CAREC
Central Asia Regional Economic Cooperation Program

22nd Transport Sector Coordinating Committee Meeting

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22-е заседание Координационного комитета по транспортному сектору

16–17 июня 2025 года • Бишкек, Кыргызская Республика

Update on Planned activities Railway Corridor Developments

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Status of approved prefeasibility and knowledge support 1/2

Technical Assistance activity	Present status
Railway sector assessments for each CAREC MC	Reports published in 2019–20
Development and use CAREC Regional Transport Model	Model completed in 2019–21
Situation analysis of CAREC railways identifying opportunities for commercialization, reform and investment	Report published in 2022, presented at ADB Transport Forum 2022
Approved knowledge and capacity development (KCD) projects:	
- Paper on track capacity and timetabling software	*Paper published in 2020*
- Advisory support to prepare railway commercialization, reform and investment programs in KGZ and TAJ	*Consultants recruited in Q1 2020 but work halted due to pandemic. First and second country visits conducted in Q3 2022 and Q2 2023. Reports on proposed programs for KGZ and TAJ completed in Q3 2023.*
- Study on CAREC rolling stock needs and financing facility	*Following discussion of the study approach at the 7th RWG, ADB recruited consultants and study now completed. Study team leader will present the findings in Session 4*
- Capacity development on best practices in establishing and operating a railway sales and marketing function	*Draft TOR prepared in Q1 2020. Work suspended due to pandemic.*

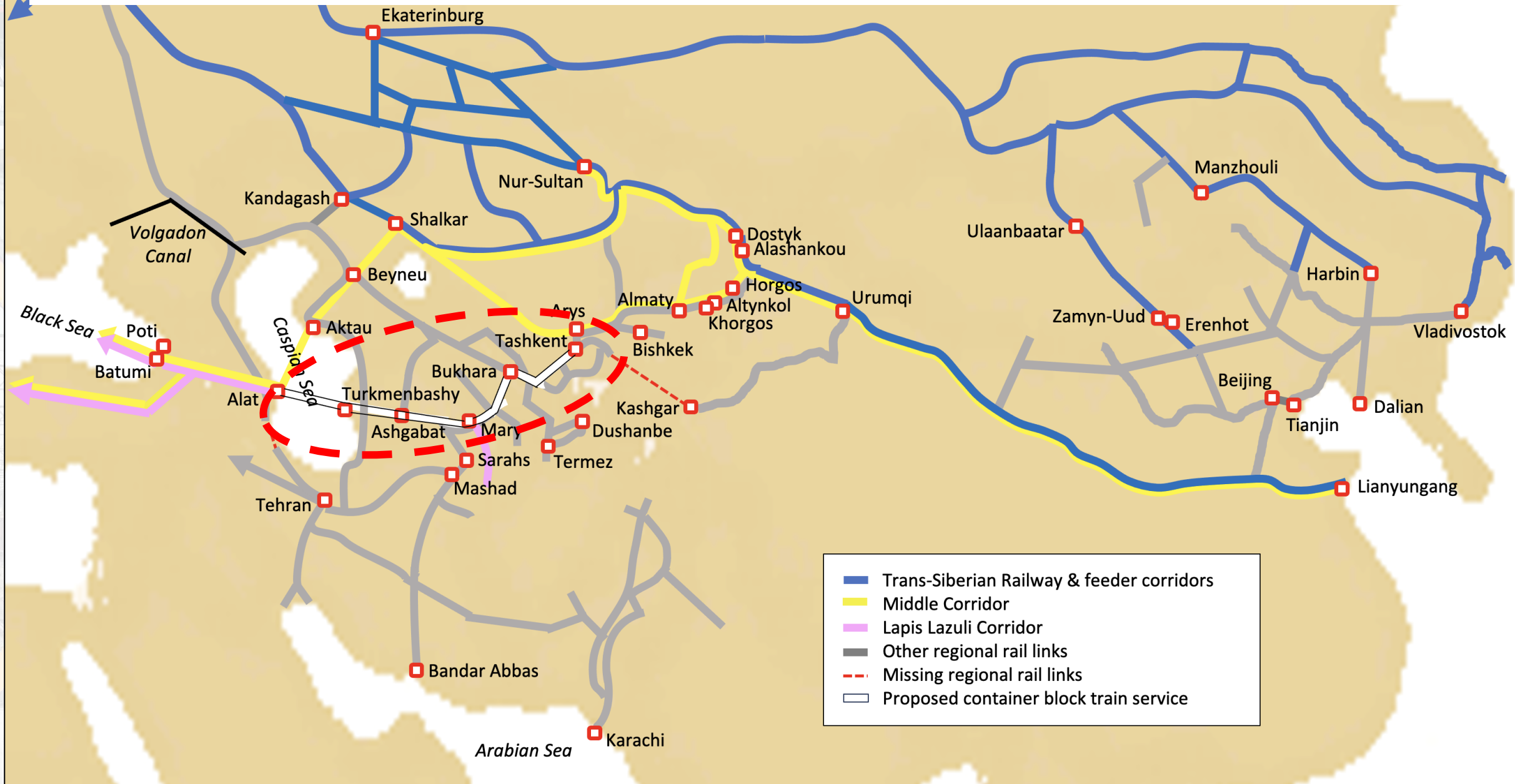
Status of approved prefeasibility and knowledge support 2/2

Technical Assistance activity	Present status
- Knowledge support on railway accounting standards	*Draft TOR prepared in Q1 2020. Work suspended due to pandemic.*
Approved prefeasibility study projects:	
- Traffic study on proposed China–Kyrgyz Republic–Uzbekistan (CKU) railway	*Consultants recruited in Q1 2020 but work suspended due to pandemic. Work resumed in Q2 2022, field studies in Q3, team augmented Q1 2023. Study completed in Q3 2023.*
- Tashkent–Turkmenbashy container block train services	*Consultants undertook country visits in November and December 2023. Study completed in Q3 2024*
- Uzbekistan Northwestern International Freight Corridor	*Consultants undertook country visit in November and December 2023. Study completed in Q3 2024*
- Prefeasibility Study of Railway–Port Connectivity, Pakistan	*Consultants undertook country visit in January 2025. Expect to submit draft study in Q3 2025. Expected completion in Q1 2026*
- Prefeasibility Study of Khushig Valley–Nomgon Railway, Mongolia	*Consultants undertook country visit in May 2025. Expect to submit draft study in Q3 2025. Expected completion in Q1 2026*

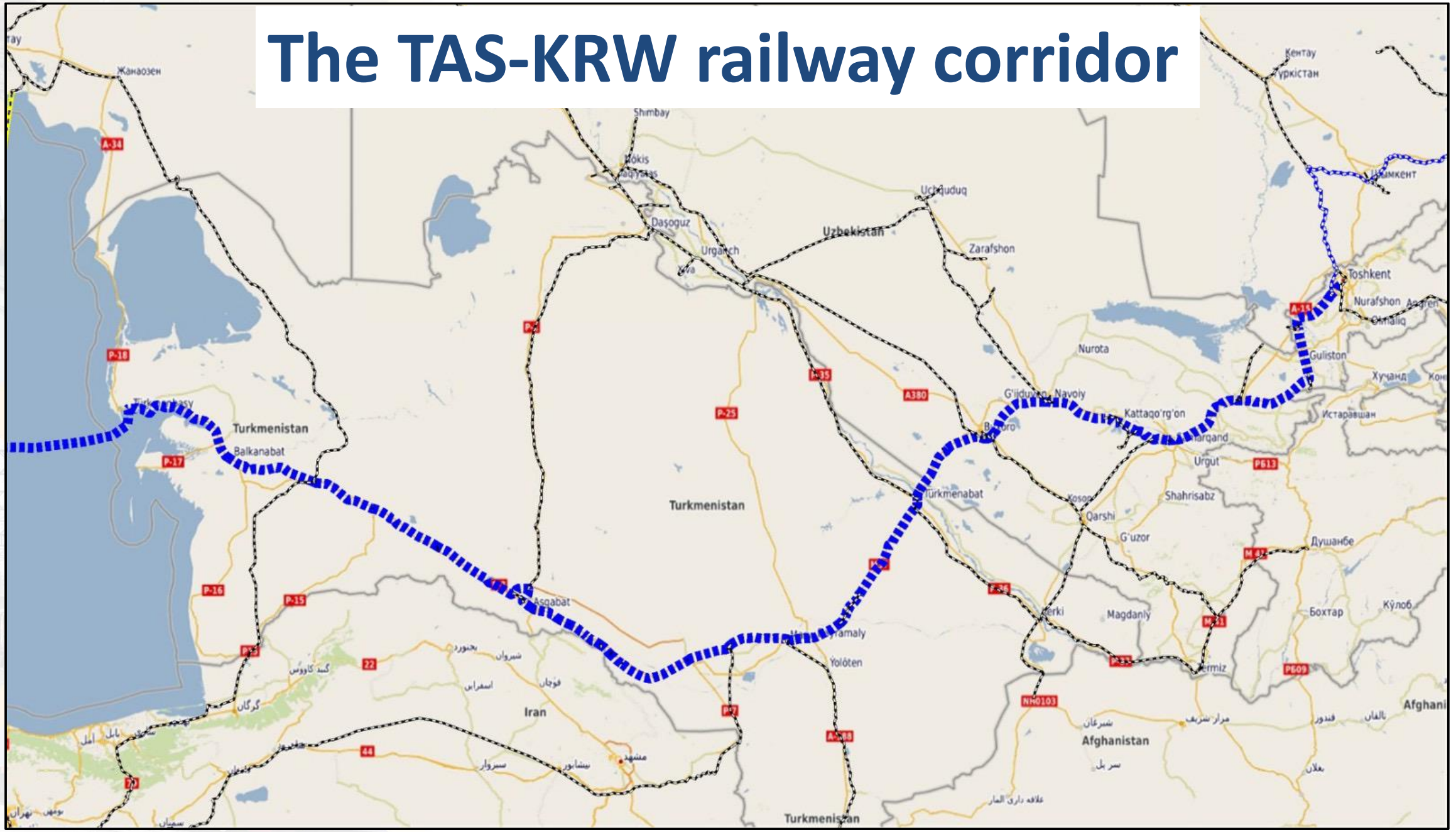
Status of implementation of TA work plan

Work stream	2019	2020	2021	2022	2023	2024	2025
1. **Railway transport model** • Model development • Model usage in TA situation analysis and PFS work							
2. **RSAs and CAREC-wide assessment** • RSAs • TA situation analysis report							
3. **Project preparation facility** • CKU traffic study • UZB Northwestern Internat. Freight Corridor • Tashkent–Turkmenbashy container block trains • Railway–Port Connectivity, Pakistan • Khushig Valley–Nomgon Railway, Mongolia							
4. **Knowledge and capacity development** • Paper on track capacity & timetabling software • TA situation analysis presented at ADB Transp. Forum • KGZ/TAJ commercialization, reform & investment • Study of CAREC rolling stock needs & financing facility *Subject to TA replenishment and country interest:* • Improving railway sales and marketing function • Support on railway accounting standards & system							

Tashkent–Turkmenbashy container block train services The route



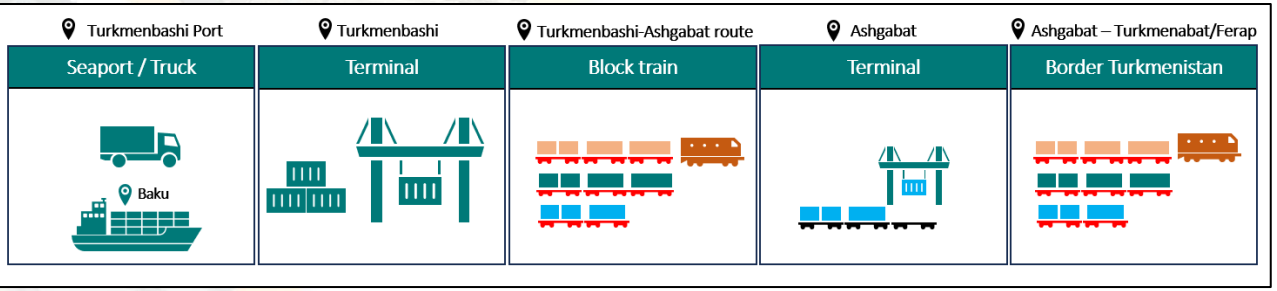
The TAS-KRW railway corridor

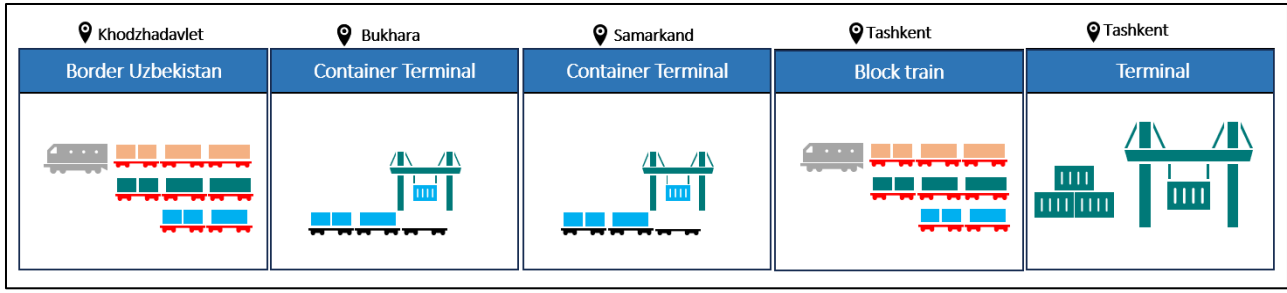


The Route potential

- Central Asian Railway was once a major long-distance corridor between Tashkent, Bukhara, Mary, Ashgabat and Turkmenbashy
- Since 1991, the lines in Turkmenistan and Uzbekistan were rehabilitated
- Turkmenistan and Uzbekistan want to expand trade and develop improved long-distance transport routes
- Present limitations for east–west container traffic due to limited capacity of Middle Corridor and problems using Trans Siberian Railway
- Many international examples of successful long-distance container block train services, including
  - Chongqing–Xinjiang–Duisburg (Yuxinou) service between PRC and Europe
  - Port of Hamburg Intermodal Network Europe
  - containerized railway freight services of Kazakh Railways
- Scheduled block trains are faster, more efficient and more reliable
- Container transport over long distances is profitable for railways

The proposed service





- **Multimodal service**
  - Rail: Tashkent–Bukhara–Ashgabat–Turkmenbashy
  - Shipping: Turkmenbashy–Alat
  - Rail or rail/shipping: Alat–Europe/Türkiye
- **Scheduled block trains**. Operated as continuous shuttles that retain their rolling stock, stopping only at large container terminals
- **Weekly service in each direction**. TRA and UTY to initially run one train set each, completing round trip within two weeks, with one weekly departure per direction

Service parameters

Transit time. Initially 4.5 days @ 1,150 km at av. speed of 30 kph
Depart Tashkent Friday 20h, arrive Turkmenbashy on Wednesday 10h
Depart Turkmenbashy Friday 20h local time, arrive Tashkent on Wednesday 10h
Maximum train length. About 700 m
Wagons. Dedicated wagon set unchanged during trip, then used for return trip. Each country to provide one dedicated wagon set e.g. 50 x 40-foot wagons or a lower number of 60-foot wagons
For operational flexibility, 10–15% of wagons stationed at each end of the trip
Locomotives. Follow operational rules of each country. In future, within each country block trains to be operated by a single locomotive rather than changing locomotive on route
Shunting. Except at Turkmenbashy, limited shunting operations needed at terminals with tracks less than full train-length.
Terminals. Efficient (direct) entry and exit from the mainline
Main line locomotive can directly move the train into the terminal and under the crane
Handling. Use reliable, safe equipment (gantry cranes, reach stackers)
Exchange advance information on containers to be moved—avoids waiting times at terminals
Border crossing. Minimize physical inspections at border, e.g. notify customs officials in advance, use x-ray scanners to inspect containers
Suspicious containers to be removed from block train using a mobile crane, allowing remainder of train to proceed without detention.

Next steps

Begin by jointly introducing services on a pilot basis for 6–12 months operations:

- provide dedicated train sets and improved handling facilities at Turkmenabat/Farap
- introduce the service to the freight market and build up traffic
- establish technical and operational standards and protocols for railway services and related port and shipping services to ensure efficiency and meet the requirements of customers
- agree commercial aspects to ensure services are attractive to customers
- develop marketing and pricing strategies to optimize utilization and revenue generation
- establish operational coordination arrangements both between TRA and UTY, and with other key stakeholders including Turkmenbashy port, border agencies, shipping companies, freight terminals and private shippers and freight forwarders.

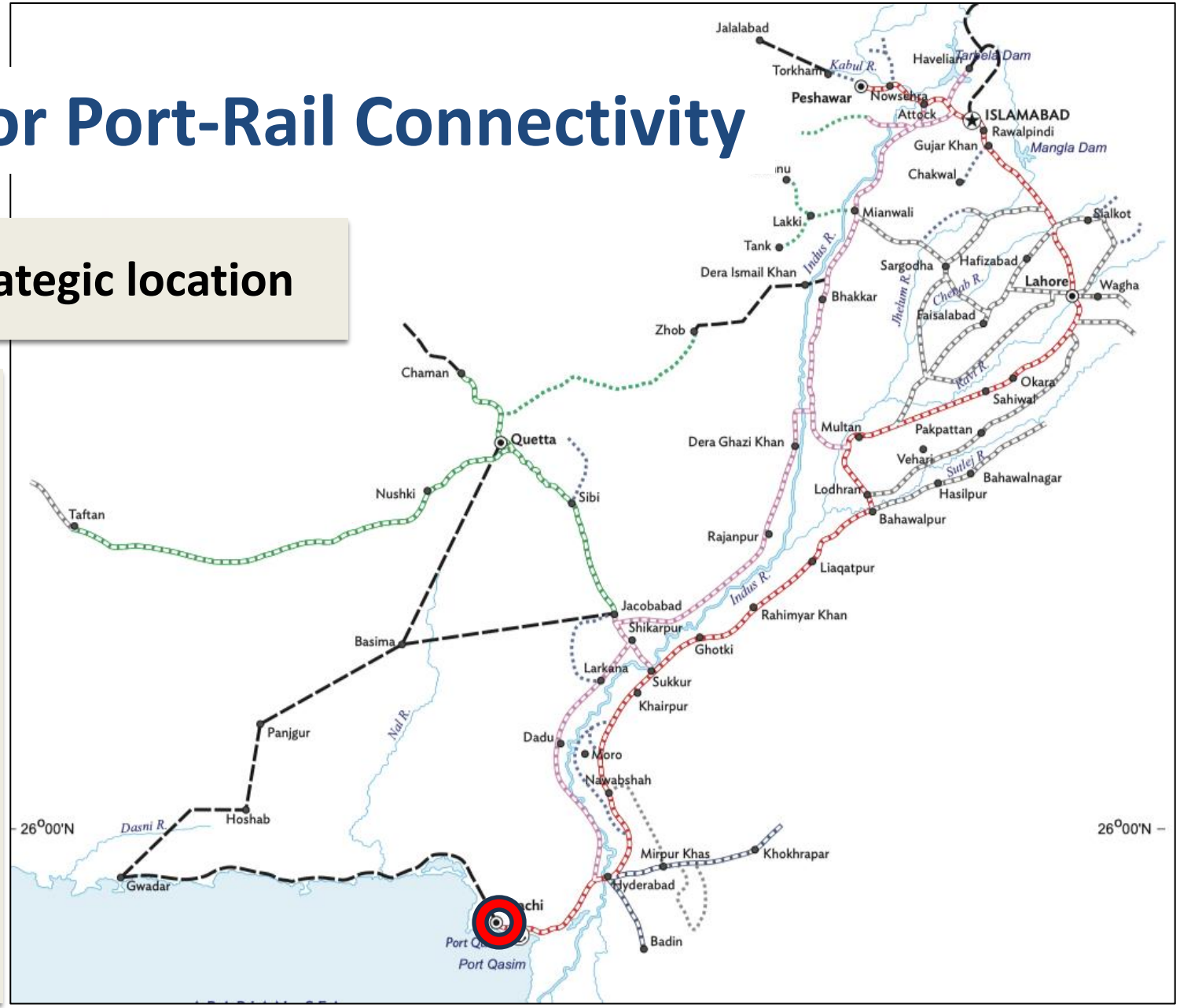
Upon successful conclusion of the pilot service, expand services in line with demand, both by operating additional trains and eventually by reducing service duration per direction from one week to half-a-week when Turkmenistan upgrades its mainline.

Pakistan Roadmap for Port-Rail Connectivity

Pakistan's geography and strategic location

The railway network should give Pakistan Railways (PR) a competitive alternative over road transport for much of the traffic between the ports and central and northern parts of the country.

Due to capacity limitations, PR only transports about 5% of this traffic and 95% is carried by road



Current Pakistan Railway Issues

1. **Railway plays a minor role**
   - Scarce capacity
   - Rolling stock shortage
2. **Slow operations due to inefficient shunting operations (~32km/h average)**
3. **Due to lack of service, market depends on road**
   - Trucks available and competitive in price with good service quality
4. **Unsuccessful PPP establishment attempts in the past**
5. **The most successful rail connection operates between Port Qasim QICT terminal operated by DP World and the Prem Naghar terminal south of Lahore also operated by DP World**
6. **Maximum 10 freight train pairs per day**

Concept and general assumptions

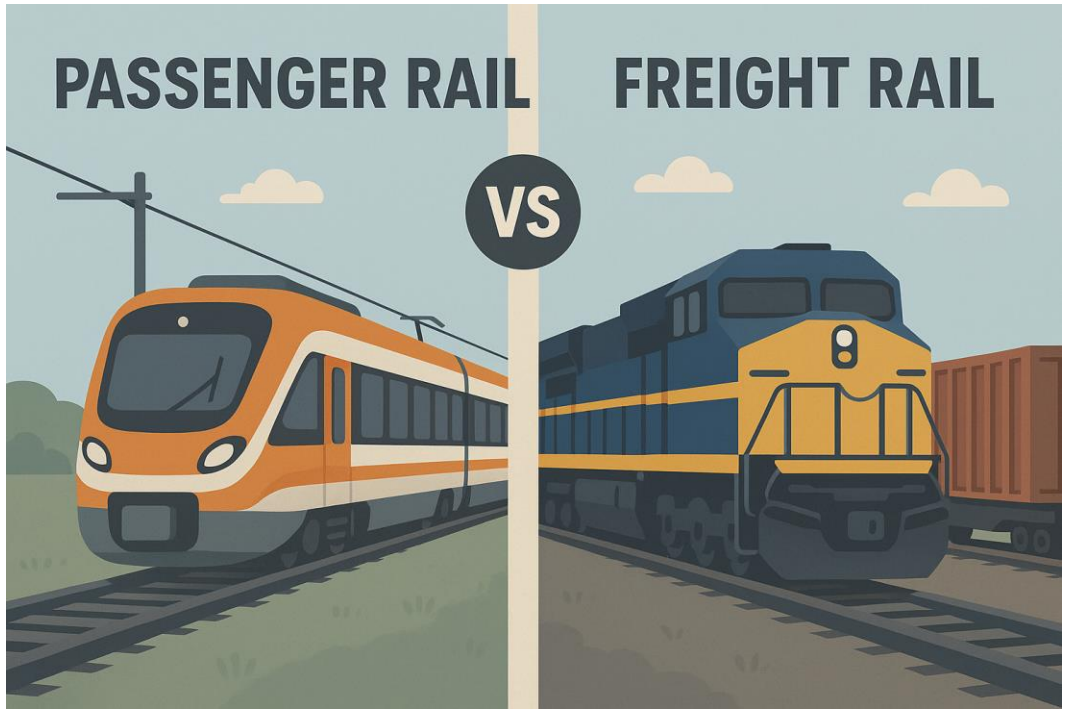
5 Change in Pakistan Raileays core business and investments - medium term

- Necessary infrastructure improvements for modern rail transport
  - Removal of speed restrictions
  - 23 t axle load on ML2
- Identifying „quick wins“ for improving capacity and operational quality
- Cutting transport times for freight
  - Faster delivery and return
  - Increased competitiveness with trucks
  - Reduced staff deployment
  - Increase rolling stock efficiency
  - Low costs and increased profits
  - Increased demand
  - Increased number of trains operated

Concept and general assumptions

6 Allocation of railway capacity between passenger and freight services

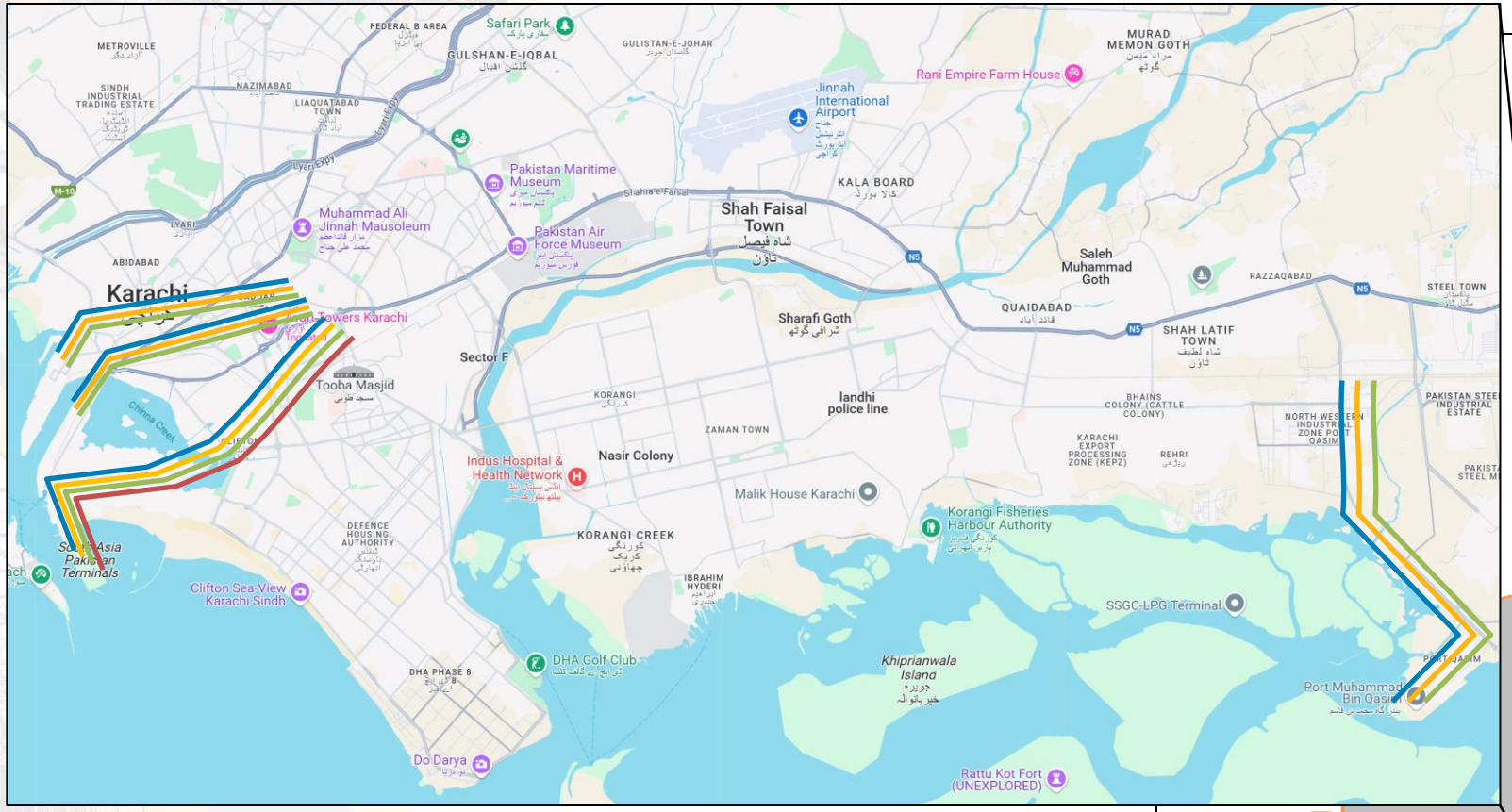
- Risk that, due to political priorities, the additional capacity may be allocated to passenger services not freight
- These priorities lead to losses as most passenger services are loss making
- Without enough earnings, PR's assets were depleted and traffic carrying capacity, and service quality, reliability and safety steadily declined
- It is essential to discontinue such priorities and ensure that most additional capacity is allocated to freight services
- Such a change seems to be required by the SOE Act, which reportedly directs PR to operate strictly along commercial lines in future

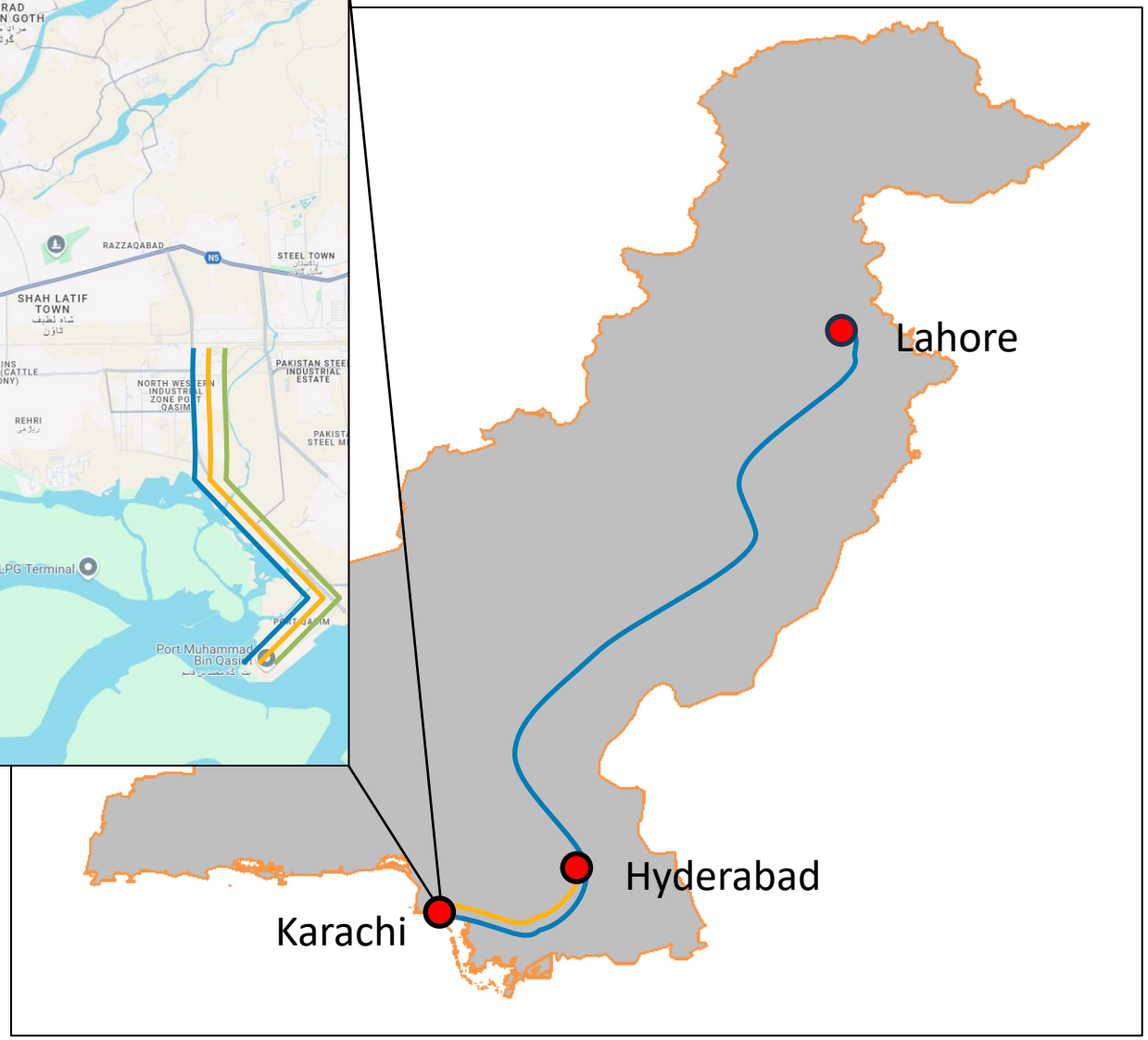


Recommendation Scenarios

Scenario 1	Scenario 2a	Scenario 2b	Scenario 3
Small, quick interventions to realize potential traffic capacity of existing infrastructure	Development/upgrading of priority port-rail connections	Development/upgrading of priority port-rail connections and alleviating the most critical ML1 capacity bottlenecks with better rolling stock efficiency	Development/upgrading of priority port-rail connections and alleviating all ML1 capacity bottlenecks with better rolling stock efficiency
CAPEX Rolling stock: ~€135 million	**CAPEX** Rolling stock: ~€590 million	**CAPEX** Rolling stock: ~€765 million	**CAPEX** Rolling stock: ~€3 billion
KPI Increase in Train-km p.a.: ~1.7 million Increase in Ton-km p.a.: - Increase in TEU p.a.: ~84,000	**KPI** Increase in Train-km p.a.: ~7.5 million Increase in Ton-km p.a.: ~1.4 billion Increase in TEU p.a.: ~294,000	**KPI** Increase in Train-km p.a.: ~15.6 million Increase in Ton-km p.a.: ~5.2 billion Increase in TEU p.a.: ~504,000	**KPI** Increase in Train-km p.a.: ~79.3 million Increase in Ton-km p.a.: ~18.5 billion Increase in TEU p.a.: ~2.73 million

Recommendation Scenarios





Scenario 1

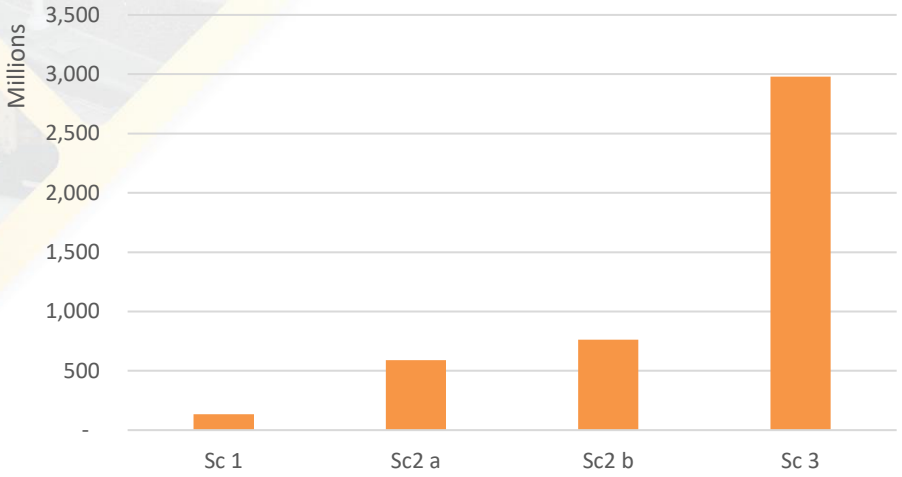
Scenario 2a

Scenario 2b

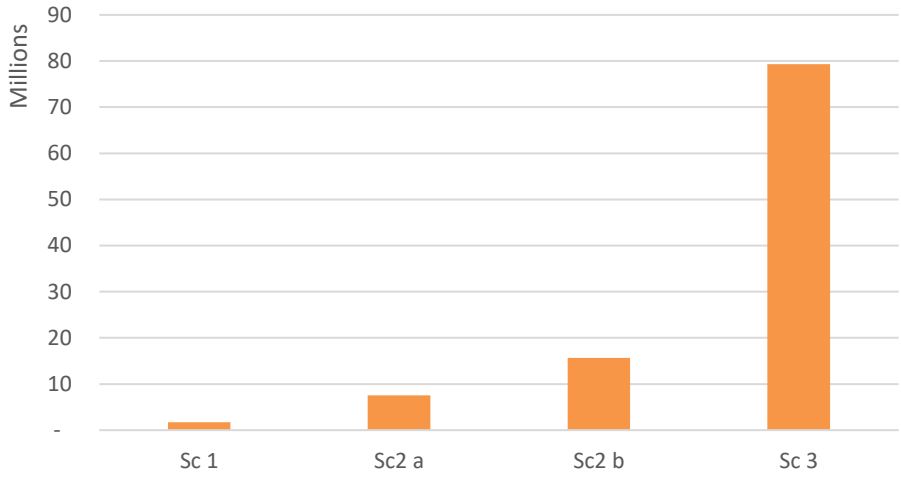
Scenario 3

Recommendation Scenarios

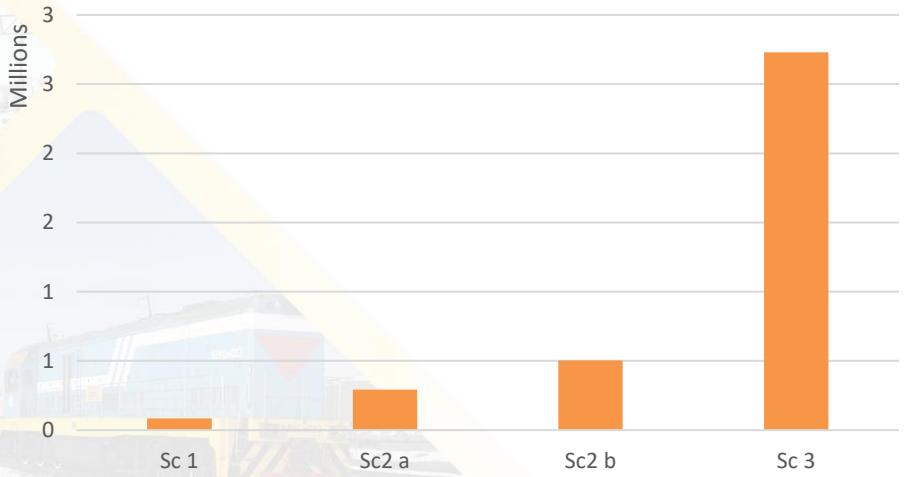
Rolling stock investments (€)



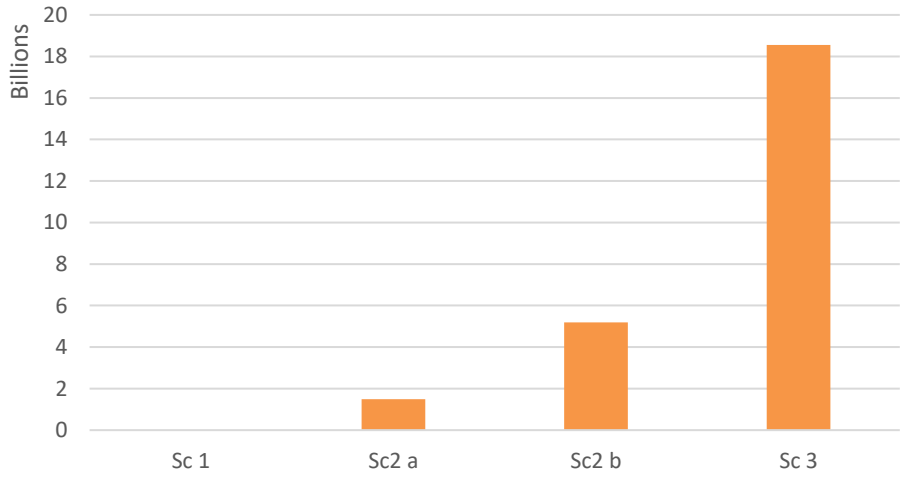
Potential increase in Train-km p.a.



Potential increase in TEUs p.a.



Potential increase in ton-km (Bulk) p.a.



Next steps

1

Technical assistance for the implementation of:

- Timetable planning software
- Traffic management systems
- Process management and quality management methods

2

Technical assistance for improving safety standards

- Minimize incidents of derailing
- Introducing train protection systems
- Improve safety culture within staff and officials

3

Assessment of branch lines including infrastructure conditions, transport demand, investment need, and traffic virtue strengthen secondary rail network

4

Optimization of rolling stock usage and asset management

5

Operational and cost analysis to improve the utilization of rolling stock (locomotives and wagons) with circulation planning, procurement strategy based on LCC, maintenance routine, etc.

Concluding observations

- Overall deliverables of original TA accomplished or on track
- Ongoing approved prefeasibility and knowledge support due to be completed within 2025
- At the 9th RWG, options for new TA support activities in 2025 and 2026
  - Knowledge support e.g., accounting standards, railway sales & marketing
  - Prefeasibility studies, particularly in countries that have received less support from the Technical Assistance
  - Dialogue and Proposed recommendations with Agencies and Govt.

Thank you!

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