Smart Railway Solutions
To support railways in addressing challenges
due to pandemic
Outline

1. Intergovernmental Agreement on Trans-Asian Railway Network

2. Smart Railway Solutions - rationale

3. Smart Railway Solutions
Intergovernmental Agreement on Trans-Asian Railway Network

Trans-Asian Railway Network formalized through intergovernmental agreement entered into force in 2009. Soon have 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. Six meetings- focus on operational issues
Why 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

- Common priorities of the railways of members of Trans-Asian Railway Network
  - Railway network development
  - International railway transport
  - Shift to rail initiatives
  - Sustainability
  - Digitalization and automation
Why Smart Railway Solutions

- Effects of pandemic on railway transport over short, medium and long run; resilience shown by international railway transport during pandemic

- Short term demand upside may not persist in medium term and if pandemic prolongs it could overall decrease demand and the short-term disruptions to supply chains could become permanent and may lead to suspension of some services

- Crisis provides an opportunity for railway to enhance their comparative advantages by systemically improving efficiency and effectiveness of railway systems
What are Smart Railway Solutions

Smart Railway Operations
A1 - Automation of Terminals
A2 - Advanced Traffic Management Systems
A3 - Automation of Train Driving

Smart Railway Maintenance, Safety and Security
B1 - Condition-Based and Predictive Maintenance
B2 - Others (railway safety)

Smart Railway Financing
F1 - Green and Sustainable Financing
F2 - Modelling
What are 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 - Efficient Break of Gauge Operations
D5 - Joint Border Controls
D6 - Railway – Customs electronic interface

Smart Railway Customer Orientation
E1 - Railway freight mobile application
E2 - Others
Current initiatives to strengthen international railway transport

To enhance efficiency of international railway transport, particularly post COVID-19, ESCAP is working on following issues following:

1. Developing a comprehensive online database for Trans-Asian Railway Network.

2. Supporting electronic information exchange among railways and between railways and control agencies.


4. Support countries in establishing corridor management mechanism for railway corridors.
Future work to strengthen international railway transport and linkages with Agenda 2030

5. Developing smart railway solutions in such areas as operations, maintenance, break of gauge and energy efficiency

6. Explore potential for developing a framework for digitalizing railways in the ESCAP region

7. Enhancing sustainability of railway transport by supporting member countries in decarbonizing railways

8. Encourage modal shift towards rail and mainstreaming railway transport in national plans to support realization of 2030 Agenda
Analytical and knowledge products on international railway transport

**Studies**

- Border crossing practices in railway transport
- Enhancing interoperability to facilitate international railway transport
- Electronic information exchange systems for international railway transport

**Blogs**

- Five Years Into The 2030 Agenda: Time To Give A Big Push To Railway Transport 03 December 2019

**Policy Brief**

- COVID-19 and its impact on Railway sector in Asia and the Pacific November 2020
Thank you for your attention

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