



D4.3: Minutes of the 2nd NEAR2 Workshop



**SEVENTH FRAMEWORK
PROGRAMME**

THEME 7

***Transport including
Aeronautics***



Project NEAR²

NETWORK OF EUROPEAN – ASIAN RAIL RESEARCH CAPACITIES

Coordination and Support Action

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1 (coordinator)	Centre of Research and Technology Hellas / Hellenic Institute of Transport	CERTH/HIT	Greece
2	EURNEX e.V.	EURNEX	Germany
3	TECHNISCHE UNIVERSITÄT BERLIN	TUB	Germany
4	CESKE VYSOKE UCENI TECHNICE V PRAZE	CVUT	Czech Republic
5	VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETAS	VGTU	Lithuania
6	Moscow State University of Railway Engineering	MIIT	Russian Federation
7	A-TRANS LLC	A-TRANS	Russian Federation
8	Petersburg State Transport University	PSTU	Russian Federation
9	TONGJI UNIVERSITY	IRRT	China (People's Republic of)
10	EIRC Consulting Private Limited	EIRC	India
11	State Higher Educational Establishment Donetsk Railway Transport Institute of Ukrainian State Academy of Railway Transport	DRTI	Ukraine
12	INSTYTUT KOLEJNICTWA	IK	Poland
13	TRAIÑOSE METAFORES-METAFORIKES YPIRESIES EPIVATON KAI FORTIOU AE	TRAIÑOSE	Greece

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EXECUTIVE SUMMARY

In the framework of the NEAR² Project, 10 Concept Documents (CDs) were created aiming to examine all the technological, tactical and strategic issues concerning the achievement of interoperability and uninterrupted transport flow along the EU-Asia railway network. The CDs were formulated by the 10 Working Groups that were formed, each one of them dealing with one specific issue and following the categorization of EURNEX in Poles.

In order to evaluate and validate these documents, several actions are scheduled to be taken by the project partners, the most important of which is the organization of 3 workshops. Several experts are invited in these workshops in order to assess the Documents and provide the partners with their valuable views on the issues examined.

The 1st workshop was organized on February 4th, 2014 in Vilnius, Lithuania with the participation of experts coming from the research community.

The 2nd workshop was organized on June 12th, 2014 in Warsaw, Poland with the participation of experts coming from industry. Given that the 10 CDs were presented and evaluated during the 1st workshop, it was considered more efficient to ask the industry representatives to present their point of view in regards to the needs and priorities of the Trans-Eurasian railway network. In this respect, several very interesting presentations were made, which triggered equally interesting discussions, the outcomes of which will comprise significant input to the Final Project Publication.

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ABBREVIATIONS AND TERMINOLOGY

CD	Concept Document
EURNEX	European Rail Research Network of Excellence
TAR	Trans-Asian Railway
TRACECA	TRAnsport Corridor Europe-Caucasus-Asia
WG	Working Group
WP	Work Package

1. INTRODUCTION

1.1. The NEAR² project

The rapid development of Asian economies, particularly China, India and Russia has dramatically increased the trade volumes between Europe and Asia, with the largest trading partners of Europe actually being located in Asia. Nowadays, the most important trade loads are being transported between the two continents by sea.

Railway transport, using the existing and new land routes for the Trans-Eurasian land bridge presents a viable alternative to the maritime routes, which is gaining significant momentum. Due to the origins and current nature of this rail land bridge, numerous issues need to be resolved to bring the system to a modern state of infrastructure, services and operations. Furthermore, to build the capacity to fully exploit the systems potential, adaptation of new technologies, interoperability solutions and optimized operations should be considered. In order to support this objective, NEAR² proposes the creation of a Rail Research Network along the Trans-Eurasian land bridge, exploiting the structure and leveraging the achievements of the existing European Rail Research Network of Excellence (EURNEX), engaging this way all the existing research centres in a continuous and fruitful international cooperation.

One of the core activities of NEAR² is the formulation of 10 Concept Documents (CDs) that will map all the technological issues that concern the achievement of interoperability along the EU-Asia railway network. The gaps in the existing knowledge in terms of barriers and potential solutions are also being investigated, thus resulting to the identification of research needs and priorities. Each Concept Document covers a specific thematic area, based on the 10 EURNEX Poles of excellence, and is supported by a project partner, member of the NEAR² Working Group (WG). The 10 WGs of the project are the following:

1. Strategy and Economics
2. Operation and System Performance
3. Rolling Stock
4. Product Qualification Methods
5. Intelligent Mobility
6. Safety and Security
7. Environment and Energy Efficiency
8. Infrastructure and Signalling
9. Human Factors and Societal Aspects
10. Training and Education

Each one of the Working Groups identifies and analyses the relevant in each case topics of interest, while a more in depth analysis of the most prominent of them follows. The goal of this analysis is the identification of needs, barriers and research recommendations in relation to the Euro-Asian railway corridors.

Three workshops will be organized in the framework of the Project, in which a selected group of research representatives and industry parties will participate, having the goal to finalize and prioritize the initial topics of interest and the identified needs, barriers and recommendations.

1.2. Objectives of the 2nd NEAR² Workshop

The 2nd NEAR² Workshop was organized in Instytut Kolejnictwa's conference room in Warsaw, Poland on the 12th of June, 2014 and was the second of a series of 3 workshops foreseen in the framework of the Project.

As explained in D4.2 "Minutes of the 1st Workshop", the scope of all 3 workshops was initially set to be the evaluation of the 10 Concept Documents that were formulated in the framework of WP3 and following the categorization of EURNEX in Poles. Given that the 10 CDs were evaluated during the 1st workshop by the research community, it was considered more efficient to have the 2nd one focus on examining the industry's point of view in regards to the needs and priorities of the Trans-Eurasian railway corridors. In this respect, the goal of the workshop was on one hand to inform the invited experts on the project outcomes achieved so far and on the other hand to listen to their opinions in regards to the issues on which focus should be placed.

Based on the above, the project partners presented:

- The overall scope of the project and the results achieved;
- The outcomes of the surveys conducted among local experts in China, Russia and India regarding the views and needs of shippers and the prospects of the Trans-Eurasian Corridors under the perspective of the each country's strategy.

The invited experts on the other hand, focused on:

- The chances and challenges of the railway in the supply chains between East-Asia and Europe;
- The experience of specific organizations in the Trans-Eurasian corridors and
- Existing bottlenecks and future projects in the Trans-Eurasian corridors.

The input gained through the above presentations and the discussions that followed will comprise significant input to the Final Project Publication.

1.3. Scope of the document

The scope of the present document is to report the outcomes of the 2nd workshop. More specifically, the present introductory chapter includes general information on the NEAR² Project and on the objectives of the workshop.

The second chapter aims to introduce the reader to the procedures that were followed during the organization of the workshop, including the list of the invited experts, the list of the experts that actually participated, as well as the agenda followed.

The third chapter comprises the core of the document presenting the minutes of the workshop, including all the discussions that took place among the project partners and the invited experts.

The final, fourth chapter includes the conclusion drawn through the presentations and the discussions that took place.

2. ORGANIZATION OF THE 2ND NEAR² WORKSHOP

2.1. Procedures followed towards the organization of the 2nd NEAR² Workshop

2.1.1. Organizational issues

In order to organize the 2nd NEAR² Workshop, an Organization Committee was formed by the responsible partner, the Railway Institute (IK). The Committee consisted of 3 employees of IK, namely:

- Ms. Magda Antolik,
- Ms. Magdalena Garlikowska and
- Mr. Witold Olpiński.

The workshop was organized in the Conference Hall of Instytut Kolejnictwa (IK) in Warsaw at Chłopickiego 50 Street. The promotional material for 50 persons (notebooks, pens, clip-on cards, Agendas of Workshop, Certificates) was produced by the company “Ancara Bis” who offered the cheapest price. The company “Ancara Bis” was chosen from between three other companies that replied to IK’s request with a quote for producing the promotional materials. The responsibility of registering the workshop participants was undertaken by Workshop Organization Committee. All coffee breaks and lunches were delivered by the “Restro Restaurant”.

The organizer of the Gala Dinner was selected by Simplified Interviewing Procedure (SIP) on the 3rd and 4th of June, 2014. The winner of this SIP was again the same company “Restro Restaurant”, which offered the lowest price and the greatest quality of served meals. The Gala Dinner was finally held in the restaurant “Restro” on 11th June, 2014.

The hotel chosen as an accommodation place for the invited experts was selected by the Workshop Organization Committee on the basis of tenders submitted by e-mail by the end of May 2014. The Novotel Hotel had offered the cheapest price.

Invitations for the acquisition of visa were sent to the project partners who required them. Only one project partner, A-Trans from the Russian Federation, informed that they would not be able to participate at the workshop. The rest of the partners did not face any problems and attended the workshop as planned

2.1.2. Technical issues

The ultimate goal of the workshop was firstly to present the current situation and future prospects of Trans-Eurasian corridors (mainly in the Russian Federation, China and India) and to receive the experts’ views and potential input. Secondly, the presentations on chances and future prospects of Trans-Eurasian corridors were given by the invited industry experts. The agenda was organized in such a way so as to ensure the achievement of these two goals.

Prior to the workshop, three project partners (MIIT, IRRT, EIRC) had been asked to prepare presentations including the current situation and future prospects of the Europe-Asia rail corridors. All of the presentations were sent to the coordinator (CERTH) who undertook the responsibility to review them and provide comments (if any). Likewise, the invited industry experts were asked to prepare presentations regarding the chances and challenges of the Trans-Eurasian corridors. Four presenters were chosen from Austria, Ukraine, OSJD Committee and UIC.

2.2. List of invited experts

Given that the representatives of the research community were invited and participated in the 1st NEAR² Workshop, the 2nd one aimed to involve experts from the industry. In this respect, a long list of experts was formulated from which several experts were selected and invited. It should be noted that emphasis was given to the experts coming from Europe, as the ones from Asia will be invited to the 3rd workshop scheduled to take place in July in Shanghai.

An official letter was sent to the selected experts by the Coordinator, Dr. Boile, inviting them to the workshop and letting them know that all the costs for their trips to Warsaw will be covered by the project. Table 1 below includes the list of invited experts:

Table 1: List of invited experts

	Name	Organization	Country
1	Martin Brennan	RSSB	UK
2	Klaus Jurgen Uhl	Mobility Consultants	Austria
3	Dr. Wolfgang Schausberger	Mobility Consultants	Austria
4	Dennis Schut	UIC	France
5	Jean – Pierre Loubinoux	UIC	France
6	Marcel Verslype	ERA	EU
7	Esteban Coito Gonzalez	ERA	Spain
8	Franco Cataldo	UNIFE	EU
9	Maria Dincheva	UIP	EU
10	Herwing Schobel	Austria tec	Austria
11	Wojciech Kwiatkowski	PESA	Poland
12	Thomas Mueller	Greenbrier	Poland
13	Dr Stasys Dailydka	Lithuanian Railways	Lithuania
14	Dr. Peter Fabian	Fabian University of Žilina	Slovak Republic

15	Prof. Samsonkin Valery	DNDC UZ	Ukraine
16	Ylnytska Natalia	Ukraine Ukrzaliznytsia	Ukraine
17	Zurab Kozmava	OSJD Committee	Georgia
18	Thomas Scherer	HP	Netherlands

2.3. List of participating experts and partners

Table 2 and Table 3 below present the list of participating experts and participating partners respectively:

Table 2: List of participating experts

	Name	Affiliation	Country	Email
1	Klaus-Jurgen Uhl (KJ)	MC Mobility Consultants GmbH	Austria	office@vienna-mc.com
2	Wolfgang Schausberger (WS)	MC Mobility Consultants GmbH	Austria	wolfgang. schausberger@vienna-mc.com
3	Michal Wiertelorz (MW)	DB Schenker Rail Polska S.A.	Poland	Michal.wiertelorz@dbschenker.pl
4	Tadeusz Kaczmarek (TK)	PKP PLK S.A	Poland	Tadeusz.kaczmarek@plk-sa.pl
5	Zurab Kozmava (ZK)	OSJD Committee	Georgia	kozmava@osjd.org.pl
6	Esteban Coito Gonzalez (EC)	European Railway Agency	Spain	Esteban.coito@era.europa.eu
7	Rebets Roman (RR)	UIC	Russia/France	rebets@uic.org
8	Valeriy Samsonkin (VS)	DNDC UZ	Ukraine	samsonkin@1520mm.com
9	Natalia Ilnytska (NI)	Ukrzaliznitsya	Ukraine	n.ilnytska@mail.com
10	Andrius Janusauskas (AJ)	Lithuanian Railways	Lithuania	Andrius.j@litrail.lt

Table 3: List of participating Project partners

N°	Name	Organization	Country
1	Dr. Maria Boile (MB)	CERTH/HIT	Greece
2	Ms. Annie Kortsari (AK)	CERTH/HIT	Greece
3	Ms. Anna-Maria Ioannidou	CERTH/HIT	Greece
3	Prof. Wolfgang Steinicke (WS)	EURNEX	Germany
4	MSc. Lennart Senger (LS)	EURNEX	Germany
5	Dr. Martin Schiefelbusch (MS)	TUB	Germany
6	Philipp Krause (PK)	TUB	Germany
7	MSc. Vitek Malinovsky (VM)	CVUT	Czech Republic
8	Prof. Gintautas Bureika (GB)	VGTU	Lithuania
9	MSc. Stasys Steisunas (SS)	VGTU	Lithuania
10	Prof. Vladimir Solowjow (VS)	MIIT	Russian Federation
11	Nikolay Putsko (NP)	MIIT	Russian Federation
12	Ass. Prof. Natalia Ivanova (NI)	PSTU	Russian Federation
13	Prof. Titova Tamila (TT)	PSTU	Russian Federation
14	Mr. Nikitin Aleksandr (NA)	PSTU	Russian Federation
15	Mr. Karthik Kumar Sidramappa (KK)	EIRC	India
16	Mr. Gong Dao (GD)	IRRT	China
17	Prof. Weida Xie (WX)	IRRT	China
18	Sergey Tsykhmistro (ST)	DRTI	Ukraine
19	MSc. Witold Olpinski (WO)	IK	Poland
20	Alexandros Dalkalitsis (AD)	TRAI NOSE S.A	Greece

2.4. Workshop Agenda

The agenda of the workshop is presented below:

08:30 – 09:00 Welcome coffee and registrations

Opening and keynote presentation

09:00 – 09:30	Welcome and opening remarks	Andrzej Żurkowski PhD, Eng., Director of Railway Institute in Poland
	Overview of the NEAR2 project	
	Workshop objectives	Dr Maria Boile, Centre for Research and Technology Hellas
	Anticipated outcomes	

Session 1: Presentations of the Trans-Eurasian corridors presented by project partners and discussion (30 min presentation and 25-30 min discussion and comments) Moderators: Dr Maria Boile

09:30 – 10:30	Current situation and future prospects of the Europe-Asia rail corridors	MIIT
10:30 – 11:30	The views of shippers and operators in China	IRRT

11:30 – 12:00 Coffee break

12:00 – 13:00	The views of shippers and operators in India	EIRC
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13:00 – 14:00 Lunch and networking

Session 2: Presentations of the Trans-Eurasian corridors presented by industry representatives and discussion (15 min presentation and 25-30 min discussion and comments) Moderators: Prof. Wolfgang Steinicke

14:00 – 14:45	The chances and challenges of the railway in the supply chains between East-Asia and Europe	Klaus-Jürgen Uhl, MC Mobility Consultants GmbH
14:45 – 15:30	Ukrzaliznitsya's input in transport and future prospects in the field of transport logistics	Natalia Ilnytska, Ukrzaliznitsya, Ukraine
15:30 – 16:15	OSJD and the Corridors of OSJD	Zurab Kozmava, OSJD

16:50 – 16:45 Coffee break

16:45 – 17:15	Existing bottlenecks and future projects in the Trans-Eurasian corridors	Roman Rebets, UIC
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17:15 – 17:45 Conclusion of the Workshop

Dr Maria Boile, Centre for
Research and Technology Hellas

3. MINUTES OF THE 2ND NEAR² WORKSHOP

The Director of the Railway Institute of Poland, AZ, opened the workshop welcoming all the participants. He provided some information about the Polish Institute and he explained that its aspects on railway transport involve all the fields of railway operation. It was also mentioned that the Ministry of Infrastructure Development cooperates with western and eastern countries in various projects in order to exchange common experience in the railway sector.

Following, the Coordinator, CERTH/HIT took the floor and thanked the participants for their participation in the workshop. WS then made a presentation on the NEAR² Project, placing emphasis on the results achieved so far and the next steps to be taken by the end of the project. He then asked if anyone had any questions or would like to make a comment.

WS mentioned that this is a very good opportunity for several railway experts to conduct a fruitful discussion on the Trans-Eurasian railway corridor. In this respect, he urged the project partners to lively participate in the discussion and take advantage of the experts' presence in order to acquire the necessary input for the next steps of the project. He expressed his opinion that NEAR² is a very important project because of the situation of trade transshipment on the main territory covered from shipping instead of rail.

He mentioned that the project needs to tackle three very important questions; "What is the available capacity? Which are the priorities in regards to existing problems to be solved? Which are the requirements of the customs?" He stated that predicting the future of the railways is very difficult and challenging and this is something the project should focus on.

At this point, VS from MIIT proceeded with the first presentation of the workshop, dealing with the current situation and future prospects of the Europe-Asia railway corridors. His presentation focused on the following issues:

- The impact of transport corridors in the world economic intercourse in Eurasia;
- The International transport corridors as a competitive advantage in transportation of cargo containers by rail;
- The potential of the Trans-Siberian railway corridor; the existing problems and solutions.
- The organization of freight traffic by container block trains;
- The target priorities in the sphere of tariff regulation;
- Assessment of the status and development prospects of railway container transportation market in Russia;
- Assessment of the status and development prospects of railway container transportation market in Russia;
- Forecast on rail transport containerization in Russia;
- The future prospects and problems of the Trans-Eurasian railway corridor.

Upon the finalisation of the presentation by VS, WS asked him regarding Russia's strategy for 2050, and whether or not a further rise in railway transport is expected. VS answered that many programs are expected to take place with the opportunity of Horizon 2020, so a further rise may be expected. No official studies exist however on this issue.

Following, WX from IRRT took the floor in order to make his presentation on the views of shippers and operators in China. The presentation was based on a survey, which included interviews and questionnaire completion and which was conducted by the project partners in China. The main points of the presentation include the following:

- Overview of the Chinese railway sector;
- The views of railway operators in China;
- The situation of cross-border railway transportation of China;
- The rolling stock industry in China;

After the end of the presentation, WS commented on the importance of the new lines presented by WX for the trade improvement between Asia and Europe.

At this point, RR from UIC asked two questions. The first one regarded the decrease in freight transport in 2012, observed in the charts presented. WX explained that the reason for this decrease is the increase in the number of passengers using rail. Actually, Chinese people use the train a lot and for this reason the Government has chosen to give priority to passenger traffic instead of freight in various lines. Following, RR asked if the freight locomotives are manufactured in China. WX clarified that the freight locomotives used in China are indeed manufactured there, but the technology used comes from Europe and Japan (Alstom, Bombardier, Siemens etc.).

WS asked WX what are the perspectives of Chinese railways ten years from now, based on the decrease of freight in 2013 and the high demand of containers which would entail significant investments. WX answered that demand or activities have to increase. He mentioned that they plan developing freight transportation by building some special lines for containers.

WS stated that, according to the White paper of the European Commission, there is a goal to shift 50% of freight transportation from road to rail. Based on this, WS asked if there is a similar goal aimed by the Chinese Government. WX replied that, the Chinese Government realizes that railway transportation is very important for the nation as there are plenty of hubs and important destinations in China. For this reason they are planning to invest on railway infrastructure, public transportation, energy etc.

WS, thanking WX for his very interesting presentation gave the floor to KK in order for him to present the views of shippers and operators in India, based on a similar survey as the one conducted by the Chinese partners that took place in India. The main issues mentioned in the presentation were:

- Overview of the Indian Railways;
- Results from the questionnaires survey;
- The views of the shippers interviewed;
- Strategic plan for Railway Infrastructure Development in India;

- Existing agreements with neighbouring countries;
- Research priorities for India in the Eurasian railway corridor.

Upon the finalization of the presentation, WS commented on the fact that, 72,9% of the rail revenues come from freight. KK replied that currently in India a political decision has been made to have very low fares for passengers so that people of all incomes may travel by train. In this respect, a rise in revenues coming from passenger transport is expected, which hopefully will not result to a decrease in revenues coming from freight.

Next RR asked if China is India's most important import and export partner, with KK clarifying that, although several problems exist in border crossings, China is indeed the most significant partner. RR also asked if there is a potential for India to cooperate with Iran, as there are many projects between Iran and Azerbaijan etc. and KK answered that there is nothing here to mention just that some borders crossing are still closed.

LS asked if there are any plans for further electrification of the rail network in India, and KK replied that, currently 60% of the lines are electrified, but yes, there are plans for further electrification.

WS stated as a final comment that the environmental issues are also very important, and by this we should not only mean the decarbonisation, but the decrease of noise as well. KK mentioned that India is exchanging know-how with other countries on various rail issues, with the environmental being one of them.

Break

Coming back from the break, WS mentioned that it is now time to give the floor to the experts in order to get their valuable views on the issues dealt with in the framework of the project. By saying this, he gave way to KJ in order for him to present the chances and challenges of the railway in the supply chains between East-Asia and Europe.

KJ initiated his presentation by saying a few things about himself and his experience as a railway person, mentioning that he has been dealing with the railways for over 40 years. He also gave brief information on the activities of his company, Mobility Consultants.

Coming to the issues of his presentation he stated that Germany always wanted to get to China by rail and that building the Trans-Eurasian corridor is not a new goal, but the problem was that this route was not competitive. The Japanese on the other hand, tried to build a line from Yokohama to the Soviet Union and through Poland to Port of Hamburg but there was a problem that they were not competitive. He mentioned that, these days there are enormous freight flows from China, Korea, Japan and the US, but from Eastern Asia to Europe it is not quit balanced. Exports from Eastern Asia to Europe account to 60%, while the exports from Europe to Eastern Asia are only 40%.

He then explained that Germany is a powerful economy whose imports come mostly from China, Korea, US and India. The most important economic power house for EU is Eastern Asia, so as a result the transportation between them is vital. The main reason is that Asia can

do it without Europe, while Europe stills needs Asia and the products manufactured there. He forecasted that in the future Asia will be the one to set the technical norms in regards to transport between the two continents. He mentioned that from Eastern Asia, China to Europe the corridor through Kazakhstan takes 22 days or 26 day, while via the Trans-Siberian it takes 26 to 30 days. He added that crossing Russia in 9 days is an excellent performance. As regards the issue of travel time through the various Trans-Eurasian corridors, he mentioned that the main issue that need to be resolved is border crossing.

In the second part of his presentation, he referred to the competitor of the railways which is maritime transport. He explained that ships can transfer 35-40 million containers in both directions. Based on this, there is clear need to actually persuade the shippers to use rail instead of maritime. One of the major disadvantages of maritime transport that could be used as an argument is piracy. Especially in the routes that pass close to Somalia and the Malacca straits attacks by pirates are very often.

Coming to the maritime routes, he informed the participants that there is a new tendency of not using so much the ports of Rotterdam and Hamburg, but to go through the Mediterranean Sea to Portuguese, Spanish and Italian ports. The port of Piraeus is also trying to get in the game and may comprise a major player in the future. The containers that will be transported using this route through the Mediterranean Sea will then continue to Northern Europe through the “Banana route”. This route starts in Torino, goes through Milano to Switzerland (Geneva, Basel), then to Germany (Frankfurt, Ruhr District), Netherlands (Antwerp, Amsterdam, Rotterdam) and finally to the UK in London.

He mentioned that a new route that will be competitive to railways is the North East passage. Currently there are no services because Russia has to develop the monitoring system (no black box system exists). KJ stated that in his opinion there will be extensive research in the future in Russia regarding this passage. Another route from China is through the Canadian port to Europe, but significant problems exist due to the ice existing in the area, making the trips of international shipment insecure. He also mentioned the Vienna/Bratislava/ Russia project for which estimated time is 15 days but there is 2 days delay due to border crossing issues. About 16 million ton per year is transported through this route.

At this point, KJ mentioned that in the future railway should pay attention to the supply chain from and to China. The railways should focus more on contributing in the multimodal services, rather than sticking on the rail vs road vs ship notion. He said that transport through sea is always on time making maritime transport much more competitive than rail. Moreover, maritime transport is more flexible than rail because a significant number of alternative routes exist, contrary to the case of the railways where no deviations are possible. On the other hand, KJ said that the main reason for which the railways are not preferred is the dead weight, resulting to empty containers that create a negative relationship.

The main advantage of the railways is low prices which can improve multimodality. From the side of the industries he said that the most important mistake in the transport policies is that railway always is against road and maritime. Industries aren't interested to this shift but only to the multimodal price per ton, the capacity, etc. There was an interruption from WS because he disagreed with KJ on his remarks for railway policies. He mentioned that EC

indeed aims to shift part of the cargo from road to rail, but this is only one of the 10 priorities included in the Shift2Rail project. Multimodality is also very important for the EC.

KJ continued his presentation by saying that the most important issue to be decided by the industry in order to select a mode is whether they care more about price or reliability. In regards to operations he mentioned there is a challenge for smaller units. By sea he mentioned there is an enormous flexibility to deviations but from Asia to Europe you can't deviate. He remarked that the major challenge is not only the national borders but also the cooperation between two infrastructure managers in the same country.

In his final slide, KJ mentioned several of the challenges of the Trans-Eurasian Corridors. The most important are:

- The most important issue to be tackled is the delays in border crossings.
- Bilateral and multilateral agreements between the countries have to be modernized; For example, China and Vietnam have an agreement, the same goes for Korea and China, but Russia with China, Mongolia with China and Mongolia with Russia have no recent modernized agreements.
- Safety is very important.
- His opinion is that the current TSIs cause many problems and put obstacles to progress in the countries that have different standards.

EC disagreed on this last statement, mentioning that although a lot has to be done still, the TSIs have been helpful in the direction of achieving interoperability and harmonization.

After the end of KJ's presentation, WS stated that he agrees with KJ's opinion about the monopoly and the investments. He also said that it could be possible to achieve a progress in the economy of the EC, should Europe support decisions against monopolies. WO asked KJ if the journey from Japan and China to Europe is the only route or if there is further extension to America. JK answered that all the containers by rail go from China to Europe and they stop in Europe.

WS said that there is a high challenge for rail and asked JK on what could be done in regards to empty containers. KJ answered that the best is the model crossing agreement. In the route from China to Finland, the Finish railway has good connection and good equipment. WS mentioned again that there are too much challenges. EC commented that interoperability issues are very important. He also mentioned that ten years ago there were many different situations but now with the EU legislation and the use of the TSIs the border crossing issue has been improved. KJ said then that because of the harmonization the international rail has been decreased. WS said that we have to see about the solutions and not think which will be the next step of competitors.

Break

Coming back from the break, WS thanked KJ for the very interesting presentation and all the experts and partners for the lively conversation. He then passed the floor to NI who made a brief presentation on the Ukraine railways. More specifically, she focused on:

- The role of the Ukrainian railways in the Ukrainian economy;
- The international corridors used as well as some of the OSJD (Organisation for Cooperation between Railways) corridors;
- Issues regarding container trains
- Information exchange
- The railway ferry communication between Ukraine and Turkey

After the end of the presentation, WS commented that through her speech, NI made clear the current situation and the progress that has been achieved in Ukraine in general in regards to the railways in particular. Following ZK made a presentation in regards to OSJD which focused on:

- The brief presentation of OSJD;
- The dynamics of changes in passenger traffic;
- The main objectives and transport policy of OSJD;
- The OSJD Corridors;
- International Agreements of OSJD;
- Implementation of MoC in the field of technical, operational and commercial development of the railway corridor of OSJD;
- The work done on the improvement of transport law;
- The ways to improve rail transport competitiveness.

WS thanked ZK for his interesting presentation and gave the floor to RR from UIC to present UIC's role in corridor development. More specifically, his presentation included:

- The ways in which UIC supports the development of intercontinental rail links;
- The four key railway corridors from China to Europe;
- The assessment of the routes;
- Potential for development of the railways in the Trans-Eurasian corridors;
- The characteristics of the Trans-Siberian corridor;
- The Russian railways transit transport;
- The Unified Rail Transport Law;
- Test container train launch technology.

A brief discussion took place after this last presentation between all the experts. KJ said that because Russia and China are close markets with different legislation from the EU, many cargoes from China go to Poland. He mentioned that there is a need for a harmonized form (paper) for consignments. EC mentioned that in European legislation it is up to the company

and management system to decide the template. KJ commented that in maritime transport no consignment cost is included and for this reason it makes sense to prefer it instead of rail transport. WS said that UIC should decide who the harmonization should be done and Asian standards will probably follow up. RR answered that UIC will make a joint for issue standards. Each country has its own standards, ex. Siemens makes the standards for Germany, Alstom for France, and so it will take time.

Before finishing the workshop WS thanked all the participants for the fruitful discussion. The coordinator mentioned that very good input was acquired that will help in the formulation of the final report. She also thanked the participants and closed the workshop.

END OF WORKSHOP

4. CONCLUSIONS

The 2nd NEAR² Workshop took place in Warsaw Poland on the 12th of June, 2014 with the twofold scope to inform the invited experts on the project results achieved so far and to identify the needs and priorities of the industry, in regards to the Trans-Eurasian railway corridors. Plenty of experts were invited to participate, several of which agreed to do so representing this way some of the major railway associations in Europe and Asia, such as the European Railway Agency (ERA), the International Union of Railways (UIC) and the Organisation for Co-operation between Railways (OSJD). Other major companies that were represented in the workshop were the Mobility Consultants from Vienna, DB Schenker from Poland, Ukrzaliznitsya from Ukraine, as well as the Lithuanian Railways.

The participation of these high level experts, along with the expertise gained through the project by the project partners had as a result presentations of great interest which serve as an added value to the project. The fruitful discussions that followed enable the participants to identify and highlight the major needs and priorities of the corridors under study.

Coming to the main conclusions drawn, these may be divided into two categories; country specific conclusions and general conclusions regarding the Trans-Eurasian railway corridors. Below, these conclusions are presented:

Country specific conclusions:

Russian Federation

1. Effective functioning of railway border crossings is a necessary condition for improving competitiveness of international transport corridors passing through the territory of the Russian Federation.
2. The Russian Railways plan to create a logistics company with the participation of South Korean forwarders to attract investment in the modernization of infrastructure and guaranteeing of traffic, as well as providing "through service" for shippers on the Busan - Rajin route with connection to the Trans-Siberian railway through the border crossing on the Tumangang-Hasan route.
3. Marketing research shows that the delivery by rail through Russia must not exceed 7 days, and the price should not exceed the cost of sea transportation more than \$ 1,000 – these are the needs of foreign customers that must be met in order for the connection of the Russian land route to mass transport of goods from East Asia to Europe to be efficient.
4. Russian railways have a considerable potential in increasing the volume of container traffic, expected growth rate of the demand for services in the Russian container market will exceed the world average rate in about 1.5 times.

India

1. The main problem impeding the connection of India to the Trans-Eurasian corridors is the fact that Indian railways use broad gauge, contrary to the most of the corridors that use standard gauge.
2. The main commodities that India could export using the railways are manufactured goods, basic engineering goods, basic electronics, agro products, pharmaceuticals and textiles.
3. There is a clear need for the identification of existing bottlenecks and challenges that are hindering India's active participation in the Trans-Eurasian corridors.

China

1. China railway was operated by China government-MOR (The Ministry of Railway) before 2013.3; as of 2013.03, the China Railway Corporation (CRC) manages and operates the railway transportation of China.
2. The main Sino-Europe continental railway lines that currently operate are:
 - a. Chongqing-Xinjiang-Europe (16 days to Europe)
 - b. Chang'an cargo train from Xi'an to Rotterdam (train runs 3 times a month, starting from July 2014)
 - c. Zhengzhou-Xinjiang-Europe (15 days to Hamburg)
 - d. Chengdu-Europe (one of the major transport routes for Sino-European trade from central and western China to Europe and help the region shake off the dependence on sea ports).
3. The commodities transported via the above mentioned routes include electronics, cars, medical equipment, steel, aluminium, electric power, control units and apple juice.

General Conclusions

1. The most important requirement for the customers, while selecting mode of transport is to reduce as much as possible the transport cost on the overall cost of the product transported. To do this, dead weight must be reduced. Also, railway companies must abandon the notion of railway vs road vs sea, but instead, try to gain a big portion of the multimodal transportation.
2. Based on a survey, for commodities transported by rail, the most important criteria are price, reliability and short term availability.
3. To exploit the huge market potential, Eurasian rail services need to be improved significantly in regards to transport time, reliability, target markets, pricing, infrastructure, frequency, flexibility and customs.
4. Based on the above, the major challenges that need to be dealt with in order to make the railways more competitive are:
 - a. Achievement of efficient and quick border crossings. This regards border between Asia and Europe, within Europe, as well as within the same country (when different infrastructure managers operate).
 - b. Harmonization of freight documents;
 - c. Achievement of interoperability;
 - d. Further development and open access to railway corridors;

- e. Changes in the Laws for Competition applied in EC in relation to relevant laws for other modes; Improvement of the legal framework towards a unified railway transport law.
- f. Make the railways more competitive for private investment;
- g. Further development of container and combined traffic.