

NEW EURASIAN LAND TRANSPORT
INITIATIVE



FINAL REPORT



IN COOPERATION WITH



PARTICIPANTS IN THE PROJECT



**Tizgaman Jahan
Int'l Trans.Co**

ДЕГЕРТАЧ



FINAL REPORT

Analysis of monitoring data collected
on NELTI Project Routes in 2008 – 2009

Undertaken by NEA Transprot Research
Institute (Netherlands) in cooperation with
the International Road Transport Union (IRU)



Fast development of the economic cooperation and trade relations between Europe and Asia can not be successful without efficient organisation of transport. For example, according to the WTO statistics, the volume of the Chinese export since the country had joined WTO in 2001, has quadrupled (import has more than tripled) and reached \$264 billion in destination of Europe in 2007. Historically maritime transport was playing a major role in supporting the trade flows between these two regions. Nowadays new, alternative transport modes are also taken in consideration in order to discharge maritime transport and find more competitive and attractive solutions.

The NELTI initiative is one of them. At the same time, the existence and operation of the other alternative transport links, for example, the project of the Transsiberian railroad revival, as well as already established and well functioning maritime links between Europe and Asia, make it necessary to study in detail the competitiveness of NELTI Northern, Central and Southern routes. The role of NEA Transport Research Institute (Netherlands) was to provide scientific support for the project. Using UNESCAP methodology NEA experts analysed the data collected by the drivers on NELTI Routes.

On the basis of this information NEA experts compared the main characteristics of the three different NELTI routes and presented an overview of the challenges and opportunities for using these land transport corridors. The results of the monitoring have shown that there is a high potential in the development of NELTI routes and they represent a competitive solution to transport goods between Europe and Asia.

Menno Menist
Managing Director, NEA



Fifteen years ago during my maiden speech as IRU Secretary General, I said, very much like Martin Luther King said almost 50 years ago, on another important issue: “I have a dream”.

And today this dream is becoming a reality. We are confident that the IRU’s New Eurasian Land Transport Initiative (NELTI) is only a beginning! Within few years, there will be thousands and thousands of trucks operating every day along Euro-Asian routes.

The world will never be the same after these trucks start running along these routes. They will not only facilitate trade, but also bring about progress, prosperity and ultimately peace! Where trucks run, trade develops; and where trade develops, the quality of life improves. And where people live well, wars do not flare up.

Martin Marmy
IRU Secretary General

List of abbreviations

ADB	Asian Development Bank
BCP	Border Crossing Point
BSEC	Black Sea Economic Cooperation
CAREC	Central Asia Regional Economic Cooperation
CIS	Commonwealth of Independent States
EC	European Communities
ECMT	European Conference of Ministers of Transport
ECO	Economic Cooperation Organisation
EU	European Union
EurAsEC	Eurasian Economic Community
FTA	Free Trade Area
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GUAM	Organisation for Democracy and Economic Development
IRU	International Road Transport Union
MFN	Most Favoured Nation treaty
OECD	Organization for Economic Cooperation and Development
PPP	Public Private Partnership
SCO	Shanghai Cooperation Organisation
TRACECA	Transport Corridor Europe-Caucasus-Asia
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNESCAP	United Nations Economic and Social Commission for Asia and Pacific
WB	World Bank
WCO	World Customs Organisation
WTO	World Trade Organisation

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CHAPTER I

IRU New Eurasian Land Transport Initiative (NELTI): background and main achievements

1. From Pilot Caravans to regular business operations

The idea of harnessing the potential of road haulage to develop Eurasian transport links has been discussed at international levels since the late 1990s. The actual implementation of the IRU NELTI Project was preceded by a vast amount of both analytical and practical work, which can broadly be divided into three categories:

Activities	Main Results
Analytical research into the outlook for road haulage between Europe and Asia. This research involved the participation of the US Chamber of Commerce, as well as the IRU, amongst others.	The existence of a potential freight base and corresponding freight routings were established; the condition of the roads and the capabilities of road haulage companies were assessed.
Large-scale international conferences and joint Ministerial meetings on the development of Eurasian transport links were held, including four IRU Euro-Asian road transport conferences on road transport, organised by the IRU:	The principal directions were set for cooperation between international organisations, states and private businesses in order to develop cargo haulage between Europe and Asia; the main obstacles were likewise defined and note was taken of developments which would be required to harmonise legal systems; recommendations were made for practical steps to develop Eurasian transport links. All decisions of joint Ministerial meetings reflected in joint Ministerial declarations.
Pilot Caravans:	It has been proved that commercial road haulage shipments between Asia and Europe are perfectly feasible and that the remaining impediments are of a procedural nature.



The next logical step was to start a pilot project for regular commercial shipments between Asia and Europe along the route of the “Great Silk Road”. Preparations therefore began in 2006 for the IRU NELTI Project, which would take a qualitatively new step towards implementing international policy for developing Eurasian transport links.

2. Brief description of the IRU NELTI Project

The aim of the IRU NELTI Project is to instigate regular road freight shipments between Europe and China and to assist in achieving the transit potential of, particularly, nations in Central Asia and the Caucasus. The Project likewise aims to increase the volumes of road transport operations and services that these countries can offer, while raising political and business awareness of the feasibility of and demand for such transcontinental road transport operations.

The Project’s principal objectives are:

- to contribute to the implementation of the UN Millennium Development Goals as well as of the Almaty Programme of Action for landlocked developing countries aiming to develop Eurasian land transport links;*
- to assist in the development of trade in landlocked countries and regions and to broaden access for their goods to international markets;*
- to increase the contribution of road transport to international trade and socio-economic development;*
- to offer alternative delivery routes to maritime shipments in order to assist businesses in landlocked countries engaged in developing their manufactured goods in Asia and interested in expanding a niche for the rapid transport of small- and medium-sized shipments between Europe and Asia.*

The Project officially started on 16 September 2008, in Tashkent (Uzbek Republic).

All shipments made under the aegis of the IRU NELTI Project are governed principally by TIR procedures.

3. Organisers and participants

The International Road Transport Union (IRU) was the Project’s organisers.

The Project has been implemented in close cooperation with IRU Member national road transport associations.

Twelve road haulage companies from eight different countries have participated in the project:

The Project was also supported by the following partners:

- “AtrimLogistik” (Russia);
- “Azatika” (Kyrgyz Republic);
- “Bunyod transport and logistics” (Uzbekistan);
- “Central Asia Trans” (Uzbekistan);
- “Tizgaman Jahan Int’l Trans. Co” (Islamic Republic of Iran)
- “Karadeniz” (Turkey)
- “Oshmejtrans” (Kyrgyz Republic);
- “Janstrong” (Republic of Belarus);
- “MGATP#7” (Kyrgyz Republic);
- “Degertach” (Tajikistan);
- “KazAvtoTrans” (Kazakhstan);
- “Ukrtrans” (Ukraine)
- “Euro-Asian Transport Project”
- “Ingosstrakh”

4. Political support

The Project has received support at the following levels:

the road haulage industry (individual road haulage companies and national road haulage associations);

the manufacturing industry, which generates the demand for road haulage shipments (including associations of European and US businesses in various countries);

governments of countries in both Asia and Europe;

international intergovernmental organisations, including;

- United Nations Organisation (UN) as represented by its regional commissions UNECE and UNESCAP;
- World Customs Organization (WCO);
- Organisation for Security and Co-operation in Europe (OSCE);
- Organisation of the Black Sea Economic Cooperation (BSEC)

bodies promoting regional economic integration, including:

- Organisation for Democracy and Economic Development (GUAM);
- Eurasian Economic Community (EurAsEC);
- Shanghai Co-operation Organisation (SCO);
- CIS Transport Co-ordination Conference (CIS TCC).

5. Coordination Centres

Coordination Centres were set up in order to implement a project which stretches over the territories of twelve countries (10 CIS member countries, as well as Turkey and the Islamic Republic of Iran). Coordination Centres are manned by representatives of national road haulage associations, as well as designated specialists from transport bodies, customs services and local ministries of internal affairs.

Coordination Centres have provided informational and other support to hauliers participating in the IRU NELTI Project and have likewise offered the necessary assistance to resolve difficulties as they arose.

During the implementation of the Project hauliers have, on many occasions, noted the very valuable assistance which they have received from the Coordination Centres, particularly in Belarus, Kazakhstan, Kyrgyzstan and the Russian Federation.

6. Economic background and make-up of trade markets

The IRU NELTI Project was implemented at a difficult time for the global trade and economic system. Autumn 2008 saw the onset of an acute crisis in the world financial system, which led to a credit crunch for both customers and producers of goods and services. The plummeting demand (both in terms of production and consumer demand) led to a collapse in world trade and consequently of intercontinental maritime shipments.



Between the end of 2008 and the beginning of 2009, the monthly volumes of shipments between Europe and Asia fell by 30-40% and freight loads for container shipments were reduced by 3-4 times (reaching a 15-year minimum)¹.

Given these circumstances, the implementation of the IRU NELTI Project was subject to a whole range of risks, from the reduction in freight shipment volumes to the threat of the financial stability of road haulage companies.

Nevertheless, shipments under the IRU NELTI Project have started successfully and their increase, both in terms of numbers and volumes of shipments made, has significantly exceeded all expectations. In short, the global economic crisis has not hindered the successful implementation of the IRU NELTI Project.

7. Monitoring

Careful monitoring of shipments was an important element of the IRU NELTI Project. UNESCAP methods have been applied as a basis for monitoring practices and adapted to international road haulage.

Logbooks have been developed (Fig. 2), in which drivers noted down all relevant data on movements, border crossings, enforced stops, road conditions and ancillary infrastructure, official dues and illegal levies, as well as any problems and infringements encountered.

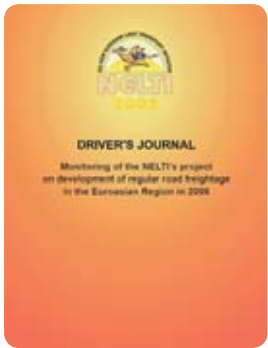


Fig. 2. Cover of IRU NELTI Project Driver's Log book.

8. Information back-up

Various channels of information back-up have been created to support shipments along the routes of the Silk Road. A dedicated web-site for the project (www.iru-nelti.org) has been developed, allowing market participants to obtain detailed background information and practical assistance (Fig. 3). The site is also an important tool in the monitoring of IRU NELTI Project shipments.

Fig. 3. IRU NELTI Project website's main page.



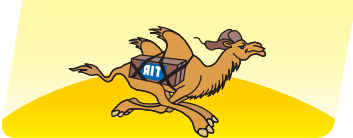
Other means of information support – including conferences and PR events held in various countries – have also proved extremely effective in debunking the myths about the impossibility of undertaking Eurasian road transport shipments. A questionnaire on the obstacles currently existing for land transport links between Asia and Europe has also been circulated. All this has led to the effective branding of “IRU NELTI”, a name that now symbolises the competitiveness of Eurasian road shipments with regards to other transport modes.

1) UNCTAD Transport Newsletter, No. 41, Fourth quarter 2008, Geneva, January, 2009.

9. Geography and shipment routes

In the framework of the IRU NELTI Project, shipments have been undertaken along three principal routes, each of which has had numerous off-shoots (Fig. 1).





Upon monitoring the results, the major reasons for this time difference on the Northern route are:

Long waiting times at borders;

Poor road sections.

These factors reduce trucks’ average speed on the Northern Route to 489 km/day, compared to an average intra-European speed of approximately 750 km/day.

Table 2 shows the main border-crossing points along the Northern Route and the results of their monitoring.

Main border crossings for the Northern corridor

Table 2

Border	Waiting time
Kyrgyzstan – Kazakhstan	From 1 to 12 hours
Kyrgyzstan – Uzbekistan	From 10 to 96 hours
Uzbekistan – Tajikistan	From 3 to 41 hours
Uzbekistan – Kazakhstan	From 4 to over 48 hours
Kazakhstan – Russia	From 4 to over 60 hours
Belarus – Poland	From 4 to 16 hours
Belarus – Lithuania	From 5 to 7 hours

Among the most time-consuming borders the following are particularly notable:

1. **Kazakhstan – Russia border crossings:** the average waiting time over the major border cross points exceeds 5-6 hours. At the most used border crossing point on the Northern Route, Petuhovo/Jonajel, waiting times vary from 4 to 60 hours and are on average 21 hours.
2. **Uzbekistan – Kazakhstan border crossings:** the average waiting time exceeds 15 hours, varying from 4 to 48 hours. Monitoring results show that Baurzhana-B.Konysbaeva /Yallama is the most used border crossing point by IRU NELTI drivers.
3. **Belarus – Poland border crossings:** average waiting time exceeds 6 hours, Kukuryki/ Kozlovichi being the most often used border crossing point within this route.
4. **Uzbekistan – Tajikistan border crossings:** the average waiting time exceeds 11 hours. Andarkhan/Patar border crossing: from 3 to 8 hours, Fotehabad/Oibek border crossing – from 7 to 41 hours.
5. **Kirgizstan – Uzbekistan border crossings:** common waiting time in Dustlik point on the border between Kirgizstan and Uzbekistan at the average is more than 24 hours.

Other observations show that fueling time takes on average half an hour. Interruptions by road police/inspection do not normally exceed half an hour. During each trip, an average amount of 4-5 interruptions can be expected.

With regards to costs structure, total expenditures of drivers on the Northern route vary from 500 to 3,000 USD. Fuel expenditure is the highest cost. This is followed by border crossing payments, which can represent up to 30% of total expenditure.

On average, 70% of cross border payments on the Northern route are unofficial. In some cases, this amount can reach up to 97% of a payment made at a border.

In order to analyse the relative speed and time expenditures by drivers during the NELTI project, the UN time/cost-distance methodology was applied for each of the drivers' logbooks received. This methodology helps to visualise the major bottlenecks along the route.

As an example, on the Northern route, a trip from Tashkent (Uzbekistan) to Ulm (Germany), via Kazakhstan, Russia, Belarus, Lithuania and Poland, is presented (See Annex 1). The dots on the figure represent places where the driver stopped for any particular reason (night rest, border crossing procedures, road police, lunch breaks, fueling)¹.

It took 12 days for a driver to cover a total distance of 7,234 km. The longest delay was experienced at the Russian – Kazakh border where the total waiting time was more than 14 hours.

Graph 1 (Annex 1 page 1) illustrates the application of the UN time/cost-distance methodology for the Time component. It shows that, in Kazakhstan, the speed of the operator was relatively low: it took around 3 days to stretch approximately 1,300 km. In this case, Russia seems to be a good 'land bridge', since on its territory the average speed was around 600 km per day. In Poland the travel speed decreased to speed up again in Germany. The overall waiting time on the borders for this operator was around 24 hours.

For this trip, the fuel costs represent 64% of the operator's expenditures, followed by border crossing payments (26%) and other costs (10%).

Central route

The Central Route has different legs leaving from the Black Sea, and is approximately 5,100 km long. It covers a territory from Central Asia, via Turkmenistan, Azerbaijan and Georgia, to Europe. Although officially forecast travel time on this route varies from 14 to 18 days, monitoring results show that up to 27 days might be necessary.

The table below compares the real observed travel time and theoretically required days in order to cover the distance of the Central corridor.

Important routes for the Central corridor

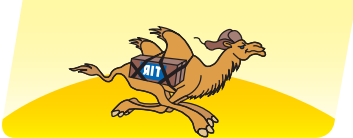
Table 3

Itinerary	Distance (km)	Border crossings	Total days at European speed*, **	Real observed days
Tashkent – Denizli	5436	3	9	13
Almaty – Istanbul	6060	4	9,5	18
Istanbul – Bishkek	5669	4	9,5	15
Almaty – Samsun	5382	4	8.5	16

* Average speed in EC, Iceland, Norway and Switzerland including 2h of waiting time per border

** assuming we need 24 h in order to cross Black Sea and Caspian Sea

2) At the same time we need to take into consideration that information in drivers' logbooks is not completely extensive, which means that some stops realised by drivers during a trip can be missed on a map.



The average speed on this route is 366 km/day. In the case of the Central Route compared to the Northern Route is quite high, due to the following reasons:

- Caspian Sea and Black Sea crossing;
- Long waiting times at borders;
- Regular interruptions by road police/inspections.

As observed, the most problematic non-physical obstacle in this route is the ferry service crossing the Caspian Sea and the Black Sea. In total, 9 observations were made and all waiting times at either Samsun, Turkey or Novorossiysk, Russia (on the Black Sea) and Turkmenbashi, Turkmenistan or Baku, Azerbaijan exceeded 24 hours, with one case where the ferry waiting time was 5 days.

Waiting time variations on major borders within the Central Route are as follows:

Main border crossings for Central corridor

Table 4

Border	Waiting time
Turkmenistan – Azerbaijan	From 24 to 144 hours
Turkmenistan – Uzbekistan	From 3 to 14 hours

On the Turkmen – Azerbaijan border, the longest waiting time observed (from 1 to 6 days) is at the Turkmenbashi port.

Regular interruptions by road police/inspections are another time-consuming factor on the Central Route. Up to 17 hours (in total per trip) can be lost by a driver because of transport inspections/road police checks. For some operators, the amount of forced stops was 19 per one way travel.

Total costs on the Central Route are on average 2,600 Euros. Over 2/3 of these are fuel costs. The second expenditure item is cross border payments which vary from 135 to 565 USD (in almost every case over 85% of the amount is paid unofficially). The third cost component is the ferry payment.

Figure 1 of Annex 2 presents one of the possible itineraries within Central Route made by IRU NELTI operators during monitoring time.

The largest drawback of the Central Route is the dependence on ferry transport and related transshipment issues. Departure waiting times for the ferry are very high causing substantial delays: 6 observations from the IRU NELTI logbooks have shown an average waiting time of 41 hours. In one exceptional case it even took 5 full days (120 hours) before the Black Sea was crossed. At the same time, in the majority of cases drivers prefer to choose this itinerary than to travel via Uzbekistan, Turkmenistan, Caspian Sea, Azerbaijan and Black Sea as it offers a reduced number of borders to cross and, subsequently, permits a reduction in time and money lost on border crossings.

Southern route

The Southern Route, at approximately 4,000 km, is the shortest. Starting from Kyrgyzstan it leads to the European Union through Uzbekistan, Turkmenistan, Islamic Republic of Iran and Turkey in, theoretically, 12-14 days. Although the South corridor leads alongside the less stable Middle East region, it is a commonly used route since Iran has a relatively reliable infrastructure network. Expert estimates confirm that 50% of the annual 8,000 trips heading from Turkey to Kazakhstan use the South corridor. However, from Kazakhstan, yearly only 300 trucks use the Southern route for the destination of Turkey, preferring the Northern one, via Russia.

Table 5 demonstrates that real observed travel time on the Southern Route varies from 12 to 17 days upon the origin and the destination of a trip. Again, the difference between the possibility to cover the same distance in Western Europe and time spent by drivers to cover it in Central Asia varies greatly.

Important routes for the Southern corridor

Table 5

Itinerary	Distance	Border crossings	Total days with European speed*, **	Real observed days
Istanbul – Almaty	6219	4	9	17
Istanbul – Osh	4600	5	7	13
Tashkent – Sofia	4545	4	6	12
Istanbul – Atirau	5190	4	8	8

* Average speed in EC, Iceland, Norway and Switzerland including 2h of waiting time per border

The major reasons for this time difference are:

Waiting time on border crossing;

Driving restrictions in some areas.

Following the monitoring results, waiting times at borders within the Southern Route vary as specified in the table below:

Main border crossings for Southern corridor

Table 6

Border	Waiting time
Kyrgyzstan – Uzbekistan	From 1 to over 96 hours
Uzbekistan – Tajikistan	From 3 to 41 hours
Turkmenistan – Uzbekistan	From 3 to 14 hours
Islamic Republic of Iran – Turkmenistan	From 2 to 122 hours
Islamic Republic of Iran – Turkey	From 14 to 32 hours

In general, waiting times on Southern Route borders are the longest of the three NELTI routes. From 7 total observations made, the average time that operators are spending on border crossings is more than 80 hours per trip, which is equal to 3.5 days of lost time.



The most time consuming border crossings along the Southern Route are:

1. Islamic Republic of **Iran – Turkey border crossing** with average waiting time over 30 hours: Lutfabad (I) – Artik (T) border crossing being the most used
2. **Uzbekistan – Tajikistan border crossing** with average waiting time of over 18 hours.

Between the other observations on this route, drivers specified that the Iranian transit visa is given only for 7 days which is generally not enough to cross the country, since in some regions driving time is only from 6 in the morning to 9 in the evening. A transit visa of 14 days is a reasonable solution for this.

An IRU NELTI trip between Istanbul (Turkey) and Osh (Kyrgyzstan), via Uzbekistan, Turkmenistan and Islamic Republic of Iran, represents a Southern Route in figure 4. It took 18 days to cover a distance of 4,600 km.

Graph 1 of Annex 3 illustrates that drivers lose at least one day at the Iranian-Turkish, Iranian-Turkmen and Turkmen-Uzbek borders. This increases the total travel time by 20% (18 days instead of 15). Furthermore the flat sections of the graph indicate that only short distances are covered each day. This is the case in Turkey as well as Islamic Republic of Iran, Tajikistan and Uzbekistan. The average speed of the operator over the trip was very low, being 255 km/day.

Border crossing payments along the Southern Route are the highest in comparison with other IRU NELTI routes. In the case of this operator they represent over 40% of expenditure, 59% being fuel costs and only 1% other, unspecified, costs.

Based on the monitoring results the following conclusions can be made comparing the Northern, Central and Southern IRU NELTI routes:

1. The Central route is the one the least used by operators. The majority of driving log-books received represented trips made by IRU NELTI operators over the Northern and Southern Routes.
2. Transport time considerably increases when moving away from the European Union. Transport time per kilometer seems to be 20% higher when goods move to Moscow compared with goods moving to Warsaw. In the case of Central Asia, the difference is even more visible with the time factor rising to +80% when goods are moved from Moscow to Tashkent. This leads to an average speed performance by road of only 37.5 km/h in the CIS, compared to 70 km/h in the EU. The average speed per day along the Northern route is 490 km/day and along the Central and Southern routes approximately 360 km/day and 250 km/day respectively. This difference can be explained by better infrastructure conditions on Northern route and better situations concerning border crossings.
3. Border waiting times vary greatly from one border to another, exceeding in almost each case 3-4 hours. In some extreme cases drivers were stopped for over 5 days at the borders. Annex 3 represents minimal, average and maximum waiting times at borders based on the results of the monitoring.

4. It takes almost the same time (from 12 to 17 days) to make a trip from Kazakhstan/Kyrgyzstan to Europe using any of the three routes. Nevertheless, if the destination is Central Europe, the Northern Route is of preference due to fewer border crossings. If the final destination is Turkey, Bulgaria or Romania, drivers prefer to take the Central Route (via Russian Federation) and the Southern Route.

5. Cost structure differs only slightly between the three routes. In general, expenditures on fuel represent around 70% of trip expenditures, followed by border crossing payments and other official costs. Along the Central route the latter category is the highest because of the Black Sea ferry costs. Border crossing payments are the most expensive on the Southern route, where they can reach up to 3,000 USD per one way trip. On average border crossing payments along the Northern route are 520 USD per trip, along the Central route 370 USD per trip and along the Southern route 2,000 USD per trip. Rent-seeking behavior is a problem for each of the studied routes. In some cases unofficial border crossing payments represent 95% of the amount paid in a border, or 25% of the total trip expenditure.

10. Overall results

In the course of implementing the IRU NELTI Project, actual data have been obtained, which confirm the commercial viability of shipments between Asia and Europe, including the levels of freight costs (approximately \$4,000 – \$5,000 each way depending upon the route taken), the structure of these freight costs, principal problems, etc.

Shipments have been made continuously over a six-month period, with no special conditions being imposed. They have been undertaken on a purely commercial basis. Participants have not been given any preferential treatment in the form of a 'green channel' or other favourable terms.

The volumes of shipments have differed between the three principal routes. The largest volumes were seen on the Northern and Southern routes (Fig 4.).

Shipments decreased along the Southern route over the Winter due to traditional seasonal variations. The development of shipments along the Central route has been hampered, as hauliers encountered difficulties in gaining access to ferry crossings over the Caspian Sea, since these ferries are operated principally for the benefit of rail freight (Fig. 5).

The overall number of vehicles participating in the IRU NELTI Project has on average been twenty units per month. In March 2009 the quantity of participating vehicles rose to forty-five, due to two principal factors: the "Central Asia" company sent twenty trucks off on the Southern Route; and two new road haulage companies joined the Project. The overall distance covered by hauliers has already exceeded 1,560,000 km. Thus, the average distance covered by each vehicle on a round-trip has been approximately 10,740 km (5,370 km each way). The overall volume of goods carried has exceeded 4,200 tonnes, which corresponds to an average load of 14.4 tonnes per vehicle each way (28.8 tonnes per round-trip).

The type of products shipped under the aegis of the Project has been extremely varied, from food products (confectionary, capers, sugar, fruit and vegetables, dried fruits etc.) and semi-manufactured products (wool, yarns, rubber, spare parts etc.) to medicines, equipment, diplomatic and military shipments, household and electrical goods.

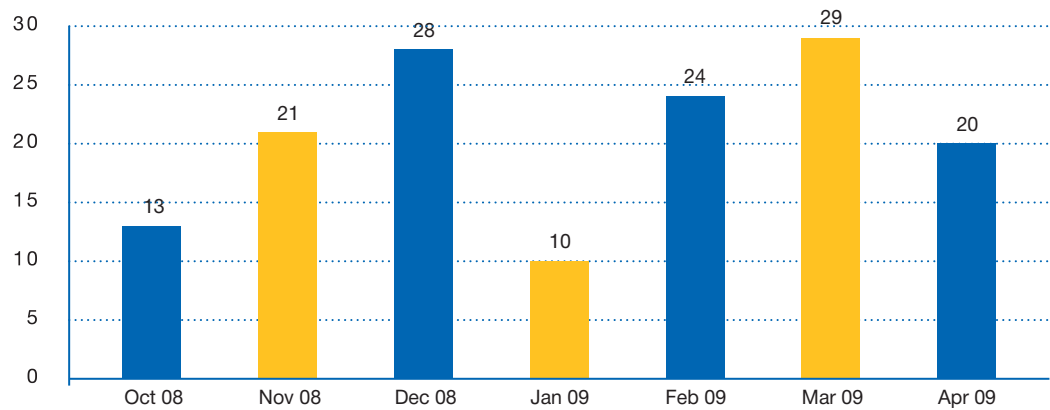


Fig. 4. Monthly figures for completed round-trips 3) (data as of April, 2009)

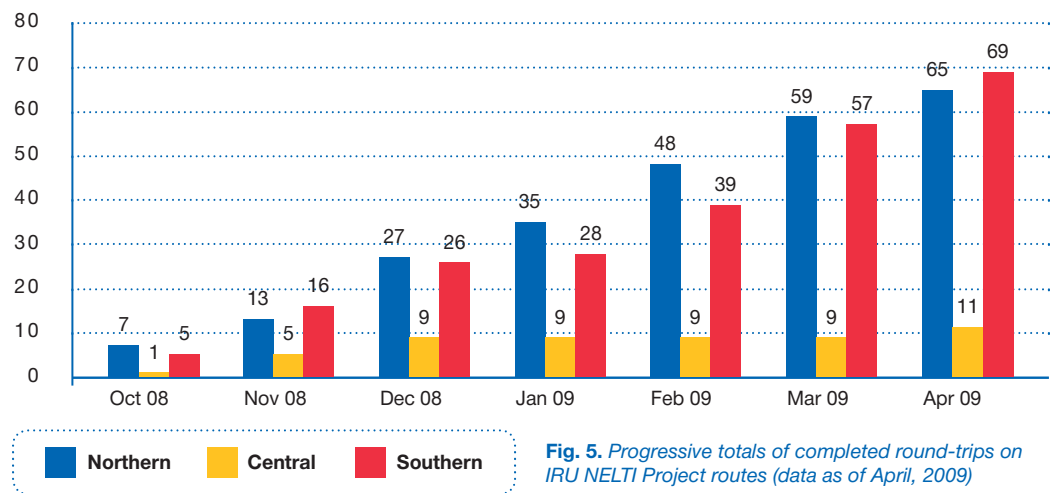


Fig. 5. Progressive totals of completed round-trips on IRU NELTI Project routes (data as of April, 2009)

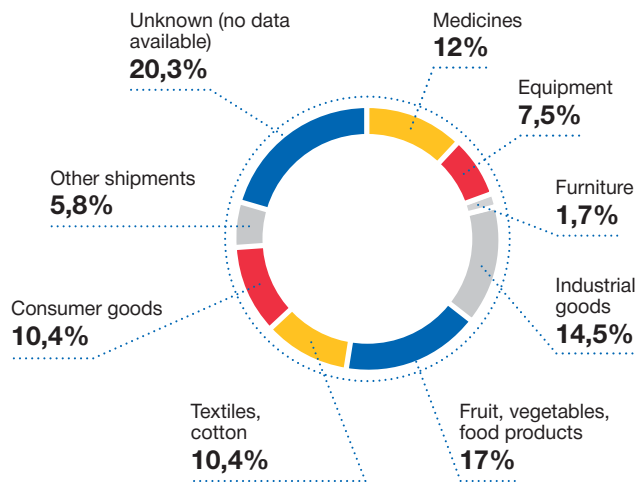


Fig. 6 Break-down by type of cargo of shipments between Asia and Europe under the NELTI Project.

3) Throughout this report the term “round-trip” shall be taken to mean the journey of a vehicle to its point of destination and back to its starting point. Round-trips therefore include two journeys between Europe and Asia, both there and back.

11. Economic cost of non-physical barriers

The type of obstacles encountered during road shipments are revealed by the proportion of enforced halts in the overall shipping time and the proportion of costs which have to be met by hauliers en route and at border crossings (both official payments and unofficial levies). Actual data from the implementation of the IRU NELTI Project are presented in Table 1 and Figs. 7-8.

Individual factors, affecting the costs in time and resources to road haulage companies participating in the IRU NELTI Project

Table 7

Factor	Actual value*
Total sum of official dues and payments, excluding fuel costs and drivers' board and lodging (US \$'000)	167,2
Total sum of unwarranted levies, bribes and extortion paid out by drivers (US \$'000)	143,7
Drivers' working time ('000 hours)	60,5
Time of vehicle en route (days)	4167
Number of stops (more than 15 minutes) en route	5917
Number of border crossings	1084
Length of halts en route (days)	1880

* in total on all routes

Approximately 25% of freight charges and 45% of shipping time has consisted of “non-production” costs incurred by road hauliers. Minimising these two factors, which are characteristic of the obstacles encountered along the routes, would mean shipping times could be reduced and freight charges brought down, thereby increasing the effectiveness of shipments. This would automatically mean that road haulage between Europe and Asia would become more competitive. At the same time, the “non-productive” costs shown above and expressed in terms of time and money to hauliers vary in nature and differ from country to country. The next Chapter of this report offers an analysis of these costs.

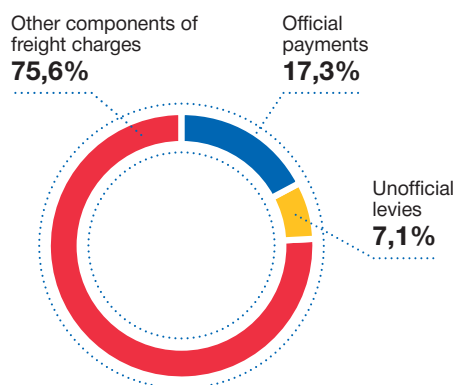


Fig. 7 Proportion of official payments and unofficial levies in the average volume of freight costs per vehicle

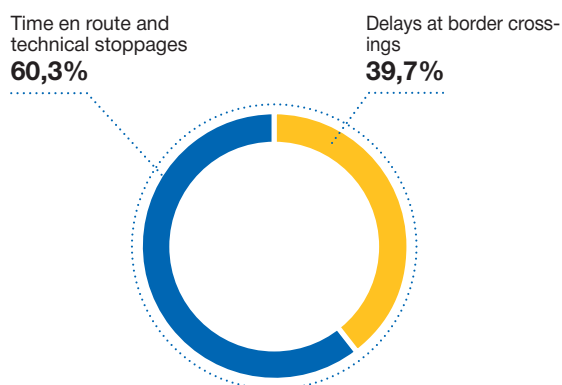


Fig. 8 Enforced halts as a proportion of total time en route of vehicles on NELTI Project routes.



CHAPTER 2

Analysis of problems in road transport operations between Asia and Europe

The IRU NELTI Project has proved effective in identifying a number of barriers and serious problems which are hampering the expansion of shipments along the Great Silk Road. Many of these problems are caused by “innate flaws” to the existing regulatory system for international road links in transit countries. Other problems, although of a more individual nature, such as various types of abuse of the system, are nevertheless very serious for hauliers, since they can lead to increases in freight costs and delivery times, as well as to various limitations in access to markets.

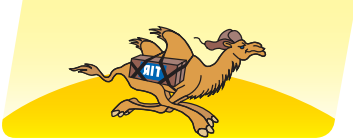
With this in mind, the IRU NELTI Project is being viewed as a most important factor in the IRU’s priority issue of facilitating road transport by removing obstacles to international road transport. On the one hand, the Project aims to be the “litmus test”, which will in practice reveal the “problematic points” along each Eurasian road route and, on the other hand, it aims to serve as a mechanism for removing these “problematic points” by implementing the “Road Map” for developing Eurasian road transport links.

The seven principal groups of problems, outlined below, are grouped in order from “general” to “individual”.

1. Bilateral transport permits

At present, the legal framework for undertaking international road cargo shipments between Asia and Europe is based on bilateral inter-governmental agreements on international road transport.

These govern the procedures and conditions for undertaking international shipments and contain provisions for preferential conditions, created for hauliers on a mutual basis, as well as conditions for trans-border access to markets, including stipulations for transit shipments.



On the basis of these bilateral agreements, national bodies issue their hauliers with a fixed number (an “agreed contingent”) of permits, which grant the right to travel through the territories of the countries specified.

The transit states through which the Great Silk Road runs have, to date, concluded more than 140 bilateral agreements with countries in Europe and Asia, of which 75 govern transport between two transit states. Three more agreements are expected to come into force in the near future (Table 1). In another 27 instances, bilateral agreements have yet to be concluded, which either makes it impossible to undertake direct international road shipments or obliges hauliers to resort to various “unconventional” delivery methods.

Bilateral inter-governmental agreements on international road transport concluded by states along the Great Silk Road

Table 8

	Transit States from West to East													
	UA	BY	RUS	TR	GE	AM	AZ	IR	TM	KZ	UZ	KS	TJ	PRC
MD	+	-	+	+	*	+	+	-	-	+	+	+	*	-
UA		+	+	+	+	-	+	+	+	+	+	+	-	-
BY			+	+	+	+	+	+	-	+	+	+	+	-
RUS				+	+	+	+	+	+	+	+	+	+	-
TR					+	-	+	+	+	+	+	+	-	-
GE						+	+	+	+	+	+	+	-	-
AM							-	+	+	-	-	+	-	-
AZ								+	+	+	+	-	-	-
IR									+	+	+	+	-	-
TM										+	+	+	-	-
KZ												+	+	+
UZ												+	-	+
KS													+	+
TJ														+

Notes:

1. Existing bilateral agreements are marked with a +. A – indicates cases where there is either no agreement or an agreement has not been implemented.

2. In accordance with Article 45 (4) of the 1968 Road Traffic Convention, countries are designated as follows:

AM – Armenia

AZ – Azerbaijan

BY – Belarus

GE – Georgia

IR – Iran

KS – Kyrgyzstan

KZ – Kazakhstan

MD – Moldova

RC – People's Republic of China

RUS – Russian Federation

TJ – Tajikistan

TM – Turkmenistan

TR – Turkey

UA – Ukraine

UZ – Uzbekistan

3.* – indicates agreements still in the process of negotiation or not yet enforced.

It should be noted that at the initial stages of the formation of national markets for international road transport in transit states, these agreements played a positive role in creating the legal framework for the work of hauliers. However, in the current situation, when long-haul shipments between Asia and Europe are being expanded, transiting as they do over the territory of many countries, the drawbacks of the bilateral system are becoming more and more evident. These drawbacks include numerous restrictions in access to markets, the existence of “grey areas” in regulation and – most importantly – the absence of a mechanism for systemic development at a time when the international economic climate and various integration processes are in a phase of dynamic change.

Thus, from the point of view of further expansion of long-haul road shipments between Asia and Europe, the existing system of bilateral agreements is reminiscent of a patchwork quilt full of holes, mostly running against the WTO principles of non-discrimination and the Most Favoured Nation (MFN) and is impeding the development of shipments along the Great Silk Road. The most important problems can be summed up as follows:

- 1) International bilateral agreements on road transport lay down **differing legal conditions for undertaking cargo shipments between pairs of individual countries**. This relates both to preferential conditions with regard to taxes and levies, as well as the existing procedures for issuing permits. Nine of the seventy-five bilateral agreements concluded on a mutual basis between the transit countries of the Great Silk Road was analysed. Despite the fact that these agreements were all concluded during a relatively short space of time (1992-2000), they differ widely on the preferential conditions that they afford (Table 2).
- 2) A number of agreements (for example the agreements concluded with the People's Republic of China) indicate specific routes and border crossings which may be used for shipments and forbid hauliers from using border crossings via third countries. This leads to **restrictions in selecting delivery routes**.



Comparative analysis of individual bilateral inter-governmental agreements on international road transport concluded between the transit countries along the Great Silk Road

Table 9

Measures	BY-KZ	BY-KS	BY-RUS	BY-TJ	BY-UZ	KZ-KS	KZ-RUS	KS-RUS	KS-UZ
1. Bi-lateral cargo shipments not requiring permits	-	-	+	-	-	+	+	+	+
2. Transit cargo shipments not requiring permits	-	-	+	-	-	+	+	+	+
3. Cargo shipments to third countries not requiring permits	-	-	-	-	-	-	-	-	n.d.
4. Exemption from taxes and levies for journeys, with the exception of toll roads, bridges and tunnels	+	-	+	-	+	+	+	+	+
5. Exemption from taxes and customs duties for temporary import of fuel, lubricants and spare parts	+	+	+	+	-	+	+	+	+
6. National procedures for establishing and running haulage and freight forwarding companies	-	+	+	+	-	-	-	-	-
7. Incorporation of representative offices of transport companies	-	+	+	-	-	-	-	-	-

Notes:

+ preferential conditions

- no preferential conditions

n.d. – not defined, under the conditions of the Agreement

*) bilateral agreements on international road transport are defined as follows:

BY – KZ – Inter-governmental Bilateral Agreement between the Republic of Belarus and the Republic of Kazakhstan, 16/09/1992

BY – KS – Inter-governmental Bilateral Agreement between the Republic of Belarus and the Republic of Kyrgyzstan, 26/06/1995

BY – RUS – Inter-governmental Bilateral Agreement between the Republic of Belarus and the Russian Federation, 20/07/1992

BY – TJ – Inter-governmental Bilateral Agreement between the Republic of Belarus and the Republic of Tajikistan, 05/04/2000

BY – UZ – Inter-governmental Bilateral Agreement between the Republic of Belarus and the Republic of Uzbekistan, 22/12/1994

KZ – KS – Inter-governmental Bilateral Agreement between the Republic of Kazakhstan and the Republic of Kyrgyzstan, 26/10/1993

KZ – RUS – Inter-governmental Bilateral Agreement between the Republic of Kazakhstan and the Russian Federation, 23/03/1992

KS – RUS – Inter-governmental Bilateral Agreement between the Republic of Kyrgyzstan and the Russian Federation, 10/02/1992

KS – UZ – Inter-governmental Bilateral Agreement between the Republic of Kyrgyzstan and the Republic of Uzbekistan, 04/09/1996

3) The fact that quotas of permits issued have to be equally matched necessitates holding numerous rounds of negotiations and the shortage of permits leads to significant delays incurred by hauliers before departing for an operation and / or at border crossings. The distribution of permits is sometimes linked to corruption and discrimination towards individual hauliers. **The quota system for shipments**, i.e. the mutually agreed restriction of the number of permits issued, **is a glaring obstacle to trade and should be removed** according to the principles of the World Trade Organisation.

4) Bilateral agreements **impede the principal of “free transit”** (due to procedures for issuing transit permits, limits to the numbers of permits issued etc.) This reduces the transit potential of the very countries which have concluded these agreements, as well as that of all the countries along the route of the Great Silk Road. The restrictive quotas of permits for transit shipments on the territory of CIS member states is in direct contradiction to Article V of the General Agreement on Tariffs and Trade (GATT-94) on the “Freedom of Transit”, which forms a basic standard for the World Trade Organization.

5) The limitation (by means of quotas or bans) of shipments to “third countries” is also a serious obstacle to access to markets. The distribution or sale of permits for “third countries” is frequently accompanied by discriminatory processes and corruption.

6) The procedures for agreeing and issuing permits are frequently accompanied by bureaucratic licences and abuse.

A solution to the abovementioned problems could be found in the implementation of multilateral agreements on international road transport, which would create equal conditions for transport along the Great Silk Road. Existing agreements are also in need of modernisation, which would bring them into sync with contemporary conditions and WTO^{*)} principles and would remove the restrictions which impede mass shipments between Asia and Europe, including transit services.

2. Customs regulations

Customs procedures are an inescapable factor in all international road shipments involving border crossings. The implementation of the IRU NELTI Project has shown that customs formalities are the single greatest cause of vehicle delays on delivery routes between Asia and Europe:

1) Despite the Revised Kyoto Customs Convention (1999), and the UN International Convention on the Harmonisation of frontier Controls of Goods (1982), particularly its Annex 8, in practice customs regulations in transit countries continue to differ both in terms of requirements and procedures;

2) There is no integrated informational system to provide data in a timely manner on cargoes and vehicles along the whole journey route. Customs bodies in transit countries all use different computer systems.;

^{*)} The following countries along the Silk Road are WTO member countries: Armenia, Peoples Republic of China, Georgia, Kyrgyz Republic, Republic of Moldova, Mongolia, Turkey, Ukraine. WTO observer countries: Afghanistan, Azerbaijan, Belarus, Islamic Republic of Iran, Kazakhstan, Russian Federation, Tajikistan, Uzbekistan



- 3) In some transit countries, customs posts are poorly equipped and only have out of date computer equipment. This leads to delays and long queuing times for vehicles;
- 4) There is a lack of coordination between customs bodies in neighbouring countries. It is rare that transit countries conduct joint customs inspections, work according to the same opening hours or use the “Single Window” system, (where one official can process all paperwork);
- 5) Restrictions exist as to the quantities of fuel which may be imported in vehicle tanks. Depending on the norms set out in bilateral, inter-governmental agreements on international transport, some transit countries limit the amounts of fuel that can be imported in vehicle tanks. The levels of these restrictions can vary between 200 and 1,000 litres (a standard fuel tank has a capacity of 1,000 litres of diesel fuel).
- 6) Alterations to customs regulations are not always communicated to all relevant parties in the international transport market in a timely fashion (see Case 1, below) infringing basic provisions of international conventions mentioned under 1.

Introduction of mandatory vehicle convoys for transit shipments of raw tobacco through the Republic of Belarus

Raw tobacco is one of the goods which is shipped from Asia to Europe. Tobacco shipments from Uzbekistan to Germany via Belarus have been undertaken as part of the IRU NELTI Project by a Russian company. Until November 2008 a customs escort (convoy) was not required for this type of cargo on the territory of Belarus.

Mandatory convoys for this type of cargo were introduced on 1 December 2008 by Decree of the Republic of Belarus, without prior notification to the relevant sectors of the transport market. One IRU NELTI vehicle had entered Belarusian territory on the day before the Decree came into force and had no information about the introduction of the new regulations. On attempting to leave Belarusian territory, the cargo was confiscated and the company was fined.

Subsequent to an intervention by the IRU, the BAMAP Association and the IRU NELTI Coordination Centre for Belarus, a legal review of this case was instigated. The judge ruled that the cargo should be returned to the haulier. Despite the Belarusian judge's equitable decision, the company nevertheless had no access to its cargo for several months, with all the financial consequences for both the haulier and the cargo owner.

3. Visa formalities

Shipments made under the aegis of the IRU NELTI Project have shown that visa procedures have a serious negative influence on the shipment of cargoes from Asia to Europe (see Case 2, below):

- 1) Due to multiple border crossings along the route, in a number of countries (particularly on the IRU NELTI Southern and Central routes) drivers have had to obtain visas for several transit states;
- 2) In some countries, drivers' visas are not issued at the border, but only at the Consular Sections of their Embassies in the country of the driver's residence. This means that drivers are forced to temporarily relinquish their passports, (which leads to a loss in potential working time). In addition, this often causes delays during the journey if the visa has to be processed en route in another transit state. (For instance, Kyrgyz, Tajik and Turkish hauliers are faced with this problem when travelling through Turkmenistan);

- 3) The procedures for issuing visas are frequently discriminatory – given equal conditions, drivers from one country obtain visas quicker and with fewer formalities than drivers from other countries;
- 4) The visa procedures in the transit countries along the Great Silk Road are not synchronised (either in the list of documents required, the charges or the length of time required for processing);
- 5) In a number of cases, drivers undertaking international road shipments are required to present a greater number of documents than ordinary tourists (such as company licences, their own driver's licence, vehicle information etc.);
- 6) A number of transit countries do not offer long-term multi-entry visas;
- 7) Long processing times and high consular charges are a serious disincentive (for example an entry visa for the Islamic Republic of Iran takes up to two weeks to process and a transit visa is issued for a maximum of 10 days).

Entry visas for Turkmenistan

Vehicles belonging to several road haulage companies from Kyrgyzstan, transporting goods along the IRU NELTI Southern Route to Turkey, were halted for a significant period (more than 3 weeks) in Tashkent, while waiting for entry visas for Turkmenistan. The Consular Section of the Turkmen Embassy in Tashkent refused to issue the visas without an explanation of the reasons for the journey.

Uzbek hauliers who have been shipping goods along the IRU NELTI Central Route have informed us that Turkmen visas are issued with a validity period of only three days. If for any reason a driver is delayed entering Turkmen territory, for example during the lengthy waits for the ferries from the port of Turkmenbashi, any drivers with expired visas are deported from the country with a resultant lengthy ban on re-entering Turkmenistan.

The effect of visa waivers on the functioning of the Great Silk Road

A visa waiver system is a significant positive factor for the development of the Great Silk Road. A number of transit countries already have agreements on visa waivers.

For example, visas are not required for entry onto Uzbek territory for hauliers from Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Moldova, Russia, Ukraine and Kyrgyzstan (for a period of up to 60 days).

In addition, Turkey has waived the visa requirement for Uzbek citizens, entering the country for less than 30 days.

4. Delays at border crossings

Experience over the years has shown that the simpler the procedures at border crossings and the shorter the waiting times, the more effective international road deliveries of goods are and the lower their cost.

A scientific study has shown that for every \$1 lost due to barriers to road transport, such as waiting times at borders, the economy is penalised by \$2 in terms of missed business opportunities.¹

1) The Hague study on the IRU's bookshop



Experience gained during the implementation of the IRU NELTI Project has shown that the procedures for crossing borders are at present one of the most important factors impeding the expansion of long-haul road shipments between Asia and Europe. They have an extremely negative influence on delivery times and road freight costs.

The following conclusions can be drawn from an analysis of shipments made under the IRU NELTI Project:

1) Delays at borders can comprise up to one third of the whole journey time on routes between Asia and Europe. This is the same as reducing vehicle speed by one-third (since delays at borders take place during daytime “working” hours). It is also equivalent to a comparable reduction in the efficiency of hauliers, which is reflected in an increase in freight charges.

2) Hauliers’ financial expenditure at border crossings is extremely high and on average comprises approximately 25% of the freight costs. In a number of instances, principally because of illegal levies, expenses are even greater and can comprise up to 40% of freight costs (see Case 4 below). In a number of cases, the sum of official dues and taxes only makes up 5% of the total which drivers are forced to pay officials from relevant state bodies for the right to cross a border.

3) In most transit countries, border crossings are effectively doubled, since drivers have to complete exit procedures at the border crossing to leave the territory of one country, only to be met with exactly the same procedures at the same border crossing to enter the next country. (A characteristic example of this practice can be found at the neighbouring border posts of Krasny Yar and Kotyaevka on the Russo-Kazakh border). Delays and costs to hauliers are increased because the practice of joint inspections is rarely implemented and there is little interaction between the customs, frontier and other official services of neighbouring countries.

4) There are significant geographic variances in length of waiting times at borders and hauliers’ costs. Crossing borders of transit countries with EU countries is much less onerous than crossing borders of transit countries in Central Asia and the Caspian region (see Tables 3 and 4).

5) Border crossing points in the same country may vary between “easy” and “hard”. This highlights the significant role of the human factor and also the lack of effort on behalf of national governments to assist international hauliers in removing inefficiencies and abuses to the system (see Case 4 below).

6) The costs in time and money for empty vehicles to cross borders are less than those for vehicles with loads, but still very significant. A number of empty legs undertaken under the aegis of the IRU NELTI Project met with delays at border crossing as well as costs incurred by hauliers. In these cases, journeys which did not generate any income led to additional expenses. This can only have a negative effect on the financial results for hauliers.

7) Most transit countries do not implement any methods for monitoring the length of delays at border crossings.

There have been occasions when monitoring procedures have been used as part of specific international projects and programmes, such as TRACE-CA or CAREC. However, uninterrupted, real-time monitoring has not been implemented. This makes it more difficult to identify the most problematic border crossings and types of border procedures and hinders efforts to remove obstacles at border crossings.

8) There is an untapped potential for reducing the time and costs incurred at border crossings.

Uzbekistan is a positive exception to the bulk of negative information. In the course of the implementation of the IRU NELTI Project, excise (to the value of approximately \$300,000) was waived from Kyrgyz hauliers, as a result of agreements between the IRU and the Government of Uzbekistan.

“Easy” and “Hard” borders along routes from Asia to Europe

Information collated from hauliers participating in the IRU NELTI Project indicates that the following border crossings can be classified as “easy” (low expenditure in time and money):

Russian Federation – Belarus (most checks waived)

Moldova-Ukraine

Ukraine-Poland

Belarus-Poland

Georgia-Turkey

The following border crossings can be classified as “hard” (longest delays and highest costs to hauliers):

Turkmenistan-Azerbaijan

Russian Federation-Kazakhstan

Kazakhstan-Kyrgyzstan

Iran-Turkey

Kyrgyzstan-Uzbekistan



Fig 9. Border waiting time on the IRU NELTI routes



Comparative table of average financial costs per vehicle
at border crossings^{*)} in US \$^{***)}

Table 10

to: from:	PL	BY	UA	MD	RUS	KZ	UZ	KS	PRC	TM	IR	TR	AZ	AM	GE	TJ
PL		0-50	0-50		...****)											
BY	25-35		0		0											
UA	0-50	0		0	0-100							0-100**)			0-100**)	
MD			0													
RUS	...****)	0	0-50			100-1100			...****)	...****) **)	...****) **)	50-370	...****)		...****)	
KZ					100-1100		150-600	150	No data	140-500			...****)			
UZ						150-600		50-600		100-300						No data
KS						150-600	200-400		No data							No data
PRC					...****)	No data		No data								...****)
TM					...****) **)	150-380	100-700				150-780		100-300**)			
IR					...****) **)					100-620		120-590	No data	No data		
TR			0-100**)		150-250						200-1100		No data	...****)	No data	
AZ					...****) ...**)	...****) ...**)				100-150**)	No data	No data		No data	No data	
AM											No data	...****)	No data		No data	
GE			0-100**)		...****)							No data	No data	No data		
TJ							No data	No data	...****)							

Notes:

*) costs of completing all inspections at border crossings, on both sides of the border, for each pair of countries

**) maritime borders include ferry crossings over Black Sea and Caspian Sea

***) a range of values indicates that costs varied for most hauliers when crossing the relevant border within the range given (variations could be caused by country of origin of the cargo, vehicle type, specifics of the border post, time of year etc.)

****) No IRU NELTI Project shipments undertaken via these border crossings

Comparative table of time per vehicle, spent waiting at border crossings^{*)}, in hours ^{***)}

Table 11

to: from:	PL	BY	UA	MD	RUS	KZ	UZ	KS	PRC	TM	IR	TR	AZ	AM	GE	TJ
PL		2-8	2-20		...****)											
BY	2-16		0		0											
UA	1-6	0-2		0-1	2-20							1-8**)			2-16**)	
MD			0													
RUS	...****)	0	0-3			24-48			...****)	...****) **)	...****) **)	2-16	...****)		...****)	
KZ					16-24		2-8	4-20	No data	2-9			...****) **)			
UZ						2-8		10-72		2-12						No data
KS						4-20	10-72		No data							No data
PRC					...****)	No data		No data								...****)
TM					...****) **)	2-9	2-12				2-8		24-144**)			
IR					...****) **)					2-7		2-6	No data	No data		
TR			1-7**)		2-12						200-1100		No data	...****)	No data	
AZ					...****)	...****) **)				24-120**)	No data	No data		No data	No data	
AM											No data	...****)	No data		No data	
GE			2-16**)		...****)							No data	No data	No data		
TJ							No data	No data	...****)							

Notes:

^{*)} time spent completing all inspections at border crossings, on both sides of the border, for each pair of countries

^{**)} maritime borders include ferry crossings over Black Sea and Caspian Sea

^{***)} a range of values indicates that time varied for most hauliers when crossing the relevant border within the range given (variations could be caused by country of origin of the cargo, vehicle type, specifics of the border post, time of year etc.)

^{****)} No IRU NELTI Project shipments undertaken via these border crossings



5. Transport checks and safety

Transport checks comprise:

transport inspection – part of the responsibilities of the ministries of transport and communications in transit countries. Transport inspection includes monitoring of the use of permits and special permissions given for oversize, heavy and dangerous loads, weight control etc. (in this case is very important the International Weight Certificate, provided by Annex 8 to International Convention on the Harmonization of Frontier Controls of Goods)

traffic safety – is monitored by Traffic Police (sub-division of Ministries for Internal Affairs) in transit countries. Measures of enforcement include speed limits, observation of the highway code, vehicle parks, use of signs and vehicle signals etc.

Under the aegis of the IRU NELTI Project, shipments from Asia to Europe were undertaken without any infringements of existing regulatory systems and in most cases in accordance with weight and dimensional norms. This confirms **the high degree of safety of shipments** between Asia and Europe. In the six months of the implementation of the IRU NELTI Project, there has not been any road accidents involving IRU NELTI vehicles.

In addition, the general results of a questionnaire, sent to both drivers and representatives of companies participating in the IRU NELTI Project, have enabled us to highlight the following key problems:

- 1) a lack of synchronisation in the systems for weight control in transit countries; only partial operation of the CIS weight certificate (the weight certificate fails to cover the vehicle's whole route, particularly along the IRU NELTI Southern Route);
- 2) a lack of synchronisation in the tariffs for excess weight or dimensions;
- 3) duties imposed for entering built-up areas, green taxes, local levies in some transit countries;
- 4) extortion on the part of officials from bodies responsible for transport and traffic control for misdemeanours not actually committed.

6. Road and ancillary infrastructure

The IRU NELTI Project has proved that the road infrastructure along the principal routes linking Asia and Europe meets the standards required by international freight traffic and is not a factor which would impede the expansion of road freight haulage along the Great Silk Road. All the principal highways (with the exception of one section of the E-40 highway) meet the norms and requirements of the 1975 European Agreement on Main International Traffic Arteries and the 2004 Inter-governmental Agreement on the Asian Highway Network.

Among the principal problems related to infrastructure, most significant are:

- 1) the lack of modern logistical terminals along the routes of the Great Silk Road, particularly in Central Asia and along the borders with China (where trans-loading goods from chinese trucks to trucks registered in other countries is main requirement);

2) the infrastructure for ancillary vehicle services – such as modern and secure vehicle parks, driver rest areas etc. – is not sufficiently developed;

3) the section of road between Atyrau (Kazakhstan) and Urgench (Uzbekistan) needs to be upgraded in order to meet the standards set out in the 1975 European Agreement on Main International Traffic Arteries and to ensure that it is fully functioning all year round.

7. Expansion of intermodal transportation

One of the principal problems encountered on the IRU NELTI Project's Central Route has been the use of ferry crossings over the Caspian and Black Seas.

The situation with Black Sea ferry crossings is currently stable. Ferries run by the Ukrainian company "UkrFerry" link Georgia with Turkey and Ukraine, as well as with other countries along the Black Sea coastline. Ferry timetables are adhered to. These ferries have been used on a number of occasions by the Turkish haulage company "Karadeniz", which is a participant in the IRU NELTI Project.

However, the situation with Caspian Sea crossings is significantly more complicated. Lorries travelling from Asia to Europe face delays due to a lack of information about ferry timings, as well as to the fact that the ferries are primarily geared to transport railway containers (railway companies are given preference on embarkation). The small quota of ferry places allocated to lorries leads to queues and lengthy delays in ports, which is made worse by the short validity period of Turkmen transit visas for drivers.

The IRU has undertaken several rounds of negotiations with the management of the Azerbaijan State Caspian Sea Ferry Company ("Caspar"), which holds a monopoly on the running of ferry services on the Caspian Sea. Agreement has been reached on ways to systematise the transport of cargoes along the Central Route, using vehicular ferry crossings, as well as to post information about the timetable of ferry crossings between the ports of Baku, Aktau and Turkmenbashi on the IRU NELTI website.

However, should there be a significant increase in traffic flows along the IRU NELTI Central Route, the problem of ferry crossings between Baku and Turkmenbashi and Baku and Aktau could once again become a serious one, due to the limited capacity of the ferries. With this in mind, the development of intermodal transport linkages, coordinating road and ferry links over the Caspian Sea, should be given particular attention in the near future. The possibility of an independent project under the aegis of one of the organisations for regional integration should be tabled for discussion.

8. Extortion and other illegal actions by officials

From the very start, hauliers participating in the IRU NELTI Project have met with numerous examples of extortion when crossing state borders, as well as en route. The IRU NELTI Project has shown that the principal source of this extortion has been the prejudice or the open corruption of customs or other regulatory bodies when passing through vehicle border crossing points.



1) Principal pretexts for extortion from drivers were:

long delays to complete all procedures at borders (monies were extorted to speed up the procedures for processing documents);

threats of a “biased” search for drugs, including drilling through the cabs of lorries, which is particularly dangerous for refrigerated vehicles (monies were extorted to lift any such “suspicions”);

unfounded complaints about cargoes and accompanying documentation and threats of a biased inspection (monies were extorted to lift any “complaints” and avoid any damage to cargoes being shipped, such as fruits or live animals).

2) Conspiracies between representatives of state bodies responsible for customs, frontier, sanitary, veterinary and plant control have not been uncommon.

3) At a number of customs posts the levels of bribes required to pass through the border quickly and without undue hassle are even unofficially published.

4) The levels of corruption vary significantly from country to country and in general rise when moving from West to East (corruption is unknown on the borders of Georgia, Poland and Belarus, whereas on the borders of Russia and Kazakhstan, the unofficial levies imposed and the levels of extortion sometimes exceed official tariffs twenty-fold).

One of the typical incidents (in the course of the implementation of the IRU NELTI Project, this has happened three times to different companies) has been cases of Russian customs officers detaining IRU NELTI Project participant vehicles on the pretext of searching for drugs. **On no occasion were drugs ever found.** However, the costs of unloading and reloading cargoes and significant delays had to be met solely by the hauliers, while the customs authorities refused to take any responsibility themselves.

Example of extortions on selected border crossing points

The levels of the sums extorted on the border between Kazakhstan and Uzbekistan (at the Baurzhana-B.Konysbaeva exit border point from Kazakhstan and the Yallama entry border point into Uzbekistan):

- 1) € 50 – transport control
- 2) € 100 – sanitary control
- 3) € 100 – veterinary control
- 4) € 250 – plant control
- 5) € 20 – customs control
- 6) 10,000 tenge (€ 65) – passport control
- 7) 10,000 tenge (€ 65) – immigration card
- 8) 10,000 tenge (€ 65) – x-ray
- 9) 10,000 tenge (€ 65) – raising of barrier to enter border crossing point
- 10) 10,000 tenge (€ 65) – raising of barrier to exit border crossing point
- 11) 10,000 tenge (€ 65) – cab check...



CHAPTER 3

Public-private partnership as the driving force for the expansion of road haulage between Europe and Asia

It is clear that the expansion of Eurasian road haulage will offer significant advantages to all nations in Europe and Asia, including transit countries on the Eurasian continent, since it will increase the volume and scope of international trade, create new jobs, as well as initiate a whole range of knock-on effects. Following the analysis of the implementation of the IRU NELTI Project and the problems encountered, measures have been identified, which will need to be remedied in order to expand long-haul road freight haulage between Europe and Asia.

It has been established that the road infrastructure is adequate and thus not a restricting factor in the expansion of road shipments between Europe and Asia. The majority of the measures proposed consequently relate customs procedures, State regulation and the establishment of effective public-private partnerships.

The steps listed below need to be taken at a multilateral, bilateral and national level in order to facilitate the development of international road transport between Asia and Europe. Since the most fundamental decisions fall within the jurisdiction of governments in the countries located along the routes of the Great Silk Road, these proposed measures are included in the section dealing with State Transport Policy Measures. These are followed by steps that need to be taken by the business sector. The list is concluded with steps of a multilateral nature, which would enable China, as the largest Asian trading nation, to get involved in the multilateral UN instruments to further facilitate trade and road transport along the Great Silk Road.



1. State Transport Policy Measures

Modernisation of bilateral transport permits system

One of the most urgent measures which need to be implemented is the improvement of intergovernmental agreements on governing all international road transport operations between States situated along the route of the Great Silk Road. As was outlined in the previous chapter of this report, the majority of these agreements do not follow a common line and do not reflect the necessity for expanding Eurasian road shipments. They contain many legal lacunae or create restrictions to the market (in terms of quotas). Some of the States along the Silk Road have not concluded any agreements on international transport (including Tajikistan and Uzbekistan, or Kyrgyzstan and Azerbaijan). For this reason, the following steps are deemed crucial:

- 1) A complete analysis of all bilateral agreements on international road transport, existing in the countries along the route of the Great Silk Road. Measures which hinder the expansion of international road haulage need to be identified in order to be removed, either by passing amendments to current agreements or concluding new agreements.
- 2) The revision of all bilateral agreements to include provisions on freedom of transit. Transit permits must be abolished, as well as any limitation to their numbers (quotas) and fees required for their issuance. Freedom of transit must be established, as required by Article V of the General Agreement on Tariffs and Trade (GATT).
- 3) The phasing out of quotas for bilateral permits for international road haulage. Permits should be issued to road haulage companies depending on/according to their needs and should not be a trade-restricting factor.
- 4) The initiation of bilateral talks and/or completion of procedures for signing agreements between those States, which have no current legislation regulating international road haulage between them. This will effectively remove legal black holes, which are one of the greatest sources of obstacles and infringements at border crossing points.
- 5) The provision of assistance for States to move from bilateral agreements to multi-lateral, intergovernmental agreements on international road transport. This will contribute to the harmonisation of transport systems, and provide greater joint access to markets. One of the most important steps in this direction will be the ratification of the Shanghai Cooperation Organisation (SCO) inter-governmental agreement on facilitating the expansion of international road transport (which will apply to six countries – Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan and Uzbekistan).
- 6) The gradual introduction of multilateral transport licensing systems in countries along the Silk Road, which will supplement or supplant bilateral licensing systems. The first step which needs to be taken in the near future is the implementation of the BSEC regional multi-lateral licensing system. It is clear that the most palpable effect will be achieved when similar multi-lateral licences are instigated along the whole route of the Great Silk Road. This could be achieved by integrating the multi-lateral BSEC system with possible future multi-lateral quota systems within the SCO and ECO.

Greater participation in the UN multilateral trade and road transport facilitation agreements and conventions

There are a number of prerequisites which would allow transit States located along the Silk Road to greater participate in the key UN multilateral trade and road transport facilitation instruments. These include the integration of their road transport infrastructures into international transport systems, the introduction of international norms and standards for equipment, technology, border crossing procedures and safety, the reduction of hauliers' costs and the lessening of the harmful effects of vehicles on the environment.

Analysis has shown that transit States have varying levels of participation in the key UN multilateral trade and road transport facilitation instruments. For example, Belarus, the Russian Federation and Ukraine are contracting parties to approximately twenty UN agreements and conventions. On the other hand, Afghanistan, Iran, Kyrgyzstan, Mongolia, Tajikistan and Turkmenistan are party to less than ten UN agreements and conventions on road transport. The other transit States are all party to between ten and twenty conventions and agreements. At present, only two fundamental conventions are in force over the whole area from the Chinese border to Europe – the Convention on the Contract for the International Carriage of Goods by Road (CMR) and the 1975 Customs Convention on the International Transport of Goods under the Cover of TIR Carnets (TIR 1975 Convention).

In addition, some transit countries have still not signed up to many agreements and conventions that play a key role when undertaking long-haul international road shipments as well as in border crossing procedures, which are an integral part of such shipments. Primarily, this concerns the 1982 International Convention on the Harmonisation of Frontier Controls of Goods, and in particular its new Annex 8. Because of this, the following steps are deemed crucial:

- 1) All transit States must speed up the process of signing up to and respectively implementing the key UN multilateral trade and road transport facilitation instruments and aligning their national legal systems on norms and requirements set out in the UN multilateral legal instruments.
- 2) Those States which have not already done so must sign up to the 1982 International Convention on the Harmonisation of Frontier Controls of Goods, the 1968 Convention on Road Traffic; the 1968 Convention on Road Signs and Signals and the 2004 Inter-governmental Agreement on the network of Asian Highways as a matter of urgency.
- 3) All States which are already party to the 1982 International Convention on the Harmonisation of Frontier Controls of Goods, should as a matter of urgency bring their national legislation and procedures into line with Annex 8 of the Convention, which came into effect in May 2008. This should reduce vehicle waiting times at border crossings and hauliers' costs.
- 4) All transit States, which are members of the Commonwealth of Independent States (CIS) should complete procedures to introduce the Unified Vehicle Weight Certificate, which is set out in the corresponding CIS International Agreement and is valid throughout the territory of the CIS.



Increased co-operation between the transit States, international organisations and bodies for regional economic integration

Transit States must play a more active role in international projects and programmes aimed at developing Eurasian transport links. Particular attention should also be given to the consistent implementation of the aims and tasks designed to achieve the transit potential and the steady growth of international road haulage, which are set out as part of the framework for the processes of regional economic integration. International organisations should themselves play a more active role in this co-operation and in the co-ordination of the work to expand Eurasian transport links. The most effective instrument for co-operation between States, businesses, international organisations and bodies for regional economic integration will be the Road Map for the expansion of Eurasian transport, which will be developed as a conclusion to the first phase of the IRU NELTI Project. With this in mind, the following steps are deemed crucial:

- 1) All transit States must take a more active part in:
 - The Almaty Programme of action to expand transit shipments and access the potential of land-locked and transit countries;
 - UNESCAP-UNECE Joint Project to expand Eurasian Transport links (2002-2011);
 - The IRU's New Eurasian Land Transport Initiative (NELTI) Project in its second phase (2009-2011).
- 2) All Black Sea regional States must redouble their efforts to implement Memoranda of understanding on the simplification of international road shipments and the development of the Black Sea Ring Highway, which were concluded under the aegis of the Black Sea Organisation for Economic Co-operation and are mandatory.
- 3) Asian States must take a more active role in the CAREC Programme, initiated by the Asian Development Bank (ADB) and aimed at expanding international road cargo shipments along CAREC corridors;
- 4) CIS member States, must takes steps to develop international road shipments and achieve their transit potential, as set out in the Priority directions for co-operation between CIS member States in the field of transport in the period to 2020, as ratified by Decree of the Council of Heads of Governments of CIS countries on 14th November, 2008;
- 5) Members of the Eurasian Economic Community (EurAsEC) must take steps to form a unified transport zone, including implementing their combined transit potential, as set out in the EurAsEC Concept of forming a Unified Transport Zone, passed in January 2008 at summit level;
- 6) GUAM member States must implement the programme of actions to implement the Trans-Caucasian transit potential and other decisions taken at GUAM Summits, aimed at developing transit shipments between Europe and Asia;
- 7) The European Commission, EU member States and relevant financial institutions should give particular attention to the development of long-haul road shipments between the EU, the Caucasus, Central Asia and China, within the framework of the TRACECA Programme,

the Concept of EU Transport Axes, and the Programme of measures to form an “Eastern partnership” between the EU and six countries – Azerbaijan, Armenia, Belarus, Georgia, Moldova and Ukraine, each of which has an interest in the development of freight transit between Europe (EU) and Asia;

8) Relevant financial institutions should be encouraged to play a more active role in assisting in the implementation of projects designed to expand road haulage between Europe and Asia and to pay particular attention to questions of modernising border crossing points and simplifying border crossing procedures.

Liberalising international road transport and increasing access to markets for transport services

The expansion of long-haul international road shipments will not be possible without the corresponding framework of favourable conditions for all participant hauliers, with regard to market access and the removal of any forms of discrimination. Charges, imposed on hauliers because of their country of origin are incompatible with the policy of the revitalisation of the Great Silk Road. Some transit States (such as Georgia, China, Kyrgyzstan and Ukraine) are already members of the World Trade Organisation (WTO) and have made very wide-ranging and liberal commitments concerning international road haulage. Other States are attempting to gain WTO membership. Whatever the case, the introduction of measures to provide favourable conditions, a national framework and freedom of transit through the States along the route of the Great Silk Road should be welcomed. An important practical step in this direction, which evidences the good will and efforts to expand haulage between Europe and Asia, is the decision of the Government of Uzbekistan to waive duties, which were previously imposed on Kyrgyz hauliers when crossing over into Uzbek territory. With this in mind, the following actions would be recommended:

- 1) All transit countries should waive all duties imposed on foreign hauliers, if such duties are not also imposed on their own national carriers (i.e. offer non-discriminatory, equal conditions to foreign and national hauliers) on entry, departure, transit, use of infrastructure and other operations concerning international shipments.
- 2) Transit countries should remove all forms of discrimination towards foreign hauliers, irrespective of the country of origin of the goods being shipped or the vehicles (thereby providing universally favourable conditions) upon entry, exit, transit, use of infrastructure and other operations concerning international shipments.
- 3) Transit countries applying for WTO membership should be encouraged in their efforts to introduce into their national legislature non-discriminatory measures and favourable access to the market for international road haulage services, as outlined in WTO agreements.

Improving customs procedures

An analysis of the results of the implementation of the IRU NELTI Project has shown that customs procedures, the lack of clear co-operation between customs authorities in transit countries and the abuse of the system and extortion combine together to form one of the most significant administrative obstacles to international road shipments. Improving customs procedures would help to provide a significant reduction in vehicle waiting times



at borders, as well as reducing hauliers' costs. This in turn would lead to an increase in the effectiveness of international road transport, a reduction in freight costs and a growth in the volume of shipments. With this in mind, the following steps would be recommended:

- 1) Expedite the process of synchronising existing customs procedures in transit countries with international norms, regulations and the documentation required when crossing State borders by implementing Annex 8 of the 1982 UN International Convention on the Harmonization of Frontier Controls of Goods.
- 2) Speed up the process of upgrading border crossing points, equipping them with modern surveillance methods (vehicle scanning equipment etc.), as well as the necessary computers, to enable them to use contemporary information technology and share data with customs bodies in other countries.
- 3) Customs authorities in transit countries should formalise measures for pre-declaration of cargoes to be transported along the routes of the Great Silk Road, based on the implementation of the IRU's TIR-EPD system.
- 4) Following the models successfully used in Georgia and the EU, customs authorities in the transit countries should make use of the experience and means employed to fight corruption in the customs services, in order to eradicate extortion and other illegal activities on the part of civil servants at local customs posts.

Border crossing points

The way that frontier crossing points currently function between the European Union and neighbouring countries shows that there could be significant savings in hauliers' time at international borders. Experience gained along the routes of the Great Silk Road, indicates the following:

- 1) All transit countries should investigate avenues to introduce procedures for joint inspections of cargoes and vehicles conducted by qualified bodies in neighbouring States, primarily at vehicle crossing points located along the principal routes, linking Europe and Asia.
- 2) The "single window" system should be implemented to expedite the inspection of cargoes at border crossings.
- 3) Greater use should be made of the experience of the EU and other countries in introducing modern procedures for managing and controlling the work of border crossing points.

Entry and transit visas for drivers

Many of the transit States situated along the Great Silk Road (in particular, the CIS member States, with the exception of Turkmenistan), do not require each other's citizens to obtain visas for entry onto their territory. This is obviously a positive factor in the expansion of road haulage operations along the Great Silk Road. However, drivers from CIS member States have to obtain visas to enter the EU and Turkey and likewise drivers from EU member States and Turkey have to obtain visas to enter the territory of virtually all CIS member States. In addition, all drivers are required to have transit visas for Turkmenistan and Iran.

With China being encouraged to play a more active role in Eurasian haulage, it is possible that the question of obtaining Chinese visas for drivers will also arise, and likewise the problem of obtaining visas for all the transit countries for Chinese drivers. The following measures are suggested as a means of lessening the effects of this obstacle to the expansion of road haulage along routes between Europe and Asia:

- 1) The practice of issuing multi-entry, long-term visas (one year or more) to professional drivers should be extended throughout all countries with an interest in developing the Great Silk Road.
- 2) The period of stay allowed to drivers in transit should be extended, particularly through those countries where delays may occur when using different forms of transport (such as vehicular ferry crossings),
- 3) The procedures for issuing visas to drivers should be simplified. This would apply to drivers, whose trustworthiness has been proved by meeting all requirements for previous visa provisions, or is guaranteed (by official diplomatic notes or recommendations) by the relevant international road haulage associations.
- 4) The possibility of concluding the relevant agreement to issue a special “Great Silk Road” visa should be investigated. Only professional drivers who have already proved their trustworthiness would be eligible to apply. Such a visa would cover the whole territory from the Chinese borders to the borders with EU Member States (using as a starting point the existing talks on the possibility of instigating a TRACECA through-visa).

Road safety issues

A guarantee of road safety is a pre-requisite for increasing volumes of international road freight along the Great Silk Road. Despite the fact that no single accident has been logged during the implementation of the IRU NELTI Project, experience has shown that accident levels remain high in the Russian Federation and in several Central Asian States. In order to gradually reduce the number and severity of these accidents, governments of transit countries should enforce the following measures:

- 1) Implement programmes aimed specifically at increasing road safety by targeting the main causes of accidents involving trucks using the internationally accepted methodology developed in the joint EU-IRU European Truck Accident Causation (ETAC) Study.
- 2) Synchronise national legislation with the requirements of international agreements and conventions, setting out standards for road infrastructure, traffic controls, signs and signals.
- 3) Introduce the latest technology for video surveillance and road safety monitoring. Likewise the valuable experience of the EU and a number of other countries in the effective organisation of traffic should be investigated.
- 4) Divert road freight traffic away from major cities by investing in the construction of fly-overs and ring-roads.



Security Issues

In the course of the implementation of the IRU NELTI Project, no single incident of illegal actions towards drivers, cargoes or vehicles, travelling along the routes of the Great Silk Road has been logged. Nevertheless, as Eurasian road transport continues to expand, State organisations, the business community and public bodies need to pay particular attention to the problems of averting, exposing, suppressing and investigating transport-related criminal activities and terrorism.

Road vehicles travelling along the Great Silk Road should be properly protected from pirate and terrorist acts, smuggling of arms and narcotics, illegal migrants and contraband goods. At the same time, commercial and customs security remain equally important issues for the road transport industry. With this in mind, the following recommendations are deemed crucial:

- 1) State bodies in transit countries should continually exchange information about security threats on road transport.
- 2) Relevant supervisory bodies for customs authorities at road frontier crossing points must introduce significantly new technical means of exposing the transport of narcotic or psychotropic substances, arms, illegal migrants and contraband goods.
- 3) The exchange of information and best practices in staff training and the organisation of events designed to prevent acts of terrorism and illegal activities targeting road transport must be encouraged.
- 4) Support must be given to facilitating the effective operation of both the TIR international customs transit system and the SafeTIR system, throughout all territories located along the Silk Road and using the TIR System to effectively implement the WCO SAFE Framework, including AEO status.

Developing road and auxiliary infrastructure

The implementation of wide-scale Eurasian road haulage will be impossible without the development of modern and safe roads, as well as the infrastructure for vehicle crossing points, logistical centres, service sites etc. The IRU NELTI Project has proved that the existing infrastructure is sufficient to start regular road haulage between Asia and Europe. However, analysis has shown that bottlenecks remain in the road infrastructure close to frontier crossing points and major cities. In addition, throughout the length of the Great Silk Road there is a lack of logistical and distribution centres, which would help in the optimisation of traffic flows and would also be able to regulate the effective interaction of road and railway freight transport. At present, many countries are implementing national programmes for the development of the road infrastructure, which in a number of cases are co-financed by the European Bank for Reconstruction and Development (EBRD), the Asian Development Bank (ADB) and other international bodies. But in most transit countries there is still no mechanism in place to construct new alternative toll roads using private finance. What is more, in several countries there are plans to turn existing international highways into toll roads, without providing any guaranteed non-toll alternative. Given the analysis of the results of the IRU NELTI Project set out in the previous chapter, as well as recognised tendencies

and directions for the development of the road infrastructure in the region, the following recommendations should be made to transit countries:

- 1) To continue the step by step implementation of undertakings to construct and reconstruct roads, as set out in national Programmes and Master Plans for the development of the transport system.
- 2) In situations when the above is not possible, due to current levels of congestion, the need for major topographical changes to existing sections of roads or a qualitative improvement in traffic conditions, actively to offer conditions for the concessionary construction of toll sections of roads.
- 3) To improve national legislation in the area of concessions and fee-paying sections of the road infrastructure, with the aim of attracting potential investors, as well as providing non-discriminatory access for hauliers to national transport services.
- 4) To complete work to bring the section of the E40 Highway between Atyrau (Kazakhstan) and Urgench (Uzbekistan) up to the standards required by the 1975 European Agreement on Major International Highways and ensure that it is functional all year round.
- 5) To give priority to the development of by-passes to major cities, with the aim of keeping transiting freight vehicles out of city limits.
- 6) To assist in the development of the infrastructure of frontier vehicle crossing points by attracting private investment within the framework of the PPP system, by using existing international experience in this area.
- 7) To assist in the development of international logistical centres along the routes of the Great Silk Road and to review the issues surrounding the creation of a network of logistical centres close to the borders with China, with the aim of attracting greater volumes of freight along routes between China and Europe.
- 8) To update the auxiliary service infrastructure along roads, paying particular attention to secure parking areas, service areas for vehicles undertaking international shipments, driver rest areas etc.

2. Support measures from the business community

Increased co-operation between consignors, freight forwarders and the road haulage industry

Achieving wide-scale Eurasian road shipments will require a complete re-thinking of the interaction existing between various business groups. Business structures are increasingly moving from a competitive stance to intensive co-operation, with the view to achieve mutually beneficial results in a B2B manner ("Business to Business"). The introduction of electronic trading technologies, combined with the current development of co-operation between manufacturing and transport businesses, will serve as a stimulus for the future



increase in the proportion of road transport within Eurasian transport as a whole. The creation of logistical centres along the routes of the Great Silk Road will also facilitate increased co-operation between freight forwarders and the haulage industry. With this in mind, the following steps are deemed crucial:

- 1) Assistance in attracting private investment to create logistical and distribution centres along the routes of the Great Silk Road.
- 2) Investigation of the possibility of creating large-scale trans-national road transport partnerships, with the participation of freight forwarders and possibly the manufacturing industry, with activities in all the transit countries to arrange the effective shipment of cargoes along routes between Asia and Europe

Upgrading vehicle fleets

Huge progress has been made in recent years in both vehicle and engine design. This has resulted in the production of modern, safe and fuel-efficient vehicles, which have significantly reduced negative effects on the environment. Modern articulated trucks, meeting EURO-4 and EURO-5 ecological standards are widely used in Europe and should become prominent in international freight operations along the Great Silk Road.

Upgrading vehicle fleets aimed at shipments between Asia and Europe should be a priority for road transport companies. The high cost of new vehicles means that access to leasing agreements should be expanded in order to assist in upgrading vehicle fleets. With this in mind, the following steps are recommended:

- 1) Haulage companies in transit countries should make it a priority to upgrade their fleets of vehicles, to be used on routes between Europe and Asia, to a level not lower than EURO-4. This will increase the competitiveness of these shipments in a number of factors, including in comparison with other forms of transport.
- 2) Haulage companies and associations of international road hauliers should lobby the relevant government bodies to waive or significantly reduce the import duties on modern vehicles to be used for international road haulage.
- 3) The use of leasing agreements to upgrade vehicle fleets in transit countries should be expanded, including trans-national leasing agreements.
- 4) The question of incorporating new leasing companies or expanding the access of existing leasing companies in transit countries should be reviewed, with the aim of developing the market for leasing services for vehicles.

Access to professional qualifications and training standards

The implementation of the IRU NELTI Project has thrown light on yet another important factor, which will play a significant role in the development of the Great Silk Road: the question of licensing and training drivers, haulage company employees and employees of the relevant State bodies, responsible for the functioning of national transport systems.

An increase in the volumes of shipments between Europe and Asia will require an improvement in the system of licensing international drivers, the implementation of significantly improved systems of licensing and training drivers, including offering courses in foreign languages and transport law. The knowledge and skills of drivers and other haulage company employees will greatly influence the qualitative indicators of shipments undertaken, as well as their safety. With this in mind, the following steps are deemed crucial:

- 1) Working in conjunction with national bodies to increase access to international training programmes for all staff involved in international road haulage.
- 2) Making the most of the opportunities offered by the IRU Academy to train managerial staff for haulage companies and raise the level of qualifications of professional drivers involved in international road shipments.
- 3) To improve the criteria used to select professional drivers by using international experience and best practices in the process of professional international drivers, in order to improve the quality and safety standards of shipments.
- 4) Assisting drivers engaged in long-haul international shipments in improving their foreign language speaking skills.

Intermodal transport (ferries / trucks)

The expansion of Eurasian road haulage along the NELTI Central route will require significantly greater access to Black Sea and Caspian Sea ferry crossings. Ferry crossings are one of the most important elements of the international maritime industry. The success of Eurasian cargo shipments along the Central route will depend on the levels of co-operation between the road haulage industry and the maritime industry. The following points should be viewed as the cornerstone of such cooperation:

- 1) The provision of a regular and reliable published timetable for ferry crossings. This will simplify the planning process for road haulage companies, undertaking shipments between Asia and Europe.
- 2) A non-discriminatory system of “first come, first served”, when loading ferries in terminals (with regard to individual hauliers and between road haulage companies and railway companies”).
- 3) The introduction of additional ferries, should there be a significant volume increase in Eurasian road freight transport.
- 4) Closer co-operation between the maritime industry and the relevant port authorities in Azerbaijan, Georgia, Kazakhstan, Turkmenistan and Turkey, with the aim of simplifying and speeding up procedures and formalities in ferry terminals to the greatest possible degree.
- 5) The expansion of co-operation between the maritime industry and freight forwarders, to expand the system for pre-booking ferry slots. This would enable ferry companies to assess the need for additional services (should there be an increase in vehicle numbers), as well as reducing the vehicle waiting times at ports.

* Most ferries currently in use on both the Black Sea and the Caspian Sea have the capacity to transport both vehicles and railway containers.



3. Opportunities for Public-Private partnerships

The formation of international financial mechanisms

The expansion of international road shipments between Europe and Asia will facilitate the implementation of projects based on public-private partnership principles. The modernisation and construction of the road and ancillary infrastructure, the upgrading of vehicle fleets and the implementation of new shipment technologies will all be impossible without the financial participation of both governments and the business community.

Reliable and effective financial mechanisms for supporting current and future projects need to be established to enable the continued, comprehensive expansion of Eurasian road transport. The Central Asian and Caucasian regions can already boast successful examples of this sort of financial mechanisms, in particular within the framework of the Central Asia Regional Economic Cooperation CAREC and other programmes, where projects have been instigated using – amongst other sources – funds from international financial institutions.

It goes without saying that the role of the private sector, which has its own vested interest in the expansion of cargo shipments between Europe and Asia, must also increase. Steps in this direction should include:

- 1) The creation of various international funds to support the development of road haulage along the Great Silk Road, with the financial participation of governments, international financial organisations, professional business associations and directly-related business structures.
- 2) Increased access of transit countries' national markets to these international funds, in order to finance projects aiming to expand road haulage, develop the road infrastructure and vehicle and equipment leasing, introduce know-how and modern transport and logistical technology

State initiatives to attract private investment to develop the logistical infrastructure along the Great Silk Road

The implementation of the NELTI Project has highlighted the weakest link in the ancillary infrastructure: the lack of modern logistical centres along the routes of the Great Silk Road. This problem is particularly serious at the frontiers of those states (in particular Afghanistan and China), which require cargoes to be unloaded at the border and where dispatch or delivery points may be located far inland, at a long distance from border crossing points. The creation of logistical and distribution centres is an independent business sector in its own right. In a number of cases, railway and ferry companies, river ports and airports are also customers for logistical services, since they are equally involved in shipping cargoes between regions or continents. The proper placement of logistical centres requires a feasibility study which would take into consideration the routes and prospective volumes of cargo shipments between Europe and Asia. In addition, despite the private nature of the investment, the formation of logistical centres is dependent on decisions taken at governmental levels (allocation of land, construction permits etc.) The state will be one of the beneficiaries from the activities of the logistical centres both via taxation and the growth in transit shipments. With this in mind, the following steps are recommended:

- 1) To offer assistance in the creation of a logistical infrastructure in the immediate vicinity of the routes of the Great Silk Road, bearing in mind the value of amalgamating cargo flows, which could make combined use of vehicular, railway, maritime and air transport services.
- 2) To avoid a doubling-up of logistical centres, located next to each other, along one and the same route, with the aim of saving public funds, concentrating cargo flows and achieving an economy of scale.
- 3) To expand the access of internationally recognised logistic companies to equip logistical centres in transit countries, using public-private partnerships. This would require the removal of limitations on foreign investment, as well as a revision of the relevant concessionary legislation.

Other directions for public-private partnerships

Public-private partnerships can be used in a number of fields that have a direct relationship with road haulage between Asia and Europe:

- 1) The creation of modern and secure parking areas for large-load vehicles undertaking international shipments. These parking areas could be combined with drivers' motels, refuelling stations, service stations etc.
- 2) The use of leading international experience (in particular that of Turkey and Georgia) to create and equip joint frontier crossing points.
- 3) The implementation of modern computer and telecommunications systems and satellite technology to monitor vehicles and cargoes in transit.

4. Encouraging China to participate in Eurasian road haulage by joining multilateral trade and road transport facilitation instruments

The People's Republic of China is the largest producer of goods being shipped throughout the world. At present, such trade is conducted exclusively through maritime transport.

It is only a matter of time before goods start to be shipped between China and Europe by road. The efforts being undertaken by the People's Republic of China, neighbouring states and international organisations to initiate road haulage between China and Europe will bear fruits in the near future.

Experts assess that at present, nearly 80% (by value) and 60% (by weight) of all Chinese exports can be containerised. All this freight is ideally suited to road transport. The introduction of road transport linkages would mean that alternative delivery routes could be devised for goods being shipped from China to Europe, leading to a significant reduction in delivery times. It would also provide a practical means for "door-to-door" deliveries. Furthermore, road transport has concrete competitive advantages over rail transport (i.e. no changes of gauge, contradictory railway legislation, limitations of rail infrastructure capacity etc.)



For China to be included in the Eurasian road transport system, there are a number of key problems which need to be addressed. These problems are currently hindering the development of road haulage and the increase in volumes of goods shipped. They include the necessity to unload and reload the goods at Chinese borders, the extremely bureaucratic system of permits and quotas to undertake shipments and the lack of bilateral agreements on road transport between China, the EU and many transit countries.

It seems self-evident that encouraging the participation of China in Eurasian transport will be most effective when using multilateral co-operation channels that are, by their very nature, more effective due to their wide implementation in many countries.

The following will have huge significance for the start of large-scale road transport operations between China and Europe:

- 1) The implementation of the trilateral agreement signed by China, Kyrgyzstan and Uzbekistan to start regular cargo shipments from Kashgar to Andijan via Osh.
- 2) The delineation and implementation of a framework for the expansion of a tri-lateral system of cargo shipments between China, Kazakhstan and the Russian Federation.
- 3) Greater co-operation within the framework of the multilateral agreement between China, Kazakhstan, Kyrgyzstan and Pakistan on international road haulage.
- 4) The speedy implementation of the multi-lateral, inter-governmental agreement to assist in the expansion of international road haulage under the Shanghai Co-operation Organisation, which should include a mechanism for multi-lateral transport permits, which would be valid in all six SCO member countries.
- 5) China should sign and implement the key UN multilateral trade and road transport instruments. It is important to note that China's neighbours are signatories to the key UN agreements and conventions; the EU member countries – China's main trading partners – are signatories to all UN agreements and conventions which create a system for further harmonisation of transport legislation and increasing the efficiency and safety of shipments. The most significant agreements and conventions, which will be critically important for the expansion of international haulage between China and Europe are:
 - The 1968 Convention on Road Signs and Signals;
 - The 1968 Convention on Road Traffic;
 - The 1956 Convention on the Contract for the International Carriage of Goods by Road (CMR);
 - The 1975 Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention);
 - The 1982 International Convention on the Harmonisation of Frontier Controls of Goods;
 - The 1970 Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be used for such Carriage.

5. A draft concept for a multilateral quota system to include China

The effectiveness of a multilateral quota system for road haulage has been proved by long years of experience of its use in Europe.

The system of multilateral quotas for transport licenses was introduced on 1st January, 1974, after a three-year trial period. It was viewed by the European Conference of Ministers of Transport (ECMT) as a practical step towards the gradual liberalisation of road freight haulage, which could only be achieved by joint efforts on the part of member states to provide a level playing field for competition, both in terms of competition between hauliers from different countries and between different forms of transport. The multilateral nature of these licenses also serves to rationalise the use of vehicles by reducing the number of empty runs¹. A system for multilateral agreements should be introduced within the framework of one of the international organisations for regional integration, of which China is already a participant member. These organisations have a vested interest in the expansion of transit shipments through transit countries. The Shanghai Co-operation Organisation (SCO) is probably the most suitable international organisation to use as a basis for incorporating China into the system of multilateral permits. In addition, at present, the SCO is developing a multilateral inter-governmental agreement to assist the expansion of international road haulage, which should create an effective legal framework for the implementation of a system of multilateral permits.

The factors listed below should be taken into consideration when developing a multilateral system of permits:

- 1) A multilateral system of permits should work to the interests of all countries and should be founded on non-discriminatory principals.
- 2) Multilateral permits should allow road hauliers to ship goods between any of the participating countries or to transit through the territories of those countries.
- 3) Multilateral permits cannot be used for coastal shipments. Coastal shipments should be included in bilateral agreements, which would also be used for bilateral shipments between the states concerned.
- 4) Multilateral agreements must be valid in all the countries participating in the system. States must recognise multilateral permits issued in other countries participating in the system.
- 5) Multilateral permits should be issued by competent or authorised bodies only to those hauliers who have access to the international transport market (in particular those who are permitted to undertake TIR shipments).
- 6) The system should include a body to monitor the use of multi-lateral permits, to define the overall numbers of permits and the criteria for calculating quotas for separate countries, to monitor the printing of permit forms and the destruction of unused, out-of-date or spoiled permit forms.

The experience gained over the 35 years that the ECMT international quota system should be used as a basis for introducing a multilateral quota system in the region.

¹ ECMT Multi-Lateral Quotas. Instructions. Joint publication of the International Transport Forum (ITF) and the International Road Transport Union (IRU).



Conclusions

This review has shown that the IRU's New Eurasian Land Transport Initiative (NELTI) has taken some important steps towards achieving the aim of developing Eurasian road transport. IRU's NELTI Project has contributed to debunk myths about long-haul international road haulage being either impossible or inefficient. At the same time, the IRU's NELTI Project has focused the attention of the business community, national governments and international organisations on the challenges arising from the development of international long-haul road shipments between Europe and Asia.

Main practical results of the IRU's NELTI Project:

- 1) Proven **commercial viability** of road haulage between Europe and Asia. Shipments under the IRU's NELTI Project were undertaken consistently and run on an entirely commercial basis. Hauliers were not given any preferential treatment in the form of "green channels" or any other type of support.
- 2) **Three main road haulage routes between Europe and Asia** have been identified/determined, with various branches, stretching over the territory of 24 countries in Europe and Asia. This demonstrates that a sufficient number of countries are interested in the expansion of transit shipments between Europe and Asia and in the resulting additional benefits.
- 3) The implementation of the IRU's NELTI Project has shown that **the existing road infrastructure is sufficient to undertake regular road shipments between Europe and Asia**. However, an increase in shipment volumes will require the further development of road infrastructure around large cities (diversionary routes and ring roads), as well as improving the logistical and ancillary infrastructure (parking areas, service stations etc.) along the routes of the Silk Road.
- 4) The IRU's NELTI Project has confirmed **the high levels of safety and security of road shipments** between Europe and Asia. No accidents involving NELTI Project vehicles have been logged, nor have been any other serious problems involving safety or security reported. **The crucial role of the TIR system in providing customs security for international road transport between Europe and Asia has been confirmed.**
- 5) **The types of cargo** best suited to long-haul road shipments have been identified. They are considerably diverse, ranging from diplomatic cargoes, technical equipment and household electrical goods to agricultural and food products and consumer goods.
- 6) **Information back-up for the expansion of international road haulage between Europe and Asia** has been provided. A dedicated website (www.iru-nelti.org) has been set up, allowing all interested stakeholders in the road haulage market to access the necessary data and practical information. The website has also played a key role in the effective monitoring of shipments undertaken within the IRU's NELTI Project.
- 7) Monitoring the implementation of the NELTI Project has allowed to **identify challenges and obstacles** to international road haulage (see Chapter Two), which have appeared to be of institutional and regulatory nature – from delays at border crossing points to extortion en route.

Main political results of the IRU's NELTI Project:

During the implementation of the IRU's NELTI Project **political support** has been provided by transit countries (in the form of Co-ordination Centres set up on their territory), from large inter-governmental and international non-governmental organisations, as well as from organisations for regional economic integration. The NELTI Project has assisted in solving a whole range of problems, which were hindering the development of international road haulage along routes between Asia and Europe. The following situations are worth mentioning:

duties imposed on Kyrgyz vehicles crossing the Uzbek border have been waived;

agreement has been reached with the Azerbaijan maritime administration on the booking of places on Caspian Sea ferries for NELTI Project hauliers;

steps have been taken to expand the use of the TIR-EPD, a web-based application develop by the IRU to system of electronic pre-declaration of goods;

an agreement has been reached on conducting trilateral consultations between China, Kyrgyzstan and Uzbekistan on the development of a highway between Kashgar and Andijan via Osh and possibly other routes;

the IRU's NELTI Project has acted as a catalyst, focusing the work of important regional programmes aimed at developing countries' transit potential, especially programmes implemented under the aegis of GUAM.

As a result of the analysis of problems and obstacles identified, Chapter 3 of this report lists more than 70 recommendations which, if implemented, will significantly contribute to promote and facilitate international road transport operations between Asia and Europe and reopen the historic Silk Road. Many of these recommendations do not require any financial investment, but merely the political will to put them into practice.

Means for implementing recommendations arising from the IRU's NELTI Project

Measures to develop Eurasian transport must be co-ordinated and of systemic nature. A concrete action plan will be needed to implement the range of measures set out in Chapter 3. The most effective method to present such a plan would be a Road Map for the development of Eurasian Road Transport. The Road Map should set out not only the responsible entities but also a time-line for the implementation of all the necessary measures.

With this in mind, the International Road Transport Union will strive to work together with governments, international organisations and the business community in a genuine public-private partnership to develop this Road Map, and elaborate the means for monitoring its implementation.



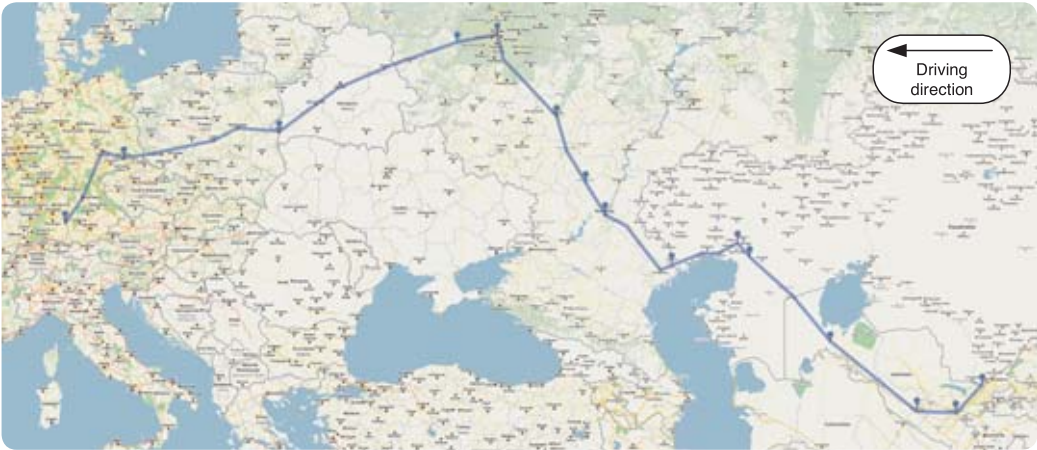
Prospects

The implementation of the NELTI Project has revealed promising prospects for expanding road haulage between Europe and Asia. These prospects need to be considered in the context of the global economic processes currently at work. The drop in trade volumes, including those between Asia and Europe, will surely have a knock-on effect on the global logistics chain. As the world economic crisis expands, existing approaches will need to be reassessed. When reviewing alternative options for goods deliveries, primary consideration will be given not to the lowest price, but to quality indicators. The role of road haulage in this new global logistical system can only increase, since road haulage allows goods to be delivered more quickly, more safely and to the very door of the customer.

In the aftermath of a global crisis, road haulage should come out in a dominant position, including for long-haul road shipments. It is particularly important that these changes to the market for cargo shipments between Asia and Europe come at a time when the process of synchronising legal systems is already under way. The remaining transit countries are preparing for admission into the WTO and a number of regional agreements, which will create favourable conditions for road transit shipments, are about to be implemented. These include the SCO multi-lateral agreement on international road transportation, the tri-lateral agreement between Kyrgyzstan, Uzbekistan and China and a number of others.



Northern Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Ulm (Germany)
20.09.2008 – 01.10.2008
Operator “AtrimLogistik” (Russia)

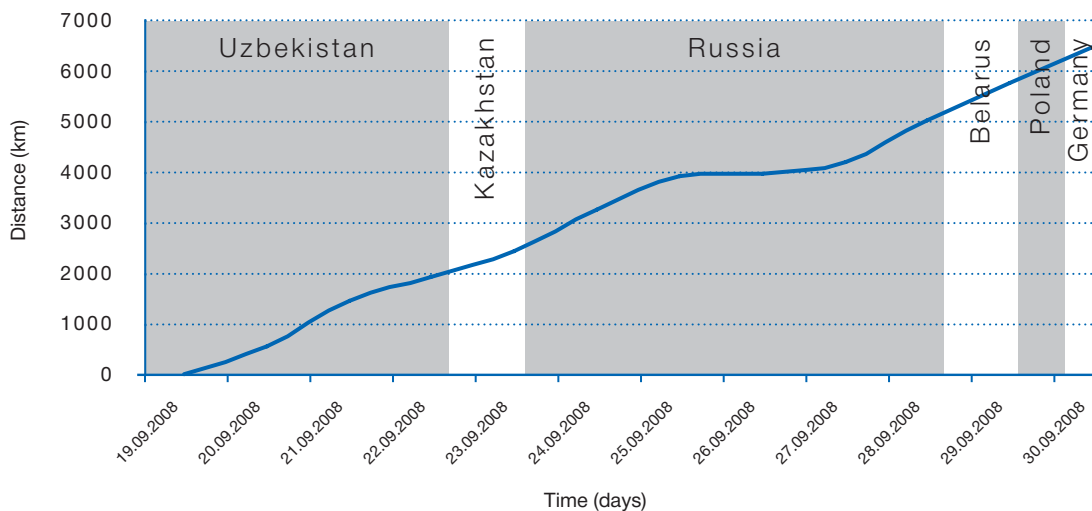


NELTI trip from Tashkent (Uzbekistan) to Ulm (Germany)
(operator: “AtrimLogistik”, 20.09.2008 – 1.10.2008)

General Information		
Origin	Tashkent, Uzbekistan	20.09.2008
Destination	Ulm, Germany	1.10.2009
Cargo	Textiles	
Time		
Travel time (days)	11	
Average speed (km/day)	589	
Distance		
Route distance (km)	6492	
Travelled distance (km)	6483	
Costs		
Unofficial costs (\$)	275	
non-physical barriers		
forced stops	-	times
	-	hours
border waiting times (hours)	Uzbekistan – Kazakhstan	5
	Kazakhstan – Russia	8,5
	Russia – Belarus	1
	Belarus – Poland	0
	Poland – Germany	0
Other findings	-	

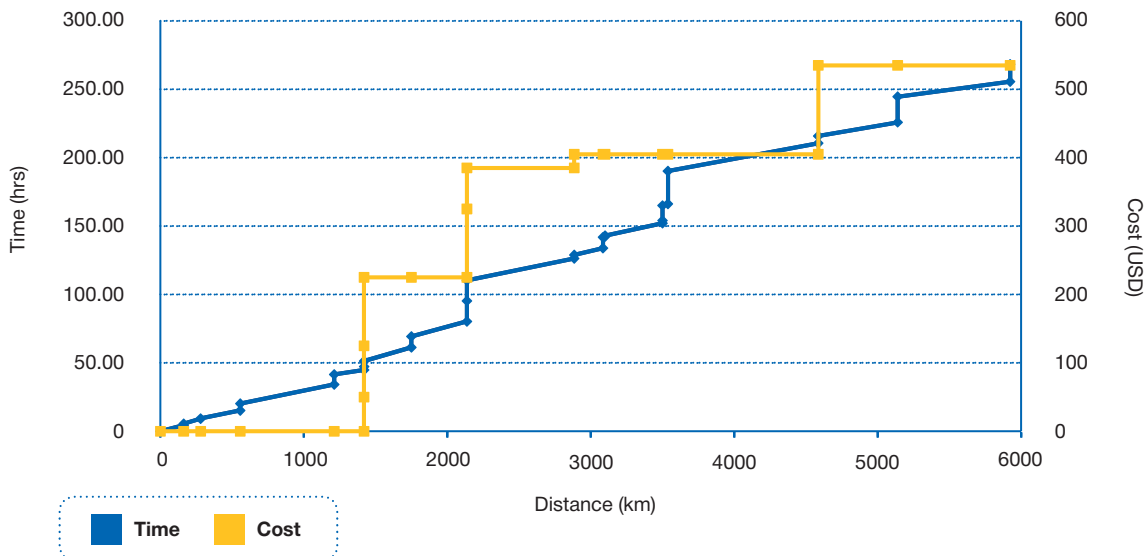
Northern Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Ulm (Germany)
20.09.2008 – 01.10.2008
Operator “AtrimLogistik”

Time – Distance



Northern Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Ulm (Germany)
20.09.2008 – 01.10.2008
Operator “AtrimLogistik”

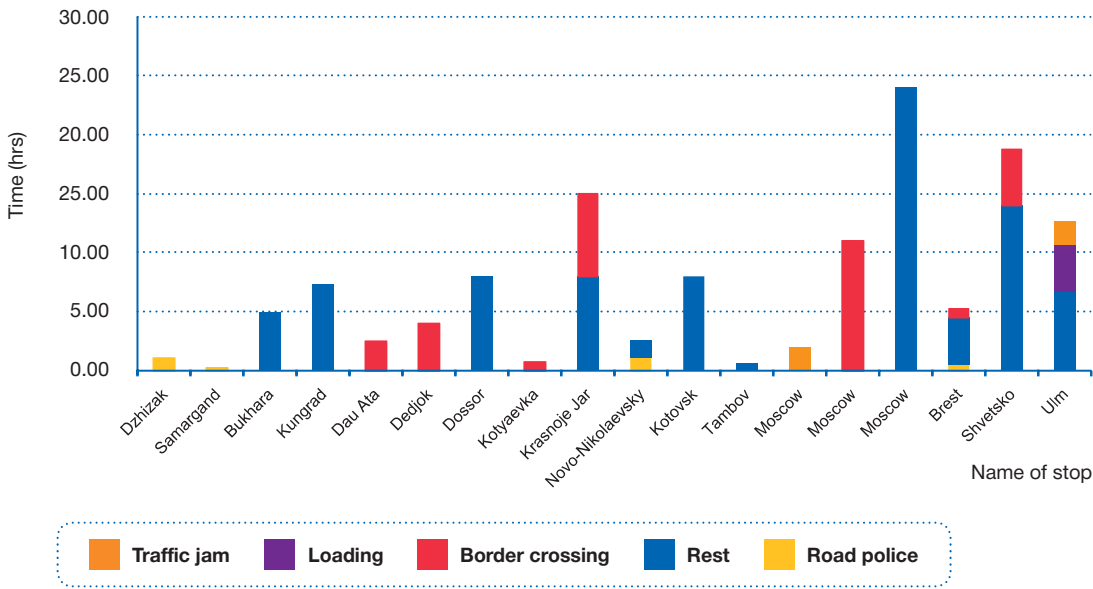
Time/Cost – Distance Model





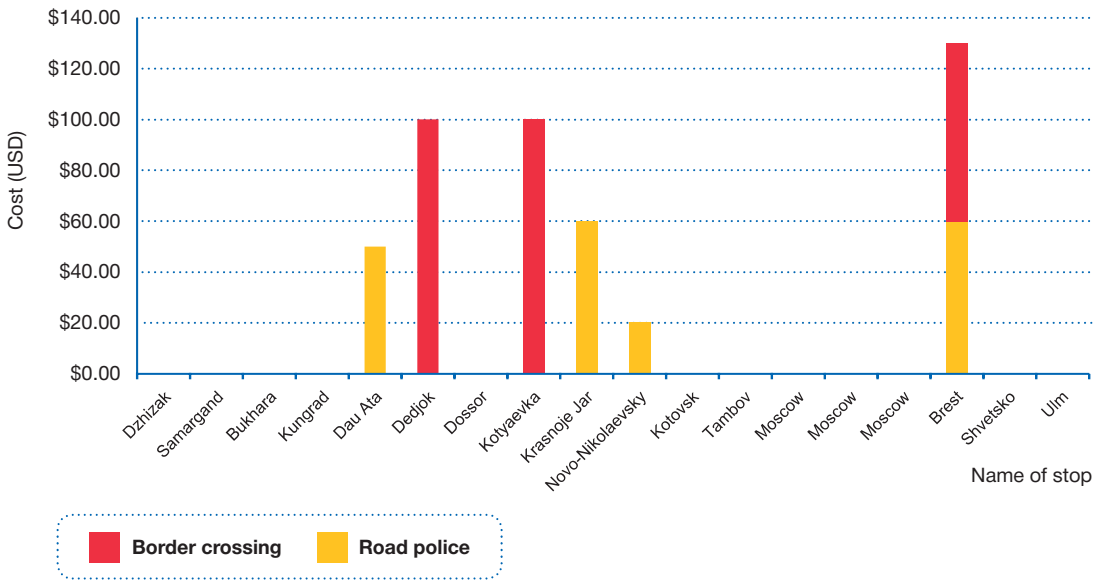
Northern Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Ulm (Germany)
20.09.2008 – 01.10.2008
Operator “AtrimLogistik”

Compare of time spent at each stop



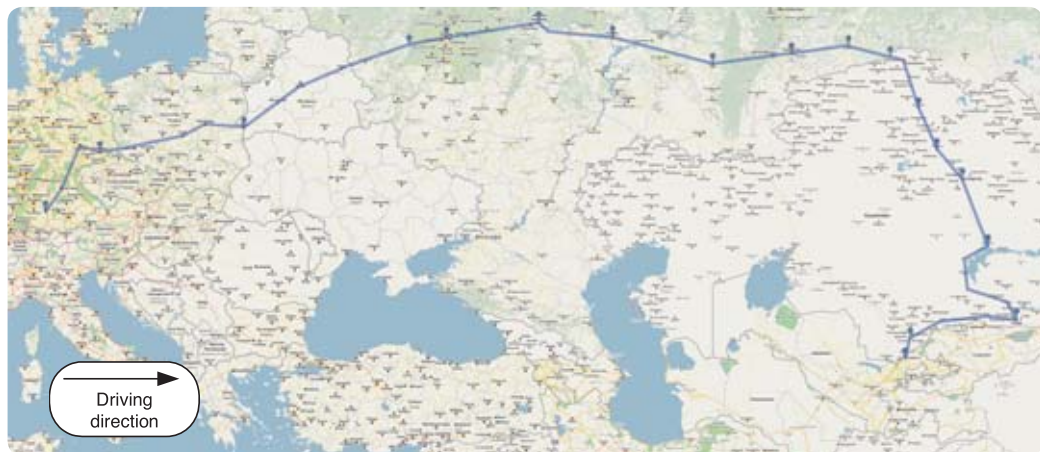
Northern Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Ulm (Germany)
20.09.2008 – 01.10.2008
Operator “AtrimLogistik”

Compare of cost spent at each stop



Northern Route of the IRU NELTI Project
Ulm (Germany) – Tashkent (Uzbekistan)
01.10.2008 – 15.10.2008
Operator “AtrimLogistik” (return trip)

ATRIM
LOGISTIK



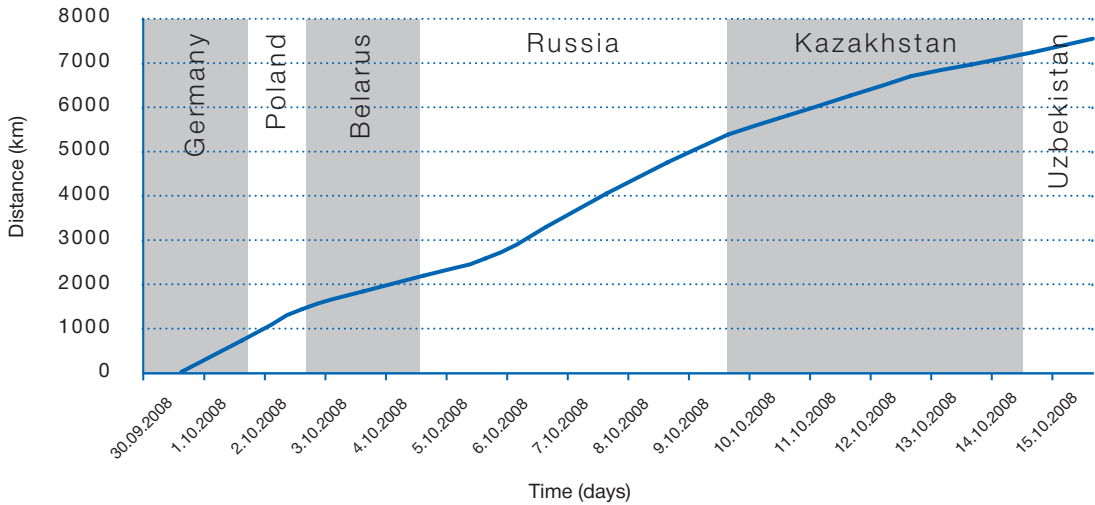
NELTI trip from Ulm (Germany) to Tashkent (Uzbekistan)
(operator: “AtrimLogistik”, 01.10.2008 – 15.10.2008)

General Information		
Origin	Ulm, Germany	01.10.08
Destination	Tashkent, Uzbekistan	15.10.08
Cargo	textiles	
Time		
Travel time (days)	15	
Average speed (km/day)	517	
Distance		
Route distance (km)	7535	
Travelled distance (km)	7758	
Costs		
Unofficial costs (\$)	275	
non-physical barriers		
forced stops	16	times
	9,5	hours
border waiting times (hours)	Germany – Poland	0
	Poland – Belarus	24+
	Belarus – Russia	4
	Russia – Kazakhstan	4
	Kazakhstan – Uzbekistan	4
Other findings	Customs clearance at point of destination took another 20 hours	



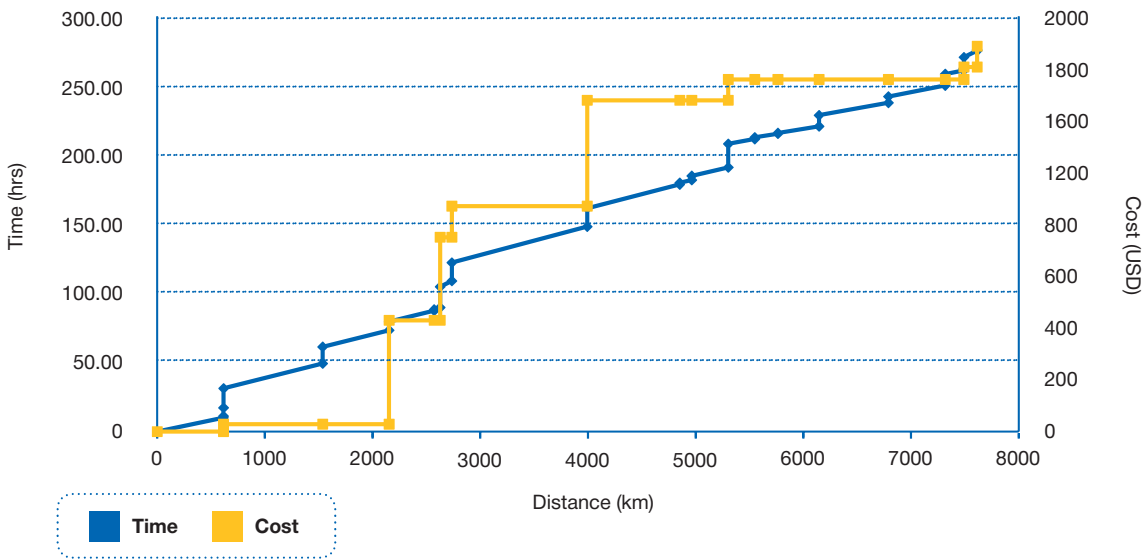
Northern Route of the IRU NELTI Project
Ulm (Germany) – Tashkent (Uzbekistan)
01.10.2008 – 15.10.2008
Operator “AtrimLogistik”

Time – Distance



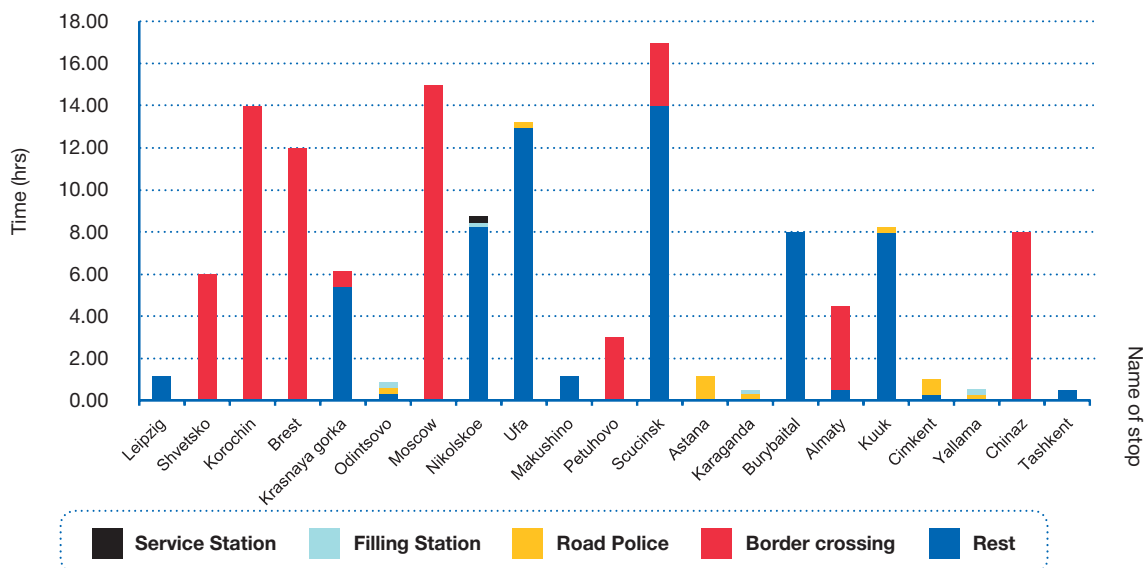
Northern Route of the IRU NELTI Project
Ulm (Germany) – Tashkent (Uzbekistan)
01.10.2008 – 15.10.2008
Operator “AtrimLogistik”

Time/Cost – Distance Model



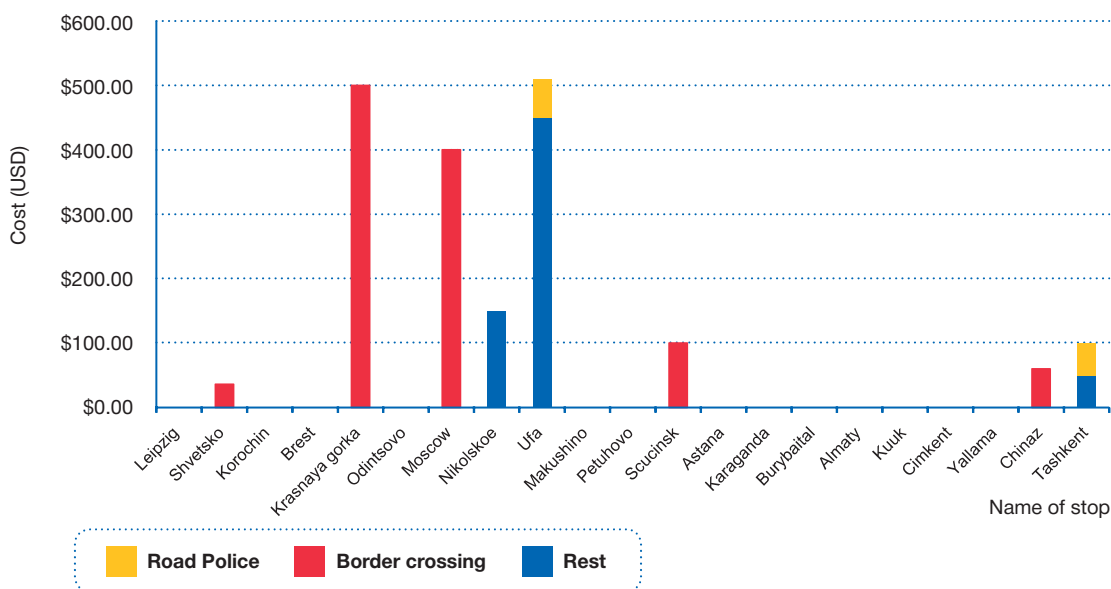
Northern Route of the IRU NELTI Project
Ulm (Germany) – Tashkent (Uzbekistan)
01.10.2008 – 15.10.2008
Operator "AtrimLogistik"

Compare of time spent at each stop



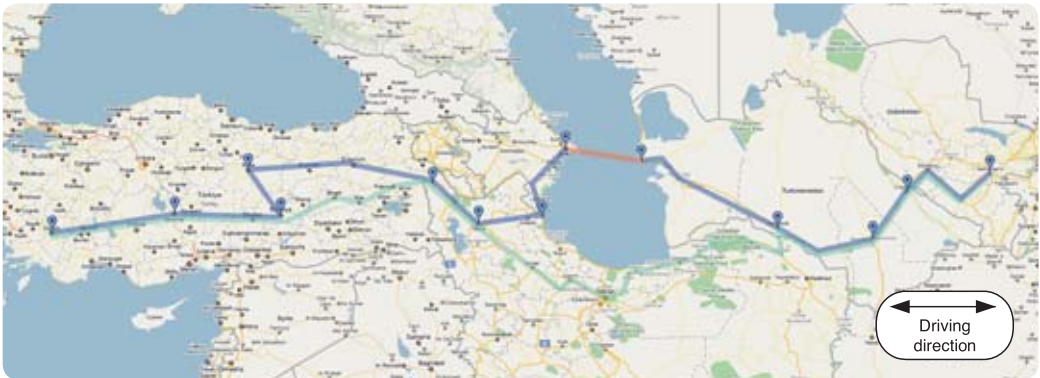
Northern Route of the IRU NELTI Project
Ulm (Germany) – Tashkent (Uzbekistan)
01.10.2008 – 15.10.2008
Operator "AtrimLogistik"

Compare of time spent at each stop





Central Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Denizli (Turkey), (round trip)
20.09.2008 – 24.10.2008
Operator “CENTRAL ASIA TRANS” (Uzbekistan)

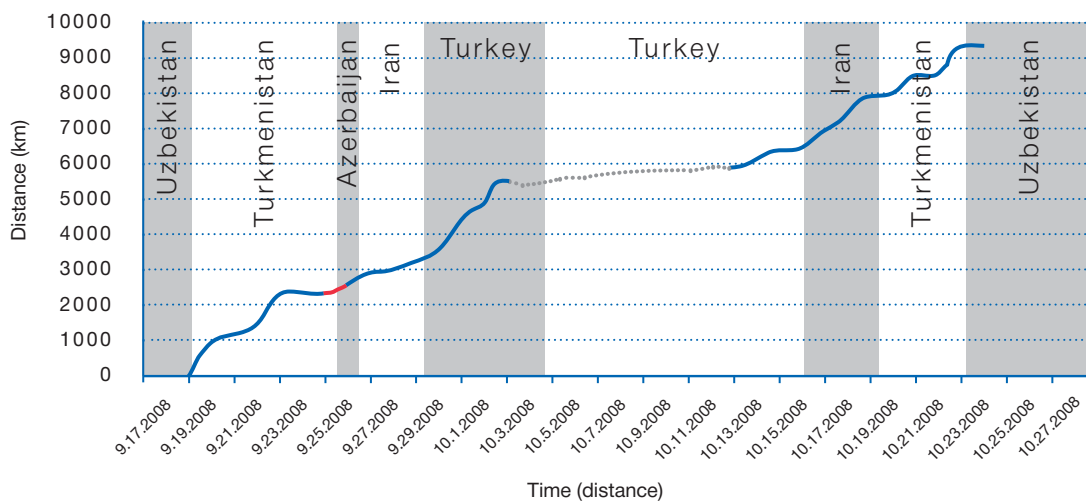


NELTI trip from Tashkent (Uzbekistan) to Denizli (Turkey)
(operator: “CENTRAL ASIA TRANS”, 20.09.2008 – 24.10.2008)

General Information		
Origin	Tashkent, Uzbekistan	20.09.08
Destination	Denizli, Turkey	24.10.08
On-route facilities	-	
Cargo	textiles	
Time		
Travel time (days)	26	
Average speed (km/day)	397	
Distance		
Route distance (km)	-	
Travelled distance (km)	10315	
Costs		
Unofficial costs (\$)	290	
non-physical barriers		
forced stops	3	#
	3	hours
border waiting times (hours)	Uzbekistan – Turkmenistan (re-turn)	- (2)
	Turkmenistan – Azerbaijan	10+
	Azerbaijan – Iran	10+
	Iran – Turkey (return)	10+ (36+)
	Iran – Turkmenistan	10+
Other findings	Waiting for the ferry to Baku took 2 days	

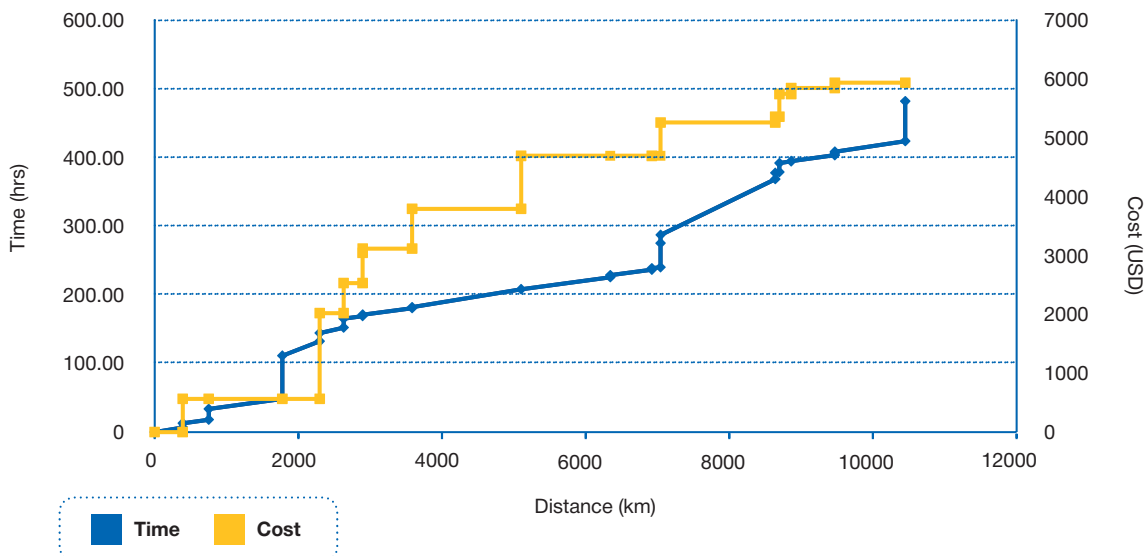
Central Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Denizli (Turkey)
20.09.2008 – 24.10.2008
Operator “CENTRAL ASIA TRANS”

Time – Distance



Central Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Denizli (Turkey)
20.09.2008 – 24.10.2008
Operator “CENTRAL ASIA TRANS”

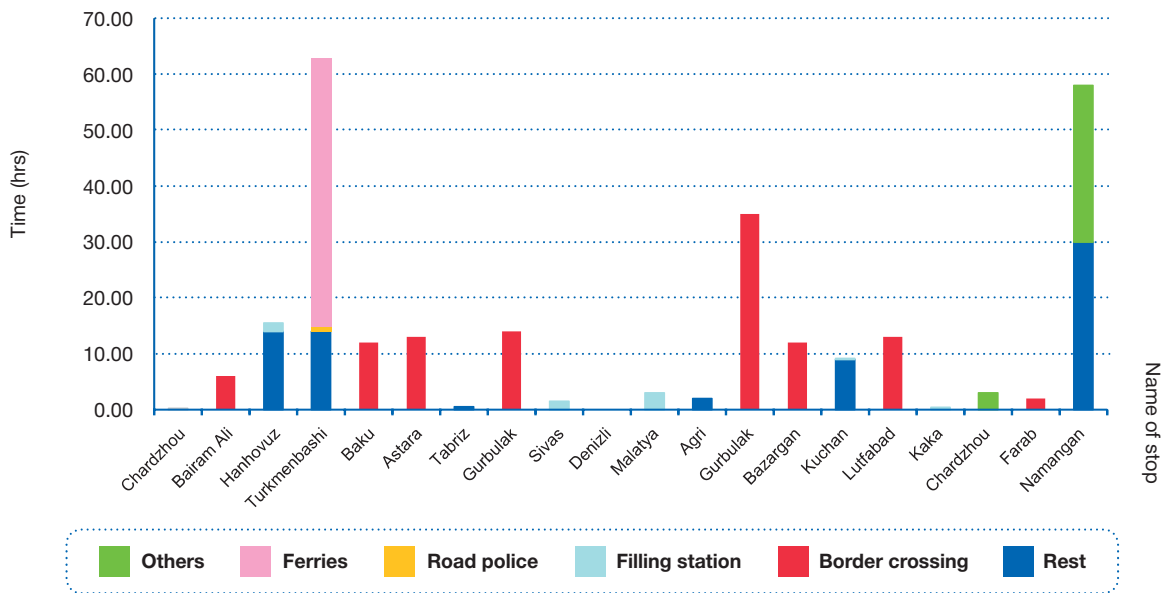
Time/Cost – Distance Model





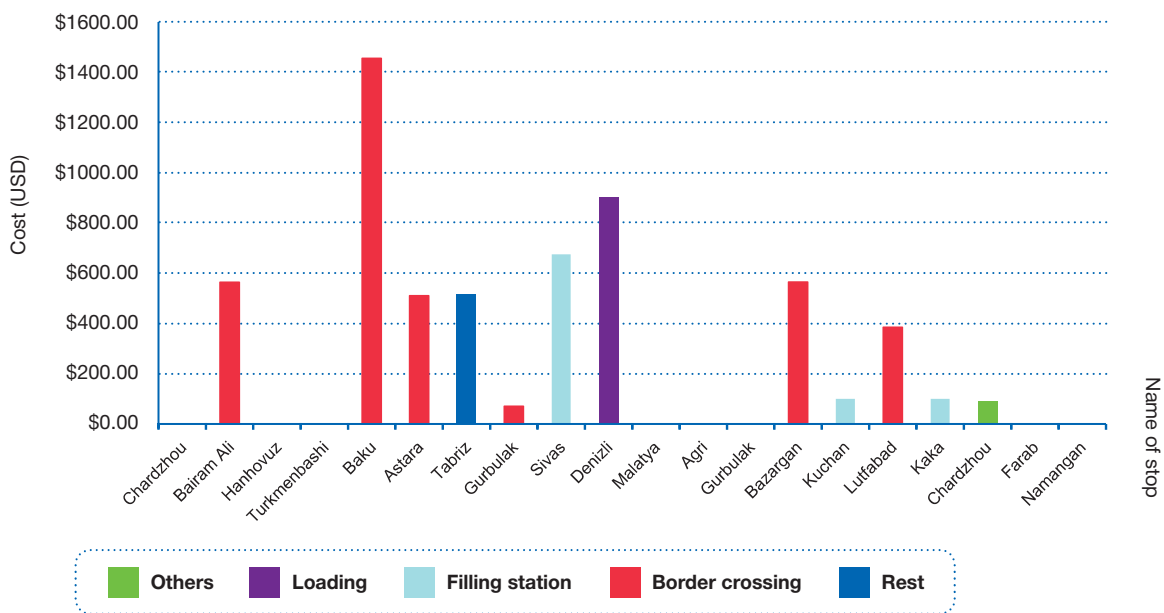
Central Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Denizli (Turkey)
20.09.2008 – 24.10.2008
Operator “CENTRAL ASIA TRANS”

Compare of time spent at each stop

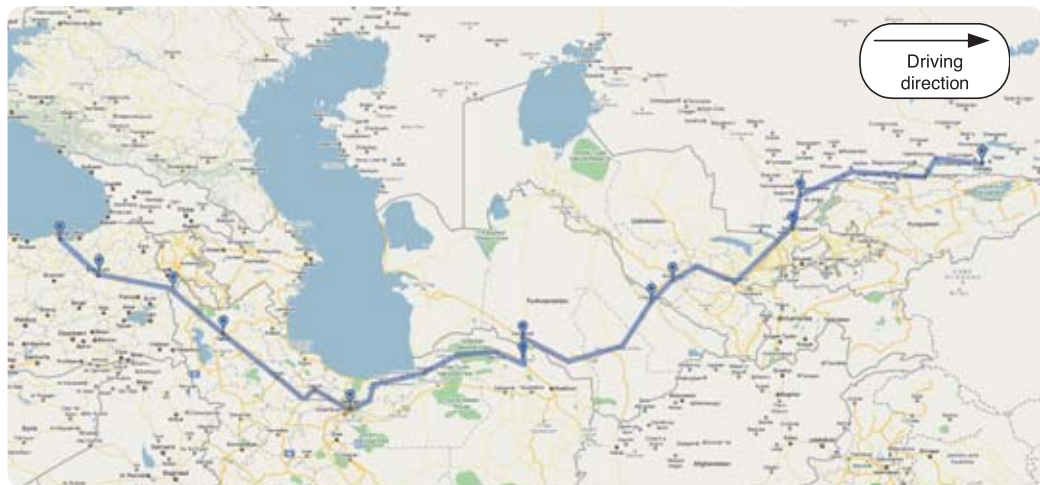


Central Route of the IRU NELTI Project
Tashkent (Uzbekistan) – Denizli (Turkey)
20.09.2008 – 24.10.2008
Operator “CENTRAL ASIA TRANS”

Compare of cost spent at each stop



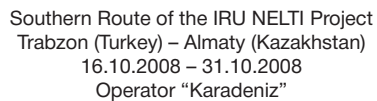
Southern Route of the IRU NELTI Project Trabzon (Turkey) – Almaty (Kazakhstan) 16.10.2008 – 31.10.2008 Operator “Karadeniz” (Turkey)



*NELTI trip from Trabzon (Turkey) to Almaty (Kazakhstan)
(operator: Karadeniz, 16.10.2008 – 31.10.2008)*

General Information		
Origin	Trabzon, Turkey	16,10.08
Destination	Almaty, Kazakhstan	31.10.08
Cargo		
Time		
Travel time (days)	17	
Average speed (km/day)	265	
Distance		
Route distance (km)	-	
Travelled distance (km)	4312	
Costs		
Unofficial costs (\$)	750	
non-physical barriers		
forced stops		times
		hours
border waiting times (hours)	Turkey – Iran	48+
	Iran – Turkmenistan	57+
	Turkmenistan – Uzbekistan	42+
	Uzbekistan – Kazakhstan	17+
Other findings		

Time – Distance

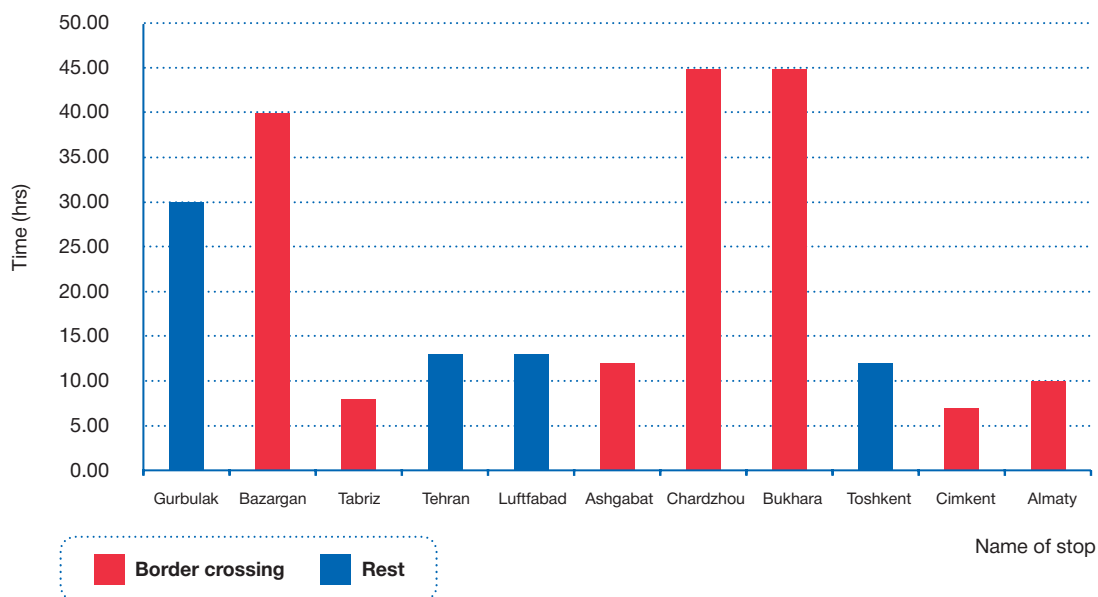


The graph displays the relationship between distance and two key metrics: Time (in hours) and Cost (in USD). The X-axis represents Distance (km) from 0 to 8000. The left Y-axis represents Time (hrs) from 0 to 350.00, and the right Y-axis represents Cost (USD) from 0 to 3500. The blue line with diamond markers shows Time, and the yellow line with square markers shows Cost. Both metrics show a step-like increase as distance increases, with notable jumps at 1000 km, 4000 km, and 5000 km.

Distance (km)	Time (hrs)	Cost (USD)
0	0	0
1000	40	100
1500	90	1250
2500	105	1250
4000	200	1900
5000	260	2800
6300	300	2800
7600	325	2800

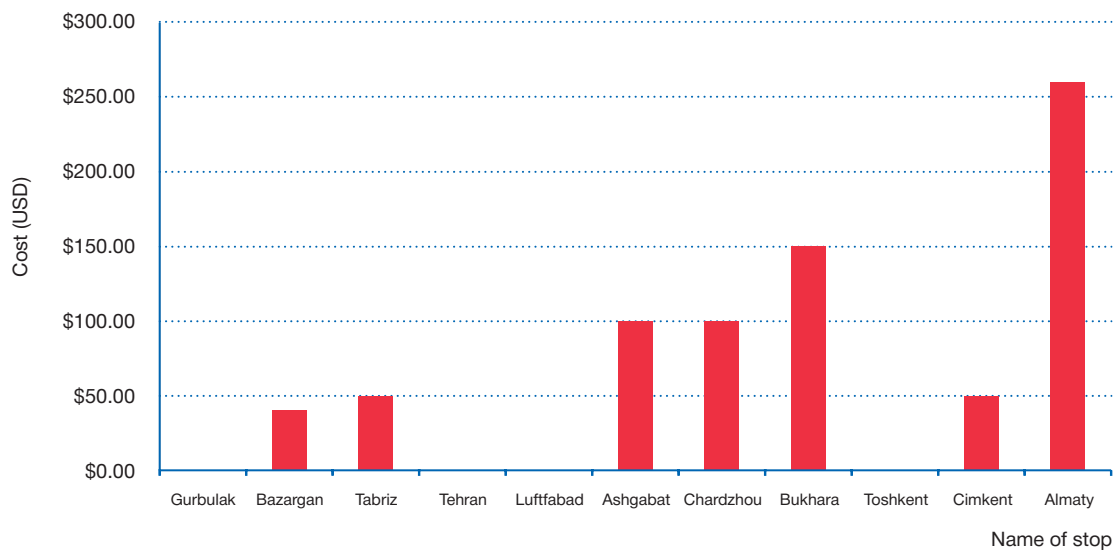
Southern Route of the IRU NELTI Project
Trabzon (Turkey) – Almaty (Kazakhstan)
16.10.2008 – 31.10.2008
Operator “Karadeniz”

Compare of time spent at each stop



Southern Route of the IRU NELTI Project
Trabzon (Turkey) – Almaty (Kazakhstan)
16.10.2008 – 31.10.2008
Operator “Karadeniz”

Compare of cost spent at each stop



NELTI ROUTES

- Northern Route
- Central Route
- Southern Route

