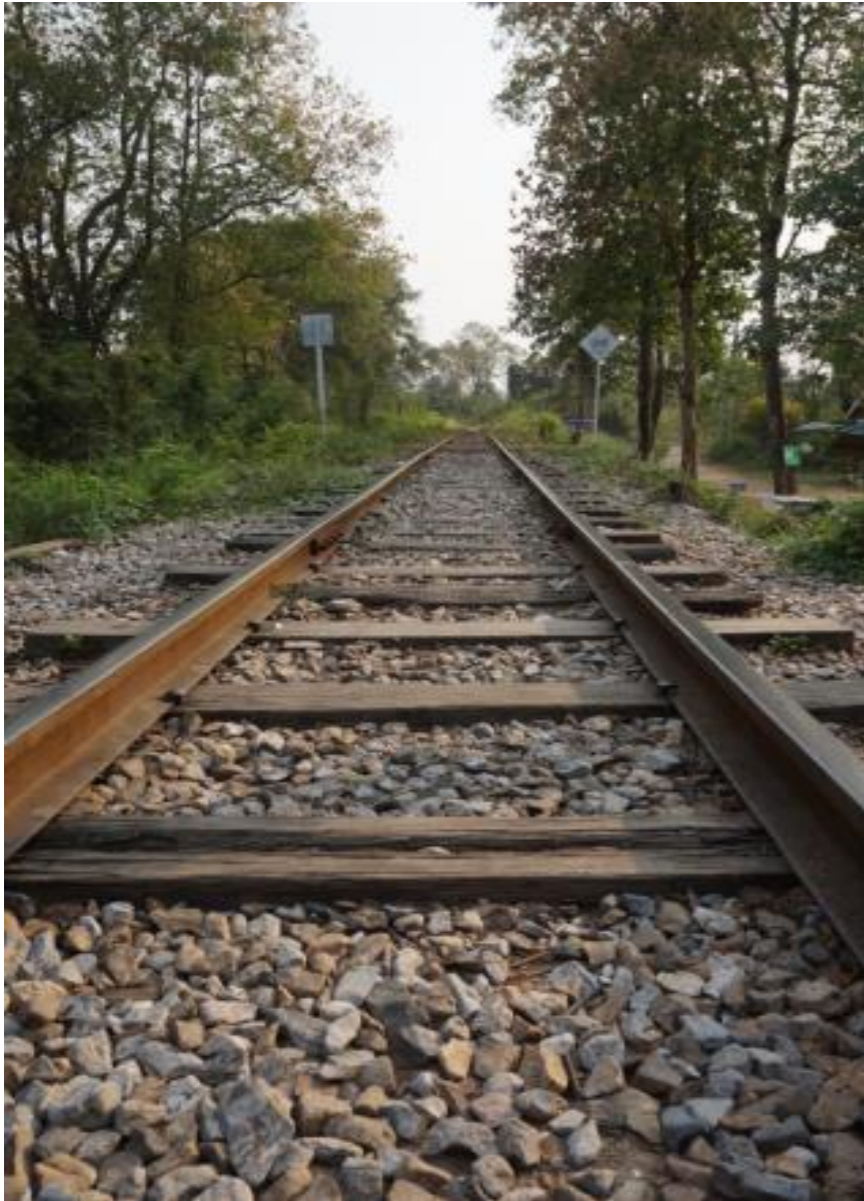
Being among more sustainable modes of transport rail transport is being promoted through the project activities

Digitalizing rail can enhance its competitiveness

Under the project – ESCAP collaborated with the UIC to develop *capacity building project on accelerating rail digital transformation in the region*



# ESCAP-UIC joint capacity building for accelerated rail digital transformation



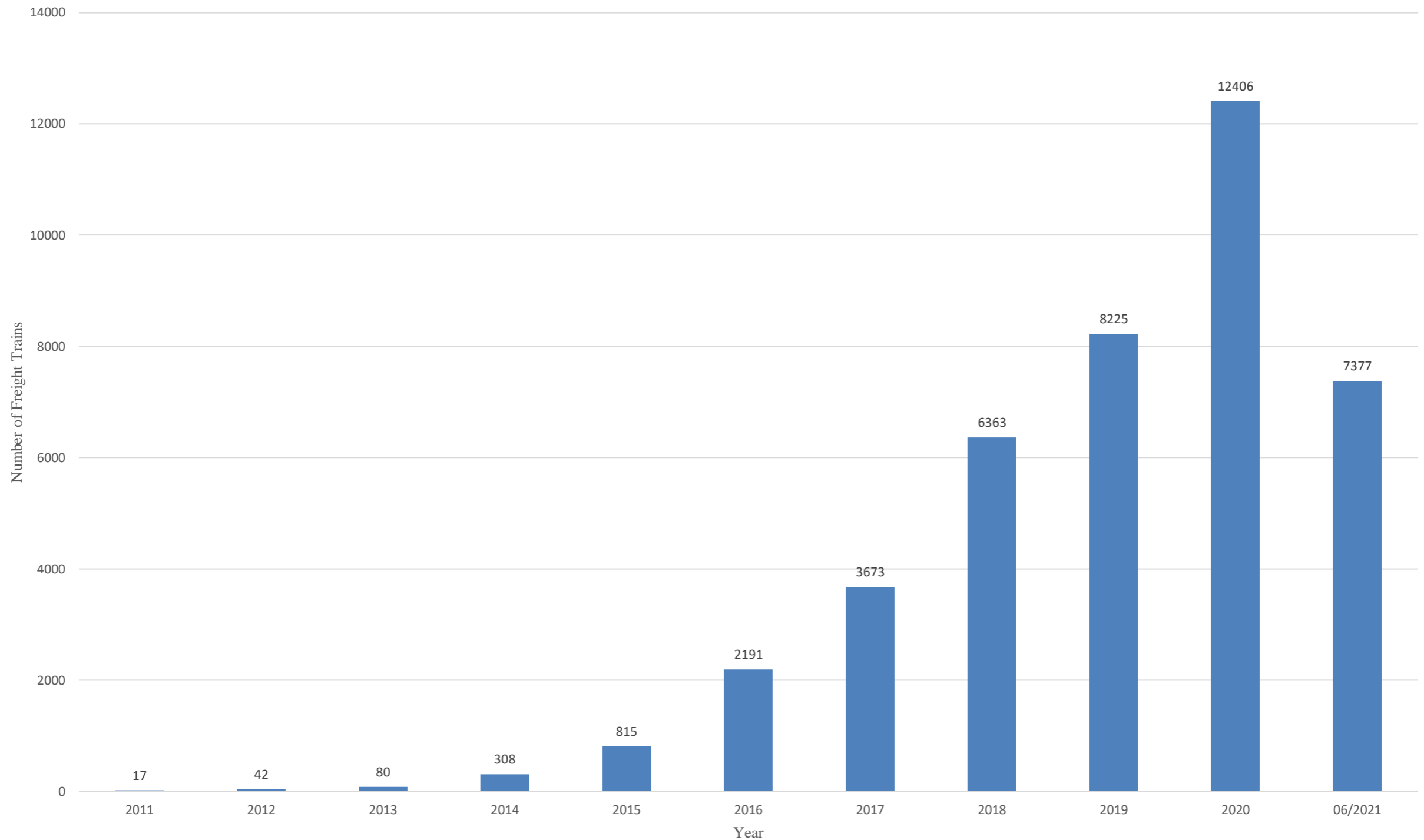
1. Challenges and opportunities for rail freight in the era of sustainable development
2. Digitalization as a lever to enhance rail competitiveness and sustainability
3. Digital communication technologies for rail (include GSM-R/FRMCS/5G/LTE, rail cybersecurity and other as deem fit)
4. Digital asset management for rail (rail digital platforms, digital capacity management, ATO, and digital predictive maintenance)

5. Digital rail border crossing



# China- Europe Freight trains growth

Fig1: China-Europe freight trains-exponential growth



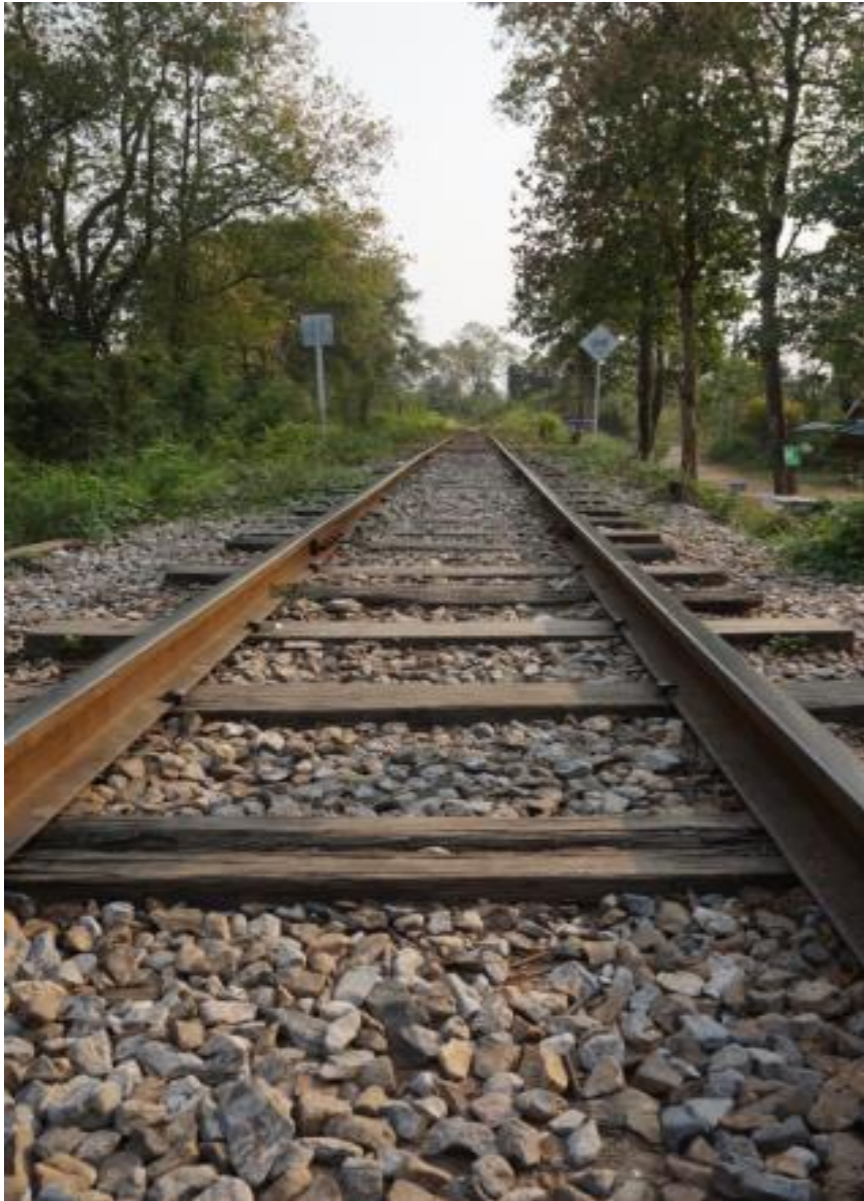
## Way forward

Finalize the rail digital strategy/framework for the region with appropriate funding modality such as rail digital and innovation fund

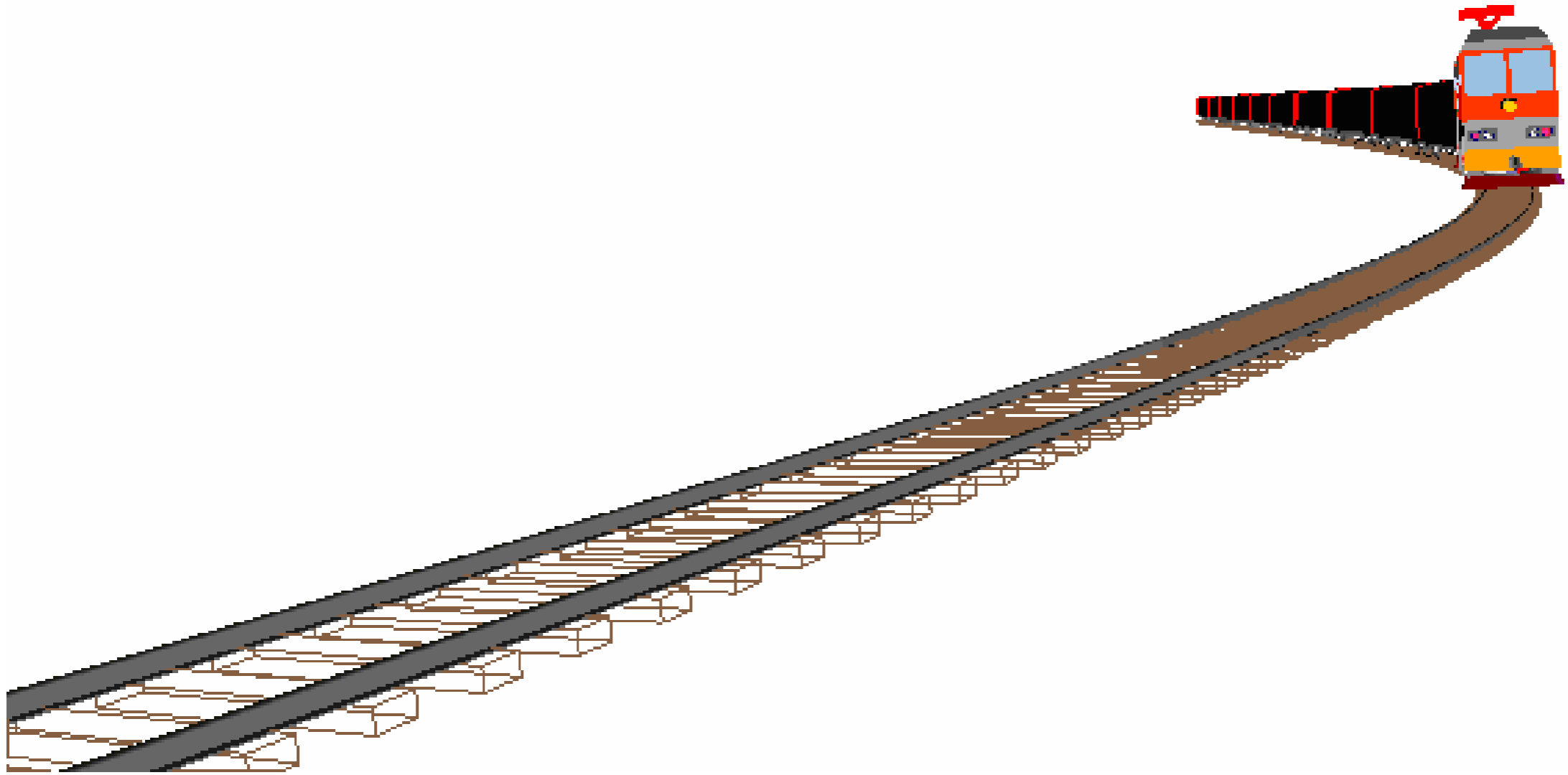
Undertake deliberations for finalization of proposed annex to TAR agreement

Support development of national rail digitalization strategies including sharing of experience and demand driven capacity building

MOU on KTI railway corridor could provide basis for pilot application on use of e-consignment note







Thank you  
for  
your attention

<http://www.unescap.org/our-work/transport>

