UN-OHRLLS, ESCAP: Capacity building workshop on strengthening connectivity along the China-Mongolia-Russian Federation Economic Corridor

Potential of the China-Mongolia-Russian Federation Economic Corridor

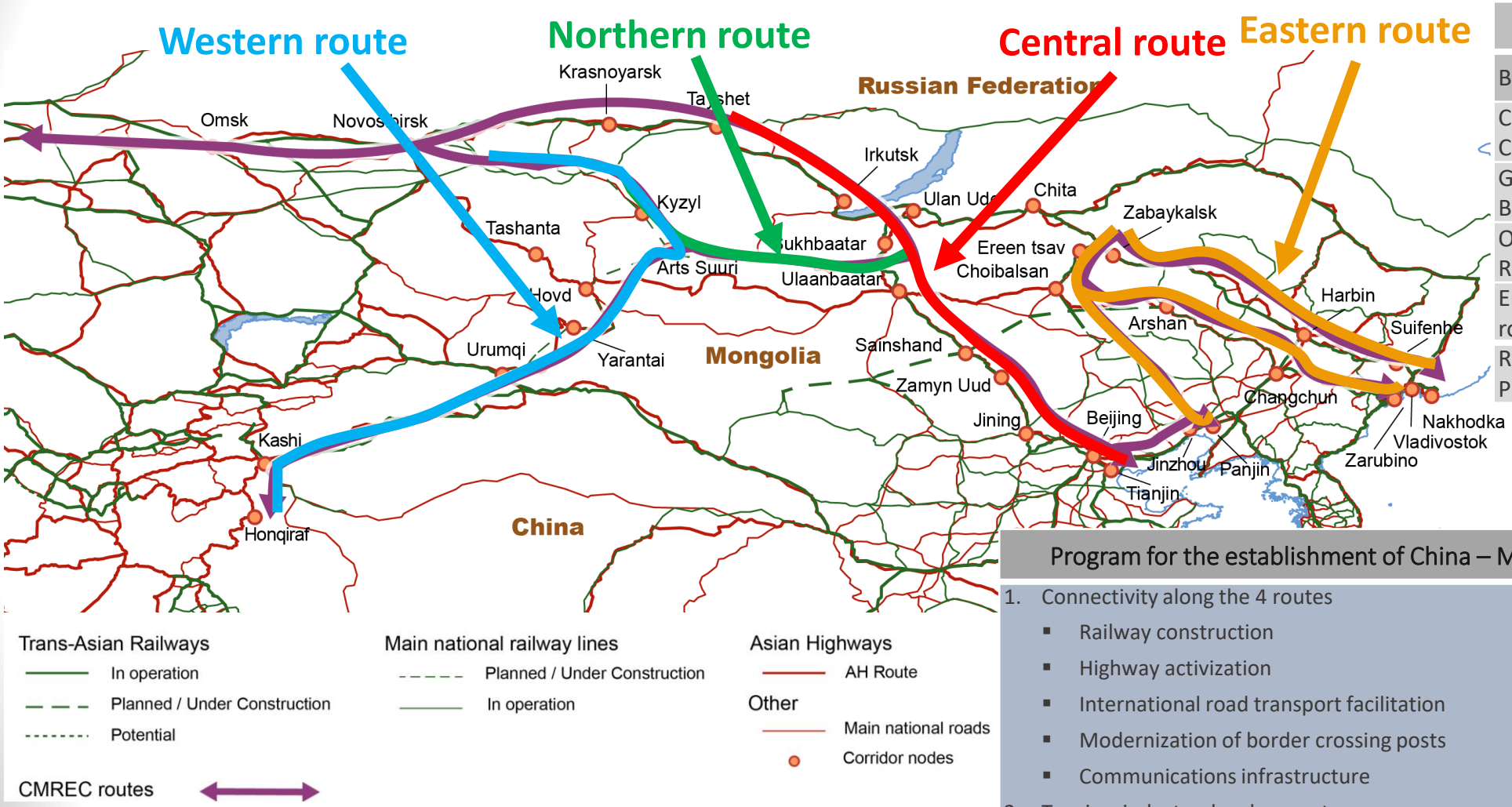
Bangkok, Thailand 21 October 2021

Presenter: Varvara Krechetova

Transport routes of the China – Mongolia – Russian Federation Economic Corridor

Based on the Program for the establishment of China – Mongolia – Russia Economic Corridor, Tashkent, 2016

Transport routes of the China – Mongolia – Russian Federation Economic Corridor



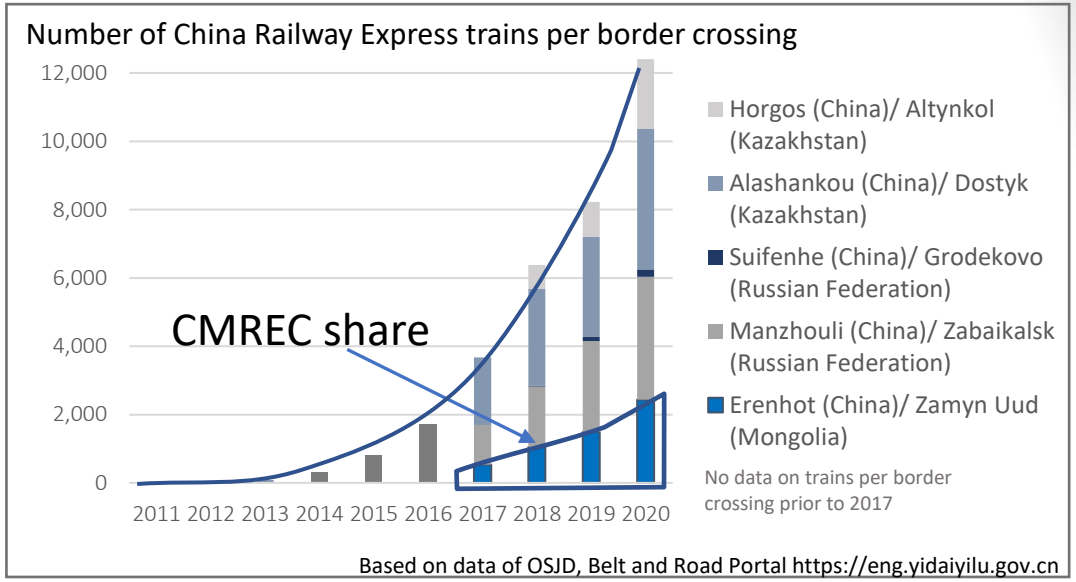
Also part of
Belt and Road Initiative
Central Asia Regional Economic Cooperation (CAREC) - corridor 4
Greater Tumen Initiative - Siberian Land Bridge, Tumen and Suifenhe Corridors
Organisation for Co-operation between Railways (OSJD) - Corridors 1, 11
Euro-Asian Transport Linkages (EATL) - routes 1, 6
Russian Federation - Primorye-1, Primorye-2 international transport corridor

Program for the establishment of China – Mongolia – Russia Economic Corridor

1. Connectivity along the 4 routes
   - Railway construction
   - Highway activization
   - International road transport facilitation
   - Modernization of border crossing posts
   - Communications infrastructure
2. Tourism industry development
3. Industrial development
4. Energy cooperation
5. Environment
6. Technologies and education
7. Agricultural cooperation
8. Public health

Traffic potential

Traffic potential: Eurasian container block trains



Directions	Route Options
1. China – Europe – China	1. Via China/Kazakhstan border
2. China – Russian Federation, Belarus – China	2. Via China/Mongolia border - CMREC
3. China – Central Asia – China	3. Via China/Russian Federation border

Number of China Railway Express trains per border crossing

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Erenhot (China)/ Zamyn Uud (Mongolia)	..	..	..	..	..	..	349	1,054	1,486	2,436
Manzhouli (China)/ Zabaikalsk (Russian Federation)	..	..	..	..	..	..	756	1,766	2,667	3,599
Suifenhe (China)/ Grodekovo (Russian Federation)	..	..	..	..	..	..	..	27	122	218
Alashankou (China)/ Dostyk (Kazakhstan)	..	..	..	..	..	..	1,294	2,842	2,927	4,112
Horgos (China)/ Altynkol (Kazakhstan)	..	..	..	..	..	..	..	691	1,023	2,041
Total	17	42	80	308	815	1,702	3,673	6,363	8,225	12,406

Based on data of OSJD, Belt and Road Portal https://eng.yidaiyilu.gov.cn

CMREC in Eurasian container railway transit

1. Share in trains number grows slower than total train number
2. Has lower share in Eurasian railway container traffic than alternatives
3. Has almost no China – Europe – China traffic: about 90% goes via China/Kazakhstan border

Traffic potential: Eurasian container block trains

Directions	Route Options
1. China – Europe – China	1. Via China/Kazakhstan border
2. China – Russian Federation, Belarus – China	2. Via China/Mongolia border - CMREC
3. China – Central Asia – China	3. Via China/Russian Federation border

Analysis of current demand

1. CMREC might have 1/3 of China – Europe – China railway container train traffic
2. Total volume of China – Europe (EU28) – China railway cargos 1.6 million ton (2019)
3. This might mean +23,000 TEU to current container volume via Mongolia (149,000 TEU)

Estimates of volume of freight traffic China – Europe – China that might be diverted from sea lines to Eurasian railways

Potential container rate (USD/FEU)	Share of diverted sea trade volume	Potential diverted sea volume, million ton	Potential diverted sea volume, million FEU	Railway container rate as share of volume-weighted average price of goods per FEU
5,500	36%	42.01	1.59	2.6%
10,000	22%	25.67	0.97	3.4%

Analysis of potential demand

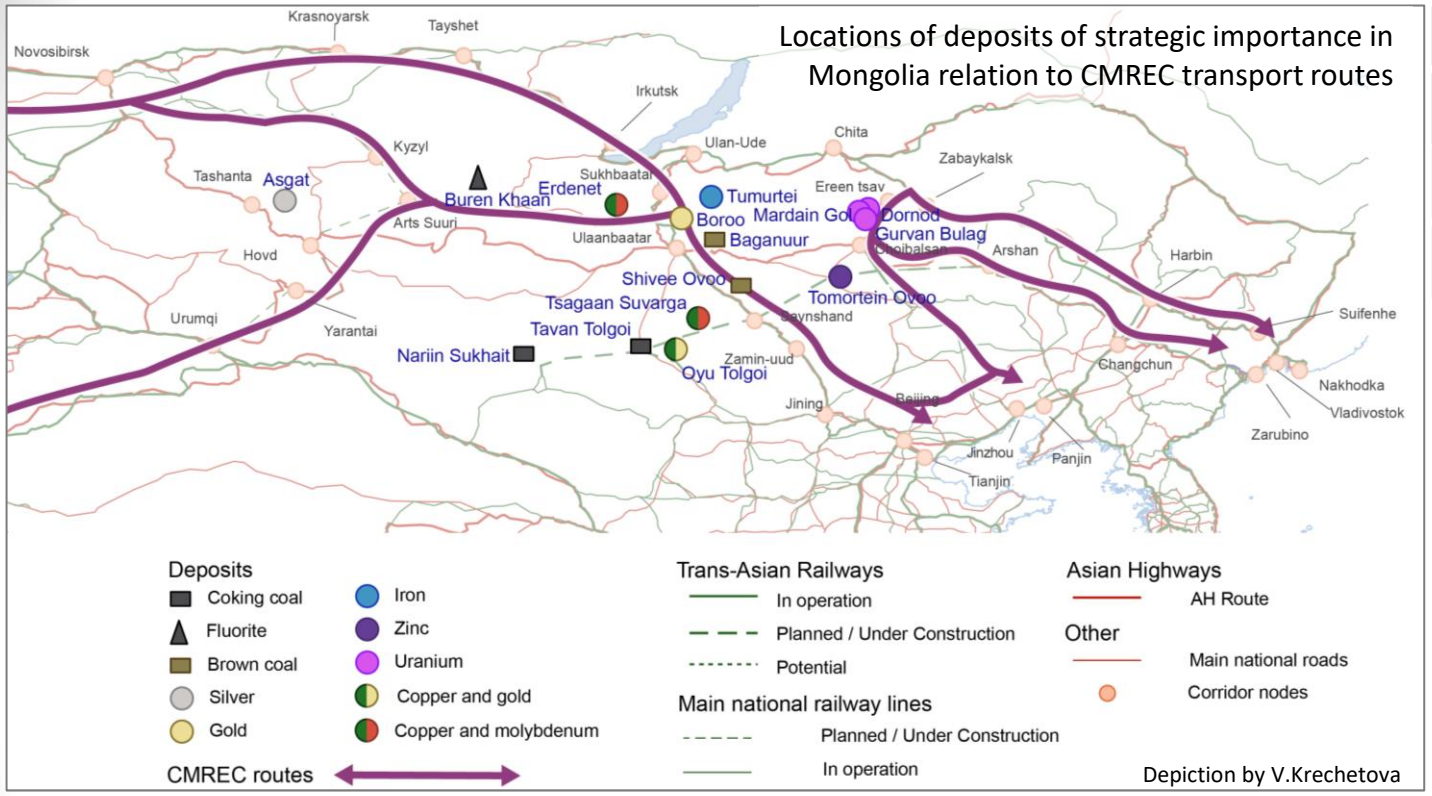
1. Eurasian railways carried 725,000 TEU of China – Europe – China cargos in 2019 (base year)
2. Total of potentially possible diverted cargos + existing railway container transit gives potential cargo base of 1.3-1.9 million FEU (or about 2.6-3.8 million TEU)
3. Potential cargo base for CMREC 450-650 thousand FEU (900-1,300 thousand TEU).

Capacity constraints

Accommodation of such number of containers might require throughout capacity of 30-43 trains/day for container trains *only*

Current capacity of UBTZ (Ulaanbaatar railway) 8-14 train pairs/day – insufficient

Traffic potential: Minerals



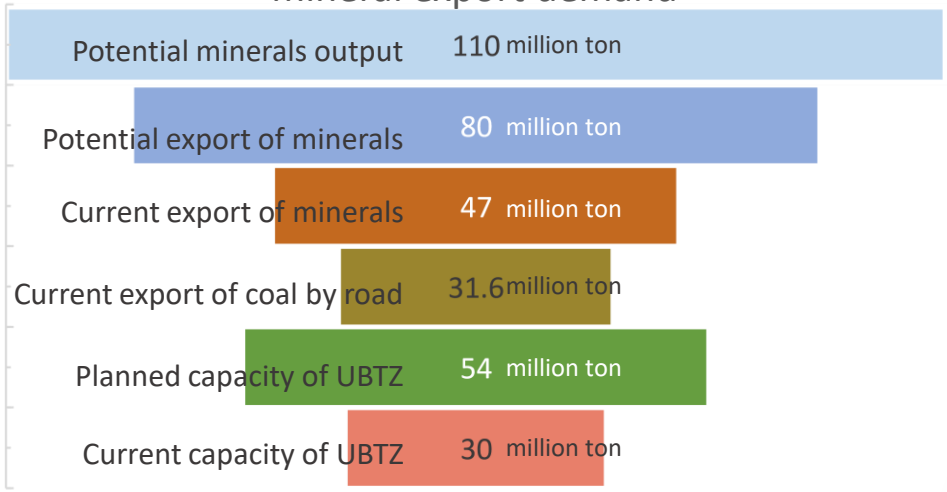
Capacity constraints

In 2019, 31.6 million ton of coal were exported by road and 10.2 million ton of various cargos by railway.

Current capacity of the UBTZ (Ulaanbaatar railway) is about 30 million ton/year, less than needed

UBTZ Modernization Plan promises carrying capacity 54 million ton/year by 2030, which is less than potential export volume by that time

Capacity of Central route of CMREC (UBTZ) and mineral export demand

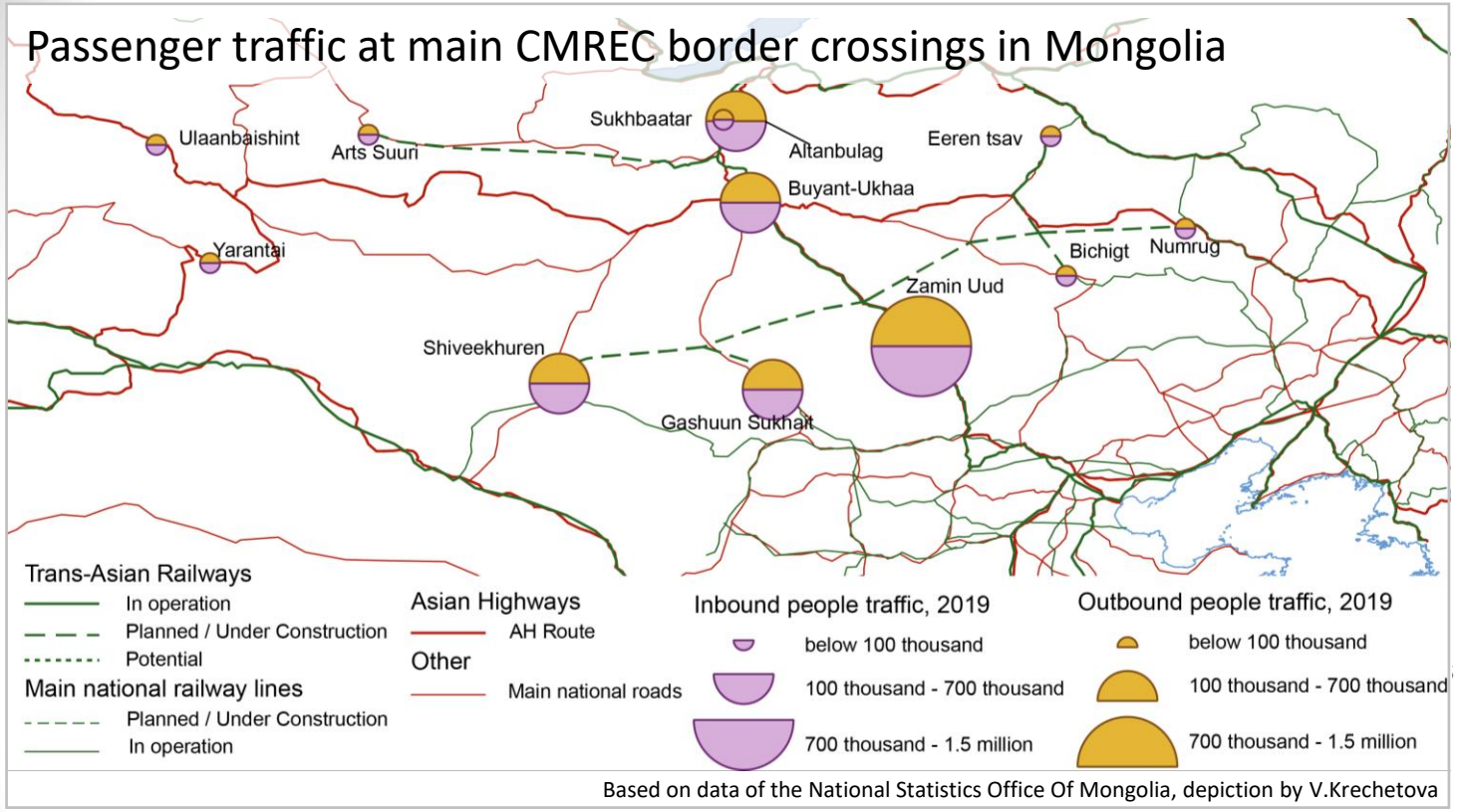


Analysis of potential demand

1. Total of mining production plans, expansion plans and new development plans gives ≈110 million ton/year mining output reached between 2025-2035
2. This translates into reaching 75-80 million ton/year of export of minerals and products between 2025-2035
3. To compare, maximum of export bulk in recent years ≈47 million ton/year

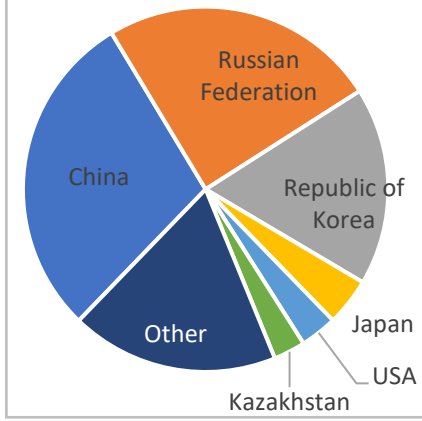
Traffic potential: Tourism

Passenger traffic at main CMREC border crossings in Mongolia

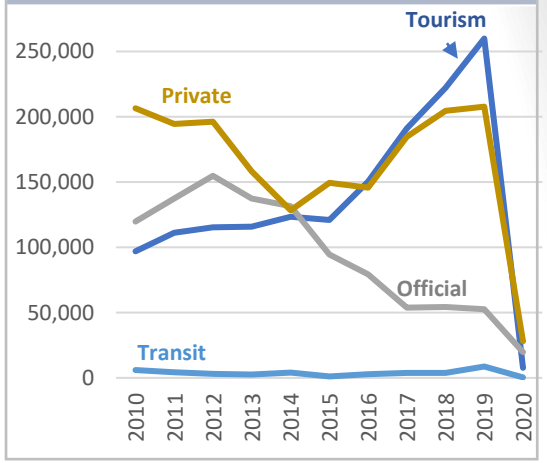


Based on data of the National Statistics Office Of Mongolia, depiction by V.Krechetova

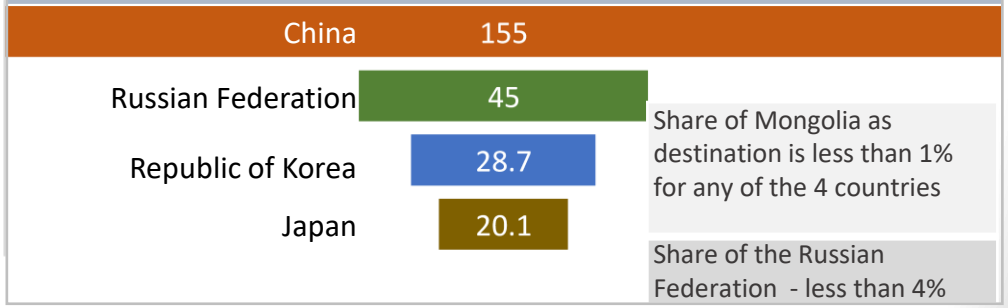
Structure of the flow of inbound short term foreign visitors to Mongolia, 2019



Inbound short term trips by foreigners to Mongolia by purpose of visits, trips, 2019



Outbound tourist trips, million, 2019



Share of Mongolia as destination is less than 1% for any of the 4 countries

Share of the Russian Federation - less than 4%

Market opportunities for CMREC international tourism

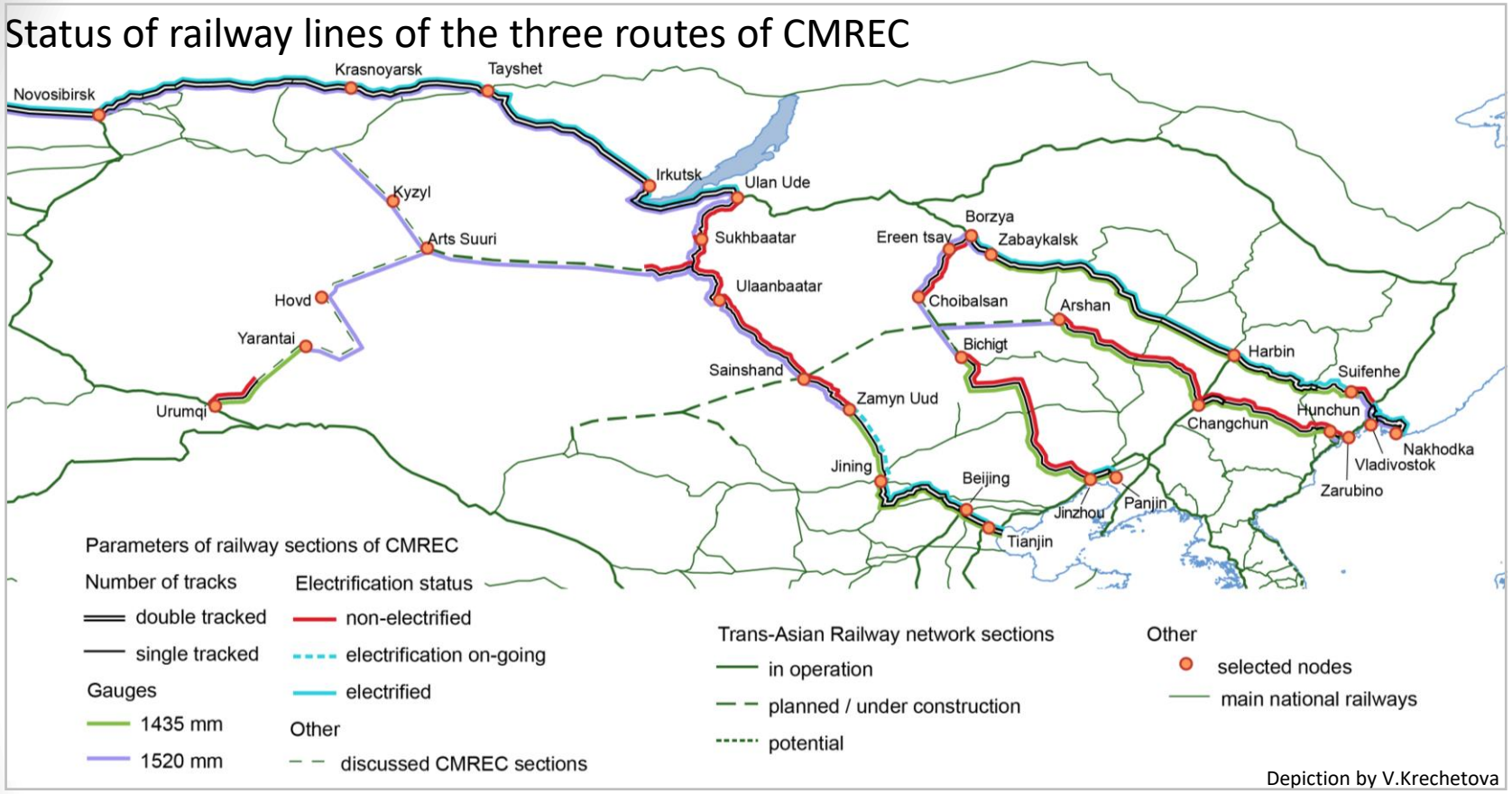
- CMREC and its Northeast Asia neighbours are among global leaders in tourist departures
- Share of CMREC is small in this number
- Number of tourism arrivals in Mongolia tripled between 2010 and 2019
- Number of small private vehicles in all CMREC countries grew in the last decade (2010-2019/2020): China 4.5 times (to 2.05 billion in 2019), doubled in Mongolia, +44% in the Russian Federation

Potential tourism market segments

- Multi-destination tourism
- Self-driving tourism

Corridor infrastructure

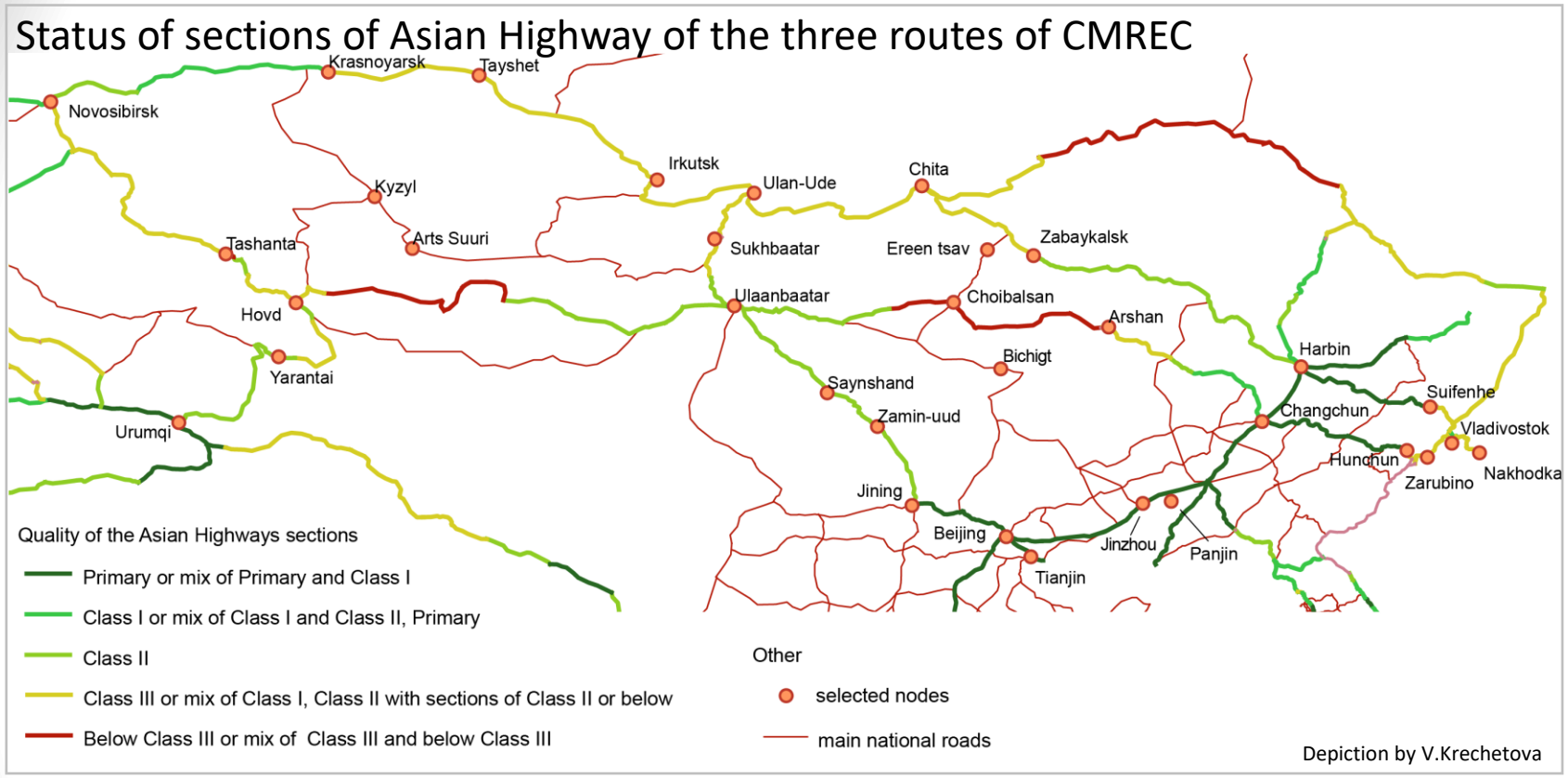
CMREC hard infrastructure: railways



Actions to take to create needed railway capacity
1. Upgrade rolling stock and locomotives at UBTZ (Mongolia)
2. Commissioning the new railway link Zuunbayan – Tavan Tolgoi – Gashuun Sukhait (Mongolia)/ Ganqimaodu (China) border crossing as branch of Central route
3. Central route upgrade (Mongolia): Laying second track and electrification of UBTZ
4. Construction of the section of Northern route (Mongolia) Art Suuri – Erdenet – Salkhit
5. Construction of the sections of Eastern route (Mongolia) Choibalsan – Bichigt section; Choibalsan – Arshan section (Tumen Corridor); Connection to the Central route Khuut –Baruun-Urt – Sainshand
6. Modernization of sections of Eastern route Choilbalsan – Ereen tsav (Mongolia) Solovievsk – Borzya (Russian Federation)
7. Construction of the sections of Western route Kuragino – Kyzyl – Tsagaan Tolgoi (Russian Federation) Art Suuri – Hovd – Yarantai (Mongolia) Takeshiken – Zhundong/other option (China)

	Issues and challenges
1.	Missing links at Western route, Northern route, Eastern route
2.	Break-of-gauge China 1,435mm/ Mongolia, Russian Federation 1,520mm
3.	Central route is single-tracked non-electrified along Jining – Erenhot (China)/ Zamyn Uud (Mongolia) – Sainshand – Ulaanbaatar – Sukhbaatar (Mongolia)/Naushki (Russian Federation) – Ulan Ude
4.	Deteriorated tracks, aged rolling stock at UBTZ both at Central and Eastern routes

CMREC hard infrastructure: other issues to address



Actions to take
Bring roads to AH Class II and higher: Central route - Ulaanbaatar-Sukhbaatar, Mongolia - Kyakhta – Ulan Ude, Russian Federation Eastern route Northern route Western route *AH Class II standard: 2 lane road with asphalt or cement concrete pavement*
Modernize in terms of equipment, layout and capacity the border crossings
Create needed inland logistics terminal capacity at Mongolia's section

Corridor soft infrastructure

Trilateral agreements

Intergovernmental Agreement on International Road Transport along the Asian Highway Network	Moscow, 2016	Road transport
Agreement between the Federal Customs Service (Russian Federation), General Administration of Customs of the People's Republic of China and Customs General Administration of Mongolia on Mutual Recognition of the Results of Customs Control on Selected Goods	Tashkent, 2016	Customs cooperation
Program for the establishment of China – Mongolia – Russia Economic Corridor	Tashkent, 2016	Infrastructure development, economic cooperation
Memorandum of Understanding on Establishing a Trilateral Mechanism coordinating implementation of China-Mongolia-Russia Economic Corridor Program *The Working Group held first meeting in 2020.*	Qingdao, 2018	Corridor management, Infrastructure development, economic cooperation

Railway agreements

1. All CMREC counties are OSJD members
2. All CMREC counties implement CIM/SMGS Consignment Note
3. All CMREC counties signed TAR agreement
4. Mongolia has agreements on sea ports access in China (1991) and Russian Federation (1992)
5. Mongolia and Russian Federation agreed on transit of cargos by rail (2018)
6. China Railways and Russian Railways have strategic cooperation agreement (2016)

Road agreements

1. All CMREC countries are parties to TIR convention
2. All CMREC countries are parties to AH Agreement
3. Founding parties to Agreements on international road transport on AH Network
4. All signed bilateral road agreements

Customs cooperation

1. All signed respective Customs mutual assistance and cooperation agreements
   - Secure transit based on secure locking mechanism
   - Electronic exchange of data on goods, inspection results, etc., across borders
   - Mutual recognition of inspection results both on bilateral and trilateral basis

2. Work on four-country Authorized Economic Operators (AEO) mutual recognition scheme under the umbrella of the Greater Tumen Initiative
3. Bilateral mutual recognition of AEO status only between China – Mongolia

4. Joint Customs Control at Erenhot (China)/ Zamyn Uud (Mongolia)

Issues

1. Joint Customs control limited to one border crossing
2. Lack of full scale single window services for international trade and respective ecosystem in Mongolia limits digitalization of business processes in international transport across CMREC at full length

   For instance, this might limit opportunities for UBTZ to join INTERTRAN endeavor of Russian Railways, UIC and ESCAP, that interfaces and interlinks all the information systems involved across service providers at all modes involved, at all controlling authorities involved and businesses to provide single intermodal digital product.

3. Limitations in use of electronic signatures in Mongolia cause some documents to be issued in both hard copies and digital form (ex., for empty wagons exchange at border with the Russian Federation)