

A MACROECONOMIC BACKGROUND OF THE NEW SILK ROAD DEVELOPMENT

RAILFREIGHT SUMMIT POLAND
1 SEPTEMBER 2020

WHY CONSIDERING A MACROECONOMIC BACKGROUND

FREIGHT FLOWS

Rail export and import flows reflect international trade.

Any changes in macroeconomic and trade indicators result in different baseline of freight flows.

NECESSARY ACTIONS

Macroeconomic background sets up a base for freight flows under various scenarios. The impact of different actions can be modelled against this base.

ROLE OF RAIL

Vice versa, the role of railways in international sustainable economy can be evaluated and calculated to consider investment priorities.

COMBINED ECONOMIC AND TRANSPORT MODELLING WITH TMF SOFTWARE

TMF® IS A MODELLING AND FORECASTING SOFTWARE developed for professional use as a tool of transport infrastructure planning and monitoring.

CORRIDOR / ROUTES MODELS

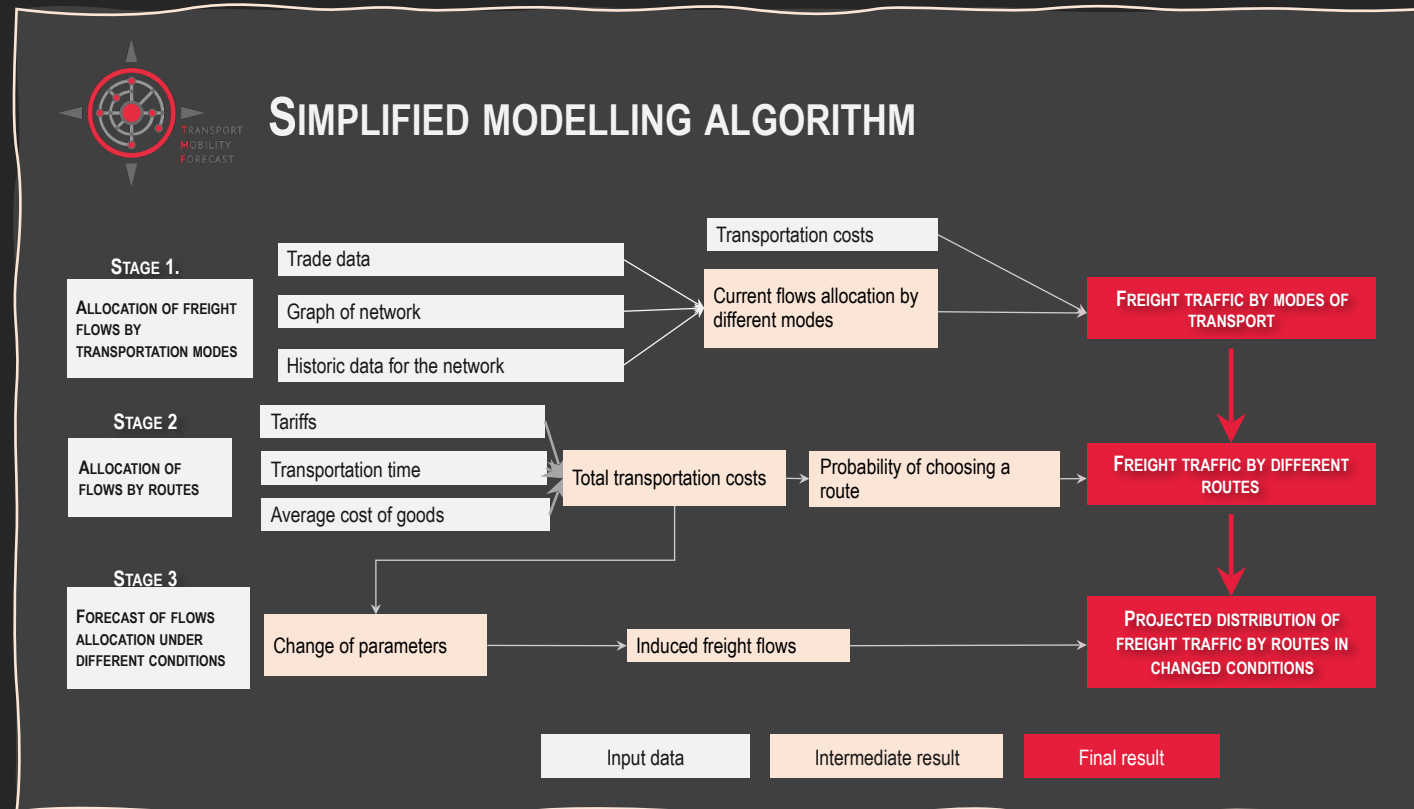
- Performance analysis in different macroeconomic conditions.
- Best choice of features, incl. tariffs.
- Evaluation of sensitivity to specific parameters.

COUNTRY MODELS

- Analysis of existing and projected allocation of flows by routes over the network.
- Evaluation of opportunities to switch flows.
- Calculation of total transportation costs.

REGIONAL MODELS

- Projection of freight flows based on changes in trade, estimation of transit flows.
- Assessment of changes in accessibility and induced flows.



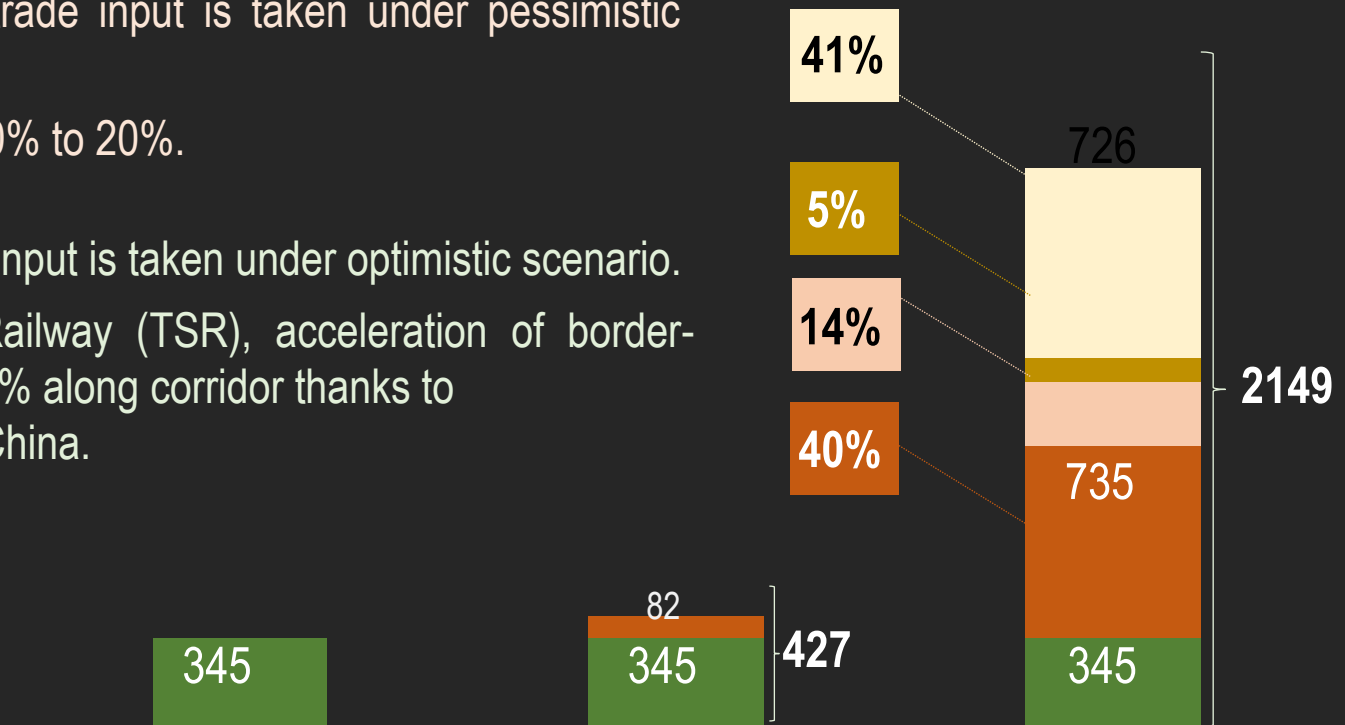
2030 TRAFFIC FORECAST: TOP AND BOTTOM

For **minimum (bottom) alternative** trade input is taken under pessimistic scenario.

Decrease in Chinese subsidies from 50% to 20%.

For **maximum (top) alternative** trade input is taken under optimistic scenario.

Acceleration of the Trans-Siberian Railway (TSR), acceleration of border-crossing to 3 hrs, price reduction by 20% along corridor thanks to e-interoperability and subsidies, excl. China.



Modelled with TMF software.

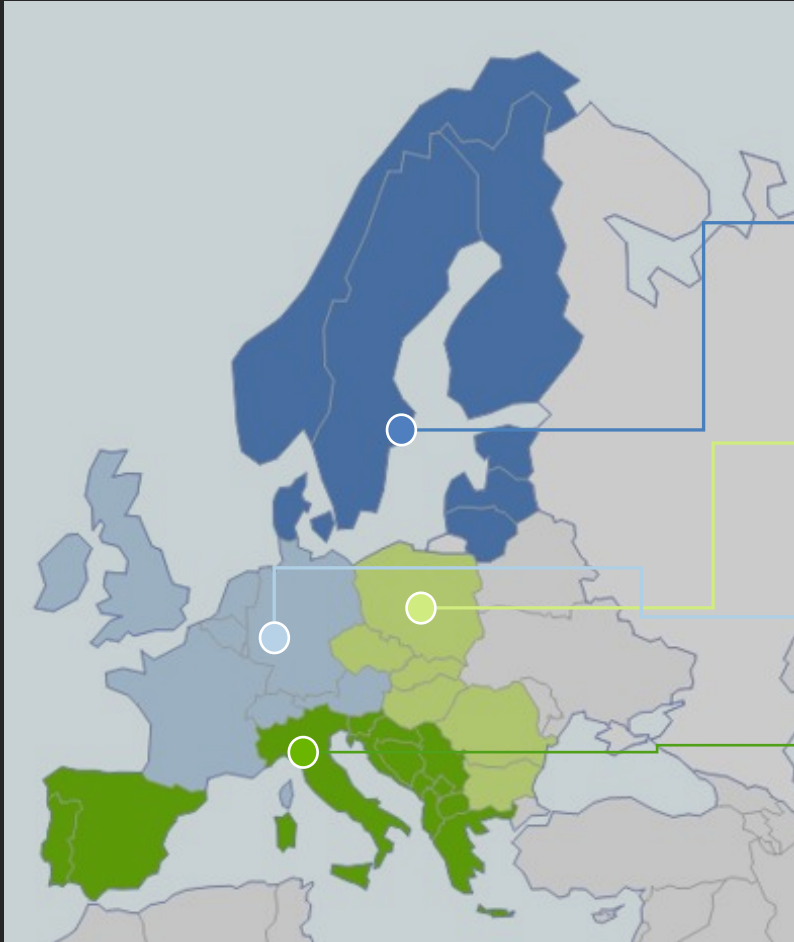
UIC and IEC study "Eurasian corridors: development potential"



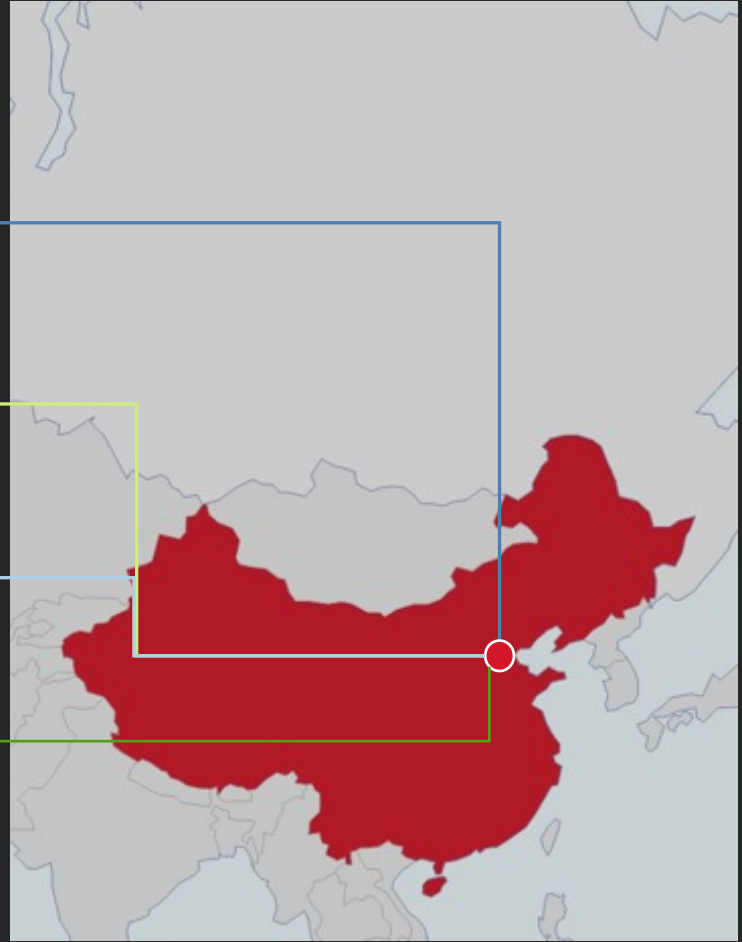
- 2018 Baseline
- Trade
- TSR acceleration
- BC acceleration
- Price reduction by 20% (excl. China)

thousand TEUs (loaded)

PROJECTED CHANGES FOR CENTRAL AND EASTERN EUROPE



	Trade flows by rail thous.TEUs		% of rail	
	2018	2030	2018	2030
→	3,9	44,5	0,3%	1,6%
←	2,6	75,6	0,1%	1,9%
→	71,3	130,3	3,2%	3,2%
←	129,5	248,6	9,1%	9,8%
→	76,8	129,1	1,8%	1,8%
←	63,6	141,7	1,3%	1,7%
→	0,8	19,9	0,1%	1,0%
←	0,5	37,3	0,0%	1,0%
			2,0%	2,7%



Non-primary goods.

Based on Eurostat and UN COMTRADE data.

IMPACT OF VARIOUS FACTORS

Modelled with TMF software.

UIC and IEC study "Eurasian corridors: development potential"



Major negative factors for rail transit



Major positive factors for rail transit



changes in allocation of rail freight flows by routes

Reach of capacity limits

Inhibiting factors

1. Infrastructure

- Acceleration of the Trans-Siberian (7 days)

+247



- Upgrade of border-crossing infrastructure in Poland

+6



- Construction of Rail Baltica 1435mm line

No



- Reach of capacity limits at Polish border-crossings

No



2. Technologies and data transfer

- Acceleration of border-crossings and changes in procedures of gauge changes

+11



- E-data exchange between customs and railways; unified data transfer principles between railways

- 100% use of CIM / SMGS consignment

+73



3. Routes

- Development of Baltic ports with launches of new feeder lines

-60



- Launch of the Trans-Korean Rail (with link to the Trans-Siberian)

+19



- Regular feeders from Japan and the Republic of Korea

+51



- New China – Russian Far East border-crossing and route (Primorye)

+74



4. Economic changes

- Decrease of Chinese subsidies.

-442



- Price reduction outside China.

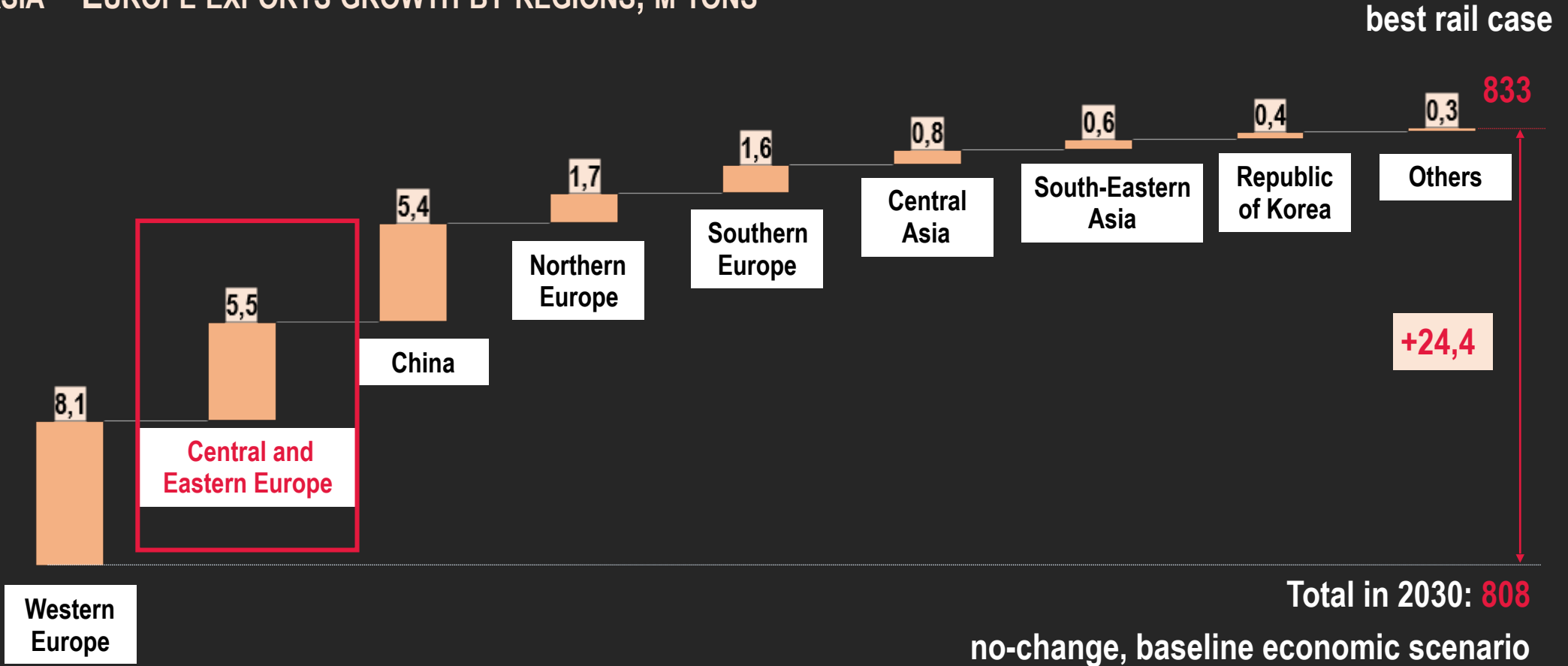
* with acceleration

+632*



BACK TO MACROECONOMICS: RAIL TRANSIT BOOSTING ECONOMIC GROWTH

EUROPE – ASIA – EUROPE EXPORTS GROWTH BY REGIONS, M TONS



Modelled with TMF software.

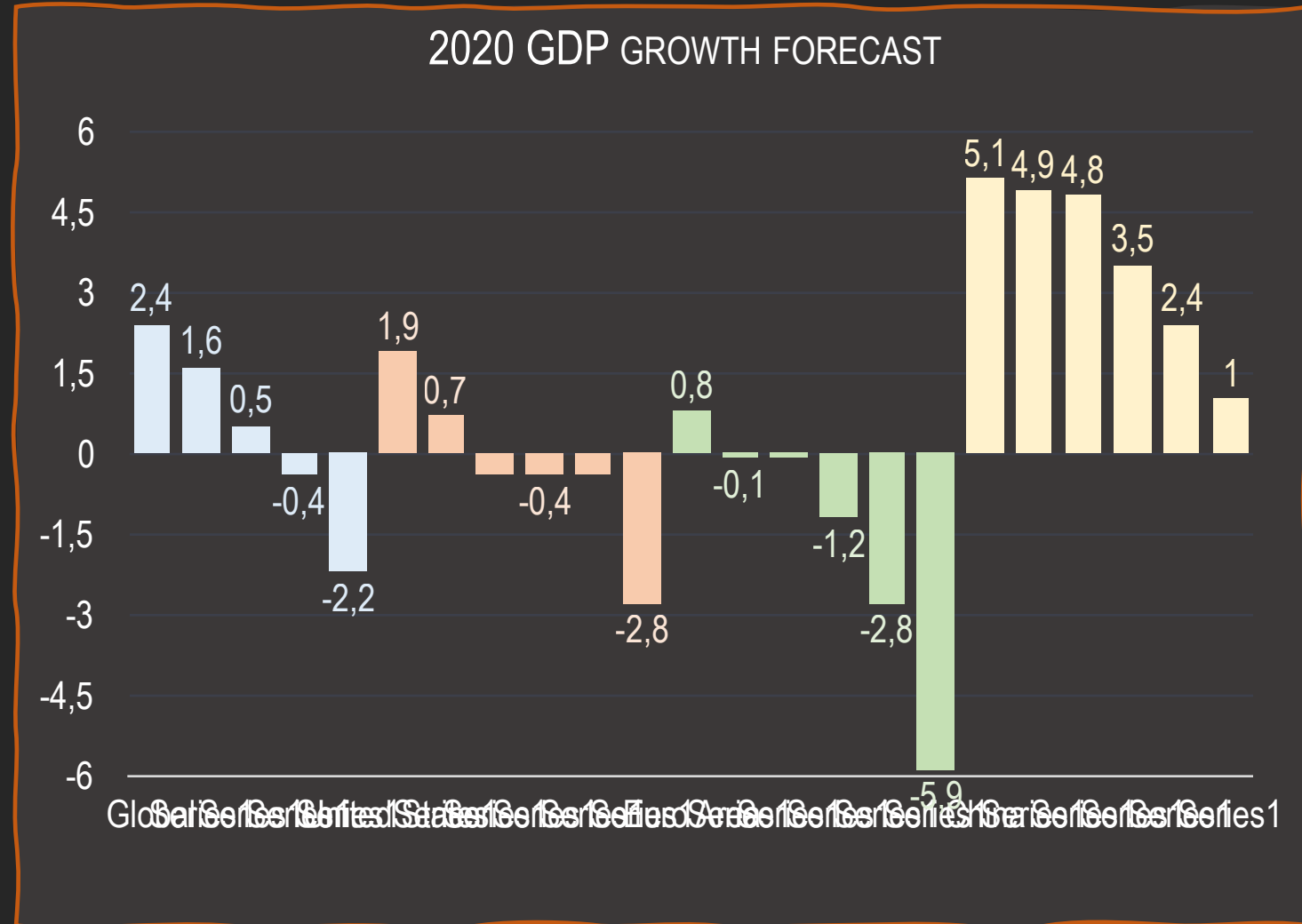
UIC and IEC study “Eurasian corridors: development potential”

Best rail case: baseline macroeconomic scenario, Chinese subsidies present, acceleration of the Trans-Siberian Railway to 7 days, acceleration of all border crossing procedures to 3 hrs for all crossings, 100% use of CIM/SMGS consignment, price reduction by 20%.

IMPACT OF COVID-19 PANDEMIC: MACROECONOMIC UNCERTAINTY

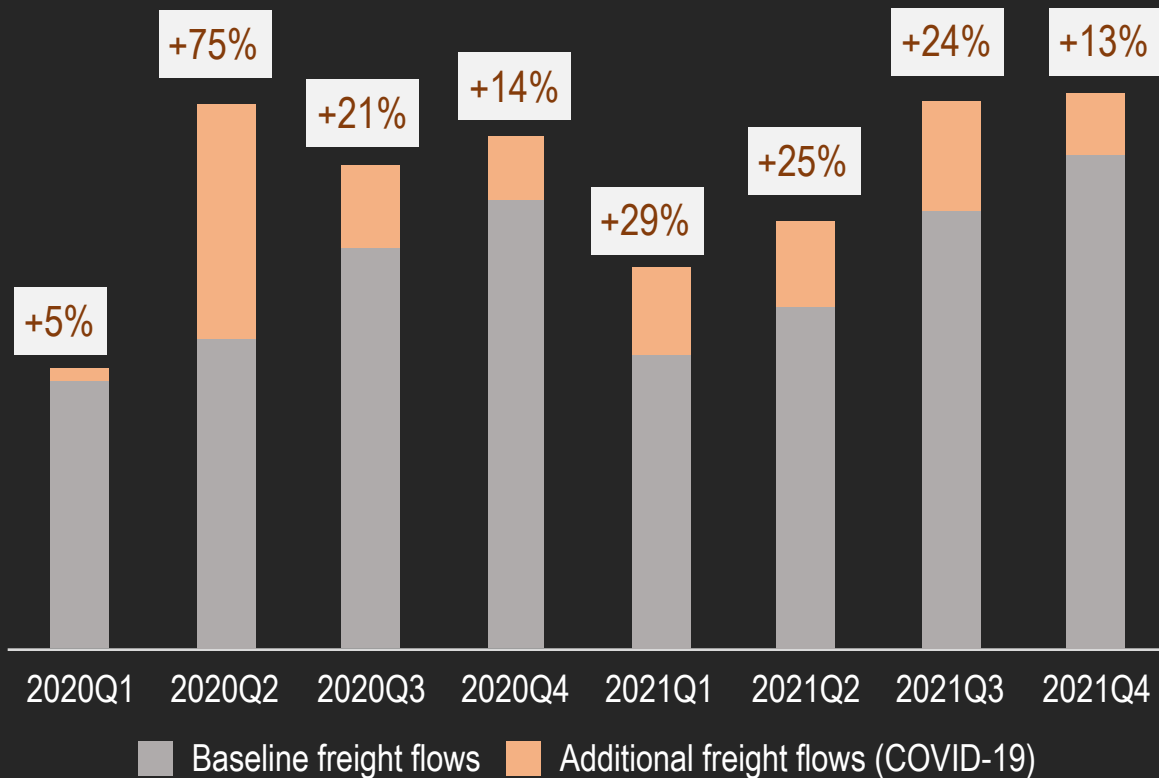
WHAT IS DIFFERENT FROM WHAT WE KNOW?

- Combination of a “usual” economic crisis and a pandemic influence on economy.
- Supply drop first instead of demand drop first.
- New, yet unknown, measures of support are required.
- Recovery is delayed by geographical asynchronism.
- Long-term economic trends are hard to predict



IMPACT OF COVID-19 PANDEMIC: OPPORTUNITIES FOR RAILWAYS?

FORECAST OF EURO-ASIAN FREIGHT FLOWS CHANGES DUE TO COVID-19 (DOSTYK – BREST ROUTE)



SHORT-TERM

- Liquidation of undershipment
- Growth of demand on rail services
- Asynchrony of services

MID-TERM

- Restoration of supply chains
- Construction of new supply chains
- Demand for fast, cheap and reliable transport

LONG-TERM

Possible increase of rail share (up to 5% in total transit, up to 15% for Central and Eastern Europe) under smaller volumes (than previously predicted).

East – West – East disbalance due to difference of traded commodities.

Volumes modelled with TMF® software based on JP Morgan and ING forecasts as of April 1, 2020 and UTLC ERA actual data as of June 30, 2020.

Figures show the dynamics and should not be considered as traffic forecasts.

RAILWAY VACCINE: PUTTING TOGETHER RAILWAYS AND ECONOMIES ALONG NEW SILK ROAD

1. FACTORS NOT RELATED TO TRADE MAY HAVE A LARGER IMPACT ON INLAND TRANSPORTATION

Reliability
Interoperability
Resilience



directions of immediate
investments
(focus on digital solutions)

2. TRADE DYNAMICS STILL DEFINES HOW (AND WHETHER) OTHER FACTORS WILL WORK

Transport analysis
based on economic one
Analysis by commodities
Test of solutions (services)



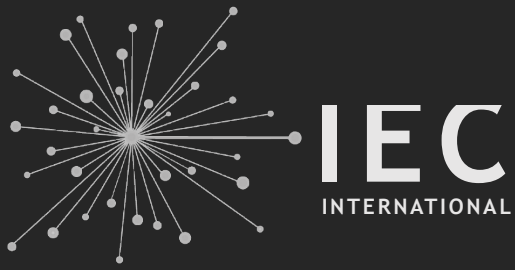
directions of research and
applied studies
(focus on modelling)

3. COORDINATED ACTIONS AT PRESENT WILL DEFINE THE FUTURE OF EURO-ASIAN RAILWAYS

Synchronous actions
Rail marketing initiatives
Joint strategies



directions of cooperation
**(focus on connectivity as a
resource for sustainable
economy)**



WWW.INFRAECONOMY.COM



IEC INTERNATIONAL SAS À CAPITAL VARIABLE

INTERNATIONAL@INFRAECONOMY.COM

📍 1, BOULEVARD VICTOR, 75015 – PARIS, FRANCE