# 6 STRATEGIC CHALLENGES

## 6.1 Market Challenges

### *6.1.1 National Trade: Exports and Imports*

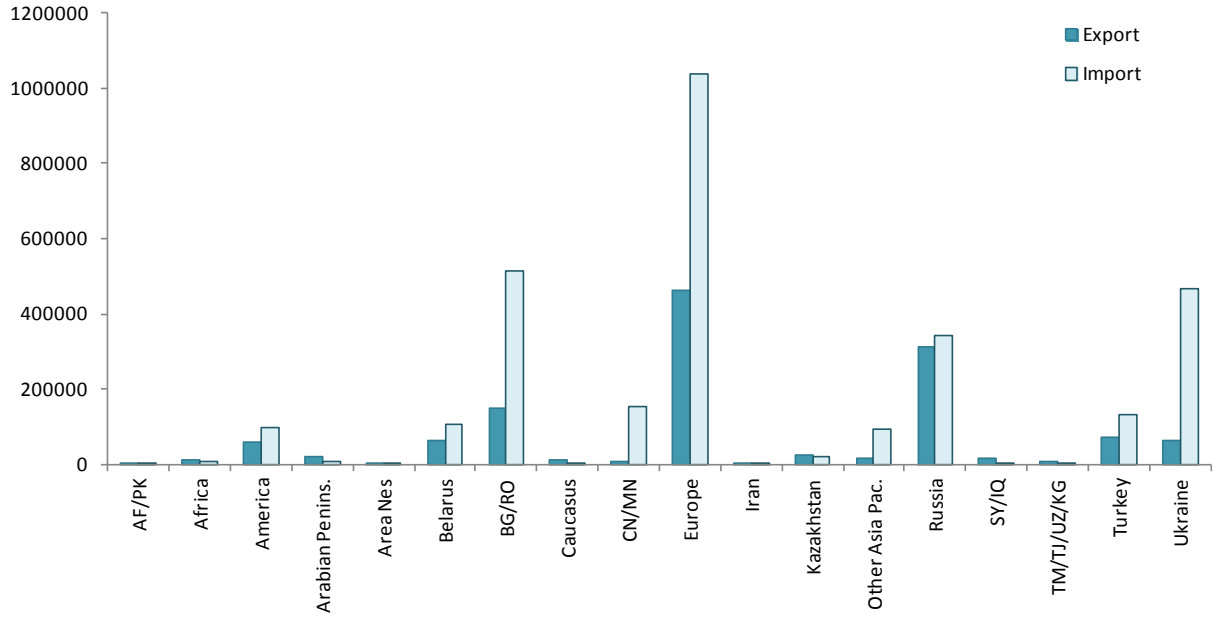
**World Trade Partners**

Located between Romania and Ukraine, Moldova is the only country among European TRACECA countries without maritime borders. The use of this term can nevertheless be discussed as the port of Giurgiulesti, situated at the confluence of the Prut and the Danube, is of maritime importance. Moldova, along with Ukraine, belongs to the "North-Western TRACECA countries" group.

In 2010, Moldova total external trade amounted almost 4.3 billions Euros composed of 30% of exports and 70% of imports, resulting thus in a negative merchandise trade balance. Figure 1 and table 1 show the repartition of trade between partners. Regarding imports, main trade partners are other European Countries (35%), Bulgaria-Romania (17%), Ukraine (16%) and Russia (11%). Together, they account for almost 80% of all imports. The same proportion of total exports (80%) is divided into three trade partners: other European Countries (36%), Russia (24%) and Romania-Bulgaria (12%).

It is worth noting that the great majority of trade flows from and to Moldova do not use TRACECA East-West main corridor. Imports from Caucasus and Central Asia countries account for 0.9 % of total imports while exports to these regions amount to 3.3 %. Conversely, trade with Turkey is much more important (4.5 % of total imports and 5.4 % of total exports) but constitutes a North-South trade flow.

**Figure 3: Moldova Trade Partners, 2010, th euros**

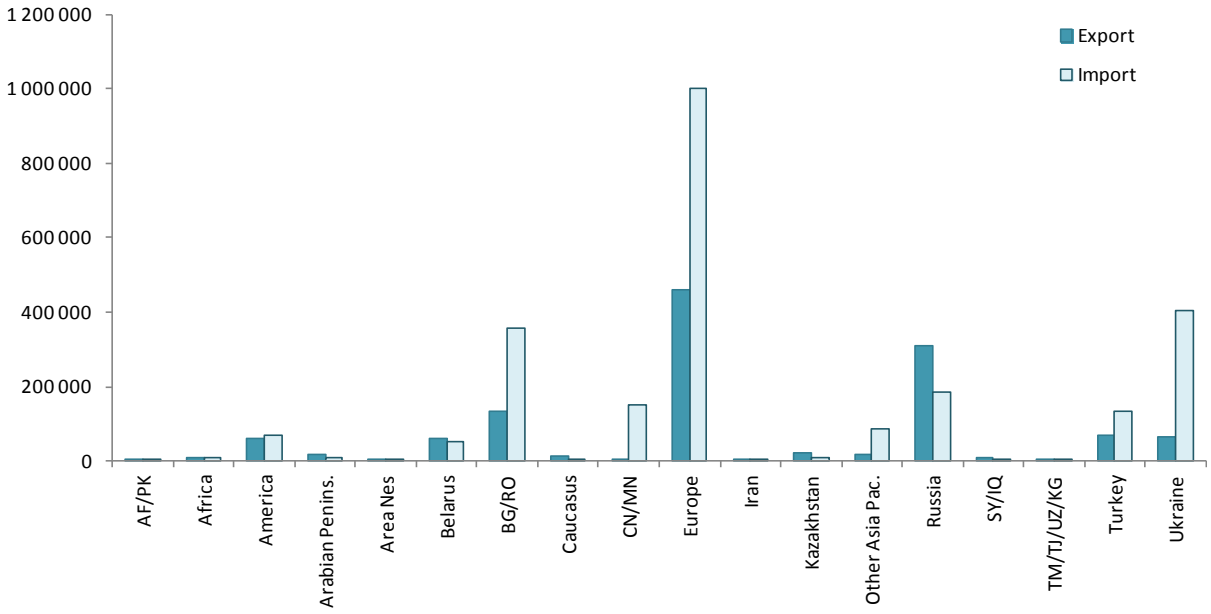



Source: Computation based on Eurostat and UN Comtrade databases

The analysis of Moldova potential trade, taking into account only partially and totally containerizable products, does not show any significant changes in the geographical repartition and the volumes of Moldova trade flows. The most remarkable difference is the drop of imports

from Russia from 11.4% to 7.4%. It can also be underlined that little trade is transported in bulk as containerizable products represent 97% of Moldovan exports and 83% of imports.

**Figure 4: Moldova Trade Partners, Potential Trade, 2010, th euros**




Source: Computation based on Eurostat and UN Comtrade databases

**Table 3: Distribution of Moldova 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 | 0.07% | 0.04% | 0.06% | 0.09% | 0.02% | 0.06% |
| Africa | 0.30% | 0.83% | 0.46% | 0.36% | 0.62% | 0.44% |
| America | 3.23% | 4.66% | 3.66% | 2.81% | 4.79% | 3.48% |
| Arabian Peninsula | 0.28% | 1.42% | 0.62% | 0.33% | 1.34% | 0.67% |
| Area Nes | 0.09% | 0.00% | 0.07% | 0.11% | 0.00% | 0.07% |
| Belarus | 3.58% | 4.81% | 3.95% | 2.07% | 4.94% | 3.04% |
| Bulgaria-Romania | 17.14% | 11.63% | 15.48% | 14.47% | 10.63% | 13.18% |
| Caucasus | 0.14% | 1.00% | 0.40% | 0.17% | 1.03% | 0.46% |
| China-Mongolia | 5.08% | 0.43% | 3.68% | 6.01% | 0.44% | 4.14% |
| Europe | 34.68% | 35.64% | 34.97% | 40.33% | 36.49% | 39.04% |
| Iran | 0.02% | 0.19% | 0.07% | 0.03% | 0.20% | 0.08% |
| Kazakhstan | 0.61% | 1.79% | 0.97% | 0.44% | 1.84% | 0.91% |
| KY-TJ-TM-UZ | 0.16% | 0.52% | 0.27% | 0.15% | 0.54% | 0.28% |
| Other Asia Pacific | 3.08% | 1.26% | 2.53% | 3.56% | 1.29% | 2.80% |
| Russia | 11.38% | 24.22% | 15.25% | 7.44% | 24.67% | 13.23% |
| Syria-Iraq | 0.04% | 1.22% | 0.39% | 0.05% | 0.75% | 0.28% |
| Turkey | 4.46% | 5.41% | 4.75% | 5.34% | 5.38% | 5.35% |
| Ukraine | 15.64% | 4.93% | 12.41% | 16.25% | 5.03% | 12.47% |
| **Total** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** |

Source: Computation based on Eurostat and UN Comtrade databases

Regarding the tonnage of potential trade of Moldova, the following features may be observed:

- Imports are 1.7 more important than exports in tonnage while the difference in values is almost twofold.
- Domination of trade with the European Union in exports (40.5%) and with Ukraine in imports (39%).

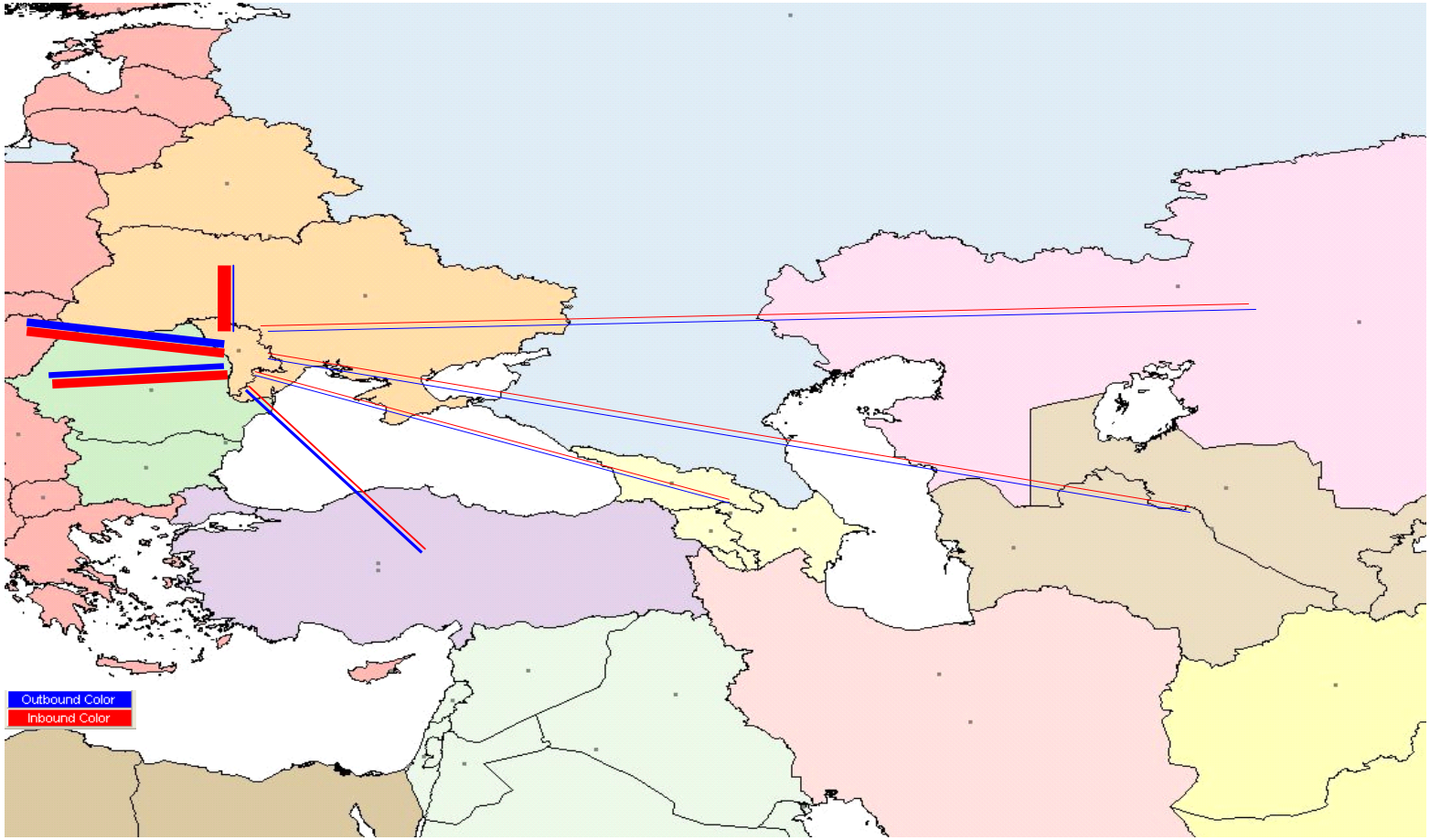
Flows concerning LOGMoS East-West corridor represent only 4.4 % of exports and 1.4 % of imports. North-South flows with Turkey, Bulgaria and Romania amount to 46.4% of total exports and 32.5% of total imports. This predominance of West bounded and North-South oriented trade flows, is clearly illustrated in the Figure 5 below.

**Table 4: Moldova Potential Trade with TRACECA Countries and Europe, 2010, in tons and %**

| Zones | Tonnage | | Share in trade with TRACECA countries and Europe | |
|---|---|---|---|---|
| | Export | Import | Export | Import |
| Bulgaria-Romania | 243 391.3 | 376 959.4 | 30.73% | 27.42% |
| Caucasus | 12 453.9 | 3 834.9 | 1.57% | 0.28% |
| Europe | 320 976.4 | 373 140.8 | 40.52% | 27.15% |
| Kazakhstan | 18 767.5 | 10 848.3 | 2.37% | 0.79% |
| KY-TJ-TM-UZ | 3 540.9 | 5 115.0 | 0.45% | 0.37% |
| Turkey | 124 151.1 | 69 001.7 | 15.67% | 5.02% |
| Ukraine | 68 784.1 | 535 689.5 | 8.68% | 38.97% |
| **Total** | **792 065.1** | **1 374 589.5** | **100%** | **100%** |

Source: Computation based on Eurostat and UN Comtrade databases

**Figure 5: Moldova Potential Trade with TRACECA Countries and Europe, 2010, in tons**




Source: Computation based on Eurostat and UN Comtrade databases

### *6.1.2 Regional TRACECA Trade*

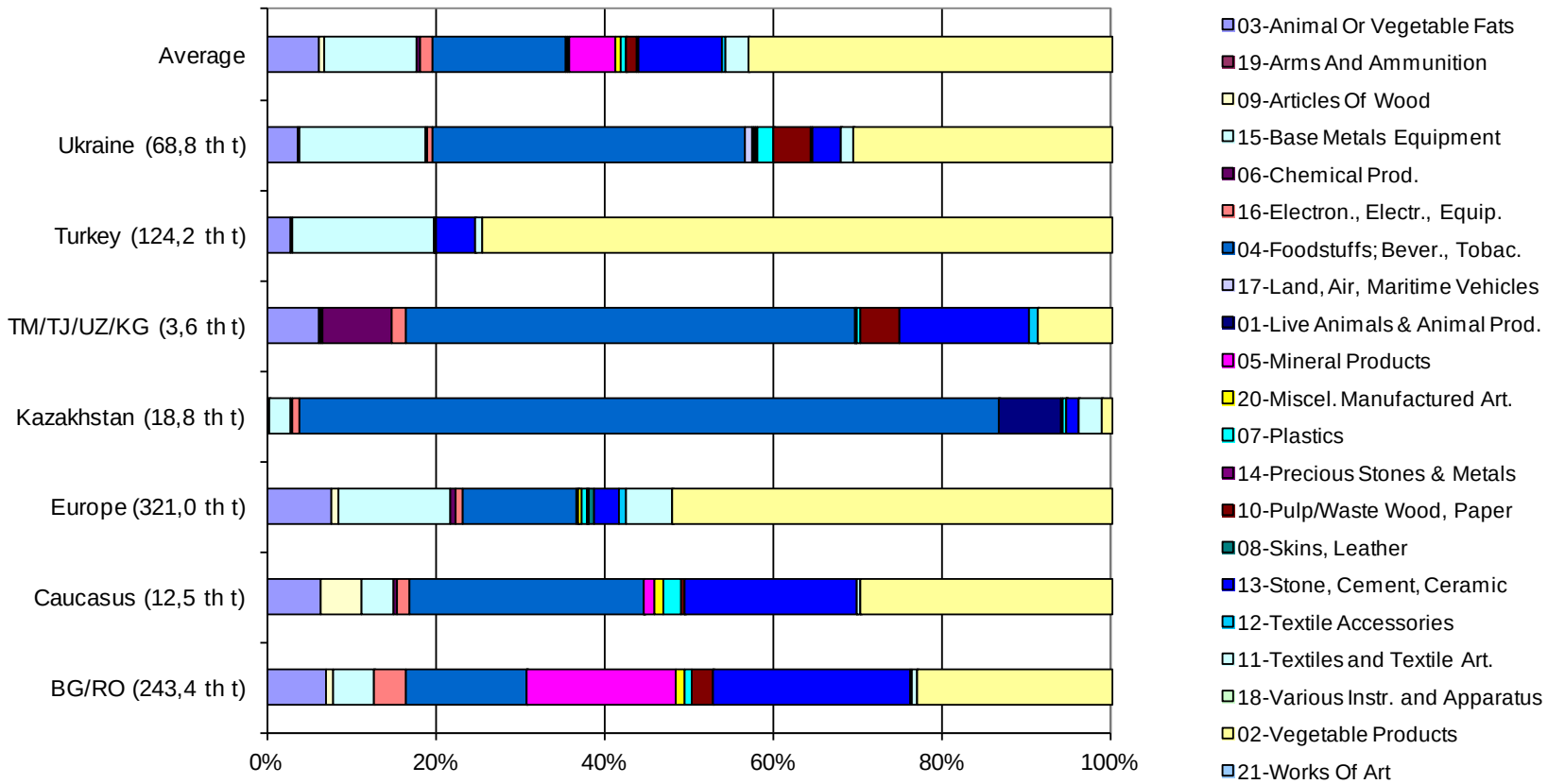
In the perspective to develop transport infrastructures and logistics centres to enhance trade between TRACECA countries, it is essential to look also at the commodity structure of trade flows. Based on the available data, the following Figure 5 and Table 4 detail the composition of imports to Moldova from others TRACECA countries and Europe.

Thus the following comments may be drawn:

- On average, the three main commodities are mineral products (20.6%) originating from Ukraine, Bulgaria/Romania and Turkey, base metal equipment (12.7%) imported from Ukraine, Turkey, Bulgaria-Romania and Europe and vegetal products (12.4%) transported from every trade partner.
- Imports from Caucasus, Kazakhstan and TRACECA South East countries are in a vast majority (over 70%) composed of only one commodity, which are respectively “Foodstuffs, beverage and tobacco”, “Base Metal Equipment” and “Chemical products”.

As far as exports are concerned, the commodity structure mainly consists in “Vegetal Products”, proceeding chiefly from Europe, Turkey, Bulgaria-Romania and Ukraine and representing almost 43% of total exports. Far behind, the second most exported commodity (16%) is “Foodstuffs, beverage and tobacco” followed by “Base metal equipments” (11%) and “Stone, cement, ceramic” (almost 10%). If to add “Animal or Vegetal Fats” (6.2%) and “Mineral products” (5.5%), the above six commodities totalize over 90% of all exports from Moldova.

**Figure 6: Potential Trade with TRACECA Region – Commodity Structure of Imports to Moldova, 2010, in tons and %**




Source:

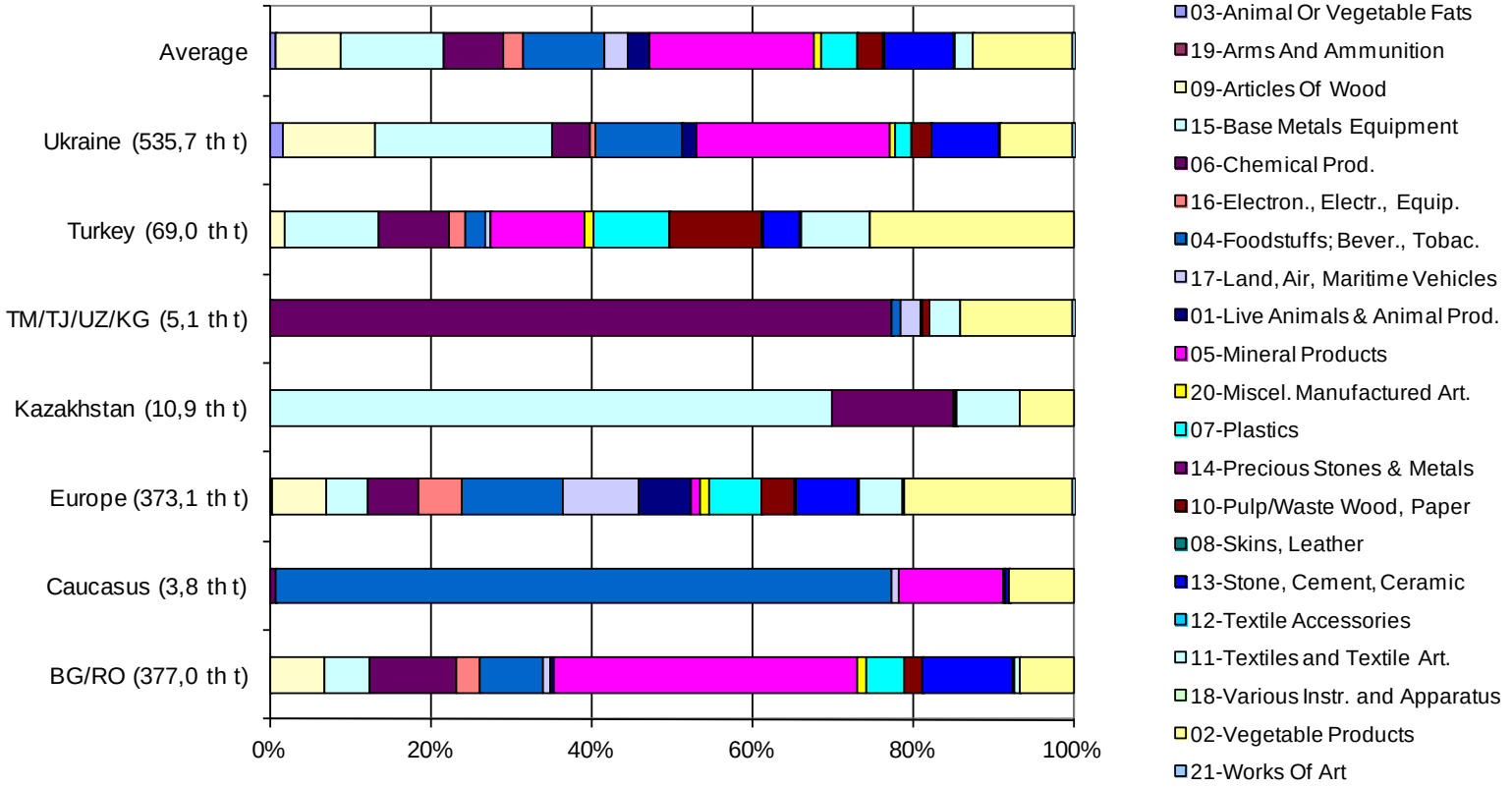
Computation based on Eurostat and UN Comtrade databases

**Table 5: Potential Trade with TRACECA Region – Commodity Structure of Imports to Moldova, 2010, in tons**

| Commodity Groups | Bulgaria-Romania | Caucasus | Europe | Kazakhstan | KY-TJ-TM-UZ | Turkey | Ukraine |
|---|---|---|---|---|---|---|---|
| Animal Or Vegetable Fats | 321.90 | n/a | 965.90 | n/a | n/a | 33.23 | 9 357.63 |
| Arms And Ammunition | n/a | n/a | 24.90 | n/a | n/a | 12.25 | n/a |
| Articles Of Wood | 25 565.50 | n/a | 25 334.41 | n/a | n/a | 1 320.18 | 60 565.20 |
| Base Metals Equipment | 21 494.70 | 0.79 | 19 375.33 | 7 606.04 | 0.85 | 7 992.78 | 118 456.30 |
| Chemical Prod. | 40 394.90 | 29.58 | 23 342.55 | 1 631.84 | 3 957.81 | 6 118.22 | 25 743.19 |
| Electron., Electr., Equip. | 10 532.10 | 2.13 | 19 883.56 | 4.44 | 0.52 | 1 346.45 | 3 437.94 |
| Foodstuffs; Bever., Tobac. | 30 398.70 | 2 936.58 | 47 200.26 | 13.38 | 57.64 | 1 737.46 | 57 454.66 |
| Land, Air, Maritime Vehicles | 2 814.00 | 35.55 | 35 305.12 | n/a | 122.76 | 496.96 | 592.45 |
| Live Animals & Animal Prod. | 1 707.60 | n/a | 24 180.20 | n/a | n/a | 14.21 | 9 720.25 |
| Mineral Products | 142 462.90 | 503.66 | 4 575.03 | n/a | n/a | 8 011.35 | 127 930.08 |
| Miscel. Manufactured Art. | 4 373.60 | 0.03 | 3 881.04 | 0.55 | n/a | 720.79 | 3 419.05 |
| Plastics | 17 731.50 | 0.07 | 24 342.74 | n/a | 16.00 | 6 614.57 | 11 394.38 |
| Precious Stones & Metals | 0.00 | n/a | 8.80 | n/a | n/a | Січ.50 | 1.58 |
| Pulp/Waste Wood, Paper | 8 268.90 | 2.10 | 15 051.33 | 29.47 | 45.42 | 7 926.11 | 13 187.99 |
| Skins, Leather | 230.10 | 0.01 | 1 207.34 | 1.97 | n/a | 103.09 | 71.41 |
| Stone, Cement, Ceramic | 42 666.40 | 19.55 | 28 283.90 | n/a | n/a | 3 147.33 | 45 103.68 |
| Textile Accessories | 584.70 | 0.02 | 1 010.53 | 0.00 | n/a | 76.86 | 85.71 |
| Textiles and Textile Art. | 2 859.90 | 0.50 | 20 252.99 | 843.77 | 194.18 | 5 890.30 | 738.72 |
| Various Instr. and Apparatus | 85.10 | 0.38 | 974.78 | 0.00 | n/a | 20.36 | 44.33 |
| Vegetable Products | 24 466.90 | 303.96 | 77 939.98 | 716.80 | 719.80 | 17 417.72 | 48 384.87 |
| Works Of Art | n/a | n/a | 0.10 | n/a | 0.03 | n/a | 0.07 |
| **Total imports** | **376 959.40** | **3 834.90** | **373 140.79** | **10 848.26** | **5 115.01** | **69 001.70** | **535 689.49** |

Source: Computation based on Eurostat and UN Comtrade databases

**Figure 7: Potential Trade with TRACECA Region – Commodity Structure of Exports from Moldova, 2010, in tons and %**




Source: Computation based on Eurostat and UN Comtrade databases

**Table 6: Potential Trade with TRACECA Region – Commodity Structure of Exports from Moldova, 2010, in tons**

| Commodity Groups | Bulgaria-Romania | Caucasus | Europe | Kazakhstan | KY-TJ-TM-UZ | Turkey | Ukraine |
|---|---|---|---|---|---|---|---|
| Animal Or Vegetable Fats | 16 909.20 | 805.42 | 24 789.49 | 53.82 | 217.09 | 3 532.83 | 2 553.53 |
| Arms And Ammunition | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Articles Of Wood | 2 259.10 | 584.77 | 2 673.75 | 9.05 | 10.55 | 169.81 | 56.98 |
| Base Metals Equipment | 11 562.20 | 491.51 | 42 633.76 | 459.09 | 8.70 | 20 855.82 | 10 326.15 |
| Chemical Prod. | 371.30 | 49.60 | 2 015.95 | 60.60 | 291.14 | 4.54 | 172.88 |
| Electron., Electr., Equip. | 9 075.00 | 184.72 | 2 515.38 | 128.96 | 57.51 | 17.27 | 468.15 |
| Foodstuffs; Bever., Tobac. | 34 686.00 | 3 441.90 | 43 014.54 | 15 563.29 | 1 886.78 | 68.27 | 25 495.92 |
| Land, Air, Maritime Vehicles | 156.60 | 14.97 | 847.69 | 2.07 | 0.04 | 11.08 | 494.25 |
| Live Animals & Animal Prod. | 102.10 | 0.26 | 123.77 | 1 408.64 | n/a | n/a | 150.46 |
| Mineral Products | 42 948.20 | 146.08 | 24.60 | n/a | n/a | n/a | 203.54 |
| Miscel. Manufactured Art. | 2 688.20 | 142.06 | 1 534.83 | 29.75 | 7.62 | 1.02 | 60.06 |
| Plastics | 1 835.00 | 246.49 | 1 863.60 | 70.70 | 12.25 | 64.35 | 1 344.60 |
| Precious Stones & Metals | n/a | 0.00 | 7.10 | 0.00 | n/a | 0.44 | 0.00 |
| Pulp/Waste Wood, Paper | 5 974.80 | 55.00 | 475.07 | 0.92 | 160.98 | 26.39 | 3 084.42 |
| Skins, Leather | 23.80 | 0.19 | 2 182.44 | 0.03 | n/a | 128.58 | 31.11 |
| Stone, Cement, Ceramic | 56 984.90 | 2 541.04 | 9 041.39 | 279.04 | 544.64 | 5 926.83 | 2 330.81 |
| Textile Accessories | 396.10 | 0.09 | 3 214.80 | 0.40 | 36.69 | 13.53 | 40.84 |
| Textiles and Textile Art. | 1 477.50 | 64.79 | 17 432.81 | 506.04 | 0.08 | 945.27 | 943.85 |
| Various Instr. and Apparatus | 39.20 | 0.88 | 25.30 | 0.95 | 0.62 | n/a | 11.78 |
| Vegetable Products | 55 902.10 | 3 684.07 | 166 560.08 | 194.16 | 306.25 | 92 385.01 | 21 014.75 |
| Works Of Art | n/a | n/a | 0.00 | n/a | n/a | n/a | n/a |
| **Total exports** | **243 391.30** | **12 453.85** | **320 976.36** | **18 767.52** | **3 540.94** | **124 151.05** | **68 784.09** |

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 Links*

**Moldova Waterways System – Main Features**

The water transport system of Moldova includes two key inland waterways (IWW) – the Dniester and Prut Rivers as well as a 430-meter bank on the Danube River. The Dniestr and Prut Rivers are suitable for waterborne transport at certain segments only due to the natural sedimentation and lack of regular dredging works.

At present, the Dniester River is actively used for local transport needs; international (passenger and freight) traffic is limited to two ferry stations at Soroki and Koseuts. The Prut River is used for transporting construction materials, e.g. sand, ballast, gravel and coal.

The naval conditions of the Dniester and Prut Rivers allow for the transportation of cargos on barges or barge convoys with a total DWT of 1`000 T and 600 T, respectively.

According to the data of the Water Transport Direction of the Ministry of Transport and Road Infrastructure of the Moldovan Republic for the year 2012, 50 vessels were operating along Moldavian IWW. In total 378 vessels navigate along Moldavian IWW and at sea under the Moldavian flag. Most vessels are in poor technical condition and do not meet the effective international norms and standards.

The water transport infrastructure of Moldova includes 1 sea-river (on the Danube) and 3 river ports on the Dniester which currently do not propose loading services , plus 1 cargo area at Varnitsa (located on the Dniester River which also does not propose loading services) and one river port in Ungheni (located on the Prut River).

The major port hub of Moldova is located in Giurgiulesti thereby providing access via Danube to the Black Sea region, open seas and international destinations. (see also the Inland waterways report of the LOGMOS project for Danube – [web link])

**Moldovian Shipping Companies**

Moldavian shipping and freight industry is represented by a number of international and local companies, which includes but is not limited to the following ones: Cargo-Partner SRL, Elia, ELIA LTD, Itia-Sped International Srl, Iumbo-Trans L.T.D., MD-TRANS, Megatrans S.R.L., Moldcontainer Ltd, Movers-Auto S.R.L., Politrans, POLITRANS LOGIST, Pro-Logistic s.r.l., Quehenberger-Hellmann Moldova Srl, Rg-Cargo, Simplextrans Ltd, Simplextrans Ltd, Tbn Interlog Srl, Translogistic Ltd.

Most of the above mentioned companies provide land transport services; some are involved in multi-modal (land-ocean or air-ocean) transport. Only local operators – SE “Bacul Malovata” and private companies, which have been established due to privatization, JSC Neptum-M, Gelecom Ltd and Laromalex Ltd provide shipping services. Most of these companies do not own any vessels, but rather lease them from the Sstate; the operated fleet is obsolete and cannot be renewed in a foreseeable future due to the low financial capacity of operators.

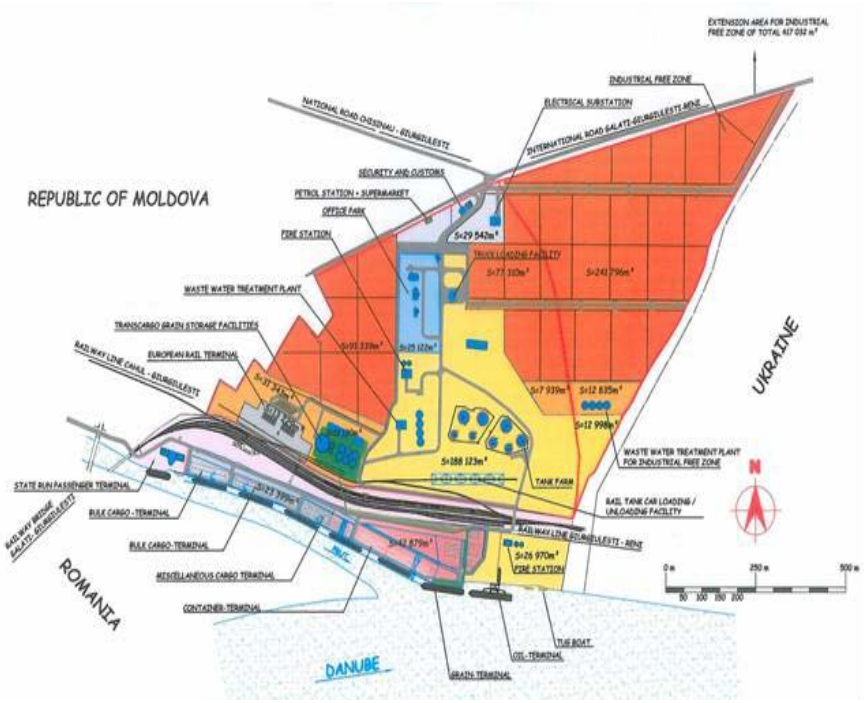
SE “Bacul Malovata” provides Ro-Pax services to connect two settlements on Dniester River, Old Malovata and New Malovata (Dubossary region), 7 days a week. The company is 100% Stae-owned; it operates one single ferry vessel, which was produced in the 70ies in

Krasnoyarsk (Russian Federation). This vessel makes up to 7 round trips per day; it is capable of transporting ca. 100 transport units and ca. 400 passengers. According to ferry users, the service is operated free of charge and is very much preferred by passengers travelling between Chisinau and Dubossary. To make the service operational, the Ministry of transport infrastructure and roads (MTIR) of the Republic of Moldova supports the company "Bacul Malovata" in terms of ensuring regular operational maintenance of ferry vessel, and covering the cost of fuel and spare parts.

### Port of Giurgiulesti

The Giurgiulesti International Free Port (GIFP) has a territory of 120ha and the status of a free economic zone (FEZ). It consists of a petroleum terminal, cereal cargo handling and storage facilities and an industrial free zone. The petroleum and grain terminals are operational, a new general cargo and container handling facilities was put in operation in 2011 and handled its first container ship early in 2012.

**Figure 8: GIFP Master Plan**




Due to its location on the Lower Danube with available water depths of up to 7m, GIFP is capable of receiving both River and sea going vessels (up to about 10,000 DWT). It is promoted as:

- The only direct sea/river-borne transshipment and distribution point to and from the Republic of Moldova.
- A regional logistics hub on the border of the EU with access to road, rail, river and sea.
- A good location for business development, because of its strategic location, tri-modal transport infrastructure, low-cost environment and a unique Customs and tax regime.

The port is situated at km 133.8 (nautical mile 72.2) of the River Danube in the South of Moldova, between Romania (and therefore the European Union) and Ukraine. GIFP benefits from its location on international trade and transportation routes such as the Rhine-Main-

Danube waterway corridor. It links the European standard and Russian railway systems and the international road network. It is connected by feeder services with the Commercial Sea Port of Constantza (Romania) and Marport (Istanbul), the leading port of the Black Sea Basin for container transshipment.

The master plan (see Figure 8 above) forms the basis and guideline for the further planning and development of GIFP. There will be four different functional areas:

- The Oil terminal (operating now).
- The Dry cargo terminal and storage.
- The Industrial Free Zone.
- The Administration centre.

The Oil Product Terminal (see Figure 9 below) consists of one berth, a tank farm consisting of eight tanks; tanker truck loading facilities (this refers to the loading infrastructure and storage of petroleum products, including equipment for the loading of petroleum products in road transport) ; and, as from mid-2008, rail tank car loading/ unloading facilities. The berth can accept sea vessels and river barges with draughts of 7m and can load/unload up to three different types of oil products simultaneously. Its technical parameters are as follows:

- A tri-modal transport infrastructure consisting of a jetty with a water depth of minimum 7m, road access and a planned railway link.
- A total storage capacity of 63,600m³, divided between 8 tanks with capacities ranging between 4,200 and 12,600m³.
- A maximum transshipment capacity in excess of 2 million tonnes per annum.

**Figure 9: GIFP Oil Terminal Facilities**

In 2008-2010 the EBRD-supported port operator, Danube Logistics, constructed the first part of a multi-purpose Dry Cargo Terminal, which, once completed, will accommodate up to six berths, capable of handling typical bulk cargo such as grain and construction material as well as containers.

Gantry cranes are used for the transshipment of bulk cargo and containers. In 2007 Danube Logistics' business partner Trans Cargo installed specialized equipment to load grain onto vessels as well as grain cargo storage facilities with a total storage capacity of 45,000 tonnes.

The water depth at the six berths varies – one berth with a water depth of 7m is dedicated to sea vessels and the others with a water depth of 3-5m will be dedicated to river vessels.

It has the following technical parameters:

- A tri-modal transport infrastructure consisting of up to six berths, road access and railway links to CIS countries and Russian and European gauge railway systems
- A storage capacity with a warehouse of 2,000m².
- A bulk Cargo open storage area – 160m x 35m = 5,600m².
- A container and general cargo open storage area – 60m x 45m = 2,700m².

**Figure 10: GIFP Container Handling Facilities (Preliminary Design)**

The Customs regime and services are designed to be attractive to potential users:

- Exports – Goods originating from GIFP[1] and exported from GIFP to the rest of Moldova or abroad are exempt from any form of Customs duties, except for a nominal Customs procedure fee.
- Imports – Goods imported to GIFP from the rest of Moldova or from abroad are exempt from any form of Customs duties, except for a nominal Customs procedure fee.
- Autonomous Trade Preferences – Since the 1st of March 2008 the Republic of Moldova benefits from the new scheme of trade preferences granted by the European Union, known as Autonomous Trade Preferences (ATP). ATP allows virtually all products originating in the beneficiary countries to enter the EU without quantitative restrictions and Customs duties, the only exemptions being imports of wine, veal and some fishery products to which tariff quotas apply.
- Custom services at the Port have been reported as being highly professional, efficient and transparent.

Danube logistics offers a range of optional services to its clients, including residents of the planned Industrial Free Zone:

[1] Goods originating from GIFP mean any goods fully produced or sufficiently processed within GIFP, provided that they have changed their Customs position according to the classification code at the level of one of the first four figures, or the final value of the goods exported from GIFP exceeds the initial value of the goods imported to GIFP by at least 35%, due to the value added.

- Logistics – Transshipment, storage, distribution and other transportation services for oil products, dry bulk cargo, containerized cargo and general cargo.
- Port services – Vessel services include but are not limited to the supply of drinking water and food, agent, tug boat, pilotage services, communication and waste removal services, etc.
- Land and office leasing – Short- to long-term leases of land within GIFP, which is connected to the electricity, gas, water, and telecommunication grids, road infrastructure as well as in close proximity to rail and port infrastructure.
- Administrative services – Short- to long-term lease agreements for fully furnished or unfurnished office space (see below).

**Figure 11: GIFP Office Facilities (Photo March 2009)**

The port management displays a high level of professionalism, abiding by international security and environmental standards. It complies with all relevant EU Conventions, Regulations and Directives, which are strictly enforced by the Company's security personnel 24 hours per day.

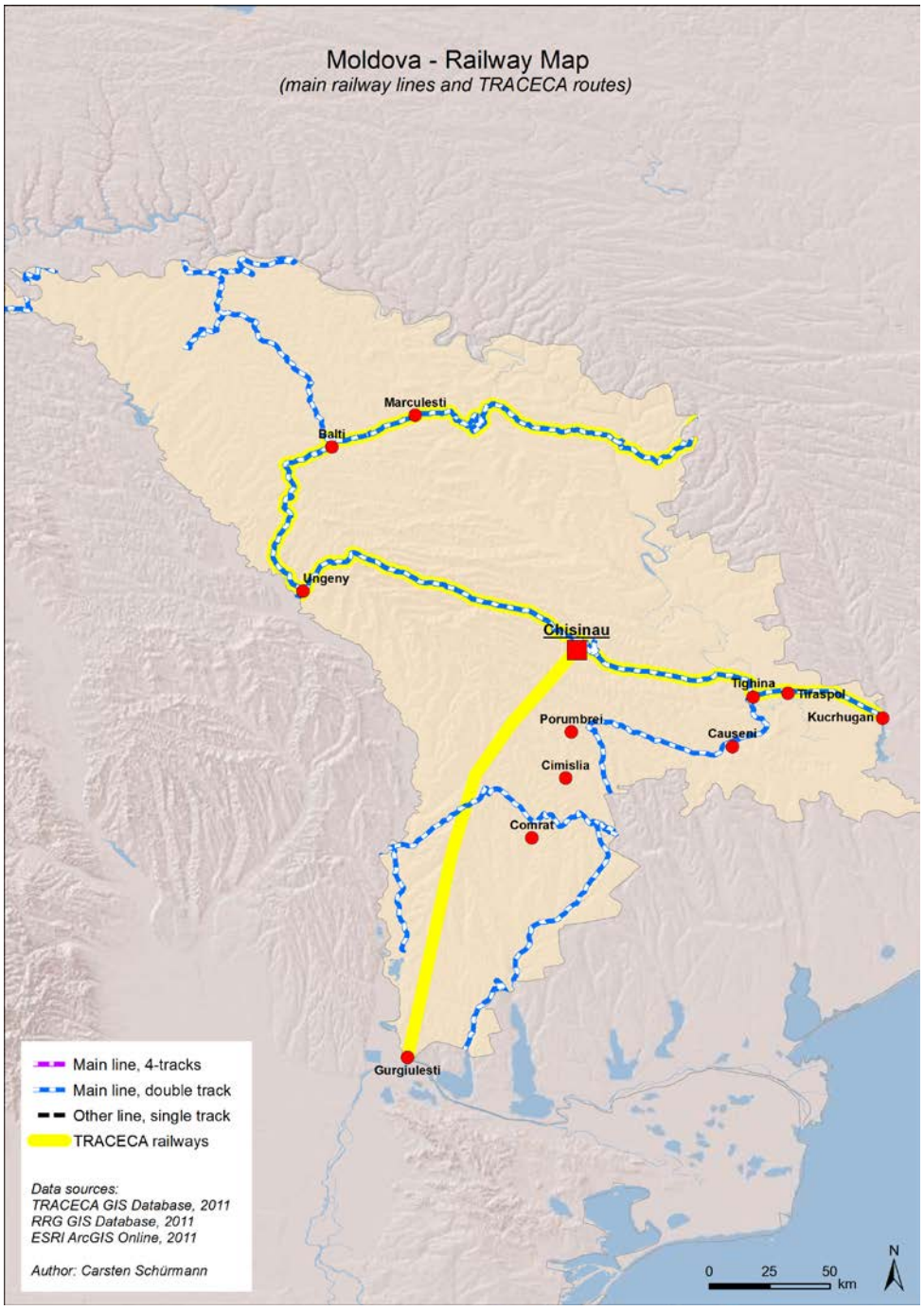
- Comprehensive Security Response Plan.
- Comprehensive Fire and Disaster Response Plan (the whole area and offices are a "non-smoking/open fire" restricted area).
- 3rd Tier Environmental Disaster Response Plan (in progress).
- In-house training programmes for all employees.

GIFP has started a regular weekly feeder service between Giurgulesti and Marport (a Turkish container hub in the Marmara Sea). This is meant to attract all the containerized import and export Moldovan foreign trade which used to move via the ports of the Odessa region and Ukrainian territory at huge overall transit and transport costs.

LOGMOS Project will follow-up to bring its support to the implementation of this MoS Project based on feedering containers directly to and from Moldova and development of Moldovan export trade in containers.

### 6.2.2 Inland Transport Mode: Railways

**Figure 12: Moldova Railway Map**




Source: TRACECA (2011)

The Moldovan railway network, as presented on the figure 12 above, covers 1,157 km of exploited tracks (including the Cahul – Giurgiulesti section). It includes three railway lines crossing the territory of the country from East to West and two others going from South to North-East:

- Northern: from Ungheni on the Romanian border through Beltsi (Moldova's second city) to Slobidka in Ukraine;

- Central: from Ungheni through Chisinau and Tiraspol (in Transdniestria) to Odessa and Ilyichevsk in Ukraine;
- Southern: from Kantenir on the Romanian border to Bessarabia on the Ukrainian border, and thence to Ilyichevsk and Odessa from the South;
- Port Giurgiulesti – Cahul;
- Galati (Romania) – Giurgiulesti (Moldova) – Reni (Ukraine) – Căuşeni (Moldova) – Novosavitscaia (Moldova) – Kuchurhan (Ukraine).

The railway network in Moldova is generally in good technical condition. However works carried out 3 years ago to up-grade the track between Chisinau and GIFP have proven not to be at the required level of quality. As a result the weight of trains, number of wagons have been reduced as well as the operational speed which on certain segments does not exceed 10 to 15 km/h.

The diesel locomotive park is mainly old, recently measures have been taken to reduce illegal trade with fuel.

Railway tariff in Moldova are generally high when compared to neighbouring countries and road transport.

Most of railway tracks have CIS gauge (1,520 mm). However, in 2006 Moldova built a 14 km-stretch of standard (1,435 mm) gauge track. At GIFP there is a dual railway track (both of 1,520 mm and 1,435 mm in width) allowing goods going through the port to arrive or depart to either of its neighbouring countries without subsequent bogey exchange or unloading/reloading. For other traffic a bogey exchange operates at Ungheni, near the Romanian border. There is capacity to handle 20' containers at Ungheni and Chisinau, but currently no container trains are operated for transit cargoes and there is virtually no intermodal movement.

The Southern railway route (via Bessarabia to Ukraine) is important since it provides a link to Ukrainian ports of Odessa and Ilyichevsk and the mineral regions of Ukraine. The route via Tiraspol (through the separatist territory of Transdniestria) was closed for many years, then re-opened in 2008 thanks to an EU mediation.

The ongoing extension of the Cantemir-Cahul line South to Giurgiulesti is also important since it provides Chisinau with a direct connection to GIFP.

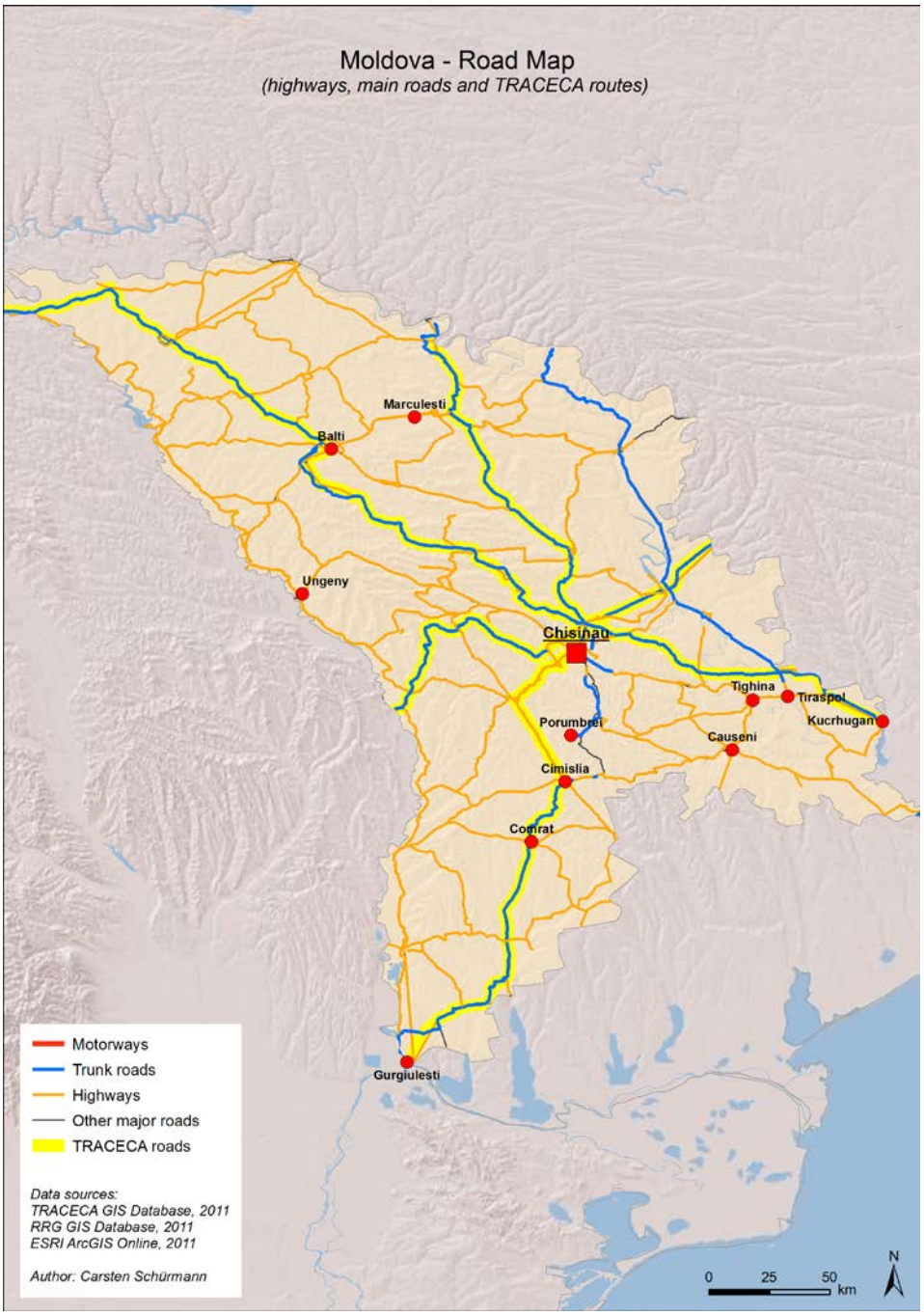
Only one major infrastructural development is planned: the conversion of the line from Chisinau to Ungheni to standard gauge.

**Railway Freight Terminal, Chisinau**

The terminal is extensive and reasonably well-equipped. It has gantry cranes capable of lifting 20' containers. Some are inoperable at present but could be repaired or replaced. There is a Soviet-era warehouse with a rail line to allow goods to be loaded onto and unloaded from railway wagons. There is no special provision for temperature controlled cargoes or hazardous cargoes.

### 6.2.3 Inland Transport Mode: Roads

**Figure 13: Moldova Road Map**




Source: TRACECA (2011)

The motorway network is essentially cruciform with Chisinau at the centre of the cross. From Chisinau the M14 runs to the North past Beltsy; the M3 runs to the South to Giurgiulesti; the M1 runs to the West in the direction of Bucharest; and the M21 runs eastward through Transdniestria and into Ukraine to join the M5, which links Kiev to Odessa and Ilyichevsk.

The top investment priorities in the road sector are by order of importance:

- Rehabilitation of the M3 from Chisinau to Giurgiulesti. A feasibility study has been completed, with TRACECA funding and construction on some sections is under

way. The estimated cost of the rehabilitation works is 750 M.€ The northern half of the road (Chisinau–Comrat) is to be funded jointly by the Moldovan Government and the EBRD; the southern half (Comrat–Giurgiulesti) by the Millennium Challenge Corporation (MCC, an US Government agency) from a total budget of 300 M $ for the Moldovan road sector.

- Improvement of the M13 from Beltsy to Chisinau, a distance of 135 km. This is the busiest highway in Moldova, carrying 15,000 vehicles per day. The improvement works are expected to be financed by the EBRD.
- For the longer term, consideration is being given to developing a road transport link through Moldova linking western Ukraine to the ports of Odessa and Ilyichevsk, offering a more direct route than via the Ukrainian city of Vinnitsia (240 km South-West of Kyiv).

The condition of Moldova's road network is far from being uniform. Some links are good and others are bad or very bad. The problem of road maintenance has been addressed in previous reports. For example the World Bank's Moldova Transport Strategy Update in 2002 classified most of the network as either 'poor' or 'extremely poor'; reported that annual funding for maintenance was equivalent to only 1% of the value of road assets. Another World Bank report in 2004 and background information for a road sector support project in 2007 indicate that the problem has persisted.

## 6.3 Trade and Transit Facilitation

### *6.3.1 General Presentation*

- **Procedures and formalities** are among the **main barriers** that are hampering 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: minimum 2 points in a single / one sea service, up to 5 points in inter-seas services linking western Black Sea Countries and Eastern Caspian Sea Countries, and possibly more in the case of longer multicountry transit and transshipments trades;
  - several physical mode transfers, handling movements and intermediate storage are taking place along the sea based transport chains: commonly 3 transfers and minimum 6 handling plus 2 storage in the case of a single sea leg, and several more handling operations in the inter-seas services
  - previous and ongoing experiences 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 success factor.
- The procedural process in ports and at other border crossing point 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 to deal with these complex issues and they are drawing the corresponding revenues out of their capacities.

  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 are 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 since:
  - 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 are adding 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 summarized in the following project documents:
  - Country profiles, as synthesized 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 scheme and extension to Single Window System (SWS)
  - 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 summarizes key-findings for national SWOT analysis in trade and transit facilitation procedures that have been adopted in Moldova.

**Table 7: SWOT Analysis in Trade and Transit Facilitation Procedures**

| | |
|---|---|
| **STRENGHTS** | • Serious, constructive attitude and support of the government towards transport sector and waterborne transport in particular |

| | |
|---|---|
| | • Highly qualified personnel<br>• Applying international best practices and engaging European experts (EU Policy Advice Team) in creating and implementing the country's transport sector development strategy<br>• Creating the Free Economic Zone as a legislative initiative and economic incentives to boost development of the transport sector and its infrastructure<br>• Government's willingness to bear costs to ensure operation of Giurgiulesti International Free Port (construction of a stand-alone railway, motorway upgrade)<br>• Thorough studies have been made, state of the main motorways has been reviewed, rehabilitation and construction plans and programs have been prepared, costs have been estimated<br>• Giurgiulesti International Free Port's Administration has been granted a separate office in Chisinau<br>• Using international relations mechanisms to implement the waterborne transport development strategy (increasing clearance heights of the bridges linking with Romania in order to create an opportunity for port development and upstream cargo transportation along the river Prut to Ungheni)<br>• Danube Logistics' professional attitude towards establishment, construction and development of the Free Economic Zone and Giurgiulesti International Free Port, including usage of the state-of-the-art technologies and a priority development focus on high-tariff freight<br>• Flexibility and attractiveness of freight flows (two types of rail tracks, tariffs, etc.)<br>• Danube Logistics' investments of own money into development and construction work at the port<br>• Joint compromise solutions of the port administration and the operator as to the work arrangements and development of the transport hub<br>• Transparent information on port operations<br>• Highly professional and internationally recognized consultants and contractors hired by Danube Logistics. |
| **WEAKNESSES (BARRIERS)** | • No modern logistics centres<br>• No special storage regime for temperature-controlled and dangerous goods<br>• The strategy does not provide for the need to involve major international logistics operators (combined, intermodal transport)<br>• Transnistria's influence on rail transit (at the end of |

| | |
|---|---|
| | March 2012 Transnistria President Yevgeniy Shevchuk and Moldova Prime-Minister Vlad Filat agreed to resume rail communication)<br>• No study has been made on the part of Moldova to objectively and comprehensively analyse advantages and drawbacks, as well as financial results of intermodal transport (including causes of cargo traffic decrease). |
| **OPPORTUNITIES** | • Increase in earnings from intermodality and rail transit |
| **THREATS** | • Recently started closing up of railroad and crane facilities in the Port of Reni may be indicative of Ukraine's discontinuing operating the port in the future. Putting operation of the Port of Reni at a standstill will lead to decrease in Moldova's railroad potential and income from transit, loss of jobs, etc. |