

Logistics Processes and Motorways of the Sea II

LOGMOS Master Plan – Annex 9.1

Country Profile

UKRAINE

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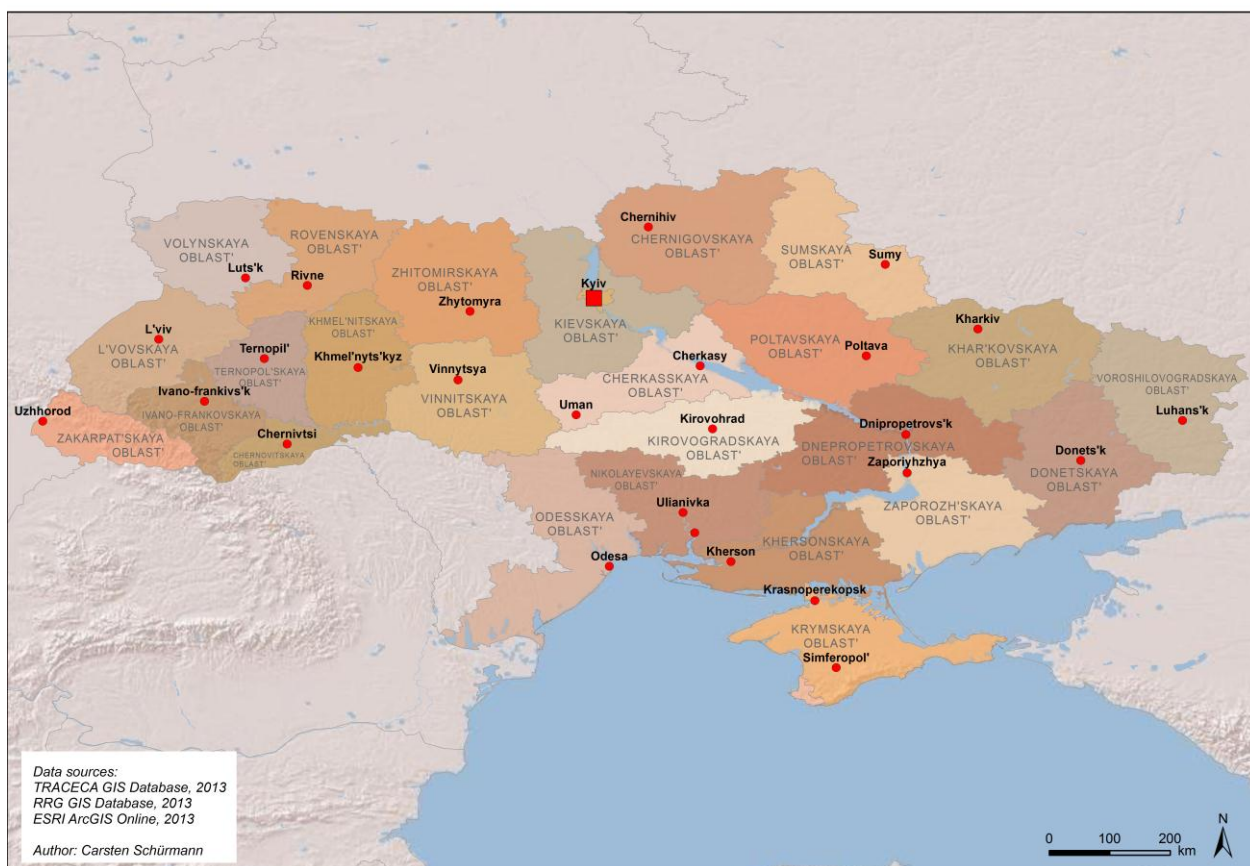
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Figure 1: General Map of Ukraine

Administrative division of Ukraine



Source: TRACECA (2013)



1 INTRODUCTION

Ukraine is one of the biggest markets in Eastern Europe and one of advanced economies in TRACECA region. It borders:

- by land with Belarus, Hungary, Moldova, Poland, Romania, Russia and Slovakia;
- by sea Bulgaria, Georgia, Romania, Russia and Turkey.

Owing to its geographical location, Ukraine benefits from the passage of a number of international transport corridors through its territory:

- 6 OSJD corridors (No3, 4, 5, 7, 8 and 10) – rail
- Transport Corridor Europe - Caucasus - Asia (TRACECA) – multimodal
- TEN-T central transport axis – 3 rail and 4 road routes.

Ukrainian transport network covers 21,700 km of railways, 169,500 km of roads and 2,200 km of inland waterways. Also the network includes 18 sea and 10 river ports. The existing capacity enables the handling of 1 bn tonnes of cargo by rail and 160 M tonnes through sea ports. Yet, this capacity is utilized at about 50% only. Among the problems identified in this connection are:

- for road transport: the insufficient availability of roads in good technical conditions, generating sub-standard speeds and long transit-times;
- for rail transport: an obsolete rolling stock and frequent shortages of suitable rail cars in sufficient quantity due to inappropriate use / delayed, untimely return by users;
- at sea ports: the limited capacity of access roads and rail tracks, slow renewal of port infrastructure, low container turnover due to excessively long transit formalities

World trade and logistics performance indicators

In 2012, Ukraine was ranked 86th out of 132 countries in the Enabling Trade Index developed by the World Economic Forum (average score of 3.8/7). It occupied, in particular, the 26th position for access to market, the 116th position for border administration, the 64th position for transport and communications infrastructure and the 103rd position for business environment.

In the World Bank logistics performance index of 2012, Ukraine was ranked 66th, compared to 102nd in 2010.

TRACECA Framework

Ukraine has been an active member of TRACECA since the Brussels Conference in May 1993 where the TRACECA programme started.

The ten direct beneficiary countries under review by LOGMOS Project share a globally common legal and regulatory background for the transport sector, but also operate under different laws and rules from that reflect their respective contexts and policies.

International Conventions and regional or bilateral agreements complete the framework, and there are expected moves at both national and regional (TRACECA and other groups) levels.

Any legal issues related to the LOGMOS Project focus on transport laws and regulations as well as on the aforementioned national, international, regional and bilateral conventions and



agreements that have a direct or indirect impact on surface transport modes, particularly maritime and intermodal transport¹.

The TRACECA programme started out as one of the components of the intergovernmental TACIS program. In September 1998, at the International Conference in Baku the Basic Multilateral Agreement (MLA) "TRACECA – Restoration of the Historic Silk Route" was signed. The agreement was the initiative of the European Commission, as well as the organisation and the active participation of Azerbaijan, as saw the development of the transport corridor Europe – Caucasus – Asia between the Head of State of 12 countries (Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Romania, Tajikistan, Turkey, Ukraine and Uzbekistan).

After the Intergovernmental Committee and Permanent Secretariat of TRACECA were established in 2000, Ukraine set up a TRACECA National Commission headed by the deputy Prime Minister of the Government and the National Secretariat of TRACECA (Permanent Representative), headed by a national secretary.

Ukrainian representatives take an active part in all conferences and working group's meetings organised by IGC TRACECA.

¹ More detailed information can be found on the separate [legal report of the LOGMOS Master Plan](#)



2 NATIONAL TRANSPORT POLICY

The policy of Ukraine in the field of transport is defined in the following documents:

- Ukraine Transport Strategy 2020 (approved in October 2010)
- Ukraine Maritime Doctrine 2035 (approved in October 2009)
- Ukraine Sea Ports Development Strategy 2015 (approved in July 2008)
- Ukraine Railway Transport Development Strategy 2020 (approved in December 2009)
- Concept for Ukraine Road transport development program (adopted in August 2011)

The purpose of the Ukraine Transport Strategy 2020 is:

“to establish conceptual fundamentals for the development and implementation of sustainable and efficient state transport policy, create environment for social and economic development, increase competitiveness of national economy and population wealth.”

As far as LOGMOS project is concerned, the most relevant provisions of the Strategy pertain to the following issues:

- development of transport infrastructure by means of expanding road network and constructing by-pass roads, increasing capacity of railways and at sea port terminals;
- renewal of rolling stock;
- improvement of investment climate by means of implementing public-private partnerships, leasing and concession arrangements;
- availability and quality of transport services by means of developing international transport corridors, widening the implementation of container and piggy-train techniques, increasing cargo throughput at sea ports, reducing delivery time and time spent at border crossing points, introducing electronic document exchange and “electronic customs”, adapting Ukrainian legislation to European one.

The Strategy also provides for specific priority measures in:

- rail transport: rehabilitation of infrastructure along international transport corridors, expanding capacity of railway stations, increasing cruising speed of trains and reducing delivery terms, widening logistics centers` network;
- road transport: widening road network and improvement of road transport technology;
- maritime transport: enhanced specialisation of port terminals, dredging and rehabilitation of port infrastructure, improvement of port logistics and operations;
- inland waterways (IWW): improvement of legal background, increasing capacity of IWW.

Another important document is the Concept for Ukraine National Transport Network Development and Operation. It provides for:

- the integration of Ukrainian transport system into the European one by means of adapting EU standards and rules;
- effective transport support to foreign trade, increase of transit cargo flows;



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- joint elaboration and implementation of transit transport technologies and through rates with neighbouring countries;
- support to intermodal transport and opening of new container transport routes;
- establishment of logistics centers for transport and storage, etc.

Ukraine's national transport policy is also carried out through membership in several international and regional organizations, such as :

- Permanent International Association of Road Congresses (PIARC)
- United Nations Economic Commission for Europe (UNECE)
- Organisation for Democracy and Economic Development (GUAM)
- Black Sea Economic Cooperation (BSEC)
- International Maritime Organization (IMO)
- Organisation for Cooperation of Railways (OSJD)



3 LEGAL ENVIRONMENT IN THE FIELD OF TRANSPORT

As from 1991 the national legal framework has been renewed in Ukraine. At present the national legislation of Ukraine covers all fields of transport and includes the following laws:

- On Transport
- On Freight Forwarder's Activity
- On Freight Transport
- On Freight Transit
- On Road Transport
- On Railway Transport
- On Transportation of Dangerous Goods
- On Sea ports
- Merchant Marine Code
- Waterways Code.

In general, Ukrainian transport legislation is well in line with international conventions:

- as a member of the IMO, Ukraine joined 14 legal instruments including SOLAS, TONNAGE, COLREG, SAR, INMARSAT, MARPOL 73/78, INTERVENTION, SUA, LDC, STCW as well as the International Convention for Safe Containers, Convention on Facilitation of International Maritime Traffic and Convention on Load Lines;
- Ukraine conforms to UNECE transport documents and is a party to 17 of them, including AGTC, AETR, ADR, ATP, Convention CMR, TIR Convention, and International Convention on harmonization of goods' border-crossing inspections and Customs convention on containers.

Besides, following the Guidelines for EU legal transport adaptation, which were adopted in 2006, Ukraine approves annual priority action plans for legal EU approximation. As a matter of fact, within the frames of abovementioned action plans in the field of transport:

- In 2009 the State Program of rail transport development for 2010-2015 was approved;
- The law "On Sea Ports of Ukraine" was signed by the President of Ukraine and officially published on June 13, 2012 in the newspaper "Voice of Ukraine";
- The law of Ukraine "On Sea Ports of Ukraine" provides for elaboration of a development strategy for the sea ports of Ukraine for 25 years, which includes short-term (5 years), medium term (10 years) and long term (25 years) development plans. The development strategy of the sea ports of Ukraine for 25 years contains the development plans of sea ports and maritime terminals, traffic projections, objectives, guidelines and sources of funding of the Strategy, the other main development parameters;
- Development programmes until 2015 for each sea port separately were approved by respective Decrees of the Ministry of Infrastructure;



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- The draft law "On the navigation on inland waterways of Ukraine" was adopted at first reading by the Verkhovna Rada of Ukraine, as well as other important legal acts related to the inland water transport;
- Changes to be introduced to Merchant Shipping Code, the State Program of railway transport development in 2010-2015 and law of Ukraine "On road transport".

A draft multimodal law was elaborated in 2009 but not ratified. An EU-Twinning project (2012-2014) is currently working on the adaptation of the Ukrainian legislation to enable the development of multimodal transport in Ukraine, in compliance with the Transport Strategy of Ukraine for the period of up to 2020".

In addition to the national transport legislation, Ukraine has established bilateral relations with LOGMOS beneficiary countries (see Table 1).

Table 1: Bilateral Agreements with LOGMOS Beneficiary Countries

Countries	Transport issues				Customs
	Maritime	Road	Railway	General	
Armenia		On international road transport 22.07.1997	On cooperation in railway transport 24.12.1999		On cooperation and mutual assistance in customs issues 07.10.1994
Azerbaijan		On international road transport 01.07.1999	On cooperation in railway transport 24.03.1997	On international combined goods transport 07.09.2006	On cooperation on customs issues 24.03.1997
Bulgaria	On merchant shipping, 2002	On international road transport of passengers and goods 08.12.1994	On cooperation in the field of railway 08.12.1994		On cooperation on customs issues 24.03.1998
Georgia		On international road transport 13.04.1993	On activities of railway transport 21.10.2003		On cooperation on customs issues 14.02.1997
Kazakhstan		On international road transport 22.02.1993	On cooperation in the field of railway 22.02.1993	On general principles of cooperation in the field of transport 22.02.1993	On cooperation on customs issues 17.09.1999 On customs statistics sharing 06.06.2006
Kyrgyzstan		On international road transport	--	On cooperation in the field of transport	



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		21.02.1993		23.02.1993	
Moldova		On international road transport 20.03.1993	On activities of railway transport 20.03.1993		On cooperation and mutual assistance in customs issues 18.08.1999
Romania		On international road transport 29.03.1996	On cooperation in the field of railway 21.10.2003		On cooperation and mutual assistance in customs issues 19.06.2000
Tajikistan		On international road transport of passengers and goods 06.12.2005		On cooperation in the field of energy, industry, transport and construction 25.04.2002	On cooperation on customs issues 06.07.2001
Turkey	On merchant shipping, 2004	On international road transport 30.05.1994	On cooperation in the field of railway transport 07.06.2005		On cooperation and mutual assistance in customs issues 27.11.1996
Turkmenistan		On cooperation in the field of international road transport 25.02.1993		On general principles of cooperation in the field of transport 10.10.1992 On processing of import, export and transit cargo of Turkmenistan 11.05.1993	On cooperation and mutual assistance in customs issues 29.01.1998
Uzbekistan		On international road transport 20.02.1993	On cooperation in the field of railway transport 20.02.1993	On cooperation in the field of transport 20.02.1993 On cooperation in the field of goods transport 30.02.1994	On cooperation on customs issues 05.12.1996

Ferry connections are governed by specific agreements. A new agreement on setting up a direct rail ferry connection between Turkey and Ukraine was signed on 25.01.2011. It covers 4 rail ferry lines:



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- Ilychevsk – Derince
- Skadovsk – Zonguldak
- Skadovsk – Istanbul
- Yevpatoria – Zonguldak

A bilateral agreement on rail ferry operations between Ukraine and Georgia was signed on 13.04.1993. The two countries are also the signatory countries of a trilateral agreement on rail ferry operations which was signed together with Bulgaria on 30.10.1997. Despite some initiative in the past to denounce this trilateral agreement, the legal background for rail ferry operations remains effective.



4 NATIONAL POLICY AND LEGISLATION IN TRADE AND TRANSIT

Key documents regulating trade and transit operations in Ukraine include the Customs Code of Ukraine and the Law of Ukraine "On Transit". The new Customs Code is widely recognized to be in line with *acquis communautaire* and, in particular, with EU Customs Code. It attempts, in particular, to modernise the customs system, especially the border entries at sea ports, which has been a longstanding issue for Ukraine. In addition to this, in order to support country's intention to attract additional transit cargo flows to pass through the territory of Ukraine, in 2002 the GoU adopted the National program "On promoting Ukraine as a transit country". However, in spite of these efforts, many operators report on prevailing discrepancies in customs formalities, e.g. between the provisions of TIR Convention and effective rules and regulations, which they need to follow even though creating additional "paper work". Provided the number of border-crossing checks (e.g., phyto-sanitary, veterinary and/or radiological services), delays and duplication of customs inspections (cargo is usually checked both at the border crossing point and inland custom office) there is an obvious need to simplify existing procedures and regulations.

The adaptation and implementation of international customs conventions is a core issue for Ukraine in the field of legal approximation to EU. The list of key international conventions for Ukraine includes now:

- On temporary import regime (dated of 26th June 1990, joined on 24th March 2004);
- On simplification and harmonisation of customs procedures (dated of 18th May 1973, joined on 5th of October 2006);
- On simplification of formalities in trading goods (dated of 25th March 2003);
- On joint transit procedure (dated of 20th May 1987).

Ukraine has already joined 2 conventions and now the issue is to bring the national norms and regulations in line with the international ones. And the remaining two conventions are a mid-term priority for Ukraine.

On top of that, Ukraine makes a stepwise progress in introducing electronic data exchange at customs. In 2008 GoU approved the concept for a comprehensive "electronic customs" system. The very system should be put into operations by 2014. At present, it is approbated by potential users in order to uncover its potential technical malfunctions. E-customs system should help to speed up clearance procedures at the border, eliminate possible mistakes while filling-in customs declarations, etc.

The bilateral relations of Ukraine in the field of customs cooperation are presented in Table 1 above.



5 INVESTMENTS IN TRANSPORT AND LOGISTICS SECTOR IN UKRAINE

IGC TRACECA recognizes the trade and transit potential of Ukraine and actively supports the ongoing initiatives via technical assistance and investment projects.

Besides, TRACECA, the World Bank, IFC, EBRD and EIB invest into development of transport and logistics infrastructure in Ukraine.

The EBRD continued lending to its long-term clients in the public transport sector, including a USD 62.5 M loan to Ukrainian Railways for the renewal of rolling stock and a EUR 41 M loan to the Ukrainian State Air Traffic Service Enterprise for the modernisation of its air navigation systems.

The development of private sector transportation services in Ukraine was supported through a USD 23 M loan to the Ukrainian New Forwarding Company in the railway sector.

Apart from this, a USD 10 M loan was given to Yugretransflot in the shipping sector. In the road sector, the Bank will support the modernisation of the key international corridors connecting the country with the European Union as well as priority national and regional roads. Railway sector projects can be supported only after the authorities make credible steps to corporatise the national rail operator.

Table 2: IFI Supported Projects in Ukraine

Title of project	Year of approval	Sub-sector	Total project cost	IFI funding
Ukrainian State Air Traffic Service	2012	Air	EUR 63 M	EUR 63 M (EBRD)
Ukrainian Railways – Rolling Stock	2012	Rail	EUR 41 M	EUR 41 M (EBRD)
European roads Ukraine II	2011	Road	n/a	EUR 450 M (EIB)
Pan-European corridors	2010	Road	EUR 1,150 M	up to EUR 450 M (EBRD)
Road and safety improvement	2009	Road	USD 500 M	USD 400 M (WB)
Euroterminal Odessa	2009	Logistics	USD 38 M	USD 27 M (EBRD)
Odessa Terminal Holdco	2009	Maritime	USD 130 M	USD 37 M + 5% equity (EBRD)
Ukraine railways rolling stock renewal	2008	Railway	USD 441 M	USD 125 M (EBRD)
Ilyichevsk Sea commercial port infrastructure development project	2007	Maritime	USD 38.6 M	USD 26 M (EBRD)
European roads Ukraine	2007	Road	n/a	EUR 200 M (EIB)
Ukraine 3 rd Kiev-Chop M06 road rehabilitation project	2006	Road	EUR 486 M	EUR 200 M (EBRD)
Black Sea shipping	2006	Maritime	34 M USD	20 M USD



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management co Ltd				(EBRD)
Asnova	2006	Maritime	18.6 M USD	8 M USD (IFC)

6 STRATEGIC CHALLENGES

6.1 Market Challenges

6.1.1 National Trade: Exports and Imports

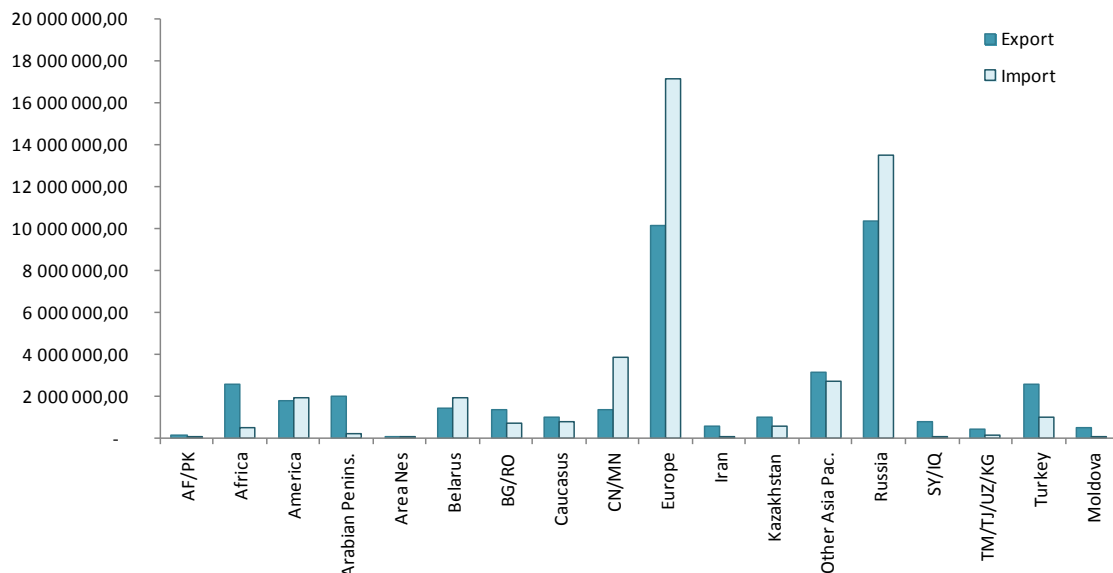
World Trade Partners

Strategically located between the European Union and Russia, at the North West of TRACECA area, Ukraine generates almost EUR 86 bn of external trade in 2010. Total imports accounted for approximately EUR 45 bn, out of which Europe (38%), Russia (30%) and China/Mongolia (9%) shared the largest part, while exports reached the amount of EUR 41 bn. Major partners as far as exports are concerned were Russia and Europe with both a share of 25% of the total volume. Trade with other TRACECA countries is rather low and represents only 12% of the total trade volumes.

Comparing with 2008 data, the global trade volumes and their distribution among all trade partners were not significantly modified. Nonetheless it can be noticed a significant drop of the imports volumes from South-East TRACECA Countries (from EUR 7 bn to less than EUR 1 bn).

Russia and Europe remain therefore by far the main commercial partners of Ukraine. Given the fact there is a land border between Ukraine and Russia, the trade between these two countries happens outside of TRACECA corridor. The trade with Europe can be performed by land, but also by sea, e.g. in case of long distance haulage, both of which are outside of the TRACECA scope.

Figure 2: Ukraine Trade Partners, 2010, th. EUR



Source: Computation based on Eurostat and UN Comtrade databases

The analysis of the potential trade between Ukraine and its partners, as shown in Figure 3, leads to underline several points. The term "Potential trade" includes only exclusive or partially containerizable goods and logically excludes all products such as oil, natural gas, coal that are transported in bulk.

- Ukraine's total potential trade is estimated at EUR 66 bn (EUR 32 bn for imports and EUR 34 bn for exports). Bulk transported goods represent one third of all trade.

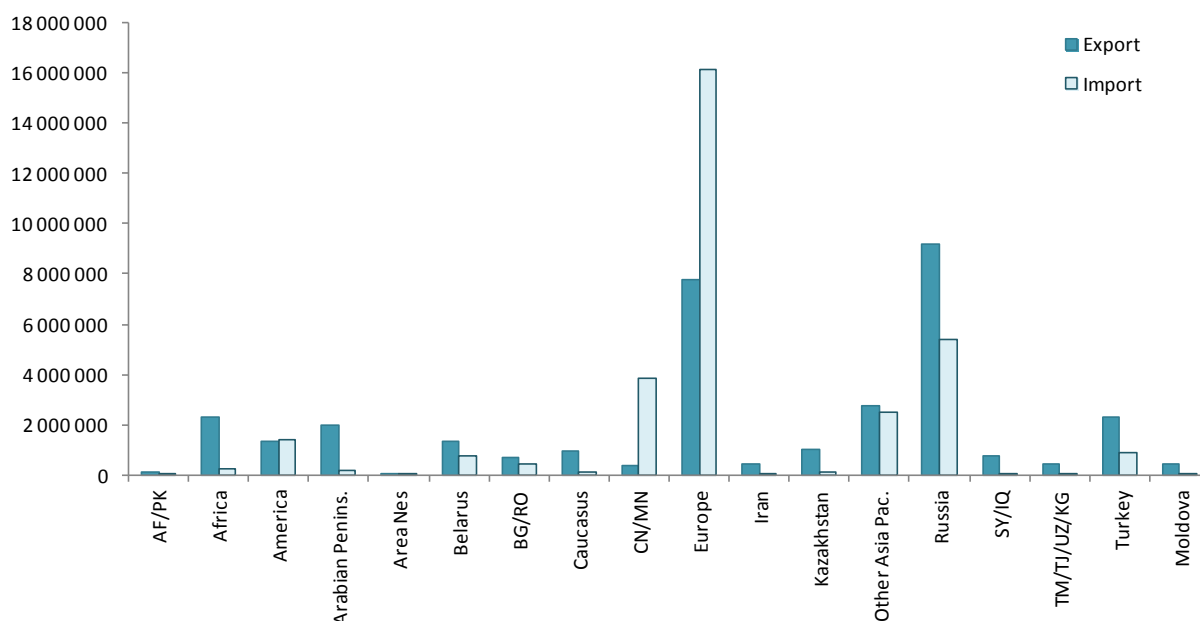


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- Imports from Russia mainly consist in raw materials as can be noted from the drop from EUR 14 bn to EUR 5 bn. Similarly, exports to Europe also decrease almost by one third (from EUR 10 bn to EUR 7 bn).
- Bulk commodities left aside, the main trade partners of Ukraine remain Russia and Europe. Trade with TRACECA countries is not significant and represents only one sixth of Ukraine external trade (EUR 10 bn - export 7 bn / import 3 bn) compared to trade with Europe and Russia (EUR 50 bn).

Those volumes confirm the position of Ukraine as a minor country involved in TRACECA trade.

Figure 3: Ukraine Trade Partners, Potential Trade, 2010, th. EUR



Source: Computation based on Eurostat and UN Comtrade databases



Table 3: Distribution of Ukraine Potential Trade Partners, 2010, % in Trade Value

Zones	All products		Total all products	No min. fuel & ores		Total no min. fuel & ores
	Import	Export		Import	Export	
Afghanistan-Pakistan	0.10%	0.22%	0.16%	0.14%	0.24%	0.19%
Africa	1.12%	6.17%	3.53%	0.68%	6.83%	3.83%
America	4.20%	4.28%	4.24%	4.39%	3.99%	4.18%
Arabian Peninsula	0.42%	4.89%	2.55%	0.56%	5.77%	3.23%
Area Nes	0.00%	0.13%	0.07%	0.00%	0.16%	0.08%
Belarus	4.29%	3.47%	3.90%	2.35%	3.84%	3.11%
Bulgaria-Romania	1.62%	3.29%	2.41%	1.35%	2.01%	1.69%
Caucasus	1.77%	2.41%	2.07%	0.36%	2.71%	1.57%
China-Mongolia	8.59%	3.26%	6.06%	11.96%	1.07%	6.38%
Europe	38.09%	24.83%	31.78%	50.03%	22.76%	36.04%
Iran	0.08%	1.39%	0.71%	0.11%	1.23%	0.69%
Kazakhstan	1.20%	2.44%	1.79%	0.41%	2.91%	1.69%
KY-TJ-TM-UZ	0.20%	1.09%	0.62%	0.21%	1.29%	0.76%
Moldova	0.14%	1.14%	0.62%	0.20%	1.18%	0.70%
Other Asia Pacific	6.02%	7.60%	6.77%	7.71%	8.11%	7.92%
Russia	29.92%	25.26%	27.70%	16.65%	27.02%	21.97%
Syria-Iraq	0.08%	1.82%	0.91%	0.10%	2.19%	1.17%
Turkey	2.14%	6.31%	4.12%	2.78%	6.70%	4.79%
Total	100%	100%	100%	100%	100%	100%

Source: Computation based on Eurostat and UN Comtrade databases

Regarding the tonnage of Ukraine's trade, four features may be observed:

- Tonnages of exports are more than three times higher than those of imports.
- Predominance of the trade with Europe with more than two-third in tonnes in both directions. This flow does not concern LOGMOS.
- An important North-South flow with Turkey, Bulgaria and Romania particularly for exports (25% of total trade in tonnes).
- A lesser but non negligible westbound flow with other TRACECA countries particularly for imports from Kazakhstan.

East and West bound flows affecting Ukraine are represented in Figure 4 below.



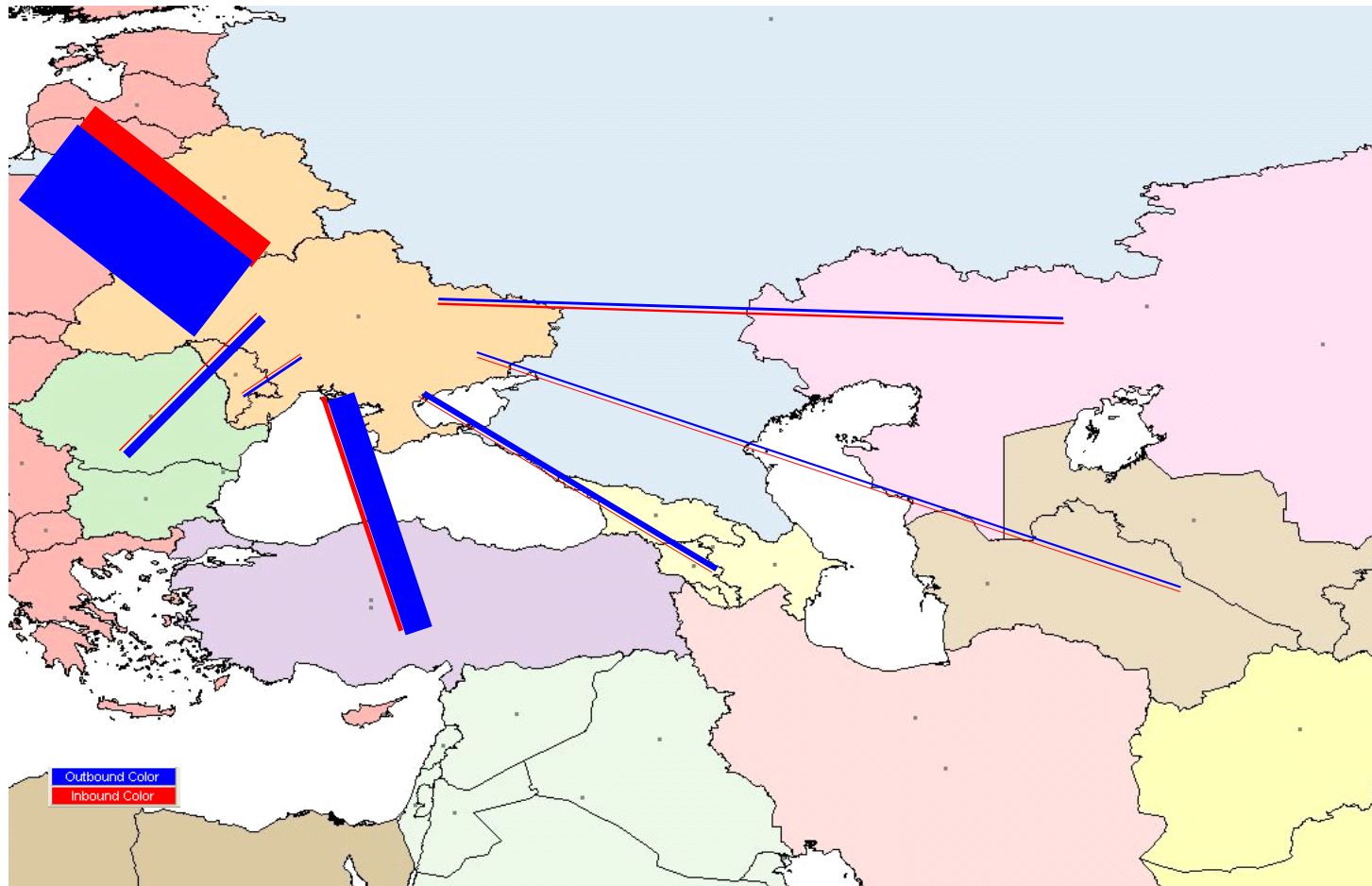
Table 4: Ukraine Potential Trade with TRACECA Countries and Europe, 2010, in Tonnes and %

Zones	Tonnage		Share in trade with TRACECA countries and Europe	
	Export	Import	Export	Import
Bulgaria-Romania	1,814,778.5	275,317.2	6.24%	3.34%
Caucasus	1,156,106.8	129,031.6	3.98%	1.56%
Europe	19,048,457.8	6,258,254.1	65.54%	75.87%
Kazakhstan	572,972.9	471,237.5	1.97%	5.71%
KY-TJ-TM-UZ	400,802.6	76,251.1	1.38%	0.92%
Moldova	535,689.5	68,784.1	1.84%	0.83%
Turkey	5,536,165.0	969,955.8	19.05%	11.76%
Total	29,064,973.1	8,248,831.4	100%	100%

Source: Computation based on Eurostat and UN Comtrade databases



Figure 4: Ukraine Potential Trade with TRACECA Countries and Europe, 2010, in Tonnes



Source: Computation based on Eurostat and UN Comtrade databases



6.1.2 Regional TRACECA Trade

The trade analysis with other TRACECA countries per group of commodity and per direction is illustrated in the figures and tables hereafter. Only fully or partly containerizable products are considered. Although trade between this zone and Europe is not relevant for the LOGMOS project, it has been kept in the analysis so as to ease the comparison of data with other TRACECA countries.

The analysis of imported commodities (Figure 5 and Table 5) from TRACECA countries and Europe to Ukraine shows:

- The commodity structure of imports to Ukraine is balanced. The eight following commodities have almost equally the same share: “Mineral products”, “chemical products”, “Plastics”, “Base metal equipment”, “Live animal & animal products”, “vegetal products”, “pulp/waste wood equipment” and “stone, cement, ceramic”.
- However, this does not apply for each trade partner. Imports from Turkey and Kazakhstan are mainly composed of “mineral products”. “Chemical products” is the main commodity in the composition of imports from TRACECA South-East countries (inorganic chemicals and fertilizers mainly). Most of these products are classified as dry bulk commodities but could be partly containerized. «Foodstuffs, beverage and tobacco» prevail in the imports from Caucasus.
- Imports from Europe represent the largest share with 6, 258 th. tonnes, which most probably are transported outside of TRACECA.
- A domination of imports of mineral products both from Turkey (mainly construction raw material such as plaster and cements) and Kazakhstan (mainly chemical raw material such as sulphur).

As far as exported commodities are concerned (Figure 6 and Table 6), the following points should be emphasized:

The high proportion of base metal equipment in all directions but particularly to Turkey, Romania and Bulgaria, with more than half of fully or partly containerizable product exports, most of this being iron and steel products and articles thereof.

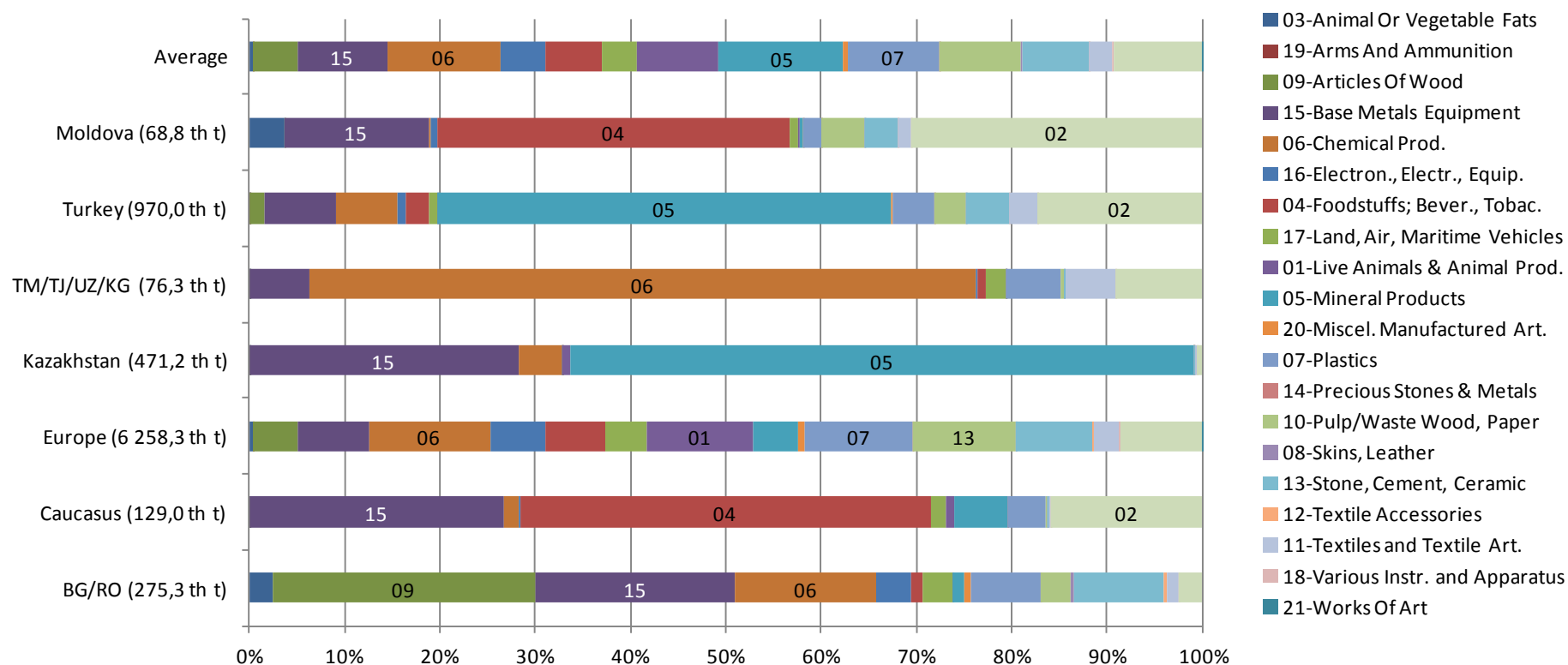
The same observation, in a minor key, is to be made with the commodities “articles of wood”, “vegetal products” and “mineral products”.

Exports of mineral products in a rather important quantity are oriented towards Europe and Moldova.



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Figure 5: Potential Trade with TRACECA Region – Commodity Structure of Imports to Ukraine, 2010, in Tonnes and %



Source: Computation based on Eurostat and UN Comtrade databases



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Table 5: Potential Trade with TRACECA Region – Commodity Structure of Imports to Ukraine, 2010, in Tonnes

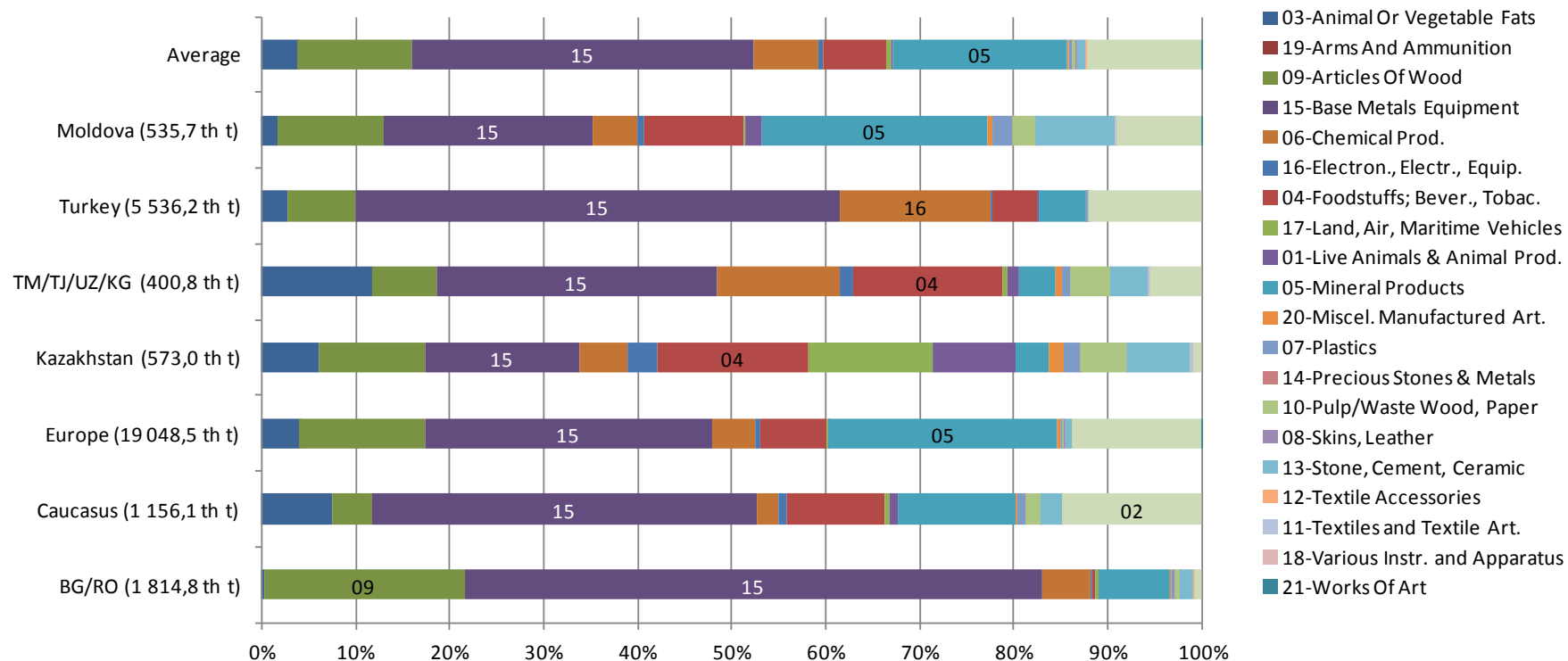
Commodity Groups	Bulgaria-Romania	Caucasus	Europe	Kazakhstan	KY-TJ-TM-UZ	Moldova	Turkey
Animal Or Vegetable Fats	6,672.00	0.06	27,002.30	80.58	3.13	2,553.53	745.56
Arms And Ammunition	n/a	n/a	492.64	n/a	n/a	n/a	175.86
Articles Of Wood	76,271.80	106.67	290,509.05	1.02	0.70	56.98	15,057.74
Base Metals Equipment	57,527.80	34,470.56	467,156.57	133,289.56	4,834.22	10,326.15	73,226.28
Chemical Prod.	40,878.90	1,990.71	799,239.97	21,097.46	53,331.76	172.88	61,140.86
Electron., Electr., Equip.	9,674.50	119.12	360,088.26	231.51	83.91	468.15	8,760.70
Foodstuffs; Bever., Tobac.	3,523.30	55,569.17	390,726.20	129.51	688.81	25,495.92	24,474.67
Land, Air, Maritime Vehicles	8,764.50	2,000.18	277,006.30	263.56	1,539.14	494.25	8,779.26
Live Animals & Animal Prod.	19.60	1,220.23	700,139.69	3,893.61	10.10	150.46	0.52
Mineral Products	3,402.70	7,233.60	289,726.41	308,076.90	14.63	203.54	461,078.79
Miscel. Manufactured Art.	1,767.60	2.92	49,029.87	1.33	30.59	60.06	2,365.08
Plastics	20,292.50	5,232.17	709,288.36	68.92	4,340.03	1,344.60	42,278.36
Precious Stones & Metals	1.10	0.00	108.30	0.50	0.00	0.00	15.88
Pulp/Waste Wood, Paper	8,689.00	106.89	669,848.34	0.59	297.80	3,084.42	31,505.59
Skins, Leather	761.50	0.11	6,768.07	0.00	27.98	31.11	404.08
Stone, Cement, Ceramic	26,037.90	297.08	502,836.05	439.53	110.98	2,330.81	43,186.73
Textile Accessories	1,064.70	0.00	5,679.41	0.01	n/a	40.84	365.92
Textiles and Textile Art.	2,993.10	233.62	163,984.34	1,051.15	4,033.67	943.85	28,695.11
Various Instr. and Apparatus	18.90	3.11	7,668.09	3.28	0.42	11.78	27.97
Vegetable Products	6,955.80	20,445.43	540,926.28	2,608.44	6,903.25	21,014.75	167,670.80
Works Of Art	n/a	0.00	29.60	0.01	n/a	n/a	0.01
Total imports	275,317.20	129,031.61	6,258,254.11	471,237.47	76,251.14	68,784.09	969,955.76

Source: Computation based on Eurostat and UN Comtrade databases



Logistics Processes and Motorways of the Sea II

Figure 6: Potential Trade with TRACECA Region – Commodity Structure of Exports from Ukraine, 2010, in Tonnes and %



Source: Computation based on Eurostat and UN Comtrade databases



Logistics Processes and Motorways of the Sea II

Table 6: Potential Trade with TRACECA Region – Commodity Structure of Exports from Ukraine, 2010, in Tonnes

Commodity Groups	Bulgaria-Romania	Caucasus	Europe	Kazakhstan	KY-TJ-TM-UZ	Moldova	Turkey
Animal Or Vegetable Fats	4,590.70	86,469.07	752,240.26	35,324.44	47,266.71	9,357.63	152,892.39
Arms And Ammunition	n/a	n/a	2,417.50	n/a	n/a	n/a	n/a
Articles Of Wood	386,902.30	49,075.84	2,552,404.92	64,590.64	27,310.48	60,565.20	398,699.12
Base Metals Equipment	1,114,311.70	473,623.29	5,819,643.63	93,543.16	119,353.68	118,456.30	2,855,940.30
Chemical Prod.	93,960.50	26,893.20	863,295.27	29,208.96	52,359.91	25,743.19	890,230.30
Electron., Electr., Equip.	4,378.50	9,666.96	110,048.88	18,902.98	5,969.86	3,437.94	1,090.92
Foodstuffs; Bever., Tobac.	5,085.50	120,052.19	1,351,621.62	91,570.30	63,434.87	57,454.66	272,907.07
Land, Air, Maritime Vehicles	6,631.10	6,213.32	38,785.79	75,829.80	2,342.79	592.45	323.58
Live Animals & Animal Prod.	57.20	9,743.28	4,356.41	50,879.96	4,649.74	9,720.25	2,210.29
Mineral Products	137,373.50	145,083.28	4,635,934.86	20,071.96	15,993.75	127,930.08	276,143.67
Miscel. Manufactured Art.	4,214.80	2,218.54	40,624.94	8,864.77	2,411.03	3,419.05	40.91
Plastics	6,699.00	10,650.67	35,068.65	10,215.23	3,769.80	11,394.38	10,012.59
Precious Stones & Metals	0.30	0.91	89.80	4.08	1.18	1.58	0.11
Pulp/Waste Wood, Paper	6,797.10	18,952.08	49,678.88	28,551.27	16,598.84	13,187.99	2,903.55
Skins, Leather	182.50	16.39	20,801.19	1.22	0.27	71.41	45.92
Stone, Cement, Ceramic	27,296.10	25,263.89	132,034.13	38,123.30	16,480.57	45,103.68	4,556.24
Textile Accessories	2,629.70	38.00	2,766.32	204.84	30.76	85.71	19.37
Textiles and Textile Art.	1,004.10	1,231.96	23,240.02	1,519.31	721.51	738.72	125.48
Various Instr. and Apparatus	10.50	124.37	186.84	120.81	84.29	44.33	13.31
Vegetable Products	12,653.30	170,789.60	2,613,188.90	5,445.79	22,022.57	48,384.87	668,009.88
Works Of Art	0.10	0.00	28.99	0.02	n/a	0.07	0.00
Total exports	1,814,778.50	1,156,106.84	19,048,457.80	572,972.86	400,802.61	535,689.49	5,536,164.99

Source: Computation based on Eurostat and UN Comtrade databases



6.2 Intermodal Maritime Based Transport Challenges

LOGMOS aiming at developing seamless door-to-door intermodal services, all components of the transport chain may be considered as possible segments of LOGMOS projects, depending on their relevance for potential LOGMOS trade flows.

Port interfaces for operations, services, procedures etc. between land and sea are among the most critical points.

6.2.1 Port System and Maritime Links²

All Ukrainian sea ports are state-owned. However, many port administrations have concluded lease agreements with private port operators and shipping lines enabling them to take port land on lease, invest in container terminals and run them.

The multi-port-system of Odessa Region (Ilychevsk, Odessa, Yuzhnyi) accounts for the large majority of total relevant trade volumes handled by all 18 Ukrainian commercial sea ports.

However, since there was no port specialization, the 3 above-mentioned ports, located within a total distance of less than 80 km along the Black Sea coast, competed with each other for market shares.

Rail-ferry operations are performed at ports of Ilychevsk and Kerch. Rail being the altogether preferred mode of inland transportation, rail ferry connections across the Black Sea are expanding.

The bulk of the container trade is handled between Ilychevsk and Odessa. The deliberate diverging reading of the Ukrainian Customs Code by Ilychevsk and Odessa Customs and port administrations – going on ever since Ukraine became independent – results in a split of the trade between the 2 ports and the obligation for container shipping lines to have their vessels calling at both of them to ensure a full market coverage. This, in turn, entails the payment of 2 disbursement accounts and the necessity to maintain 2 different container stocks and logistics operations. The corresponding accrued expenses add heavily on the container transport costs. Another adverse effect of this situation is the decision by some major container shipping lines to serve Ukraine only by feeder vessels carrying containers back and forth from other hubs (in Istanbul Marmara region and mostly) where the Mother (larger) vessels call at.

Port due tariffs (vessels' disbursement accounts) are fixed unilaterally by the Ministry of Infrastructure (Mol). In the absence of any benchmarking Ukrainian port due tariffs are among the highest in the world.

The absence of proper legislation, improper application and ad-hoc changes in customs rules and non-competitive tariffs make the transshipment of containers to other ports practically impossible at Ukrainian ports.

Apart from the above-named ports, the other main seaports are:

- Skadovsk and Yevpatoria where Turkish and Russian shipping companies play regular Ro-Ro services to Turkish Black Sea port of Zonguldak,
- Kerch wherefrom UkrFerry and partner NaviBulgar maintain a rail-ferry/Ro-Ro service to Poti,

² More information and data concerning the national port system (including port maps and technical descriptions as well as the regular maritime services operated can be found in the separate [maritime report of the LOGMOS Master Plan](#) as well as [Danube case study](#) and [Dnepr case study](#).



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- TIS in Yuzhniy port where Maersk started calling with one of its WCSA service for reefer cargoes and where TIS plans the building of a logistics center,
- Kherson where various projects could turn the port in a major hub for container trade along the Denpr,
- In addition, while adopting the new tariff policy for 2011, Ukrainian Railways (Ukrzaliznytsia) expanded the list of railway stations for direct rail ferry connection. Now besides Ilychevsk and Kerch commercial sea ports, the port of Krym and Ilychevsk fishing sea port are opened for direct rail ferry transport.

Ukraine having produced so far no Master Plan for the development of its ports and therefore not decided upon their specialization as mentioned above, each and every port has its own investment plan which, in most cases, includes the erection of container facilities – sometimes huge. Meantime some brand-new terminals (TIS, port of Yuzhniy) remain empty due to the slow recovery of trade after the peak of the 2008 financial crisis. Smaller ports join the main stream endeavoring to attract medium-small size traffics of local/regional interest. If not addressed timely these inconsistent and irrational trends may result in a (deeper) sub-optimal asset-management, wasted investments, dispersion of container traffics and overall increase of transport expenses for the Ukrainian sea-borne foreign trade.

Ukrainian Shipping Companies

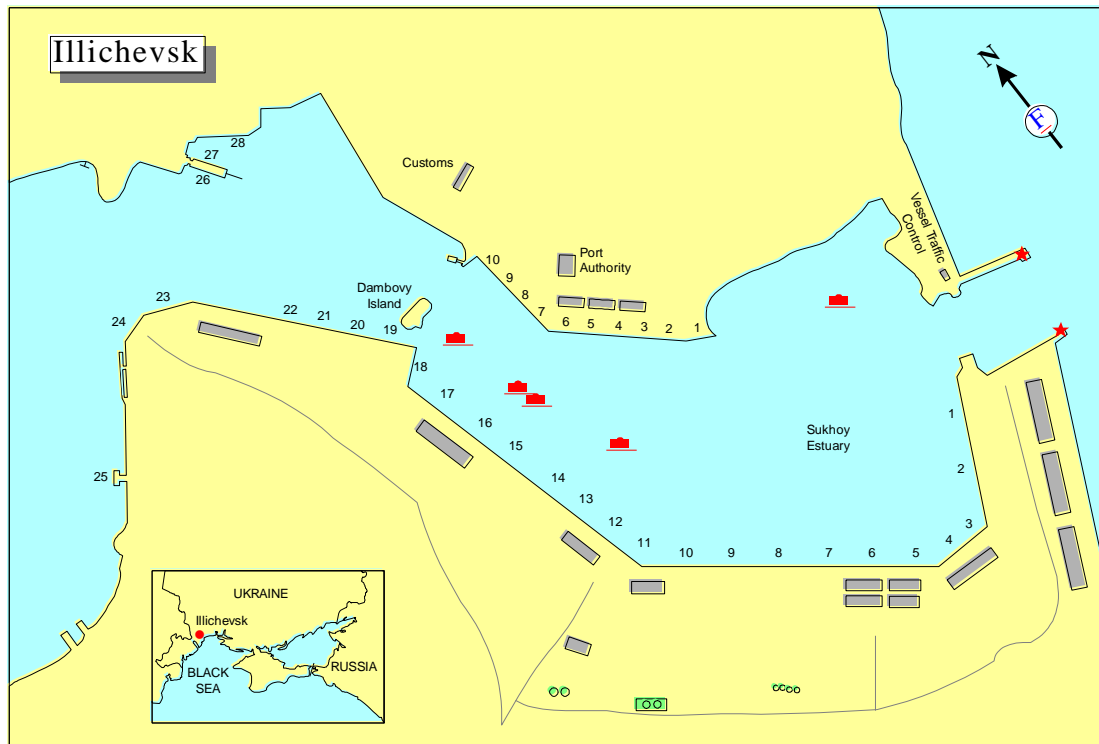
UkrFerry is the National Ukrainian Carrier relevant for LOGMOS. It offers sailings in joint-service with Bulgarian company NaviBulgar from Varna, Ilychevsk and Kerch to Derince, Poti and Batumi deploying a total fleet of 5 versatile rail ferries.

The focus today is on TIR-truck traffic which is gaining momentum, especially from/to Bulgaria and on establishing link(s) with Turkish Black Sea ports.

To reach these goals both shipping companies have embarked on the rationalization of their existing services in order to improve frequency, transit-times and offer fixed-day sailings. Reportedly uncompetitive sea-freight tariffs remain an issue to be addressed.

Port of Ilychevsk

Figure 7: Ilyichevsk Fishing Sea Port Layout



Ilyichevsk Commercial Sea Port (IMTP) has a total combined rail ferry and Ro/Ro yearly capacity of 4.5 M tonnes, 4,300 trucks and 250,000 passenger cars. Current handling capacity of Commercial Port is 1,150,000 TEU; the storage capacity is 18,000 full TEUs, 8,000 empty TEUs and 606 reefer units. A large area is available for port activities and development.

Ilyichevsk Sea Fishing Port (IMFP, a privately owned terminal on 40 ha) is carrying out the upgrading/lengthening/dredging of its berths n.2, 3 and 4 at respectively 296,4 / 290 / 390 m long and 15 m draft. IMFP is planning a 1,000,000 TEU capacity terminal but may have put this project on hold due to the market situation. The present storage capacity at IMRP is 7,000 TEU and 300 reefer units.


Table 7: Berth Data

Terminal 1		Berth Length (m)	Max Draft (m)	Capacity TEUS/year
Berth	Vessel types			
1	Containers (up to 6,000TEU)	306	13.0	300,000
3	Containers (up to 5,000TEU)	200	13.5	
4	Containers (up to 5,000TEU)	120	13.5	850,000
5	Containers (Feeder vessels)	155	13.0	
6	Containers (Feeder vessels)	181	13.0	
Terminal 3				
Berth				
26	Rail Combi ferry (Russian gauge)	210	9.6	
27	Rail Combi ferry (Russian gauge)	210	9.6	
28	Ro-Ro	270	9.6	
Fishing Port				
1	Containers	154	11	
2-3	Containers	240	11	

Table 8: Throughput of IMTP

Throughput	2006	2007	2008	2009	2010	2015* (Port est.)
TEU	291,127	532,766	670,556	256,825	301,508	2.5- 4.5 M

Maritime Services

Regular services calling at Ilychevsk include the following.

Rail-ferry

- UkrFerry-NaviBulgar joint service to/from Turkey, Bulgaria and Georgia

Ro-Ro and Car-Carriers

- Sea Lines to Haydarpasa (pure TIR truck service)
- Neptune to Turkey, Med (PCC, PCTC)
- Cenk Group to Turkey (PCC)

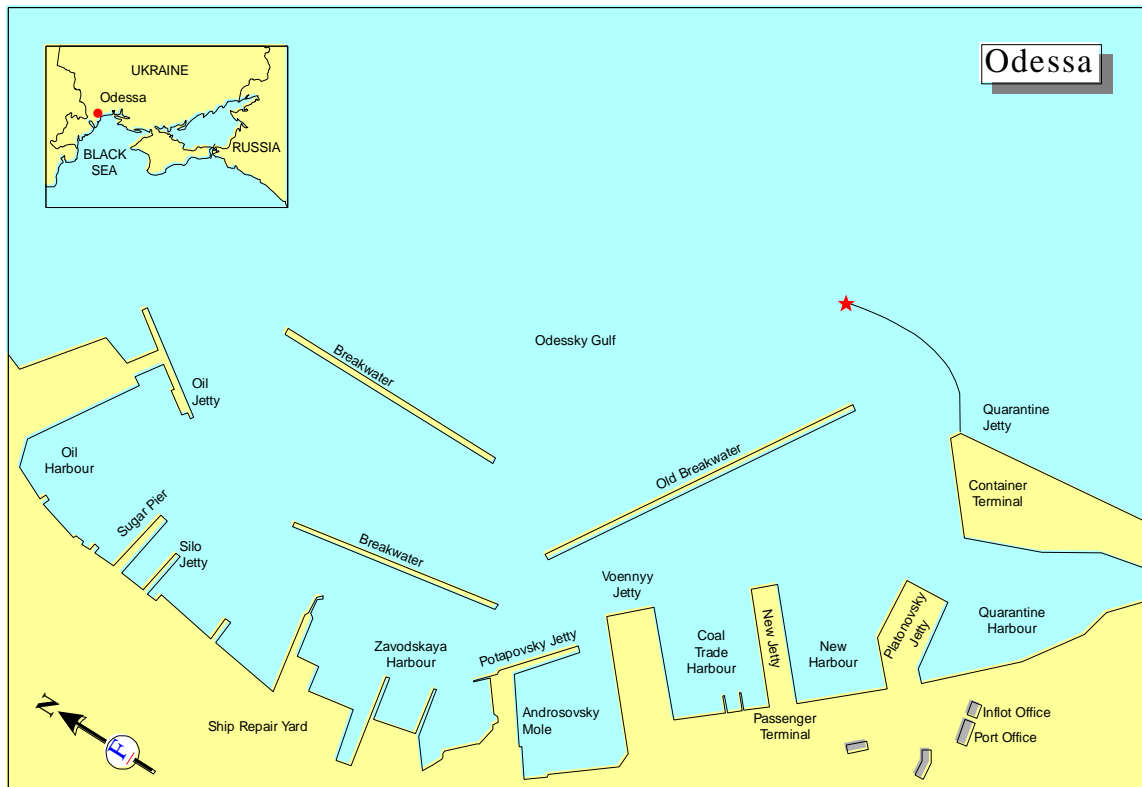
Containers

- CMA-Maersk Vessel Share Agreement (VSA) to/from Far-East
- COSCO, Wan-Hai, PIL, K-Line, Yang-Ming, CSCL VSA to/from Far-East
- CMA feeder to other Black Sea ports, Mediterranean
- Maersk feeder to Bulgaria, Mediterranean
- MSC feeder to Turkey

Additionally unscheduled / voyage-chartered vessels of different types (sea-river, general cargo, heavy lift, etc.) deliver oversized/heavy lift/project cargoes/construction material and parts which are delivered to final destinations in Ukraine using the same hinterland connections as the regular lines.

Port of Odessa

Figure 8: Port of Odessa



The port of Odessa is located in the heart of the 5th urban metropolis in Ukraine, which also stands as one of the country's main industrial and trade hub as well as one of the most popular touristic destination (Odessa has the largest Passenger Ship Terminal in Ukraine – and one of the largest in the Black Sea - with an annual capacity of 4 M Pax). There is no rail-ferry bridge at Odessa and no regular Ro-Ro service although a Ro-Ro berth was set into operations at the end of 2009. Following the independence of Ukraine in 1991, the ensuing economic crash and the collapse of the Ukrainian shipping sector the port management has developed an approach based on successful Western business models and has tried to implement it in Odessa to the best of their ability, with very scarce resources and often against the will and views of central Ukrainian authorities.

The efforts have focussed on the development of a close cooperation with the private sector in order to attract the investments of national and foreign operators into the port activities. One major beneficial achievement has been the transfer from American operator Ceres Terminal in July 2001 of the operation of the 14.5 ha container terminal at berth number 2 on the Quarantine Mole to German operator HPC under concession till 2044.

Container handling

The container terminals and yards are developing progressively. Several recent and future plans include:



- The 'Brooklyn-Kiev/CMA-CGM terminal launched in October 2008; and
- The extension of the Quarantine Mole facility by HPC, which will become operational in 2014

Table 9: Berth data

Container Terminal	Vessel types	Storage capacity	Berth Length (m)	Max Draft (m)	Capacity TEUS/year
HPC terminal					
Berth					
2	Containers (up to 5,000 TEU)	13,500 TEUs plus 400 reefer plugs	310	13.0	650,000
3	Containers (1,500-2,000 TEU)		230	11.8	
4	Containers (1,500-2,000 TEU)		270	11.5	
Brooklyn-Kiev terminal					
42	n/a	4,823 TEUS plus 328 reefer plugs	225	13.5	200,000
43			255	13.5	

Table 10: Throughput of Odessa

Throughput	2006	2007	2008	2009	2010	2015* (Port est.)
Containers TEU	395,564	523,881	572,142	255,461	351,568	ca 2 M

Ro/Ro Traffic

A small ferry terminal was used for a Ro-Pax line operated by UkrFerry to Istanbul. The service was suspended in 2010.

That same year the port planned to develop its Ro-Ro activities and a car-carrier called for the first time on February 2010 to discharge 630 Hyundai passenger cars from Turkey.

The first phase of a new Ro-Ro terminal has been completed in September 2010 and test calls have been performed. However few technical Customs issues remain to be solved allowing the vessel's call at Odessa to not exceed 6-8 hours and a regular service to Istanbul to start. The private operator EuroTerminal – which can provide all necessary storage/parking/customs check areas at his BCP facilities few kilometres from the Ro-Ro ramp – is/was a leading member of this project.

Maritime Services

Regular services calling at Odessa include the following.

Containers

- CMA-Maersk VSA to/from Far-East

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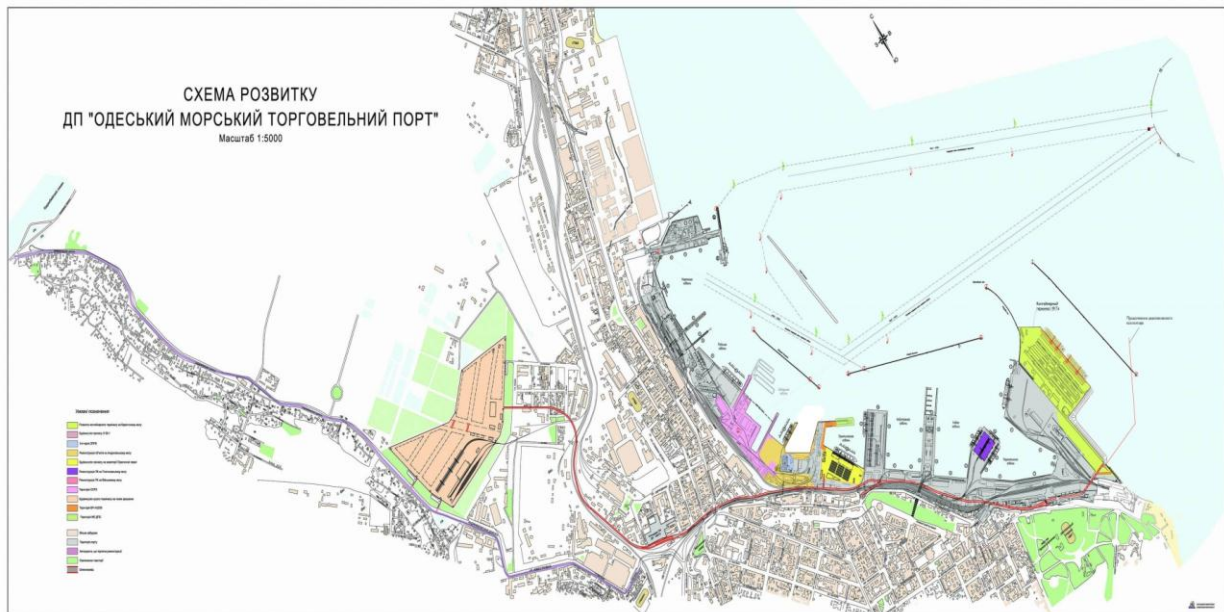
- G6 Alliance (American President Lines, Hapag-Lloyd, Hyundai Merchant Marine., Mitsui O.S.K. Lines, Nippon Yusen Kaisha, Orient Overseas Container Line) to/from Far-east
- Evergreen to/from Far-east and Black Sea ports and Greece
- CMA feeder to other Black Sea ports, Med
- Maersk feeder to Bulgaria, Med
- MSC feeder to Turkey
- ZIM liner service to/from Far East
- Arkas liner+feeder services to Turkey
- Admiral Container Lines liner service to Russia, Turkey and Med

Intermodal Facilities

The port has one rail entry (720 rail cars per day) which is connected with the marshalling yard. Its railway station has almost exhausted its capacity (it is capable of handling 12 pairs of trains per day and now it handles 10). At present, there is no possibility to expand the railway infrastructure due to the lack of free space in or near the port.

As for the road access, the port has one main entrance (125 cars per day) and five additional (technological) entries. An elevated roadway (in red on the map below) linking the port to the dry port LLC Euro Terminal (in pink, on the left) became operational in 2009.

Figure 9: Port of Odessa – General Plan of Development

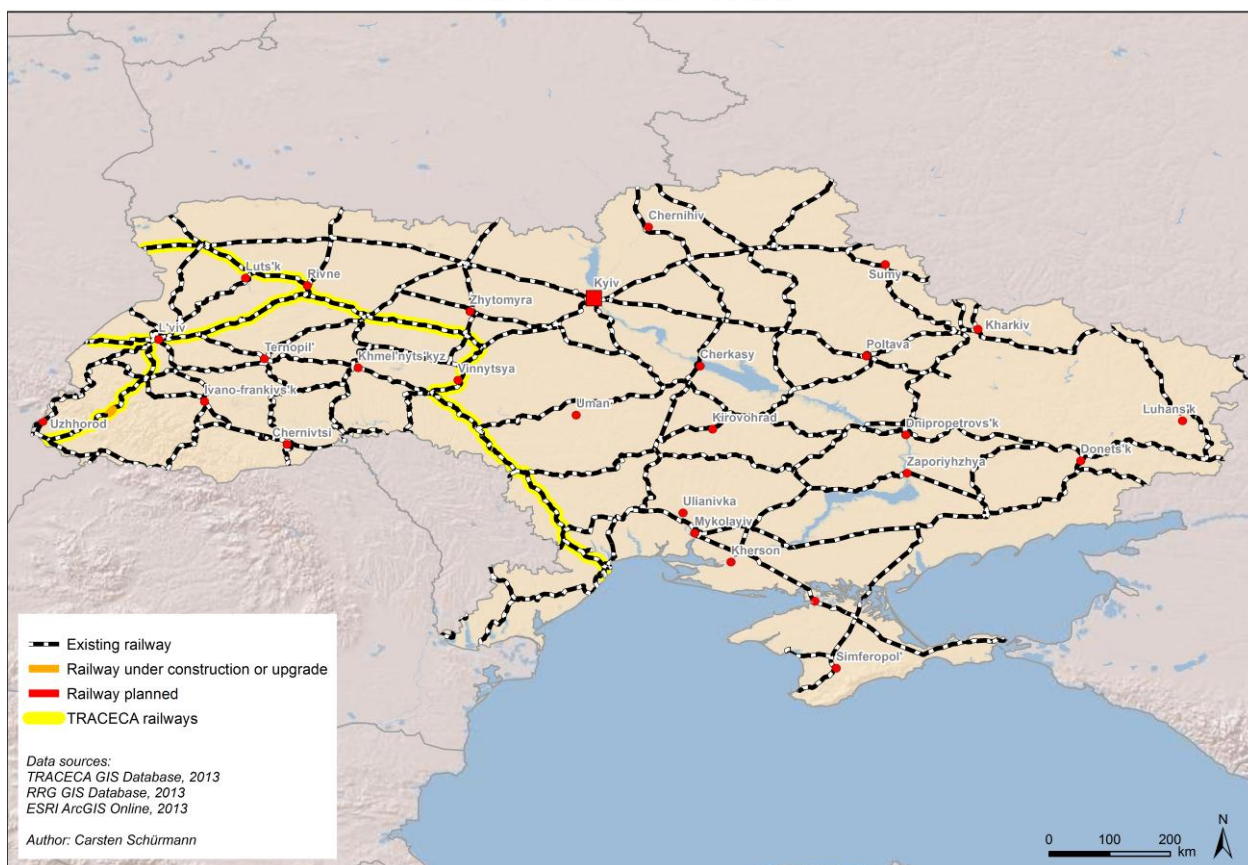


Source: Port of Odessa

6.2.2 Inland Transport Mode: Railways³

Figure 10: Ukraine Railway Map

Railway network of Ukraine
(main railway lines and TRACECA routes)



Source: TRACECA (2013)

Ukrainian railways (Ukrzaynitsya - UZ) have a well-developed infrastructure and form the basis of the transport system of Ukraine. The railways account for 82.7% of cargo turnover (excluding pipelines) and 42.5% of passenger traffic.

The Ukrainian railways network is one of the most developed in Europe, its length in use makes up approximately 22,000 km (over 46% of tracks are electrified: 5,325 km with 25 kV AC and 4,763 km with 3 kV DC). UZ carries as much freight as the western EU-15 countries⁴ and as many passengers as the central and eastern EU-10 countries. The gauge system in place is Russian gauge (1,520 mm) with the exception of 350 km of standard gauge (1,435 mm) along the border with EU states (Romania, Hungary, Slovakia and Poland).

Table 11: Features of Ukraine Railway Network

Total route length (km)	Gauge (mm)
21,665.4 *	1,520

³ More detailed information on the railway sector of Ukraine, figures and state of projects can be found in the separate [railway report of the LOGMOS Master Plan](#)

⁴ The 15 countries forming the EU before the enlargement to Eastern former socialist republics.



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Electrified lines (km)	Electrification system
5,325.2	25 kV AC - 50 Hz
4,763.0	3 kV DC
* 350.1 km of 1,435 mm gauge track across the western borders	

Ukrainian railways interact with the railways of nine neighbouring countries (Russia, Belarus, Poland, Slovakia, Hungary, Romania, the Republic of Moldova, Bulgaria and Georgia) through 56 border crossings. Interaction with the Mediterranean countries is being performed through 18 commercial seaports on the Black Sea and Azov Sea, and through river ports of the Dnieper and the Danube.

Rail transport in Ukraine plays the role of connecting all major urban areas, port facilities and industrial centres with neighbouring countries.

Railway density (length of the railway infrastructure in metres per 1,000 inhabitants) of Ukraine is one of the highest among other CIS countries and is close to France, Italy and Romania. The heaviest concentration of railroad track is located in the Donbass (Eastern) region of Ukraine. Especially the Western part of the country is well integrated in regional rail networks.

Container trains

In the context of dynamic development of trade and economic cooperation between the countries of Europe and Asia, increasing trade volumes require nowadays a new approach to organization of transportation of goods, in particular the organization of combined transport on the railways of Ukraine. To speed up delivery of goods several container trains and combined transport trains were introduced.

The combined transport train "Viking" was launched in 2003 on the route Odessa/Ilyichevsk - Klaipeda (Lithuania) – Odessa/Ilyichevsk. The 1,734 km route is performed in 56 hours and the time spent at the EU border with Belarus does not exceed 30 minutes.

Other container trains system using international transport corridors were launched on the following routes:

- "Czardas" : Budapest (Hungary) - Chop - Zernovo - Moscow (Russia)
- Cumeshti (Romania) – Zernovo – Moscow (Russia) – Togliatti (Russia)
- "Land Bridge" : Hungary / Slovakia – China
- "Odessa" : Odessa – Moscow
- "Zubr" : Odessa/Ilyichevsk – Bigosovo (Belarus) – Daugavpils (Latvia) – Tallin (Estonia)

Along with already functioning trains in international traffic, special trains were organized taking into account the interests of consumers to accelerate the delivery of goods in multi-tonnage containers arriving in Ukraine through the ports of the Black Sea on the routes Odessa / Ilyichevsk - Kiev ("Khreschatyk"), Odessa / Ilyichevsk - Dnepropetrovsk ("Dneprovets"), Odessa / Ilyichevsk – Khmel'nitsky ("Podolye"), Ilyichevsk - Nikopol ("Nika"). Their formation and dispatching is performed upon arrival of containers at the ports. Potential of Ukrainian railways and sea ports allows to increase transshipment volumes and to organize trains in new directions.

This potential is real and to be unleashed needs first and foremost the implementation of a fully-fledged Port Community System facilitating the exchange and treatment of information between



various State agencies (Port Authorities, Customs, etc.), shipping companies, Terminal and Railway operators (including UZ and Liski) at the ports of the Odessa Region

Some of the above trains plus other block container trains within Ukraine are operated by Liski, a structural division of UZ created in 1995: “Khreschatik” from Ilyichevsk and Odessa to Kiev, “Dneprovets” from Ilyichevsk and Odessa to Dnepropetrovsk, “Podolye” from Ilyichevsk and Odessa to Khmelnytskyi, Mariupol and Kiev.

Liski has a full prioritized access to the 4,000-container fleet of UZ. It manages 6 intermodal hubs across the Ukraine equipped with handling, warehousing and own trucking facilities (Kiev, Chop, Odessa, Kharkov, Lugansk and Donetsk).

State Administration of Railways Transport / Ukrzaliznytsia

The State Administration of Railway Transport of Ukraine, founded in 1991 and headquartered in Kiev, is managing 6 regional companies of UZ. At present, UZ combines both public administration functions and those of a commercial operator. It monitors and manages the activities of the regional railways and oversees their operational and financial performance

The cargo rolling stock consists of 190,000 units, of which 130,000 are publicly owned under UZ control and 60,000 are privately owned waggons. The cargo rolling stock includes 1,900 electric locomotives and 2,500 diesel ones, of which many are obsolete or life-expired. Renewal of waggons and locomotives is one of UZ main challenges, especially container platforms.

Historically, after gaining independence, a legal framework for privatization was elaborated.

However, the dubious and opaque implementation of the corresponding program and the resistance to change manifested by the Government, as well as that of a major part of the country's population have blocked reform efforts, so that many state-owned companies as UZ have been exempted from privatization.

Since the 2010 elections, new proposals for partial privatisation of UZ have been brought forward.

In March 2012 the President of Ukraine signed a law that paved the way for the privatisation of hundreds of state-owned companies previously considered as strategic assets. According to this law, the new rail entity will be created as a public JSC with 100% of the shares owned by the state through the merger of UZ and public railway enterprises, institutions, and organisations. Under the plan presented to Parliament, UZ would be restructured as a JSC by 2015. The infrastructure and traction would remain under state control, while the six regional companies would be merged into a single legal entity.

UZ is designing a new legislative base for the attraction of private investors to the development of the national railway infrastructure involving the adoption of a compensation mechanism to private investors for their investments in the development of Ukraine's public railways. Respective amendments to the Ukrainian law «On Railway Transport» are expected to be finally approved in October 2013.

Ongoing and planned projects

Current investments projects in the railway sector in Ukraine aim mainly at renewing UZ's rolling stock as its state has become critical. In 2012, the EBRD has agreed to provide a USD 62.5 M loan to UZ for the purchase of freight waggons as part of the country's rolling stock modernisation programme. EBRD provided another loan of USD 62.5 M to UZ in 2009 to replace old freight waggons as part of its fleet renewal programme. In 2013 UZ and Luhanskteplovoz⁵ signed a MoU for the supply of 300 electric locomotives at USD 1.4 bn.

⁵ A subsidiary of Russian company Transmashholding.

Besides, the programme of investments of UZ also includes stations reconstruction (six stations and six railways complexes were reconstructed in 2012) and tracks renewal.

UZ started building the new 1.8 km-long double-track Beskyd tunnel on the Lvov-Chop line in the Western Ukraine Carpathian Mountains. The tunnel, scheduled to open in 2015, will allow an increased speed of 70 km/h. This tunnel will replace the existing single-track tunnel built in 1886, which is a major bottleneck on the route. Now 40% of goods in transit to Western and Central Europe pass through the old tunnel, but its service life has already ended.

The project of electrification of the Dolynska - Nikolayev - Dzhankoi route is budgeted at USD 701 M. Work is scheduled for 2013-2016.

6.2.3 Inland Transport Mode: Roads⁶

Figure 11: Ukraine Road Map

Road network of Ukraine
(highways, main roads and TRACECA routes)



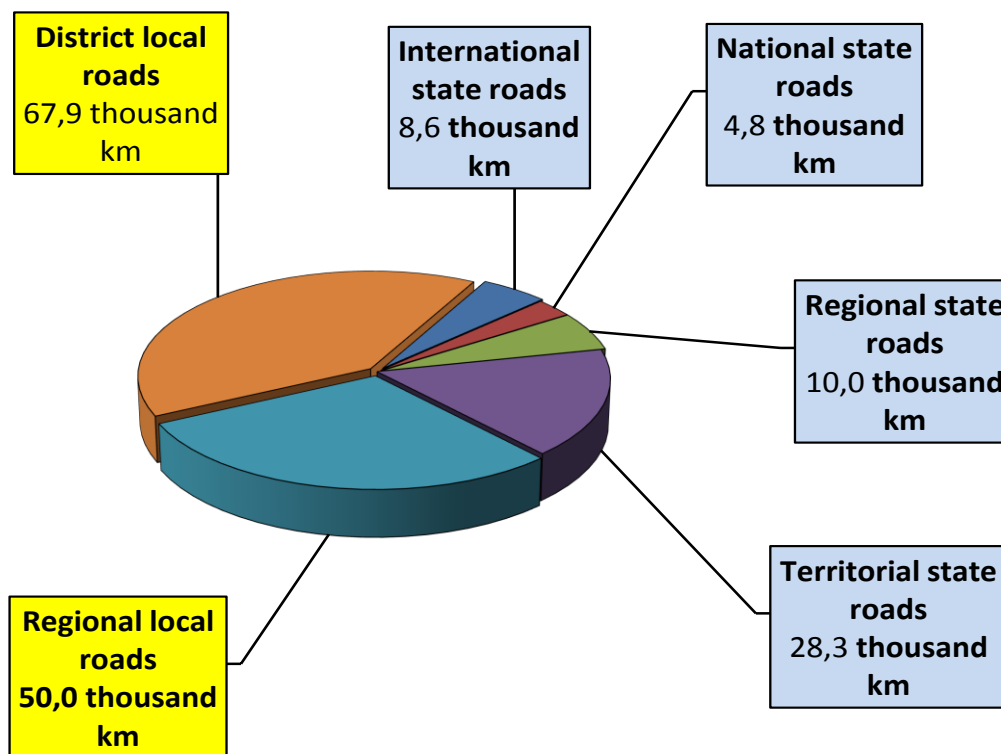
Source: TRACECA (2013)

Ukraine has a developed public road network covering 169,600 km (95.19% having a hard surface). The indicator of road density stands at 281 km/th. sq. km, which is considered to be quite low, especially if compared with Western European countries. The majority of public roads in Ukraine are local (117,900 km); and only 51,700 km are state roads. There are about 8,600

⁶ More detailed information on the road sector of Ukraine, figures and state of projects can be found in the separate [road report of the LOGMOS Master Plan](#)

km of international roads, which is, equivalent to 5% of the total road network; this percentage is significantly lower than in other TRACECA countries where it is 10%.

Figure 12: Classification of roads in Ukraine



Source: Ukravtodor (2013)

Road is the second mode of transport with a share of about 73% of the overall freight traffic.

Most of the road system is in unsatisfactory operational conditions. According to official data, in 2009 about 51% of public roads did not meet the roughness criteria and 39% the hardness criteria. Therefore, not all of them can be easily utilized by the international road cargo transport due to existing restrictions.

These restrictions pertain to the access of oversize and overweight cargo transport. The permitted dimensions of a truck (or convoy of trucks) are maximum 4 m in height, 22 m (26 m in case of regular transport) in length and 2.6 m in width. Container trucks up to 4.35 m height (but up to 38 t) are allowed to move along special routes. The total weight should not exceed 38 t (44 t for container trucks); axle load for single axle should not exceed 11 t, 16 t for double (18 t for container trucks), and 22 t for triple axle (24 t for container truck). At present, lorries up to 40 t (and container trucks up to 44 t) are allowed to move only along M05 Kyiv-Odessa road. In all other cases, a permit, issued for a single trip only, is necessary. Multi-trip permits are also possible but their validity is limited up to 3 months. The permit is issued on the basis of a payment for the road charge and the approval of the transport route. When issuing a permit, the State road inspection should indicate if a transport escort is necessary.

In October 1999 Ukraine joined the international Agreement "On the vehicle weights and dimensions for international road transport in CIS countries" concluded by Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan and Kyrgyzstan on June 4th 1999.

This agreement provides for slightly different vehicle parameters:



- size (4 m height, 12-20 m length and 2.55 m (2.6 m for insulated bodies) height); and
- weight (18-32 t for trucks and 36-38 t for articulated vehicles, 36-44 t for road trains).

These rules are applied to Ukrainian road carriers in above mentioned CIS countries as well as to international carriers in Ukraine.⁷

As defined in the Law of Ukraine “On the motor roads”, international roads are those that are linked to the international transport corridors and are integrated into the European transport network. The following three Trans-European (road) transport corridors cross the territory of Ukraine:

- **corridor III** (Berlin/Drezden – Wroclav – Krakovets – Lviv – Rivne – Zhytomyr – Kyiv);
- **corridor V** (Trieste – Liubliana – Bratislava – Chop – Uzhgorod – Lviv); and Va (Strozhnytsia – Uzhgorod – Mukachevo);
- **corridor IX** (Helsinki – Kyiv/Moscow – Odessa/Chisinau/Bucharest – Gornostaivka – Alexandropolis); IXa (Lubashivka – Platonove), IXb (Lubashivka – Odessa) and IXc (Kopti – Bachivsk).

The total length of international roads in Ukraine amounts to 8,600 km (5% of public roads). These include international roads E40, E50, E85, E95 and E105, as well as some supplementary and auxiliary roads. Only 2,100 km of international roads lay along the above mentioned Trans-European transport corridors. These are the roads that meet the requirements of category I (4 lanes, with a design speed of 120-150 km/h). Driven by the organization of the European football championship in 2012, Ukraine has set an ambitious program for the construction and rehabilitation of highways, in particular on the M03 (Kyiv-Boryspil-Poltava-Kharkov), M18 (Kharkov-Dnepropetrovsk) and M05 (some sections along Kyiv-Odessa road). Altogether, 2,007.5 km of roads were opened for traffic in 2011 and 1,601 km in 2012.

Ukravtodor is the State Road Administration of Ukraine. It is supervised by the Mol and supplemented by a project institute, Ukrhiprodor, which designs objects of road management. The state owned joint-stock company “*Avtomobilni dorohy Ukrainy*” (ADU), created in 2001, is directly involved in road construction and maintenance. It consists of 32 daughter-companies in each oblast, Crimea, and the cities of national importance. The annual budget of ADU is around UAH 4 bn. According to Ukravtodor, 80% of the Ukrainian road network suffers from a backlog of maintenance and does not meet the modern requirements. This is particularly the case of local roads because over the last period the emphasis has been put on the rehabilitation and improvement of the core network. The privatization of the road transport sector has been a positive development which helped upgrading and improving the number and quality of services offered to the users. Another issue is the number of road casualties. Ukraine’s road safety record remains one of the worst in Europe in terms of road accidents and fatalities. And this respect the World Bank is implementing a “road safety improvement project” which aims at upgrading some road sections, eliminating accidental black spots and strengthening Ukravtodor’s capacity in road management and maintenance.

Lack of state budget funding for development of the road network has pushed Ukravtodor to cooperate with IFIs (EBRD, EIB, IBRD). Loans are mainly attributed for the rehabilitation of national and international transport corridors. Those IFI financed projects are

⁷ For inland water ways, see the Dnepr Case Study and the Danube Case Study developed by the LOGMOS project.



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- First project 'Kyiv – Chop Road Rehabilitation', EBRD – EUR 75 M. Works are finished
- Second project 'Kyiv – Chop Road Rehabilitation', EBRD – EUR 100 M. Works are finished
- Third project 'Kyiv – Chop Road Rehabilitation', EBRD and EIB – EUR 400 M. Works are finished
- Fourth project 'Kyiv – Chop Road Rehabilitation', EBRD and EIB – EUR 900 M. Works are expected to be finished by 2016.
- First project 'Roads and Safety Improvement Project' : rehabilitation of the M03 Kyiv – Kharkiv – Dovzhanskyi on section Boryspil – Lubny', IBRD – USD 400 M. Works are expected to be finished in 2013.
- Second project 'Roads and Safety Improvement Project' : rehabilitation of the M03 Kyiv – Kharkiv – Dovzhanskyi on section Lubny – Poltava', IBRD – USD 450 M. Works started in 2013.

Ukravtodor approved a list of 13 road project to be constructed and implemented under concession. This list includes:

- Brody-Rivne – 94.8 km / Toll road/ Category I / estimated cost UAH 3.6 bn . Crossing the territory of Lviv and Rivne regions, it coincides with the direction of Pan-European corridors 3 and 5.
- Vinnytsia-Kiev – 146 km / Toll road/ Category I / estimated cost UAH 5.1 bn. The road will pass through the territory of Vinnitsa, Zhitomir and Kiev regions and coincides with corridor № 3.
- Dnepropetrovsk-Reshetilovka – 167.4 km / Toll road/ Category I / estimated cost UAH 5,1 bn. It will pass through Dnepropetrovsk and Poltava regions.
- BCP "Scherbakovka"-Kyiv-Kharkiv-Dovzhansky – 48.8 km / Toll road/ Category I / estimated cost UAH 3.5 bn. A bypass road from the border with Russia to the highway Kiev - Kharkov – Dovzhansky. The construction of this highway is meant to improve the international transport links between Russia and the industrial and resort south-eastern regions of Ukraine, Crimea.
- Odessa-Reni – 261 km / Toll road/ Category I / estimated cost UAH 42.72 bn. This road is part of the Black Sea ring road project.
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6.3 Trade and Transit Facilitation

6.3.1 General Presentation

- **Procedures and formalities** are among the **main barriers** that hamper the development of Motorways of the Sea:
 - Several **border points** must be crossed, mostly in ports but also on land routes e.g. along the central land corridors: There is a minimum of two points in a single/one sea service, up to 5 points in inter-seas services that linking western Black Sea countries and Eastern Caspian Sea countries, and possibly more in the case of longer multicountry transit and transshipments trades.



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- Several physical mode transfers, handling movements and intermediate storage take place along the sea-based transport chains: most commonly 3 transfers and a minimum of 6 handling plus 2 storages in the case of a single sea leg, and several more handling operations in the inter-seas services
- Previous and ongoing experience of Motorways of the Sea in other regions as well as the global worldwide transport system of containers have demonstrated that the resolution of difficulties in this field is an essential factor in finding success.
- The procedural process in ports and at other border crossing points are **dominantly related to Trade Laws and Regulations**, but actors of the transport and transit chain are responsible for their fulfilment. A significant part of their activities is dealing with these complex issues and drawing the corresponding revenues out of their resources. Relationships between institutions on one side (Customs first, but also other Ministries and inspection bodies), operators and users on the other side, are affected by these functions which mixing with the physical transit and transport operations.
- The **impacts of administrative and regulatory barriers** are generally more important when there is a sea leg because:
 - Maritime transport and port transits require more formalities than land transport modes, including specific exchange of information, paper documentation etc. which are rightly perceived as a factor of complexity
 - This adds to the weakness of intermodal sea based transport, particularly when compared to the most simple unimodal road transport
 - Transit times are increased if and when formalities and operations are mismatching, e.g. when the transport means of one mode is not coordinated with those of the next mode, which is a frequent situation between the maritime and railways legs in the TRACECA Region
 - Costs are not only direct but also indirect, and not only formal but also informal, and unofficial transit levies and other transaction costs add to the sum of official tariffs, taxes and dues.
- **Common weaknesses/barriers** have been identified in all LOGMOS project countries to various extents and at different degrees. This diagnosis has been shared under the key word "Facilitation" by country stakeholders and at bilateral and regional levels. Barriers in this field are referred to in the "W" (Weaknesses) list of the various SWOT analyses summarised in the following project documents:
 - Country profiles, as synthesised hereafter
 - Presentations for workshops and meetings
- Among the **solutions** discussed in the diagnosis phase, the following is a series of common **recommendations and targets** that are partly implemented, planned, or contemplated for the future LOGMOS projects and more generally for the development of intermodal transport including port/border crossing points:
 - I.T. systems and solutions electronic solutions/EDI for:
 - information (for users and operators)
 - declarations
 - pre-alert (for Customs and other)
 - duties, taxes and fees
 - One stop shop scheme and extension to Single Window System (SWS)



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- Risk management system and methods
- IT interchange solutions between MoS port/communities
- Tracking and Tracing (in coordination with operators)
- Upgrading/Redesigning border points layouts
- Training (management, IT organization...)



6.3.2 SWOT Analysis

The following table summarises key-finding for national SWOT analysis in trade and transit facilitation procedures that have been adopted in Ukraine.

Table 12: SWOT Analysis in Trade and Transit Facilitation Procedures

STRENGTHS	<ul style="list-style-type: none"> • WTO member (2008) • Associated Member to the EU Common Transit Convention Committee • “One Stop Shop” initiative at border crossing points reducing procedure delays • Law on Transit • New law on Sea Ports • New customs code • EU UNDP (EUBAM) Border Assistance
WEAKNESSES (BARRIERS)	<ul style="list-style-type: none"> • Perceived uncertainties with commitment to Customs and trade facilitation reform and modernisation • Border crossing points not designed for high volume traffic flows, which does not facilitate selectivity based on electronic risk analysis by Customs and other border crossing agencies • Mistrust between Customs and trade facilitation agencies and private industry because of integrity issues and lack of complete Customs and trade facilitation • Lack of electronic pre alert import and export declaration • Lack of a facilitation "PRO" structure
OPPORTUNITIES	<ul style="list-style-type: none"> • Start developing a trade and transit facilitation strategy • Signature of the Association Agreement with the European Union • Need for a Customs policy to reduce time to get goods to market and number of documents with: <ul style="list-style-type: none"> ○ Pilot electronic Single Window System (SWS) ○ Pilot integrated border management/ combined border management projects ○ Pilot Customs low risk due diligence program
THREATS	<ul style="list-style-type: none"> • Continued delays and costs owing to inconsistent Customs and other border crossing agency decisions and integrity issues • Delays in implementation of transit / transshipment procedural improvements in ports



7 PILOT PROJECTS SELECTED FOR MOS I AND ILC PROJECTS

To address the existing challenges for MOS and ILC promotion, two TRACECA projects ran a pre-screening for potential pilot projects. The pre-screening was based on the multi criteria analysis of the proposed pilot, which helped to narrow down the pilot projects list.

The list of retained pilot included the following projects:

Table 13: Selected Pilot Projects in Ukraine

Pilot project	Service proposed	Countries involved directly	Concerned TRACECA project
Ilychevsk – Samsun – Poti/Batumi maritime service	Maritime service involving all MoS shipping techniques (trucks and rolling cargo, railcars and waggons, containers, packed general cargo in break bulk)	Ukraine Turkey Georgia	MOS Project
Varna – Ilychevsk – Poti	Improving existing rail / Ro-Ro / container intermodal transport	Bulgaria Ukraine Georgia	MOS Project
ILC at Euroterminal dry port Odessa	Dry port facilities, including customs terminal, open storage and parking areas	Ukraine	ILC Project
ILC at Boryspil airport commercial park	Cargo facilities, warehousing, customs terminal and other logistics related investment	Ukraine	ILC Project

As a result of the first phase of MOS I and ILC implementation, for the 4 above mentioned pilot projects, feasibility studies were elaborated. Short summaries of these projects can be found [here](#).