

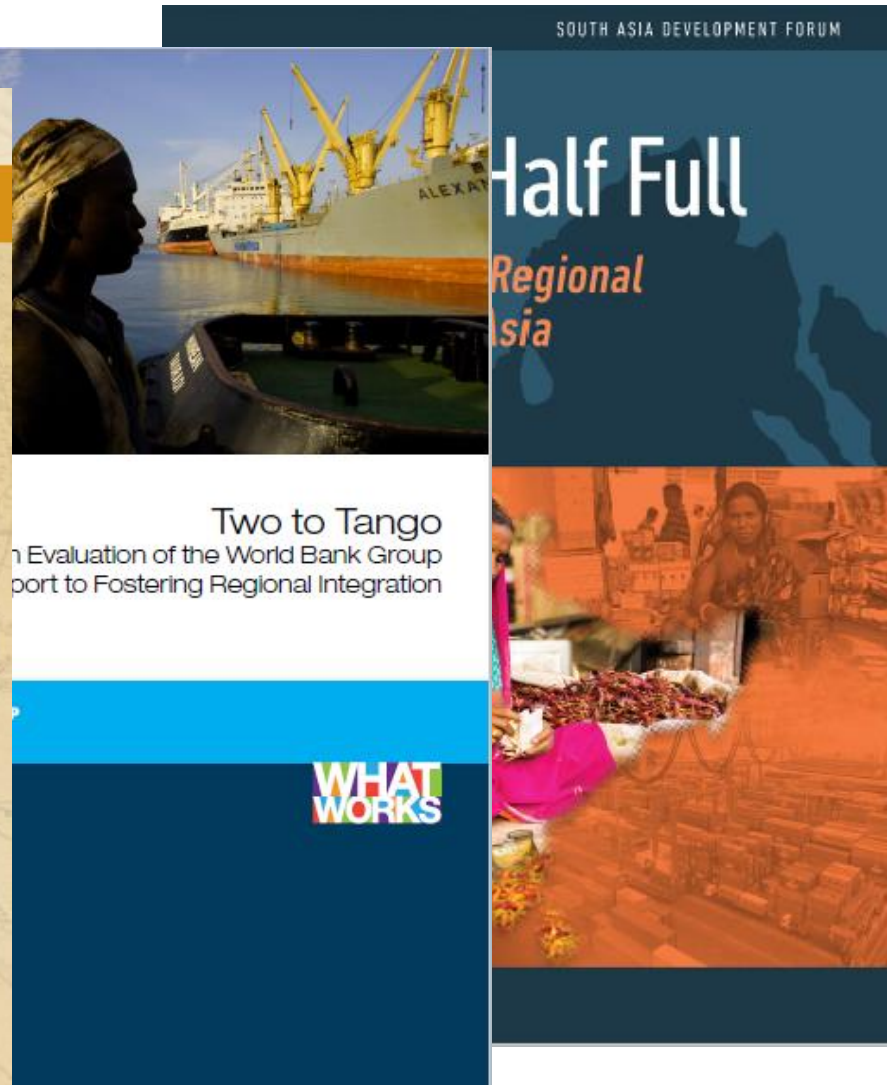
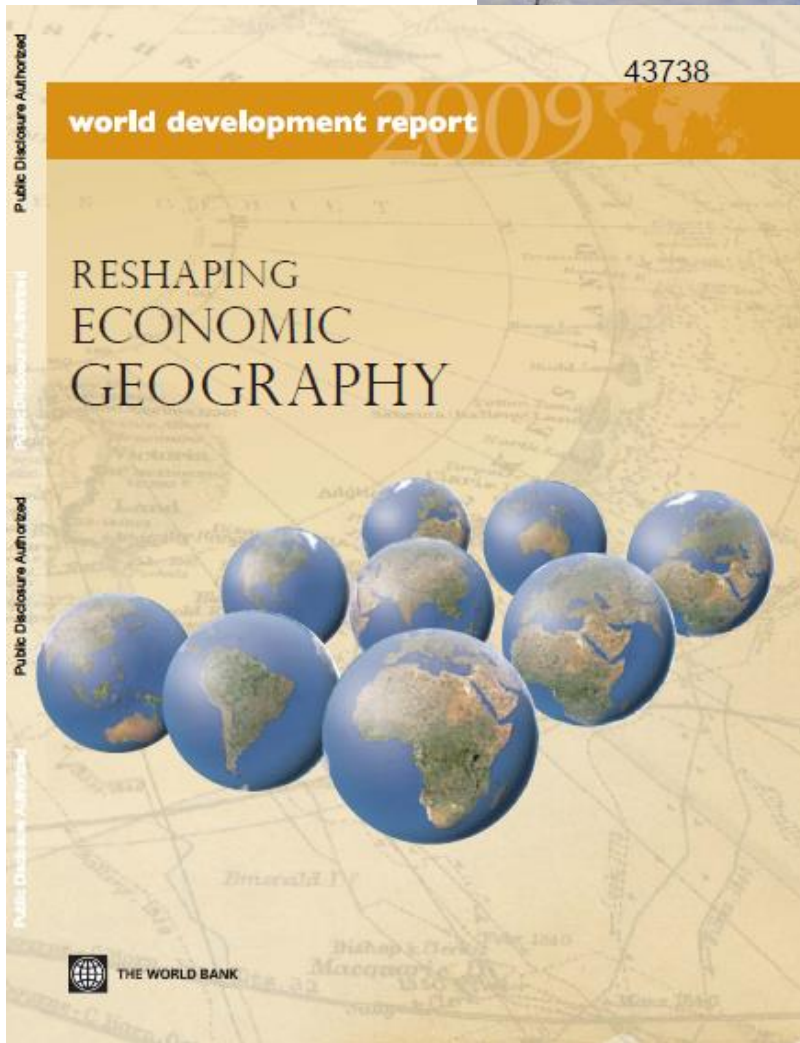


REGIONAL INTEGRATION: ROLE OF RAIL LOGISTICS

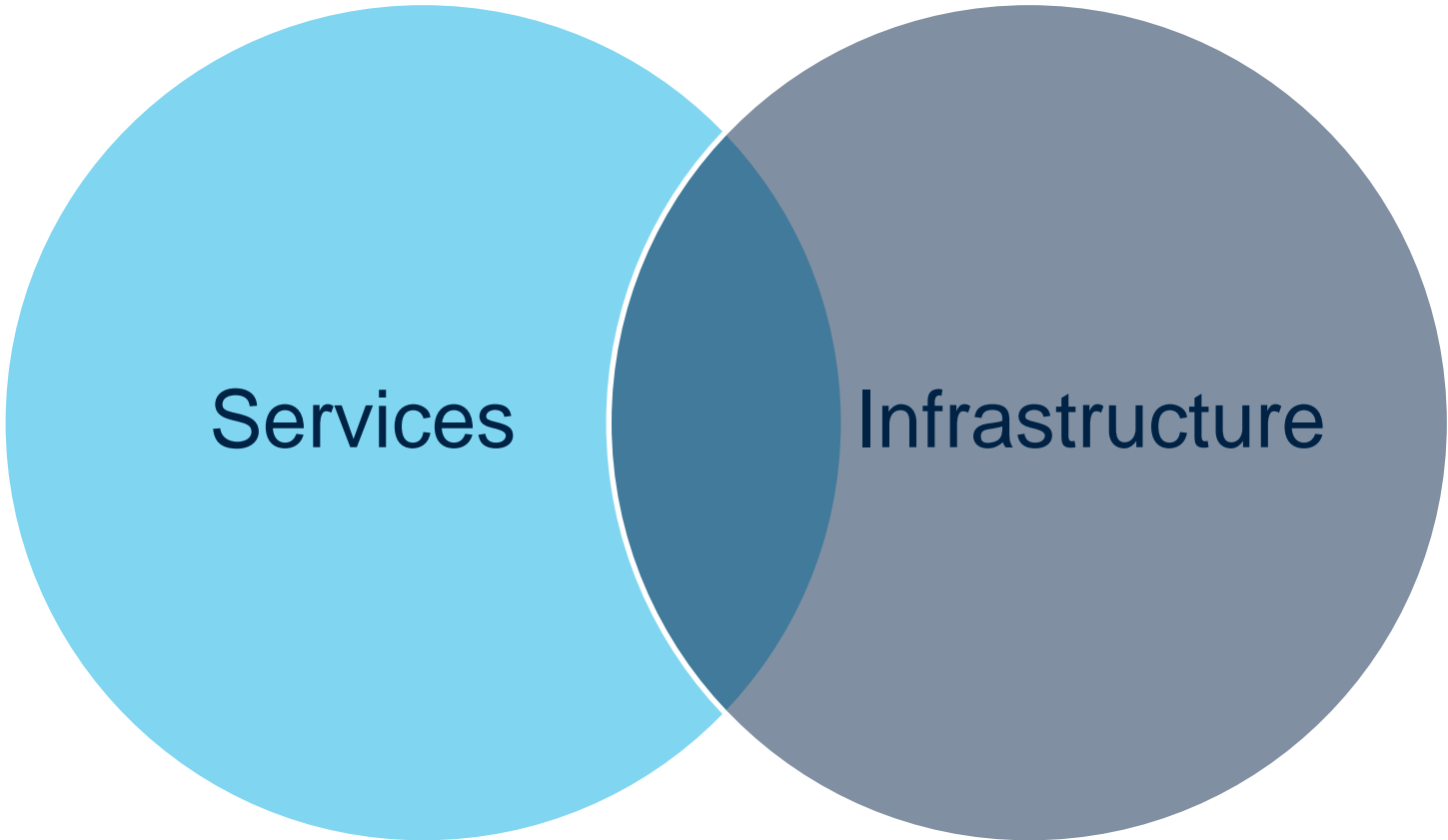
Transport Global Practice

Martha Lawrence
Lead, Railway Solutions
September 4, 2019

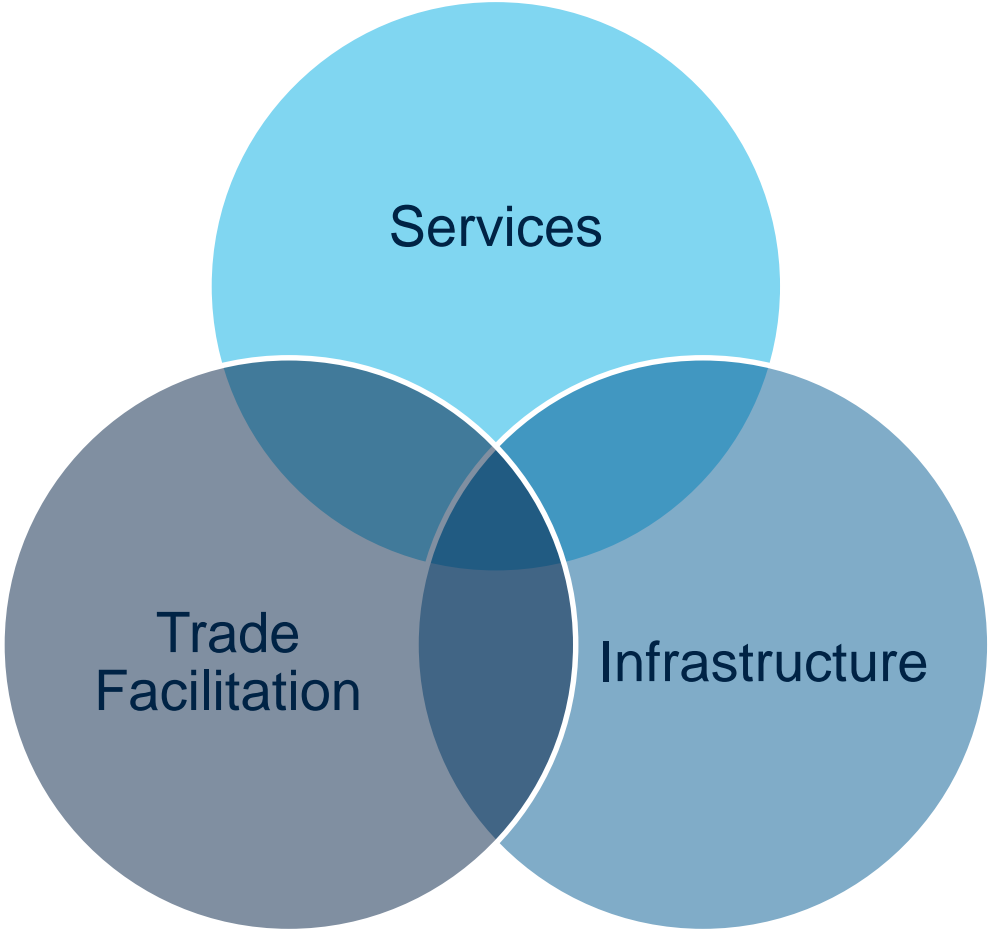
Regional Integration



Regional Logistics



Regional Logistics



Rail Corridors - Central Asia Regional Economic Cooperation



Case study: Macro-logistics in Mongolia

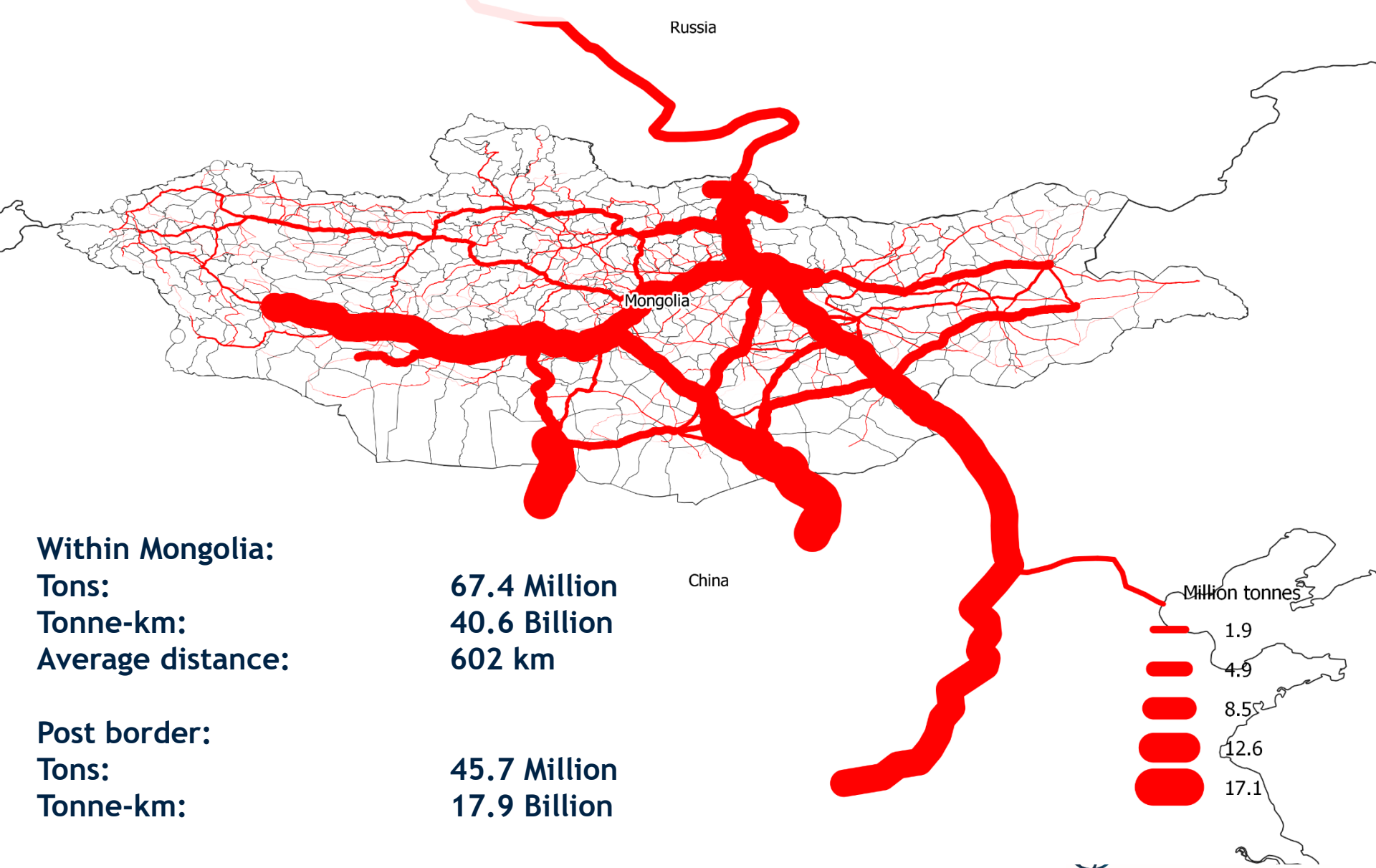


Spatially Challenged

- GDP
 - Europe = \$19.70 trillion
 - Mongolia = \$0.01 trillion
- Logistics costs as % of GDP 30%
 - Uzbekistan = 17%
 - USA = 8%
 - China = 16%

*Addressing services, trade facilitation and infrastructure issues in countries in East Asia
Railway initiative has regional and unique country challenges*

Integrated infrastructure – national and regional dimensions



Within Mongolia:

Tons: 67.4 Million
Tonne-km: 40.6 Billion
Average distance: 602 km

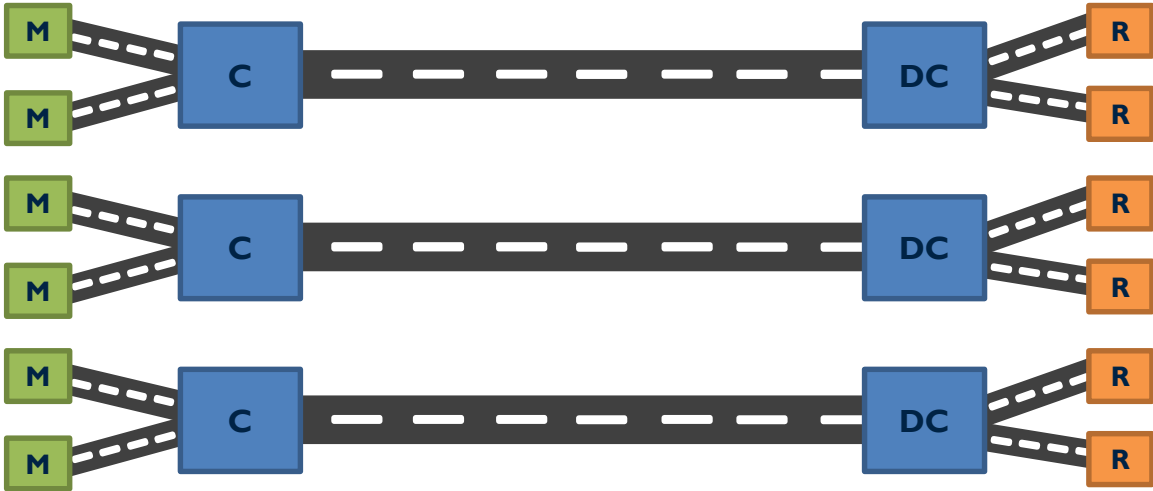
Post border:

Tons: 45.7 Million
Tonne-km: 17.9 Billion

Million tonnes

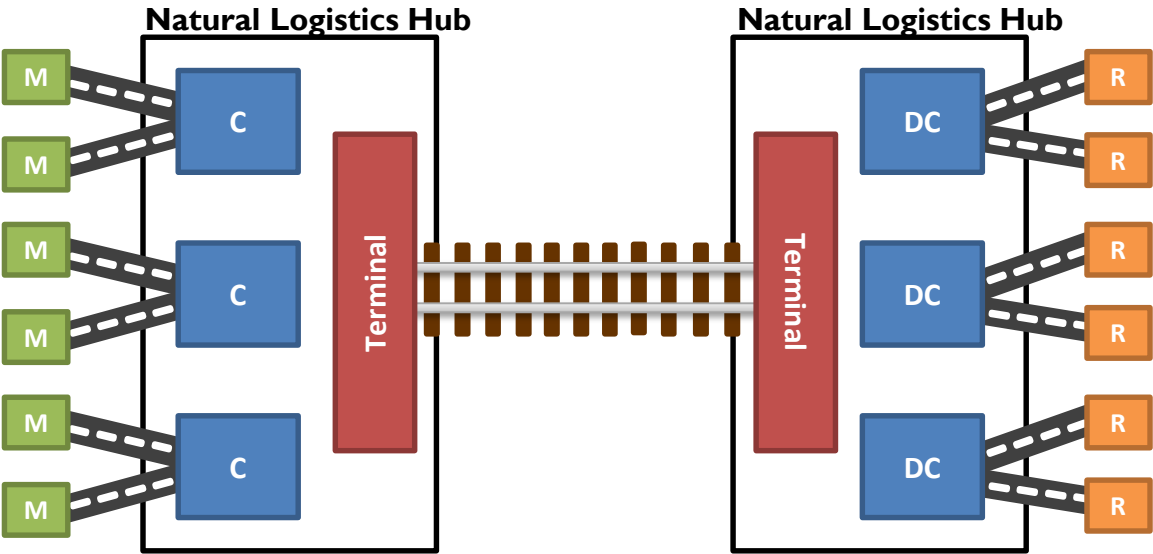
- 1.9
- 4.9
- 8.5
- 12.6
- 17.1

Typical FMCG long distance supply chains

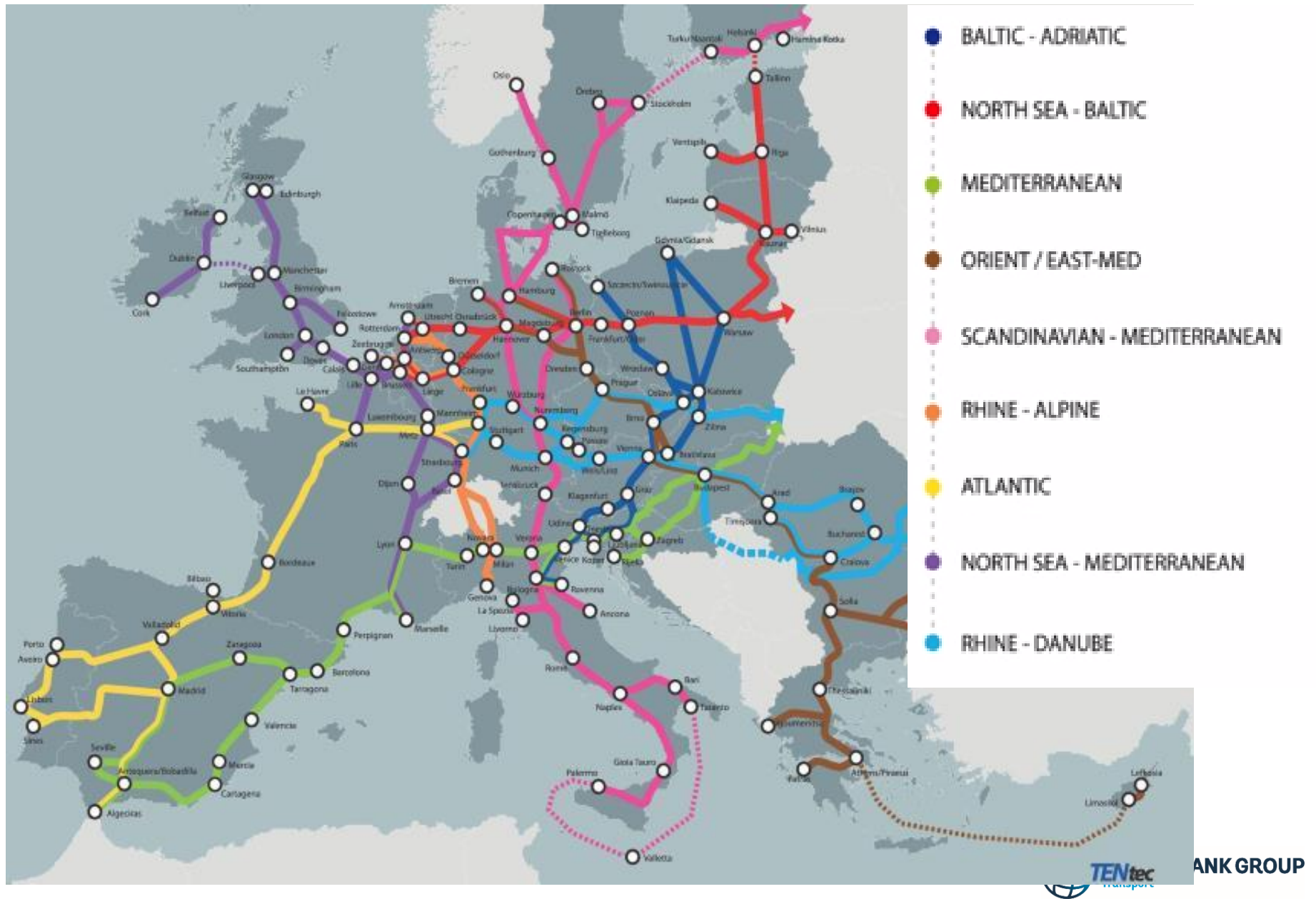


M = Manufacturing
C = Consolidation
DC = Distribution Centre
R = Retailer

Rail and road symbiotic design to lower logistics costs and develop efficient infrastructure



Multimodal Corridor in EU - TEN-T Corridors



TEN-T Corridor Policy Shift

From

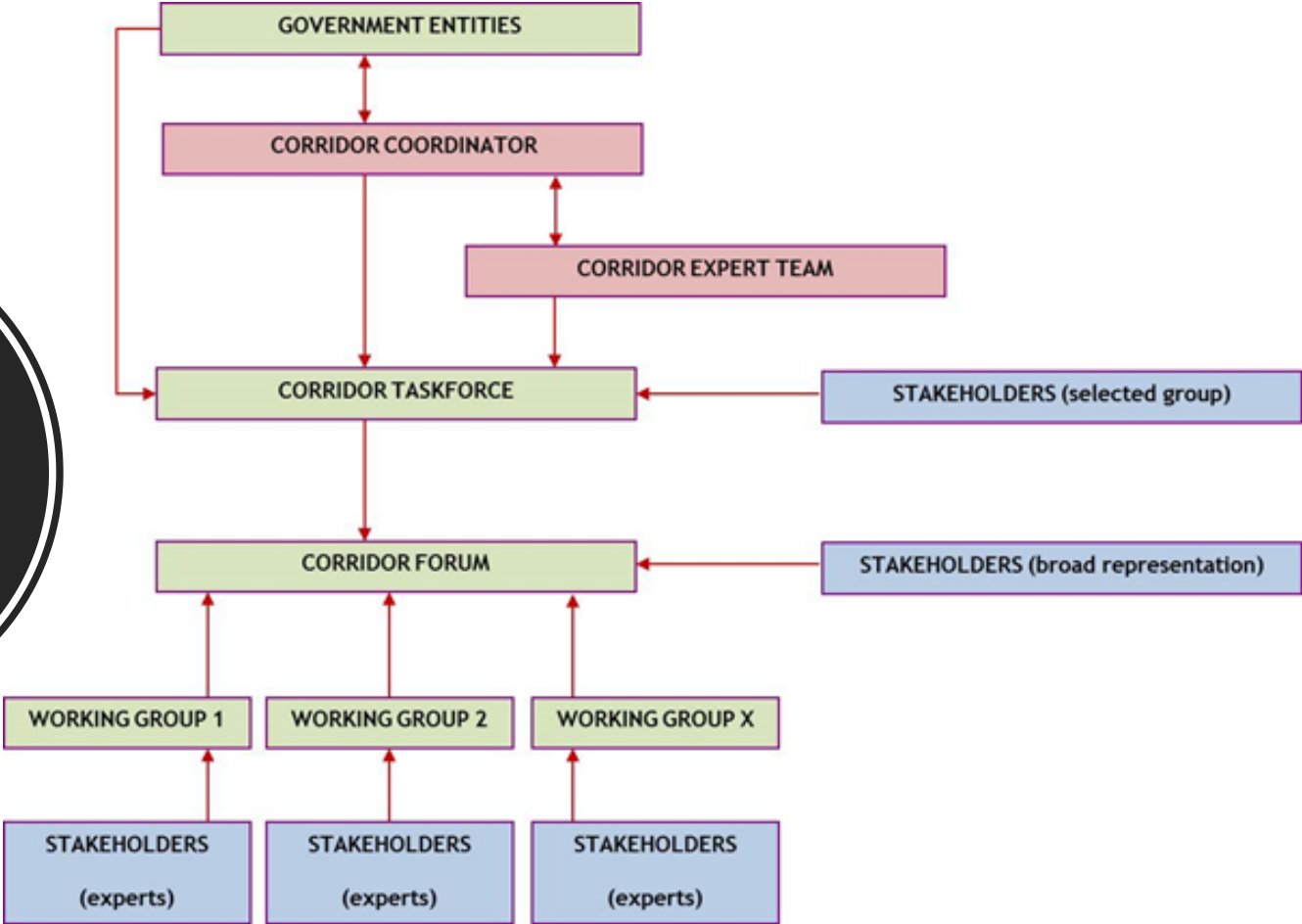
- Funding instrument
- Single layer network & priority projects
- “Projectized approach”
- Stand along program
- Modal network



To

- Planning instrument with linked budget
- Dual layer network (core + comprehensive)
- Top-down & bottom-up mixed approach
- Coordinated program
- Multimodal network

Corridor
Governance
structure
TENT-T



Regional Railway Coordination

Technical

- Axle loads & clearance envelopes
- Wagon & locomotives standards for interchanged rolling stock
- Train control & electric power supply technology for interchanged locomotives
- Safety regimes

Commercial

- Joint pricing & revenue divisions
- Joint service design & delivery
- Common waybills & electronic interchange of waybills/advance train consists
- Consignment tracking

Regional Railway Coordination Structures

Structure	Examples	Coordinating Body
Vertically integrated railways <ul style="list-style-type: none"> - Interchange wagons - Some run through trains 	North America: Canada, USA, Mexico	Association of American Railroads
Vertically integrated railways <ul style="list-style-type: none"> - Some allow wagon operators - Some run through trains 	Railways of Former Soviet Union	OSJD
Nationally owned infrastructure <ul style="list-style-type: none"> - Open access to licensed train operators 	European Union	European Commission
Nationally owned infrastructure concessioned to Joint Venture Company	Ethiopia & Djibouti	Joint Venture Company

Key Messages

Traffic drives the design

- Purpose is to satisfy freight demand, not build infrastructure

Multimodal system

- Rail backbone
- Good multimodal links

Coordinating structure

- Allow for resolution of technical & business issues

고생 끝에 낙이 온다

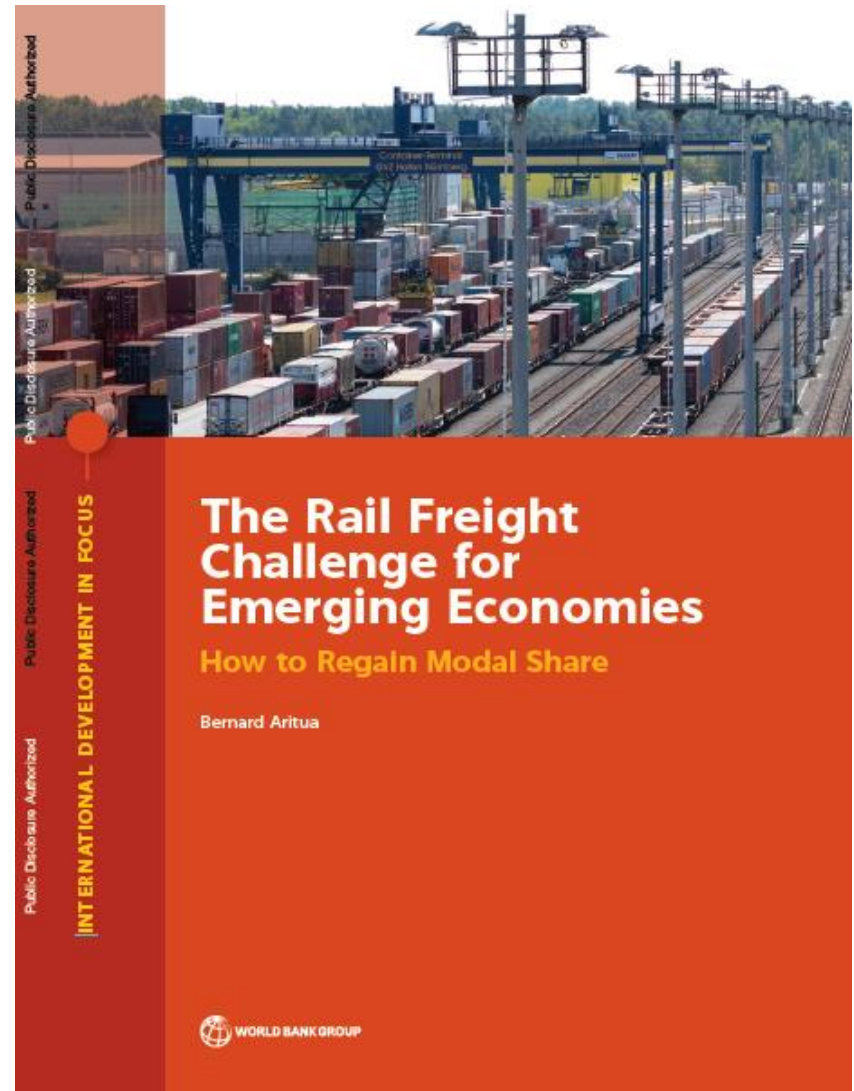
Railway Reform: Toolkit for Improving Rail Sector Performance



Second Edition:
September 2017



<http://documents.worldbank.org/curated/en/529921469672181559/Railway-reform-Toolkit-for-improving-rail-sector-performance>



<http://documents.worldbank.org/curated/en/590151546248249963/The-Rail-Freight-Challenge-for-Emerging-Economies-How-to-Regain-Modal-Share>