Development of Transport and Infrastructure in Eurasia

IIASA project
"Challenges and Opportunities of Economic Integration within a Wider European and Eurasian Space"

Workshop Report

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Background

The 5th workshop within the IIASA project "Challenges and Opportunities of Economic Integration Within a Wider European and Eurasian Space" held 15 – 16 September 2015 in Laxenburg, Austria, discussed the issue of transportation corridors in Eurasia and the opportunities for cooperation between the EU, Russia, the EAEU, China and other regional players concerning transport and infrastructure projects.

In order to foster interdisciplinary and international dialogue on the topic, the workshop brought together well-established academics and policymakers from around the world, including: Péter Balás, Deputy Director General, DG Trade, European Commission; Stefan Füle, former EU Commissioner for Enlargement and European Neighbourhood Policy; Pavel Kabat, Director General and Chief Executive Officer, IIASA; Evgeny Vinokurov, Director, Centre for Integration Studies, Eurasian Development Bank; Yuliya Chalaya, Head, Economic Policy Strategies Section, Macroeconomic Policy Department, Eurasian Economic Commission (EEC) among many others, with a total of 34 participants.

All speakers underlined the importance ofof an international dialogue for science-policy making on transport and infrastructure projects in Eurasia, particularly in the current context of the implementation of EU-UA AA/DCFTA. The global financial crisis, the US Fed and ECB QE policies, the EU's fiscal situation and Western financial sanctions on Russia were raised during the discussion as serious bottlenecks for developing large scale infrastructure projects in Eurasia.

Selected Seminar Highlights:

The workshop concentrated on the major aspects related to transport and infrastructure development and generated the following outcomes:

- a comprehensive review of the nexus of economic integration and modernization of passenger and freight transport and logistics infrastructure, including railways (notably, high-speed ground transportation), roads, air and maritime transport; and their impacts on economic, national security and social stability;
- analysis of the future of transport corridors in Eurasia: prospects for cooperation among the countries of the region in the construction, modernization and further development of the Eurasian transport corridors (such as the Silk Way Economic Belt, the Trans-Siberian Railway, the "Razvitie" belt, the "Eurasia" waterway) until 2030, in particular, the development of trans-border transport infrastructures and perspectives of the Trans-Eurasian transit;
- a detailed survey of opportunities and threats for the cooperation, feasibility and possibilities for win-win solutions in the context of large infrastructure (gas pipelines, waterways, etc.) developments in Eurasia.

Seminar Focus Areas:

During the workshop the participants came to distinguish four focus points:

1. **Overview of transport and infrastructure projects in Eurasia**
2. **Means of financing of mega transport and infrastructure projects in Eurasia**
3. **Global players' logistics interests: playing ball or playing hard?**
4. **Trade, development and population: cornerstones and limitations to transport and infrastructure projects in Eurasia**

1. Overview of Transport and Infrastructure Projects in Eurasia

The participants of the seminar have come to differentiate between the following continental transport and infrastructure projects in Eurasia:

Continental routes

The Euro-Asian continent as a common geographical unit represents 61.9% share on the world transport of merchandise flows in 2009 (František Stolárik, Jaromír Hladký).

The EU-Russia-China transit and trade is hampered by diverging structures of exports and imports and by the collapse of Russian trade since 2014-2015.

Development of a coherent continental transport system in the wider European and Eurasian space is also hampered by the existence of different railway gauges: three types in Europe (1435 mm, 1524 mm, 1668 mm), one in Russia, the post-Soviet space and Mongolia (1520 mm), two in China (1435 mm, 1520 mm) and one in India (1676 mm).

The average speed of transport by rail is 41 – 41,5 km/h. The average tariff is $ 1,80 per t/mile.

Cargo Export EU –EAEU in 2013-2014, all modes of transport, '000 t

Total	27978
Rail	2820
Road	17726
Maritime	7432

Source: Yury Shcherbanin.

80% of the total length of the potentially optimal economic parameters of international corridors, i.e. the latitudinal direction from East Asia to the Atlantic make up also Russia's transport network. (Sergey Tkachuk)

Trans-Siberian Railway

Currently, except for the Trans-Siberian Railway, no other transcontinental transport corridor is working. The development of alternative transport corridors is time-consuming and costly. (Scherbanin) The Trans-Siberian Railway is a double track electrified railway line. The fastest train on

the line is the train № 1/2 "Russia" Moscow-Vladivostok covers the full Trans-Siberian rail road in 6 days and 2 hours (Fabrizio Zucca).

On the whole, the current transcontinental rail transport is minimal. One of the reasons is the overload of the Trans-Siberian railway, the capacity of which is 100% used. (Yury Shcherbanin). It is therefore necessary to establish new corridors and develop rail cargo transport as a new industry as part of the hopefully renewed political cooperation in Greater Eurasia (František Stolárik, Jaromír Hladký).

Moscow-Kazan HSR and other new high-speed rail roads in Russia

The Moscow-Kazan high-speed railway (HSR) route will connect Moscow and Kazan and will later continue to the Urals and then to China up to Beijing. The Moscow-Kazan HSR is 803 km long and will decrease the travel time by 7,5 - 9,5 hours from the current 11-13 hours to a projected travel time of 3,5 hours.

In 2010 it was announced that the Russian government was planning to build 6942 km of high-speed rail lines across Russia. The project is linked to the World Cup 2018. Priority projects of these HSR are:

- Design and construction works on the project Moscow - St.Petersburg HSR. They are to be finished in 2017.
- The Moscow-Kursk HSR (with a possible further extension to Sochi and Crimea);
- The Moscow-Smolensk-Krasnoe-Minsk HSR (with a possible extension to Warsaw and Berlin using the rolling stock "Talgo");
- The Moscow-Yaroslavl HSR;
- The Omsk-Novosibirsk HSR. The project of a high-speed rail in Siberia is under discussion.

All of the above mentioned high-speed rail roads will have an estimated travel speed of 160-200 km/h (Fabrizio Zucca).

Razvitie (TEDR)

The Trans-Eurasian Development “Razvitie” (TEDR) project envisages creating a geo-economic belt of cooperation on the entire area between the Atlantic and the Pacific oceans, with the territories of Siberia and the Far East being in the focus of technological, industrial, social, and cultural development. The main goal is to develop a multimodal infrastructure system, which associates cargo and passenger transport, energy, telecommunication, as well as transport infrastructuresd for water, oil and ga. The TEDR project is linked to the “Russian Railways” company and includes several ambitious plans, such as the construction of a high- speed magnet train line “Sakhalin – Hokkaido” and the vertical connection of Siberian rivers (e.g. the Irtysh river) (Yury Gromyko).

In order to form the TEDR it would be necessary to set up a multi-infrastructure system as means of territorial and social development, instead of the old single-branch techno-industrial system. The new system incorporates the integration of electric grids, transport systems, telecommunications and soil melioration (Yury Gromyko).

According to some experts, for the financing of the TEDR project it would be advisable to set up a fund to be controlled 70% by two integration structures - the European Union and the Eurasian Economic Union, with 35% each, while the remaining 30% would be made available by the private sector. Among the private participants the most welcome would primarily be pension funds and other funds directly

related to people's savings. (Paolo Raimondi). It should be noted, however, that the realization of such a major long-term project would require a qualitative change in the present political relations between the EU and Russia.

Silk Road Economic Belt (SREB)

The goals of the "Belt and Road Initiative in Eurasia" are to promote the connectivity of the Asian, European and African continents and their adjacent seas, to establish and strengthen partnerships among the countries along the Belt and Road, to set up all-dimensional, multi-tiered and composite connectivity networks and to realize diversified, independent, balanced and sustainable development in these countries.

The "Silk Road" China-Europe railway line, which began limited operations in 2011, is still under construction. The annual volume of freight totaled ca. 2 mn t in 2013 and is planned to increase to some 15 mln. t annually in the coming years.) In October 2013 915 kilometers were already opened in Kazakhstan and a further 1,721 km should be opened by the end of 2015 (Fabrizio Zucca). The Beijing - Hamburg train connection was launched from Beijing in January 2008. The train made the 9,780km route in 15 days. (Fabrizio Zucca)

The Chinese interest in the realization of the SREB project is the preservation of China's growth by ensuring political and economic stability which depends mostly on raw material supplies from the Eurasian hinterland. The Pacific Ocean supply routes for raw materials to China are totally controlled by the US Navy supremacy and can be cut off in case of deterioration of the relations. The shift of China's development toward her interior regions increases the importance for Bejing of the land routes through Eurasia.

The Russian interest in the SREB project lies in countering pressure from the West (e.g. sanctions) which leads to her turn to the East, as well as Russia's need to bolster security and stability in Central Asia.

It will be difficult to stipulate the final format of cooperation between the EAEU and China's Silk Way Economic Belt. Russia seems to lose the competition for the Central Asian transit link of the Silk Way Economic Belt, seriously lagging behind in the competition for the processing of international cross-border flows. (Dr. Jonathan Tennenbaum)

The SREB project is to be financed by the Asian Bank of Infrastructural Investment (AIID, $ 100 bln) and by the specially set up Silk Road Fund (SRF, $ 40 bln). (Alexander Nagorny) A combination of the financial capabilities and the Eurasian Development Bank (EADB) and the AIIB could increase financing possibilities for the SREB project.

There are three main alternative routes to the EAEU - China SREB project:

- Western China - Kazakhstan - Caucasus - Turkey - Europe (by large part coinciding with the TRASEKA 4 project);
- Western China - Kazakhstan - Central Asia - Iran (with access to Turkey and Europe);
- Western China - Central Asia - Afghanistan - Iran (with access to Turkey and Europe);
- Western China - Pakistan (ports on the coast of the Arabian Sea).

The CAREC corridors

Many initiatives in transport infrastructure development are coordinated in the framework of six CAREC multi-modal corridors. The CAREC corridors' investment projects are 47.100 km of roads with a planned cost of US$ 12,9 bln (of which external funding would be US$10,7 bln) and 36.800 km of railways costing US$ 0,9 bln (external funding US$ 0.7 bln). (Roman Mogilevskii)

Turkey is planning to become a regional transport hub. In 2013 Turkey has commissioned a tunnel under the Bosporus, which connects directly to the railway system in Asia and Europe, and plans to continue expanding its transit capacity of the transport system.

The North-South Route

Future construction of oil and gas pipelines is foreseen which will run from North to South, providing ground for the development of new areas in Siberia.

Water canal "Eurasia"

The President of Kazakhstan N. Nazarbayev at the St. Petersburg Economic Forum (10 June 2007) proposed to revive the "Eurasia" water canal project, which aims to connect the Caspian Sea with the basin of the Azov and Black Seas.

The Eurasia canal has a planned width of 120 m and a depth of 6.5 m with a capacity for ships of 12 - 14 thousand t. Savings due to the shorter transport routes are estimated at US$ 3,2 per 1 ton of cargo. Cargo throughput of the Eurasia canal is planned to exceed 3 times that of the Volga - Don channel. The trip is estimated to take 3 days compared to 7 days through the Volga – Don channel. The time of transportation of goods from Asia to Europe will be reduced from 1,5 - 2 months to 10 days. As part of the channel project the port "Lagan" with an annual capacity 2 - 3 million t is planned to be built on the shore of the Caspian Sea. It is planned that through the canal fresh water (1.5 - 2 cubic kilometers) will flow which would help develop a drip irrigation system along the route and would not damage the aqua systems of the Volga and the Caspian Sea.

The cost of the canal is estimated between US$ 5 toUS $ 6 bln. It is expected to consume about 90 MW of electricity which could be provided by the construction of a wind farm with a maximum capacity of 300 MW. The canal is still in the planning phase due to concerns that there would not be enough cargo for a profitable operation of the existing ports, not to mention the planned "Lagan" port.

It is estimated, that the possible cargo volume would sharply increase after the sanctions against Iran will be fully lifted. An increase in trade volumes in the region can also be expected from the rising population in Central Asia (182 mln people by 2050). The capacity of the port of Aktau on the Caspian Sea is estimated to increase to 22 mln t. by 2020. (Vyacheslav Ilyumzhinov)

Trans-European networks (TEN)

The Trans-European Networks (TENs) are large infrastructure networks of transport, energy and telecommunications underpinning the developmentl and integration goals of the European Union - the so called "20-20-20" targets. They sett three key objectives for 2020: a 20% reduction in the EU's greenhouse gas emissions from 1990 levels; raising the share of the EU energy consumption produced from renewable sources to 20%; a 20% improvement in the EU's energy efficiency.

Useful suggestions for the implementation of transport and infrastructure corridors in Wider Eurasia may also be developed based on the practical experiences of the European Union in the field of the TEN networks. With regard to governance, for each corridor the European Commission designated a European coordinator responsible for the project, who works in collaboration with the Member States interested in the project. The European coordinators are part of a Corridor Forum, a structure with a consultancy role.

The participants of the seminar have also discussed two maritime transport and infrastructure projects in Eurasia:

Maritime routes

World-wide transport of merchandise by all sorts of transport shows higher growth rates than the sea transport. From 1990 to 2010 sea transport increased by 120,5%, whereas overall merchandise transport increased by 200,25% during the same period. The difference of these development trends increases with time and point to a fall of the share of sea transport compared to other types of transports. However, this does not have an impact on the overall dominance of the sea transport. (František Stolárik, Jaromír Hladký)

Main maritime cargo flows in 2014, mln. TEU

Europe - Asia	6,952
Asia - Europe	15,396
China - Europe	10,697
South Korea - Europe	1,140
Vietnam - Europe	0,642
Thailand - Europe	0,580
Taiwan - Europe	0,395,
Malaysia - Europe	0,358
Sea route via the Suez canal	14,6

Source: Yury Shcherbanin.

The average travel speed of maritime vessels from Shanghai to Amsterdam is 23 knotss (ca. 40 km/h) with an approx. cost of US$ 1109 per TEU or US$ 0,20 per t/mile. (Yury Shcherbanin)

Arctic Sea Route

China is interested in joining at an early stage in the development of the North Arctic route around Siberia and territories in the Arctic areas.

There already exists a low capacity route through Tumangan from China to the Russian ports of Passiet and Zarubina. They are already functioning but at a low level. Their functioning at full capacity could result in a total turnover of US$ 7 - 9 bln. (Alexander Nagorny)

China - Europe South Sea Route

Currently, over 60% of world gross domestic product is created in the Asia-Pacific region. The total value of the world's traffic is over US$ 5 trln and much of it is transported by sea for long periods. The sea route between China and Europe is well-developed, by far the least expensive and has by far the greatest tonnage/container capacity. But the sea route brings little or no benefits for the interior regions of Eurasia. (Dr. Jonathan Tennenbaum)

2. Means of Financing of Mega Transport and Infrastructure Projects in Eurasia

The participants of the workshop called the lifting of sanctions and realization of the Minsk-2 agreements a crucial precondition for Russia's ability to finance and develop major transport and infrastructure projects in Eurasia:

Lifting of sanctions

The EU-Russia trade barriers as well as the Western financial sanctions against Russia are serious bottlenecks for developing large-scale infrastructure projects in Eurasia, especially in and with Russia. Some participants of the workshop argued in favor of lifting the Western sanctions against Russia, while others pointed out that it would require that both Ukraine and Russia fulfil the political preconditions contained in the Minsk-2 protocol.

The participants of the seminar discussed the main instruments for financing major transport and infrastructure projects in Eurasia:

Ways of funding of mega infrastructure projects in Greater Eurasia

Experts of the workshop suggested that the most appropriate financial mechanism and governance structure to support the realization of a mega transport and infrastructure project in Greater Eurasia would be to set up a specialized Development Fund or a Development Bank and a cluster of funds/banks related to it and oriented by it. Assuming that the political conditions are ensured, such a specialized Development Fund could be the most convenient solution because it could combine a public and private participation according to an agreed division of responsibilities. Another suitable variant could be the creation of a supranational railway company. (František Stolárik, Jaromír Hladký)

The second best option would be the involvement of infrastructure development banks such as the new Asian Infrastructure Investments Bank (AIIB) recently created by China or the Kreditanstalt fuer Wiederaufbau (KfW), the German bank of reconstruction.

Another positive and effective possibility of financing major transport and infrastructure projects in Greater Eurasia is the model of the Marguerite network of equity funds proposed and realized in the context of the Long Term Investors Club strategy.

An effective instrument for financing mega transport and infrastructure projects in Greater Eurasia could be project bonds. Project bonds could be issued both by the specialized Development Fund as well as by the other funds and they could be related directly to the realization of a part of the project or one of its specific segments, technologies or innovations.

Another suggestion could be the use of multi-source financing, which should involve not only states but also rail and shipping companies and international financial institutions. (František Stolárik, Jaromír Hladký)

Finance insurance

For the realization of multi-continental long term development projects the insurance and guarantee instruments for the investors will be a key factor.

Currency issues

The participants of the workshop proposed financing of major infrastructure and transport projects in Greater Eurasia by using a «Project Specific Currency Basket» (PSCB), e.g. as used by the IMF, the NDB BRICS, and the AIIB. Priority currencies would be the Euro, the Ruble, the Yuan and the Yen. (Yury Gromyko)

Theoretically project bonds could also be issued in more stable currencies of non-project area countries, e.g. the Japanese Yen for projects in Central Eurasia. (Hideto Tomabechi)

Cost threats

Detailed forecasts, evaluations and accurate planning play a crucial part in evading unnecessary costs of the infrastructure projects since a lack of those caused an average increase of the final costs compared to the estimated cost by 44,7% for rail projects, 33,8% for tunnels and bridges and 20,4% for the construction of streets and highways. (Marco Ricceri)

Development of the transport infrastructure in Central Asia requires massive investments. However, the economic viability of many transport projects should be carefully assessed. Coordination of all stakeholders - countries of the region, IFIs and major partners - seems necessary. (Roman Mogilevskii).

3. Global Players' Logistics Interests: Playing Ball or Playing Hard?

The participants of the seminar discussed the role of national and supranational interests in forming the conditions for either regional and inter-regional cooperation or competition in Eurasia:

Eurasian Economic Un*i*on

The Eurasian Economic Union (EAEU), having exhausted the initial effect of creating a common market by the elimination a great part of the border barriers within, at the present stage of its development needs to stimulate further integration by real projects. Infrastructure development and the realization of the transit potential are among the 9 main areas of economic development put forward by the Eurasian Economic Commission (EEC) till 2030.

Major transport and infrastructure projects can be the basis for interregional "integration of integrations", e.g. the linking of the EAEU and the Silk Road Economic Belt project. Transport and infrastructure are viewed by the business community as a drivers for integration.

One of the possible development scenarios of the EAEU is the "transit raw bridge" scenario, based on its favorable geographical location and large resource base, with production capacities near the large

transportation hubs and routes. The conditions for such a scenario are deep cooperation in power and mining industries, low logistics costs, the development of transport technologies and integration in the world transport systems. According to this scenario the EAEU's GDP is expected to grow 5% by 2030. (Yulia Chalaya)

In general, the business communities of Belarus, Kazakhstan, and Russia positively consider cooperation in infrastructure among the EAEU countries. They expect common infrastructure projects in transport and energy. The "transit raw bridge" scenario is more preferable for Belarus and less preferable for Kazakhstan. The freedom of cross-border international transport services is very sensitive for the Republic of Belarus. The most preferable scenario is a combination of two ways of integration: improvements in the business climate and the development of the transit potential. As for Russia, the first priority is the business climate, the second – the development of infrastructure. (Yulia Chalaya)

The members of the workshop suggested a list of instruments necessary to realize the "transport raw bridge" scenario: development of a single transport and logistic system based on modern information technologies; a shift from simple domestic transit to full-scale commodity distribution and transit systems; improved licensing procedures, including transportation to/from third countries; reduction of differences in administrative issues (e.g. axial load, gross vehicle weight); usage of cloud-based tender platforms with the option for examination of participants and applications; monitoring of EAEU freight flows; synchronization of transport reforms and customs legislation; extension of representation of the EUAU transport sector in European countries; harmonization, unification and simplification of transport and custom procedures (custom freight declarations, transit permits, data exchange); unification of tariffs for creating a single transport services market, thereafter – the development of commodity distribution systems abroad.

The participants of the workshop highlighted the problem that the transport of hydrocarbon fuels plays a far too dominant role in the development of Eurasian infrastructure and transport strategies. As an additional constraint the EAEU's low population density was mentioned. (Dr. Jonathan Tennenbaum)

The Treaty on the Eurasian Economic Union contains the key points of integration in infrastructure and transport. The importance of cooperation in transport and infrastructure is also determined by "The Main Areas of Economic Development of the EAEU" document. The integration possibilities of the EAEU in transport and infrastructure determine not only the agenda for cooperation, but moreover – the long-term scenario of the EAEU development.

According to their logistics performance the member-states of the Eurasian Economic Union are placed in the middle of world ranking of 160 countries. The member-states demonstrate quite good results in the development of information and telecommunication infrastructure compared with the world averages. The Republic of Kazakhstan and the Russian Federation represent more than 90% of the total freight transportation in the EAEU (any mode of transportation). Road transport plays the dominant role in freight and passenger transport in the EAEU. During 2010-2014 the majority of transport indicators show improvement, but the progress rate is decreasing. There is a risk of suspension of infrastructure projects or extensions of deadlines in case of continued adverse external economic

conditions. The existing statistics are not sufficient to evaluate the effectiveness and performance of the integrational measures and activities. (Yulia Chalaya)

Cargo Export EU –EAEU in 2014, all modes of transport, '000 t

Total	27978
Maritime	7432
Rail	2820
Road	17726

Source: Yury Shcherbanin.

Cargo Import EU –EAEU in 2014, all modes of transport, '000 t

Total	257050
Maritime	220438
Rail	26218
Road	10394

Source: Yury Shcherbanin.

During 2014 the maximum volume of cargo transported between the EU and the EAEU (RB, RF, RK) was 30-35 million tons, including transit via Ukraine. (Yury Shcherbanin).

Russia

Russia does not show sufficient performance in the competition within the Central Asian transit link of the Silk Road Economic Belt, seriously lagging behind in the competition for the processing of international cross-border flows. Today Russia serves no more than 5% - 7% of the potential volume of the market of the Eurasian transport and logistics services. (Sergey Tkachuk).

Russia could potentially transport a significant part of the Euro-Asian trade flows. With a potential 50% Russian share in the Eurasian transportation systems the income for Russia could be an estimated 1.5 - 2.5 tln USD. Along its Siberian highways modern cities with populations of 1.5 - 2 mln inhabitants could be build, which would relieve the major metropolitan areas in the European part of Russia and revive the sparsely populated territories of Siberia and the Far East. According to OECD estimates, an increase in productivity in Russia's transport sector by 10% could lead to a GDP growth of 0.8%. (Sergey Tkachuk)

According to a conservative scenario the Russian railroad transportation is expected to grow by up to 25% (goods turnover) by 2030. The growth dynamics will be defined by the transport of primary resources. The greatest export growth is supposed to be in the direction of China and East Asia. The greatest growth of transportation needs is expected in such groups of goods as grain, chemical products, wood and wood products. (Alexander Shirov)

Russia's priorities in the transport field are: the finalization of its current railroad projects; development of the seaport infrastructure; elimination of capacity restrictions; reconstruction of its

Siberian railroad network (TransSib, Baikal-Amur) and the construction of the high-speed rail link from Moscow to Kazan.

Central Asia

Kazakhstan is eager to benefit from China's growing exports to Europe. Kazakhstan's container rail freight traffic with China had risen by 62 percent during the first nine months of 2013, compared to the same period in 2012. (Fabrizio Zucca)

Kazakhstan has considerable chances to benefit from the trans-Eurasian railway transit – almost all routes cross its territory. In 2012 the international transit revenue of the country's railway operator "Kazakh Temir Zholy" generated 20% of this company's revenue and 11.5% of its freight turnover. Block trains through Kazakhstan already operate between China and Europe. (Roman Mogilevskii)

All Central Asian economies are very open. The railways and roads serve mainly for importation (≈ 90-95% of total transports). Their role for exports varies by country. Trade costs are very high in the region, partially due to the underdeveloped transport infrastructure and imperfect transit arrangements. But there are also structural issues such as the lack of economy of scale and the asymmetry of transport flows. (Roman Mogilevskii)

The participants of the workshop summed up the challenges for the Central Asian countries' potential railway links: a lack of sufficient traffic; dependence on few major users; harsh climate; security issues (terrorism); lack of manufactured products to be exported by the possible economic transport corridors; high capital requirements (some Central Asian countries importing energy already have foreign debt close to the sustainability threshold): FDIs may be an option, but require adequate legal and institutional frameworks, which is a challenge for many countries of the region. (Roman Mogilevskii)

The attending researches suggested, that in order to achieve development effects the transport corridors should be planned as economic corridors. The ADB's pilot study on the Almaty –Bishkek transport corridor indicates that improved transport links do not produce economic results by themselves – the markets are not yet integrated. The barriers include a low density of population, difficult-to-cross" borders, non-tariff measures, institutional issues etc. Potential uses of the corridor could include trade in food and agricultural products; some trade in manufactured goods; free movement of people. "Soft infrastructure" policies play a key role. The participation of the local private sector is important. The role of cities and urban development for proper functioning of economic corridors in Central Asia are vital. The development of hard and soft infrastructure would need to be implemented in parallel. (Roman Mogilevskii)

The rise of Asia

The participants of the workshop welcomed the planned establishment of preferential trade regime between the EAEU and ASEAN (Sergey Tkachuk).

According to the OECD, in 2060 the share of China and India in the gross world product will be 46% compared to the current 24% (2014). The Eurozone's share in the GWP is expected to decline from 17% to 9%. The OECD expects the year-on-year growth of the world economy at the level of 2.9%,

whereas Chinese and Indian GDP yearly growth will be 4.0% and 5.1%, respectively. (František Stolárik, Jaromír Hladký)

TTIP

The Transatlantic Trade and Investment Partnership (TTIP) could pose a threat to major Euro-Eurasian transport projects. The participants of the workshop assumed that the proposed TTIP agreement between the European Union and the United States would affect the mutual exchange of goods to such an extent that it will affect the share of Eurasian freight flows in comparison with Euro-Atlantic flows in favor of the latter one, due to the fact that the only transport route leads across the Atlantic. (František Stolárik, Jaromír Hladký)

It was also argued that the European ports wouldn't have sufficient capacity to deal with the increased trade flows expected for the next 15 years. According to preliminary calculations, the estimated quantities of merchandise flows in 2030 may reach 245 mln – 500 mln TEU. Thus it would be necessary to use the Eurasian transcontinental railways to handle the increased merchandise flows. (František Stolárik, Jaromír Hladký) Furthermore, exports from China to Europe are expected to decline due to the increasing role of other regions of the world and strengthening of the Chinese domestic consumption. This decline would be partly off-set by goods from the USA. The rest would need to be carried out mainly by railway. (František Stolárik, Jaromír Hladký)

The participants of the workshop considered economic and political security, especially the resolving of the Ukrainian crisis an important factor in the development of grand transport and infrastructure projects in Eurasia:

Security

Security and geopolitics were the main incentives in the history for undertaking great transport and infrastructure projects. Historically this was justified, e.g. since enormous and various natural resources were discovered later in Siberia and the Far East. (Alexander Nagorny). Political and security considerations again play an increasing role since the Ukrainian crisis.

All schemes and plans pertaining to continental transportation lines between Russia and China are being elaborated and will be implemented based mainly motives of security. Washington has turned out to be a real and potential threat to both of them. (Alexander Nagorny)

The Ukrainian crisis

The Ukrainian crisis is a major threat to any transport projects between the EU and the EAEU/Russia. Due to this crisis the volume of passenger and cargo traffic in Ukraine's transport sector fell by 10% in 2014. A shift of Russian trade flows towards China and East Asia is expected since trade with Europe has diminished substantially due to the suspension of most cooperation projects, to sanctions, counter-sanctions and the EU-Ukraine DCFTA. (Dmitry Chistilin)

4. Trade Development and Population: Cornerstones and Limitations to Transport and Infrastructure Projects in Eurasia

The participants of the seminar discussed additional challenging issues that are related to the purposes of potential infrastructure developments:

Should major transport and infrastructure projects in Eurasia be trade-oriented or pursued mainly for development purposes? Increased trade can promote development, but it can also hinder development, by solidifying unbalanced trade structures (e.g. increased dependence on raw materials exports to China). To achieve development effects, transport corridors should to become economic corridors. (Roman Mogilevskii)

The maximum economic benefit from major infrastructure and transport projects can be gained by concentrating investment in the regions adjacent to main transport lines. An important rule of thumb would be: economic growth in the development corridors should be self-sustaining. (Dr. Jonathan Tennenbaum)

A consensus about the final beneficiaries of the infrastructure and transport projects is considered important and consists of questions about the quality of (by-)products, i.e. technological modernization and implementations of international standards and certification, as well as lower consumer prices, which could be achieved by a cost reduction in logistics. (Yulia Chalaya)

According to the experts of the workshop, the economic and transit corridors should be seen as a combination of multi directional flows of goods instead of a road between two destination points. In that case an analysis of existing flows of goods is required and should be used as a basis for the strategy of transport and logistic development. (Yulia Chalaya)

The required development process cannot be realized under pure free market conditions. Planning and state intervention would be essential to its success. India and China, which both operate with mixed economies utilizing state planning, state investment and directed credit can set successful examples. (Dr. Jonathan Tennenbaum)

The experts of the workshop suggested “capture” large future markets for high-value manufactures and listed priority technology areas the intercontinental transport and economic corridors should be focused on: 1) infrastructure high-tech: high-speed ground transport (high-speed rail, automated transport, urban public transport equipment), new types of aircraft, space ports, launcher rockets, satellite and space station construction (the World market for satellite and space-based services has an estimated $200 bln turnover per year); 2) nuclear physics-based technologies: advanced reactor types and particle beam systems; 3) New materials such as superlight and superstrong materials. (Dr. Jonathan Tennenbaum)

Major infrastructure and transport projects in Greater Eurasia should be planned and built on the “participatory approach”, which is based on the possibility of an examination and open criticism of the projects by citizens, NGOs and private operators.). One suggestion was to use cloud-based tender platforms with the option for examination of participants and applications.

Results of the seminar illustrate once more the importance of IIASA as a platform for the open exchange of views.

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Presentations at the workshop

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Gromyko Y. Shiffers-Institute of Advanced Studies, Russia. *Trans-Eurasian belt of Razvitie(development)new platform for productive cooperation.*

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Raimondi P. Italian Committee "Razvitie Project", Italy. *Development projects and credit for building a new global order.*

Ricceri M. Eurispes Institute, Italy. *The strategic projects and the value of public-private interactions.*

Shcherbanin Y. Institute of Economic Forecasting, Russian Academy of Sciences, Russia. *Euro-Asian Inland Transport Communications: Capacity, Potential, Risks*

Shirov A. Institute of Economic Forecasting (IEF), Russian Academy of Sciences, Russia. *The railroad transportation in context trade and economic relations between EU and Russia.*

Stolárik F.; Hladký J. Transport–Science Organisation, Slovenia. *Assumptions for bilateral traffic flows of goods China – Europe.*

Tennenbaum J. Science and Technology, Germany. *The Physical Economy of Eurasian Integration.*

Tkachuck S. Scientific Eurasian Integration Center, Russia. *The linking of the strategies of the Eurasian Economic Union and the East-Asian nations in transport infrastructure: opportunities and risks.*

Tomabechi H. Tomabechi Institute, Japan. *Win-win new mega finance for global prosperity - Trans-Eurasian transport and infrastructure connecting Europe, Japan and beyond through Russia.*

Zucca F. Bocconi School of Management, Italy. *Eurasian corridor from different prospective and as a development project.*

The presentation slides and report texts given at the workshop are available by request from the project manager (Anastasia Stepanova stepanov@iiasa.ac.at).

Appendix 1: Agenda

IIASA, 15-16 September 2015

Day 1

Introduction and Goals of the Workshop
Chair and moderator - Pavel Kabat

Welcome - Pavel Kabat
Introductory remarks - Štefan Füle
Introductory remarks - Péter Balás
Introductory remarks - Mikhail Baydakov

Session I. Opportunities for Cooperation and Development of Large Infrastructure Projects in Eurasia
Chair and moderator - ZhongXiang Zhang

Euro-Asian inland transport communications: capacity, potential, risks - Yury Shcherbanin
Assumptions for bilateral traffic flows of goods China – Europe - František Stolárik, Jaromír Hladký
Modern Silk Road and Russian Federation: a regional outlook from Kalmykia - Vyacheslav Ilyumzhinov
Strategic aspects of the transportation corridors of the coming period - Alexander Nagorny
Discussion

Session II. Transport and Logistics Infrastructure in Eurasia
Chair and moderator - Michael Emerson

Infrastructure opportunities: another case for EAEU development - Andrey Lipin
Transit-raw bridge - scenario for the long-term economic development of the Eurasian Economic Union - Yuliya Chalaya
The Ukrainian crises as the threat of Eurasian integration - Dmitry Chistilin
Discussion

Day 2

Summary of the First Day and General Remarks
Chair and moderator - Pavel Kabat

Welcome and reflections on the first day

Session III. Eurasian Transcontinental Corridors
Chair and moderator - Yury Gromyko

Development of transport and infrastructure in Eurasia: the case of TEBR- project (Trans-Eurasian belt of Razvitie) - Yury Gromyko
Development projects and credit for building a new global order - Paolo Raimondi
The strategic projects and the value of public-private interactions - Marco Ricceri
The development of rail transport in the context of the development of trade and economic relations between EU and Russia - Alexander Shirov
Eurasian corridor from different prospective and as a development project - Fabrizio Zucca
A reinforced cooperation for Eurasia - Gian Guido Folloni
Win-win new mega finance for global prosperity - Trans-Eurasian transport and infrastructure connecting Europe, Japan and beyond through Russia - Hideto Tomabechi
Transport and economic corridors in Central Asia - Roman Mogilevsky
The physical economy of Eurasian integration - Jonathan Tennenbaum
Regional integration without empire - Henry C.K. Liu

Concluding Session
Chair and moderator - Pavel Kabat

Appendix 2: List of participants

Péter Balás	Deputy Director General, DG Trade, European Commission (EC) and Head, Support Group for Ukraine (SGUA), Belgium
Mikhail Baydakov	Chairman of the Board, CJSC «Millennium Bank», Russia
Yuliya Chalaya	Head, Economic Policy Strategies Section, Macroeconomic Policy Department, Eurasian Economic Commission (EEC), Russia
Dmitry Chistilin	President, Simon Kuznets International Institute for Development and Self-organization, Ukraine
Michael Emerson	Associate Senior Research Fellow, Centre for European Policy Studies (CEPS), Belgium, and Senior Research Scholar, International Institute for Applied Systems Analysis (IIASA), Austria
Gian Guido Folloni	President, Italian Institute for Asia and the Mediterranean (ISIAMED), Italy

Štefan Füle	Former European Commissioner for Enlargement and European Neighbourhood Policy (2010 – 2014), European Commission (EC), Belgium
Yury Gromyko	Director, Shiffers-Institute of Advanced Studies, CJSC «Millennium Bank», Russia
Peter Havlik	Staff Economist, The Vienna Institute for International Economic Studies (wiiw) and Guest Research Scholar, International Institute for Applied Systems Analysis (IIASA), Austria
Jaromír Hladký	Expert, Transport-Scientific Association, Slovak Republic
Vyacheslav Ilyumzhinov	Professor, Eurasia Finance Ltd., Russia
Pavel Isaev	Counselor to General Director, JSC «Severstal», Russia
Pavel Kabat	Director General and Chief Executive Officer, International Institute for Applied Systems Analysis (IIASA), Austria
Andrey Lipin	Deputy Director, Department of Macroeconomic Policy and Head, Macro Research Division, Eurasian Economic Commission (EEC), Russia
Henry C.K. Liu	Visiting Professor of Global Development, University of Missouri, USA
Dmitry Mityaev	Vice-President, Federal Governmental and Academic Institute, Council for the Study of Productive Forces (CSPF), Ministry of Economic Development and Russian Academy of Sciences, Russia
Roman Mogilevsky	Executive Director, CASE-Kyrgyzstan, Head of Research, Institute of Public Policy & Administration University of Central Asia (UCA), Kyrgyzstan
Alexander Nagorny	Vice-President, Association of Political Scientists (ASPEK), Deputy Editor, Newspaper «Tomorrow», Russia
Paolo Raimondi	Economist and Coordinator, Italian Committee «Razvitie Project», Editorialist, Economic daily «ItaliaOggi», Italy
Marco Ricceri	General secretary, The Institute for Political, Social and Economic studies (EURISPES), Italy
Elena Rovenskaya	Director, Advanced Systems Analysis Program, International Institute for Applied Systems Analysis (IIASA), Austria
Yury Shcherbanin	Professor, Head of Laboratory, Institute of Economic Forecasting (IEF), Russian Academy of Sciences, Russia
Alexander Shirov	Deputy Director, Institute of Economic Forecasting (IEF), Russian Academy of Sciences, Russia
Sergey Sizov	Second Secretary, Permanent Mission of the Russian Federation to the International Organizations in Vienna, Austria

Anastasia Stepanova	Project Manager and Research Scholar, International Institute for Applied Systems Analysis (IIASA), Austria
František Stolárik	President, Transport-Scientific Association, Slovak Republic
Moe Takekawa	Chief Assistant, VP Overseas Affairs, Cognitive Research Laboratories Inc., Carnegie Mellon University – CyLab USA
Jonathan Tennenbaum	Consultant on Economics, Science and Technology, Germany
Hideto Tomabechi	Adjunct Fellow, CEO, Cognitive Research Laboratories, Inc., Carnegie Mellon University – CyLab, USA
Evgeny Vinokurov	Director, Centre for Integration Studies, Eurasian Development Bank (EDB), Russia
Yuri Yegorov	Senior Researcher, Faculty of Business, Economics and Statistics, University of Vienna, Austria
Katarina Zembjakova	Translator, Transport-Scientific Association, Slovak Republic
ZhongXiang Zhang	Distinguished University Professor, College of Management and Economics, Tianjin University, China
Fabrizio Zucca	Professor, CERTeT - Bocconi University, Italy

About IIASA

Founded in 1972, the International Institute for Applied Systems Analysis (IIASA) conducts policy-oriented research into problems of a global nature that are too large or too complex to be solved by a single country or academic discipline. IIASA's research areas are energy & climate change; food & water; and poverty & equity.

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