

Logistics Cooperation in Northeast Asia: Mutual Prosperity - Focusing on TKR -

2018. 11. 2.(Fri.)



President Yang, Chang-ho

원장 양창호

Contents

- ◆ TKR Outline

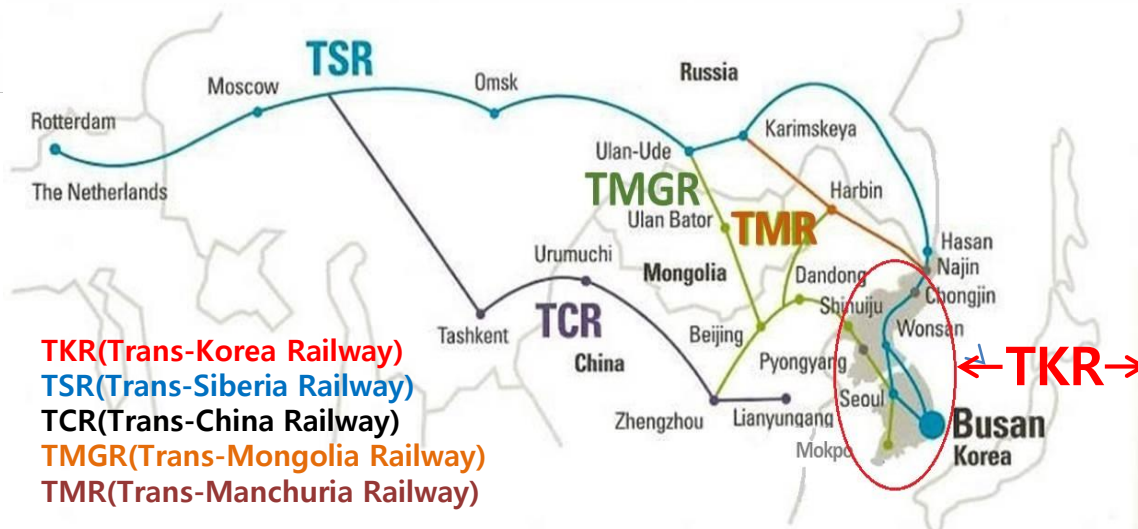
- ◆ Progress of Cooperation with Relevant Countries

- ◆ Competitiveness of TKR(Demand & Time)

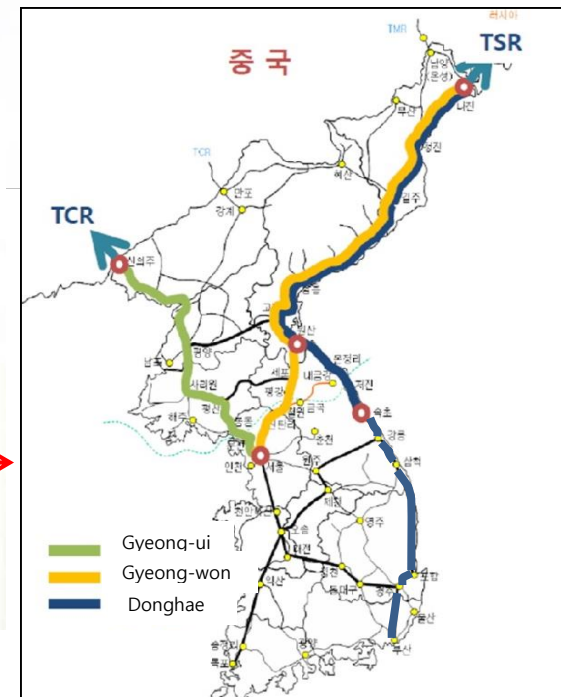
- ◆ Plan for Northeast Asia Cooperation

1. What is TKR?

- Railway to connect Korea Peninsula by recovering the segment discontinued by national division
- ✓ Korea Railway Network Construction Project connecting north-south segment of Gyeong-ui, Gyeong-won, and Donghae Lines
- ✓ Expect the role of origin and destination along the Eurasia Continental Railway connecting with TSR, TCR, TMGR, and TMR



Source: www.itrailnews.co.kr



Source: Construction Economy (www.cnews.co.kr)

2. TKR History(1)

» In 1991(12.13), First Agreement of TKR project between the South and North Korea

- Agreement on reconciliation and non-aggression exchange cooperation between Korea at The Fifth Inter-Korean

Ministerial Talks



Source: National Archive of Korea(www.archives.go.kr)

Inter-Korean Summit in 2000



Source: KyungHyang Shinmun(www.khan.co.kr)

» Regularize after the Inter-Korean Summit in 2000(6.15)

- Actively promote during the president of Dae Joong Kim(1998.2.~2003.2.) and Moo Hyeon Noh(

» Expanding cooperation of Eurasia in 2013

- Former president Geun Hye Park(2013.2~2016.12) propelled 'Eurasia Initiative' as a national assignment

Propose 'Eurasia Initiative' Plan(13.10.18)

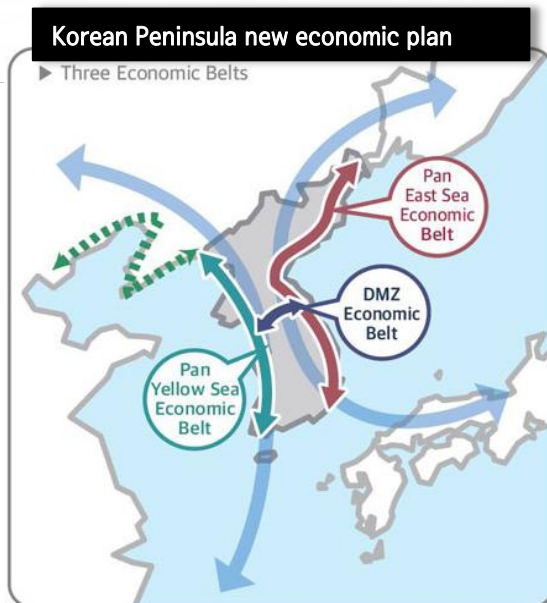


Source : Ohmynews
(www.ohmynews.com)

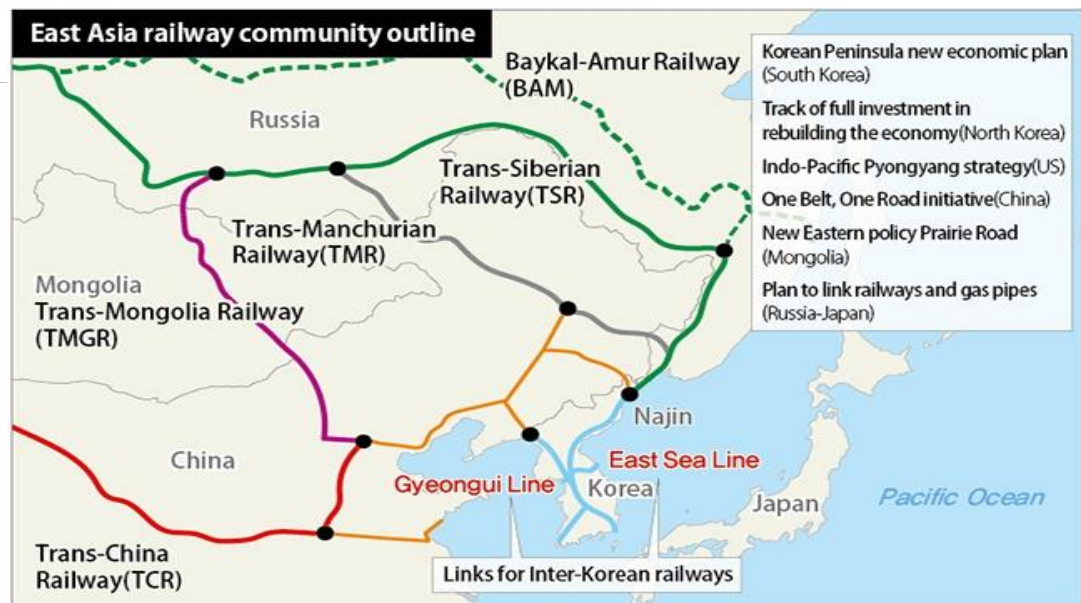
2. TKR History(2)

» Proposing 'East Asia Railway Community' in 2018

- Suggesting 'Korea Peninsula New Economy Map'
- ✓ Constitute 'Northern Economy Cooperation Committee' (Immediate Control of President)
- 'East Asia Railway Community' was proposed by the president Moon (08.15)
- ✓ Including 6 nations in Northeast Asia and the U.S.A.
- ✓ Expecting the connection of East Asia Energy and Economy Community



Source : Ministry of Unification (www.unikorea.go.kr)



Source : Yonhap News (www.yonhapnews.co.kr)

3. Existing Research related to TKR

» Various Previous Researches(Government·Research Institute·Private)

- Fields in law, technical development, environmental influences, demand analysis, competitiveness analysis, feasibility study, financial plan, roadmap development, etc.

KMI	
연 도	제 목
2016	유라시아 물류와 통일시대
2016	동북아시아 평화번영을 위한 한반도·극동러시아 공동발전방안 연구
2014	동북아 북방물류의 변화와 국제협력
2013	'유라시아 이니셔티브' 실현을 위한 북해수송시스템 타당성 연구
2009	남북한 물류체계 통합 및 활용방안(Ⅲ)
2008	남북한 물류체계 통합 및 활용방안(2차): 남북한 연결 교통·물류 수요 전망 및 시설확충 방안
2007	남북한 물류체계 통합 및 활용방안(Ⅰ) -물류체계 통합을 위한 물류현황 분석 및 물류정책방향 설정-
2005	Inland Transport and Logistics in the ESCAP Region
2003	한반도의 글로벌 물류 중심지화 방안 및 추진전략 연구
2003	동북아 Landbridge 구축이 해운시장에 미치는 영향 연구
2003	철도물류체계의 경쟁력 제고방안
1998	TAR활용을 통한 국제복합운송 구축방안

Others		
연 도	연구기관	제 목
2017	한국교통연구원	유라시아 국제운송로 물류여건 및 수요조사 분석(2차년도)
2015~2017	한국철도시설공단	한반도 통합철도망 마스터플랜 수립연구
2015	한국법제연구원	분단국가의 철도교통 협력법제 연구
2014	한국환경정책·평가연구원	한반도 통합철도 네트워크 구축 환경영향평가 방안
2014	한국교통연구원	유라시아 이니셔티브 실현을 위한 실크로드 익스프레스 구축방향
2014	한국교통연구원	통일 준비 한반도 교통인프라 구축전략 기획 연구
2012	통일연구원	북한의 인프라 개발을 위한 국제사회 협력 프로그램 추진방안
2010	한국철도시설공단	통합철도망 구상 연구
2010	한국철도기술연구원	남북 및 대륙철도의 실용주의적 진출을 위한 상호연계기술 개발
2007	통일연구원	남북 물류·운송 활성화 및 협력방안 연구
2005	국토연구원	남북인프라협력사업의 통합적 추진방안 연구
2005	한국교통연구원	남북연결 도로 철도의 교통수요 및 비용분석 연구
2001~2004	한국철도기술연구원	남북철도시스템 연계방안 연구(1~4차년도)
2003	한국교통연구원	대륙철도 연계 철도화물운송 활성화 전략
2002	한국철도기술연구원	TSR-TKR 통합 운영시스템 구축을 위한 기초연구
1995	한국교통연구원	통일에 대비하는 남북한연결 교통체계 구축방안

4. Current Status of Cooperation for TKR⁽¹⁾

» Agreement in 1991, suspension in 2008, and individual propulsion of the South until 2015

- Agreement inter-Korean railway connection in the 5th inter-Korean Ministerial Conference in 1991
- Forwarded Gyeong-ui and Donghae Line connection as a practical project followed by the Inter-Korean Summit in 2000 and 2007
- The South pushed the railway connection project independently after the strain of inter-Korean relationship in 2008

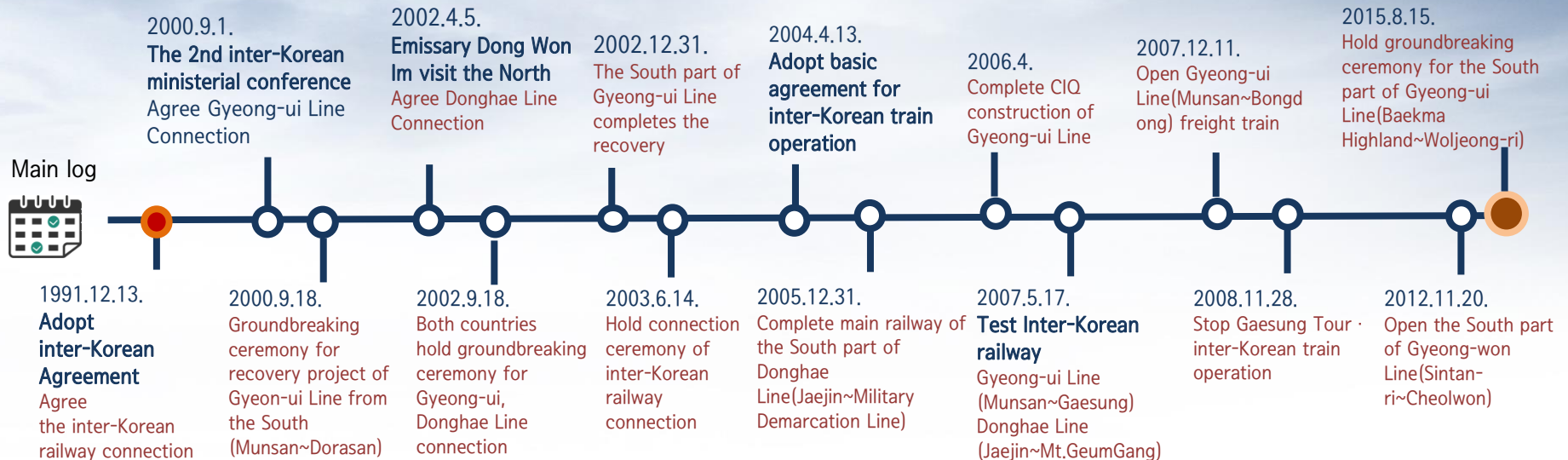


Source : Inter-Korean Summit Headquarter from the Ministry of Unification(dialogue.go.kr)



Source : Sisa News(www.sisa-news.com)

4. Current Status of Cooperation for TKR(2)



Open Munsan(the South)~Bongdong(the North) freight railway of Gyeong-ui Line(2007.12.11)



Source : Joongang Daily(www.koreadaily.com)

남북철도 화물열차 운행구간 약도



- ✓ Regularly operate freight train(12-car train for one time, one day)
- ✓ Total 222 times for about a year has been operated(one-way) until the suspension of inter-Korean railway operation on Nov. 28th 2008.

4. Current Status of Cooperation for TKR(3)

▶▶ Recovering and Reconnecting of Korea Peninsula in 2018



Panmunjeom Declaration(4.27)

Agree to propel Donghae, Gyeong-ui Lines connection project



Inter-Korean Railway Cooperation Conference(6.26)

Agree to propel joint investigation and cooperative project for connection · modernization of the North Donghae · Gyeong-ui railway network



Congratulatory Speech for National Liberation Day(8.15)

Propose East Asia Railway Community



Pyeongyang Joint Declaration(9.20)

Agree to hold groundbreaking ceremony for Donghae · Seohae Lines Connection within this year

Main log



Join OSJD as a full member(6.7)

Secure legal bridgehead for connection with European Railway



2018.7.20

Donghae Line joint inspection

2018.7.24

Gyeong-ui Line joint inspection



The fifth inter-Korean Ministerial Conference(10.15)

Groundbreaking ceremony for connection · modernization of Donghae · Seohae Lines(end of Nov ~ beginning of Dec)

Agree joint inspection of the North part of Gyeong-ui Line(end of Oct) and Donghae Line(beginning of Nov)

5. Status of Korea-Russia Cooperation(1)

» TKR-TSR Project as Main Agenda at Korea-Russia Summit

- First state 'TKR-TSR Connection Project' on the Joint Statement of Korea-Russia Summit in 2001
- Change bilateral cooperative system(South-Russia) into multilateral cooperative system(South-North-Russia) in 2003
- Agree cooperative project of the Three-Party(the South, the North, Russia) at Korea-Russia Summit(June, September) in 2018



Source : Yonhap News(www.yonhapnews.co.kr)



Source : Busan Daily (www.busan.com)

5. Status of Korea-Russia Cooperation(2)

» MOU between Korail and Russia Railway(2018.6.22)

- Joint development for railway and logistics industries
- Push cooperation with the third nation for preparation of the Three-Party(the South, the North, Russia) Project



Source : Yonhap News(www.ynhnews.co.kr)

» MOU between KRRI and STU(2018.10.23)

- Technology agreement between Korea Railroad Research Institute and Russia Siberian State Transport University



Source : Korea Railroad Technology Institute(www.krri.re.kr)

6. Case of Railway Cooperation(South-North-Russia)

» Najin-Hasan(Multimodal Transportation) Project

- The North and Russia agreed Najin-Hasan joint development in 2000, the South decided to join in 2007
- ✓ Suspended due to deterioration of the condition between the South and the North
- ✓ Agreed re-propulsion at Korea-Russia Summit(11.13) in 2013



Year	Content
2000	• Putin-Jong Il Kim agreed 'Najin-Hasan Joint Development'
2007	• Moo Hyeon Noh Government decide to join 'Najin-Hasan Project'
2013	• Geun Hye Park-Putin agree re-propulsion in the Summit
2013.9	• Najin-Hasan Railway opened
2014.7	• Najin Pier #3 Coal Terminal complete
2014.11	• The first test transport - Transport 40 thousand ton of Russian coal to Pohang
2015.4	• The second test transport - Transport 14 thousand ton of Russian coal to Gwangyang, Dangjin, Boryeong
2015.11	• The third test transport - Transport 2 bulk carrier(50 thousand ton), 12 thousand ton of coal to Gwangyang and Pohang - Transport 1 ship(10 thousand ton), 10 containers of chinese edible water to Busan
2016년	• Discussion is suspended after the Fourth Nuclear-Long Distance Rocket Launch Test of the North.

Source: Hankyoreh(english.hani.co.kr),
Financial News(www.fnnews.com)

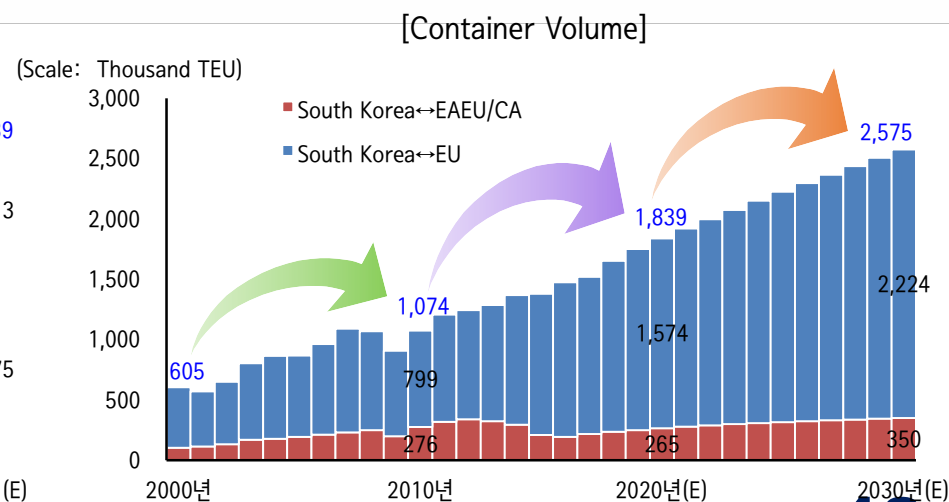
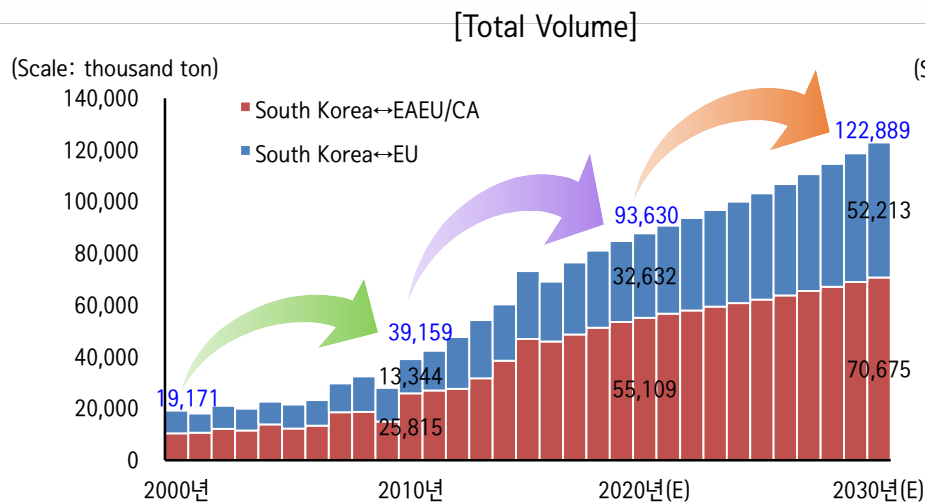
7. Estimated Demand(Korea↔EU/EAEU Seaborne Trade)

» In 2017, total trade volume is 7,644 thousand ton

- Last 10 years(2007~2017): 9.9% of CAGR (EU: 9.5%, EAEU/Central Asia: 10.2%)
- In 2030, 122,890 thousand ton (EU: 52,210,000, EAEU/Central Asia: 70,680,000)

» Same period for Container, 152 thousand TEU

- Last 10 years(2007~2017): 3.4% of CAGR(EU: 4.3%, EAEU/Central Asia: -0.6%)
- In 2030, 2,580 thousand TEU (EU: 2,230,000, EAEU/Central Asia: 350,000)



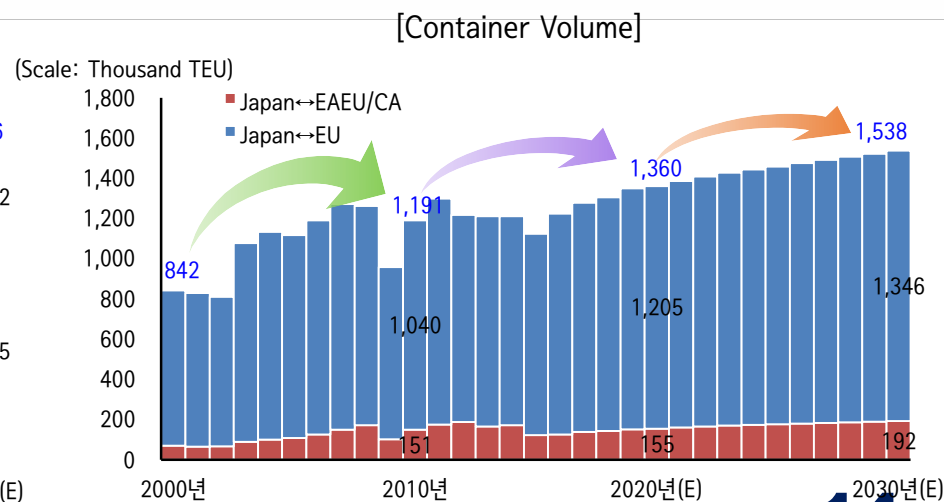
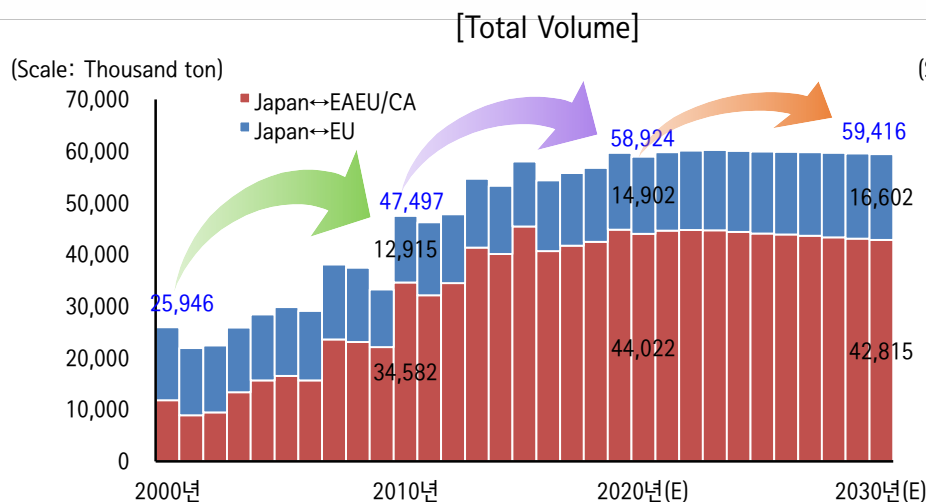
7. Estimated Demand(Japan↔EU/EAEU Seaborne Trade)

» In 2017, total trade volume is 55,770 thousand ton

- Last 10 years(2007~2017): 3.9% of CAGR (EU: -0.3%, EAEU/Central Asia: 5.9%)
- In 2030, 59,420 thousand ton (EU: 16,600,000, EAEU/Central Asia: 42,820,000)

» Same period for Container, 1,280 thousand TEU

- Last 10 years(2007~2017); 0.0% of CAGR(EU: 0.1%, EAEU/Central Asia: -0.7%)
- In 2030, 1,540 thousand TEU (EU: 1,350,000, EAEU/Central Asia: 190,000)



7. Estimated Demand(Northeast Asia↔EU/EAEU Seaborne Trade)

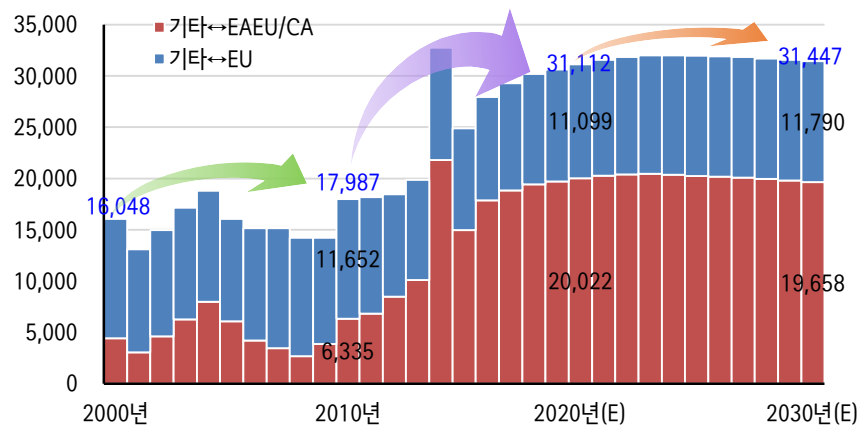
» In 2017, total trade volume is 29,290 thousand ton

- Last 10 years(2007~2017): 6.8% of CAGR (EU: -1.1%, EAEU/Central Asia: 18.4%)
- In 2030, 31,450 thousand ton (EU: 11,790,000, EAEU/Central Asia: 19,660,000)

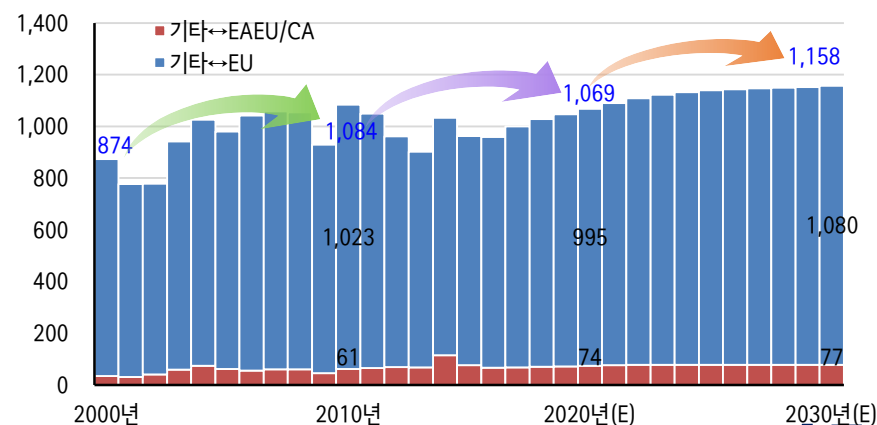
» Same period for Container, 1,000 thousand TEU

- Last 10 years(2007~2017); 0.6% of CAGR(EU: -0.7%, EAEU/Central Asia: 1.1%)
- In 2030, 1,160 thousand TEU (EU: 1,082,000, EAEU/Central Asia: 78,000)

[Total Volume]



[Container Volume]



8. Time Competitiveness of TKR

» TKR-TSR, more effective than existing ocean and multimodal routes in terms of total transportation time

- TKR-TSR expects 20~29 days for Busan and Moscow
- ✓ More than 50% in maximum can be reduced(existing ocean route: 46~54 days)
- TKR-TSR expects 18~25 days for Busan-Tashkent or Almaty
- ✓ 5 days in maximum can be reduced(existing TCR route: 21~27 days)
- TKR-TMR 21~27 days, TKR-TMR 20~25 days for Busan and Warszawa
- ✓ 20 days in maximum can be reduced(existing multimodal route: 35~45 days)

Route	Time Required(day)			
	Existing Route		TKR	
Busan-Moscow (Korea-Russia)	Ocean(Suez Canal)	Multimodal(Donghae+Siberia)	TKR-TSR(via Najin)	
	46~54	23~32	20~28	
Busan-Almati or Tashkent (Korea-Central Asia)	TCR	TSR	TKR-TSR(via Najin)	
	21~27	23~30	18~25	
Busan-Warszawa (Korea-Europe)	Multimodal(Ocean+EU Railway)	Multimodal(Ocean+TMR)	TKR-TMR	TKR-TSK
	35~45	23~27	21~27	20~25

9. Multimodal Transportation Demand in Busan

» In 2030, expecting 1,270 thousand TEU

① Rus/C. Asia ↔ US/Jap/Southeast Asia: 350,000 TEU

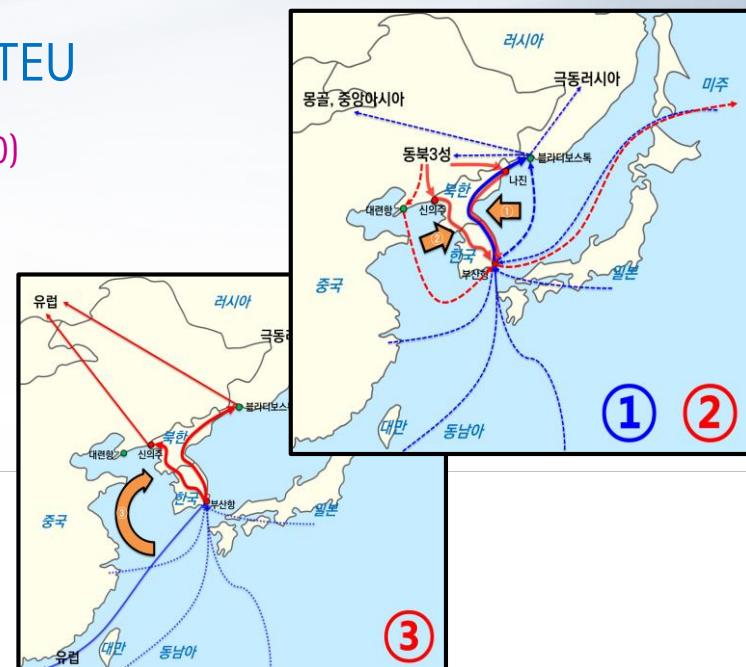
✓ Rus/C. Asia ↔ US/SE. Asia(90,000), Rus/C. Asia ↔ Jap(260,000)

② Northeast China ↔ US/Jap/SE. A: 690,000 TEU

✓ NE. C ↔ USA/Jap(420,000), NE. C ↔ SE. A(270,000)

③ Europe ↔ Japan/SE. Asia: 230,000 TEU

✓ Europe ↔ Jap(130,000), Europe ↔ SE. A(100,000)



» Increasing the role of Busan Port

- Promoting International Multimodal Transportation Company for seamless connecting among ocean, port, and railway
- Developing ICD[Yangsan(expansion), Donghae, Uiwang(expansion), Najin, Sinuiju]

10. International Multimodal Transportation Network(IMTN)

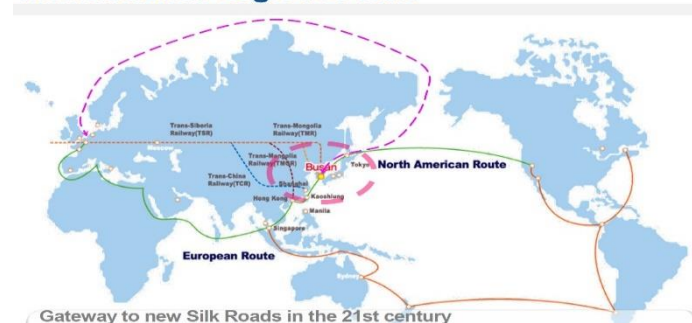
» Establishing IMTN connected with Port(P-IMTN)

- Needs of P-IMTN among Northeast China(3 provinces), Northeast Russia, and Central Asia
- ✓ The center of world economy moves to East Asia from Europe and U.S.A.
- ✓ China and Japan account for more than 25% of world population and more than 20% of GDP
- ✓ Total GDP of the 10 ASEAN countries is expected to grow \$2.4 trillion by 2050(ISAS, 18.06.19)
- ✓ Economic growth in Central Asian countries will recover and stabilize after 2016(IMF, 17.10.)
- ✓ Therefore, it is anticipated that trade among those countries will increase

» Potential of Busan Port

- Strategic location: centered global logistics network
- ✓ When connecting to TKR, Busan Port can become a gateway of East-West and South-North in the World

International Logistics Hub



Gateway to new Silk Roads in the 21st century

Source: Busan International Financial City Promotion Center, 2016.11.2.

11. Cooperative Task in the Future

» Establishment of Multilateral Cooperation

- Establishing multilateral cooperation and a dedicated organization to build integrated operation system and governance
- Building multilateral investment system for bilateral/multilateral cooperation
- Intensifying cooperation with international organizations to diversify cooperation

» Establishment of Inland Logistics Base

- Building the inland multimodal transportation base such as ICD to intensify the transport function of TKR and to utilize TKR effectively

» Development of Funding Alternatives

- Utilizing the Official Development Assistance(ODA), International Financial Institutions (World Bank, IMF, ADB, AIIB, etc.), and Project Funding since TKR is long-term project that requires large-scale financial resources

Thank you

Yang Chang-ho
President
Korea Maritime Institute

chyang@kmi.re.kr



한국해양수산개발원
KOREA MARITIME INSTITUTE