



# Government of the Republic of Moldova

## Transport and Logistics Strategy – 2013-2022

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## LIST OF ABBREVIATIONS

APIS ASYCUDA ATA BCP BTI CCTVs CCZ CFM CIS COO EBRD ECAA EIB EU EUR GDP GIFP HS ICAO ICD	Advanced Passenger Information System Automated System For Customs Data Admission Temporaire/Temporary Admission Border Crossing Points Binding Tariff Information Closed-Circuit Television Customs Control Zone Moldovan Railways (Cale Ferata din Moldova) Commonwealth Of Independent States Certificate Of Origin European Bank For Redeveleopment European Common Aviation Agreement European Investment Bank European Union Euro Gross Domestic Product Giurgiulesti International Free Port Harmonized System International Civil Aviation Organization Inland Customs Depots
ICT IFI	Ict Systems International Finacial Institutions
IMO	IMO Conventions
IPR software	Intellectual Property Rights
IRI	International Roughness Index
LCC	Low Cost Carrier
LPI	Logistics Performance Index
LTIS	Land Transport Infrastructure Strategy
MCC module	Maritime Containers Control Module
MCS	Moldova Customs Service
MD MDL	Moldova Moldovan Lei
MOU	Memorandum Of Understanding
mil	million
NDS	National Development Strategy
NMS	New Member States
PCA	Partnership And Cooperation Agreement
ROO module	Rule Of Origin Module
SOE	State Owned Enterprise
SWOT	Strength - Weakness-Opportunity-Threats
SWS	Single Window System
TAXUD	Taxation And Customs Union Directorate-General
TIR	International Road Transport
VOC	Vehicle Operating Costs



#### INTRODUCTION

Moldova, once the 'garden' of the Soviet Union, is currently the poorest country in Europe. Income per capita has been growing rapidly since the year 2000, but slower than the average for other Eastern European countries, and it remains well below the income level that Moldova had during Soviet times. Neither capital inflows, exports nor Foreign Direct Investment drove Moldova's recent relative economic prosperity - rather it was labourers flowing out and sending back remittances. Moldova experienced jobless growth. Instead of wages, remittances increased the disposable income of households. Their enhanced incomes funded housing construction and an increase in consumption, mostly of imported goods. This consumption-driven model opened up a large current account deficit, reduced competitiveness in Moldova, and stymied Moldovan export industries in a more competitive global economy. Moldova lost jobs and created few new jobs, which in turn encouraged more emigration abroad. The escape of migration has certainly helped reduce poverty, but has completed a cycle of lower opportunity at home.

In order to ensure sustained future economic development, Moldova will need to develop a second engine of growth based on the export of goods and services. Moldova needs to promote both agro-based and non-agro exports and also raise the value of those exports by selling to higher value markets. There are sound reasons to believe that Moldova's future prosperity will to a large degree depend, as it has traditionally in the past, upon specializing in the export of agro-based products to its neighbors. This can and should be complemented by growth in the yet relatively small export-oriented manufacturing industry.

In addition to the traditional agro-based sector, some new potential pockets of economic growth have emerged. These have received active investment in recent years and could provide the sources of growth that are urgently needed to provide employment and thus stem the decrease in the labour force that undermines the future economic viability of the country. The sectors that are developing to a certain extent or have been identified as representing future opportunities are:

- Wine and spirits for domestic consumption and export;
- Agro-Food, primary production with some processing for the domestic market and some export to third countries, mainly of primary production;
- Textile and apparel, mostly but not exclusively for export with imports of raw materials for processing;
- Fashion accessories, mostly for export;
- Manufacturing of vehicle components by suppliers for various car manufacturers, exclusively for export;
- Home furnishings (furniture), both for the domestic market as well as under tolling<sup>1</sup> arrangements for export.

In order to foster these export oriented sectors, efficient transport infrastructure and services as well as trade facilitation and logistics services will need to be established and provided in Moldova.

The Government of Moldova has responded to the overall challenges the country faces and issued the <u>National Development Strategy (NDS)</u> (Law no. 166 from 13<sup>th</sup> July 2012) named "Moldova 2020". The document provides the overall framework against which the development of Moldova is envisaged to take place. The Strategy covers 7 key subjects that have been identified

<sup>&</sup>lt;sup>1</sup> In case of tolling, raw materials are imported into Moldova, processed and the finished product is exported. This business largely depends on differentiation in the cost of key inputs, in the case of furniture, low cost of labour.



as crucial in the facilitation of development of the Moldovan nation in the period up to 2020. These sectors are: Education, Roads, Access to Finance, the Business Environment, Energy, Pensions and the Judicial System.

By addressing the shortcomings in these key areas the country is expected to be able to "ensure qualitative economic development and, implicitly, poverty reduction"<sup>2</sup>.

The Land Transport Infrastructure Strategy (LTIS) for the years 2008 – 2017 was prepared in 2007 and has since been the framework for the development of the road and rail subsectors. It does not cover other subsectors, such as airports and air transport, ports, maritime and river transport, logistics, trade facilitation and customs. The new Transport and Logistics Strategy (TLS) presented in this document expands on the previous work. It also includes road and rail transport, but goes further to include trade facilitation, customs and border issues, airports/aviation, ports, and maritime/river transport modes. The new TLS focuses on making the transport and logistics sector an enabling factor for the development of Moldova's economy and export trade, and support the on-going process of harmonizing Moldova's transport system and legislation with EU standards, legislation, and related regulations.

Another important focus is added by addressing legal and institutional issues in all transport modes. In addition, *Technical Barriers to Trade (TBT)'s* such as border and behind-the-border issues and documentation requirements are being addresses in the TLS. Key elements of the Land Transport Infrastructure Strategy have been retained, such as the focus on the rehabilitation and maintenance of the main road network, though set in a more resource-constrained environment. The need for prioritisation of investments has been emphasized across all modes, to avoid a disconnection between investment plans and available resources. Sector policy and strategy need to be defined and transparent planning procedures established before major infrastructure investments are being made.

The present Transport and Logistics Strategy (TLS) 2013-2022 expands on both the NDS and the LTIS to develop an integrated approach to transport and logistics as well as trade facilitation, which is part of the general business environment. The TLS 2013-2022 focuses on the short term, 2013-2017 and medium term 2018-2022 strategic consideration and outlook. However, strategic trends for the years 2023 through 2032 are also included to provide long-term guidance. This Strategy draws on current Government of Moldova policy and on research carried out in the context of the preparation of this Strategy; it is based on the best available data in mid-2012.

This Strategy document does not include Transnistra region, because of the lack of updated information required. The Strategy will be updated once the necessary data from Transnistra region will be obtained. The development of this Strategy document is supported by a series of technical reports that build the foundation of the strategic recommendations. Individual technical reports have been prepared for road, rail, aviation, river transport, as well as trade facilitation and customs sectors. The documents are made available as electronic appendices to this document.

- Technical Report: Traffic Forecast
- Technical Report: Road Sector
- Technical Report: Railway
- Technical Report: Giurgiulesti Port
- Technical Report: Aviation

- Legal Assessment
- Trade and Transport Facilitation Assessment & Case Studies
- Customs Assessment
- Project Prioritization

<sup>&</sup>lt;sup>2</sup> Source: Moldova 2020, p8.









#### CURRENT STATE OF AFFAIRS IN THE TRANSPORT AND LOGISTICS SECTOR

The logistics sector of Moldova is both privately and state owned with the road transport sector dominated by private enterprise, the rail sector 100% state owned, the aviation sector being mixed privately and state owned and finally, the maritime/ports sector mainly privately operated with the exception of Ungheni Port, which is an State Owned Enterprise (SOE).

Moldova is currently served by sufficient amount of infrastructure: 1 main international airport, 1 main international fluvial port, 10,531 km of roads, and 1,156 km of rail road tracks (MoTRI currently operating 9,322 km of roads and 1,045 km of rail road treacks given its size and population. However, while sufficient capacity for transport and logistics exists, the condition of the existing infrastructure is the key challenge. As a result of its infrastructure legacy from the Soviet Union duplicate and overdimensioned transport corridors exist. Overall, the transport infrastructure network today:

- May be overdimensioned for the economic needs, capabilities for maintenance as well as the size of the population is well developed and covers entire country;
- Some parts of the transport infrastructure may not be at the locations where current and future economic activity takes place.

Main carrier in terms of freight and passenger traffic is the road sector with 97% of passenger and 87% of freight, followed by rail 3% of passenger and 13% of freight. Currently, approximately 1.1 million passengers use Chisinau airport and around 400,000 tones of cargo is being transshipped through Giurgiulesti Port.

The heavy involvement of the state in some of the sectors has resulted in slow reform and inefficiencies that have an impact on the economy as a whole due to the increase in costs of doing business in Moldova, either directly by increased tariffs for rail freight or by higher cost of air travel in comparison to the region.

#### STATE OF INFRASTRUCTURE

#### Road Sector

The extent of the Moldovan road network (excluding Transnistria) has changed little over recent years, with a quoted total length in 2011 of 9,322 km, of which 3,335 km are national roads. 2011 data provided by the SRA shows that 92.5% of national road and 46.1% of local road length is paved. This gives an overall figure of 62.7% paved for the entire network of 9,322 km.

The general public perception of a good road is one that provides a smooth / comfortable ride. Obviously the perception of "smooth" is somewhat subjective. In order to give the ride quality of a road a more quantitative component, a measurement system called "International Roughness Index" (IRI) is used. The IRI is an index based on the measurement of road roughness. Using varying measurement techniques the condition of a road ranges from an value of <2 equivalent to "very good", 2 to 4 "good", 4 to 6 "fair", 6 to 8 "poor", and >8 "bad". The numbers reflect the measured conditions while the terms used give an indication qualitative condition.

In the cycle of maintaining a road, however, these measurements also provide guidance on when to carry out what type of maintenance activity. For example a road with a IRI of 3 requires limited intervention, while a road with an IRI of 5 or 6 requires a rehabilitation or pavement overlay. It should also be understood that each road "cycles" through roughness stages implying that even in the best maintained road network there is a certain percentage of "poor" roads.



Currently about 26% of national roads are in good to fair condition, 54% in poor condition and about 20% in bad condition. However, improvements are being made and In the period 2007-2012 were rehabilitated over 60 km of local roads, which are in a good and very good condition. The situation for local roads is worse with 22% in fair condition and the remainder in poor to bad condition. Especially the later affects greatly the access of rural population to social, educational, medical services, as well as access to market.

The density of the road network, 314 km per 1,000 km<sup>2</sup> and 2.6 km per 1,000 persons, is considered reasonable for a country of Moldova's development and is a legacy of the Soviet era. The immediate post-Soviet years were also characterised by an economic collapse and consequently by a significant reduction in road traffic which further emphasised the more than adequate extent of the road network.

The post-Soviet economic decline also produced a considerable reduction in maintenance expenditure on infrastructure including roads. Therefore focus has been placed on repair and protection of the existing network rather than further expansion.

The shortfalls in road maintenance have been exacerbated over the last five to ten years by increased national economic activity and hence higher traffic volumes.

As a result, Moldovan roads are rated among the worst in Europe, despite the recent availability of funding for reconstruction and maintenance. However, the on-going road rehabilitation program and recently intensified road maintenance show tangible results in improving road conditions in Moldova.

Road safety remains a reason for concern despite the beginning of implementation of the Government's road safety action plan. Various factors such as the poor state of the roads, their design, driver behaviour and insufficient enforcement of road traffic regulations play a significant role.

Interurban bus services is provided on regular basis by 3 major intercity bus stations in Chisinau and 26 raional bus stations within the country. Currently about 3000 national and about 200 international routes are registered. More then 21,000 mini-bus as well as coach buses are registered. More than 95% of minibuses involved in passenger transportation are more than 10 years old, and were often imported and registered as goods vehicles. These vehicles were retrofitted with seats and used in passenger transportation. This poses a severe saftey risk to the traveling public.

The decision making authority is represented by the Road Transport Development Department within Ministry of Transport and Road Infrastructure (MoTRI), which proposes tariff rates to be approved by Government. The department's activity is also focused on passenger transportation policy and continuous overall monitoring of public road transport.

#### Rail

Today the national railway system of Moldova consists of 1,045.4 km of non-electrified main lines (about 40 km of which are double-track) with 90 stations and 648.5 kilometres of station loops and sidings. The gauge is 1,520 mm, although 10.8 km of main line and 32.3 km in stations have 1,435 mm gauge – these are located in the border-crossing areas of Ungheni and Giurgiulesti. (These figures do not include the Cahul – Giurgiulesti line that is not officially opened for operations).



422 km of lines are equipped with automatic locking system, which has been in use for more than 35 years. 589 km of railway lines have the semi-automatic locking system using unreliable electric air-wires. Numerous failures indicate the urgency of renovation of these rail traffic safety systems.

80 stations and 1,660 track points are equipped with centralized control. Nine stations still use manual control of switches and signals, where the control system design dates back to the 1940's. Among these is Giurgiulesti station which urgently needs to be modernized.

There are 226 level crossings on the network, 37 of which are guarded. 181 crossings are equipped with automatic signals, 39 with traffic barriers, and 37 with protecting railway signals. About 80 km of line have no automatic control devices at all. Among them are the newly built rail sections Revaca – Cainari and Cahul – Giurgiulesti, where traffic control uses telephone communication.

According to the CFM, 77.6% of the control systems are in critically bad condition. The same applies to the communication system which has been in use since the 1970's and has not been renovated or upgraded since.

There are no weight limitations on the network. The standard axle load is 23.5 tons. However, there are no sections in such critically bad condition that they pose a safety risk. The standard train permitted by the track layout is 57 units x 14 meters.

The density of the railways (32 km of railway lines per 1,000 km<sup>2</sup>) is comparable to the networks of Romania and Ukraine. However, Moldova's railway network is technically underdeveloped compared to the other countries. The main indicators of this are as follows:

- Lack double track sections limits the capacity of the infrastructure;
- There are no electrified lines which is an important obstacle for the development of transit operations and is a negative environmental factor;
- The condition of the railway infrastructure reduces operating speeds. The average technical speed is 34.5 km/h. In some places speed is limited because of low curve radii (as severe as 150 m). According to the Ministry of Transport and Road Infrastructure, about 23% of the network or over 270 kilometres of track needs urgent repair. One of the principle reasons is the condition of the wooden railway sleepers. About 460,000 of them need to be replaced. The estimated cost is 27 million USD. Speed limitations are also an obstacle to the introduction of multimodal transport. There are no modern terminals on the network that can effectively operate ISO containers, controllers and swap bodies. The existing container yards handle a limited amount of ISO containers along with small old-fashioned containers of 3 and 5 gross tons weight.

The CFM is a railway system with low traffic density and with much unused capacity. This is indirectly confirmed by the fact that total traffic volumes are decreasing gradually. The principal problems related to the infrastructure can be summarized as follows:

- The neighbouring railways are electrified (CFM is not) and, in some cases, have different gauges which present problems for transit;
- Some important sections of line and stations are located in Transnistria;
- Sections of the north-south line, connecting the main international corridors, are in Ukraine;
- The rail infrastructure is in poor condition and currently available revenue does not allow for significant rehabilitation and modernization.



#### Aviation

Moldova has currently, as a result of the Soviet Legacy, 4 airports. These are Chisinau, Marculesti, Cahul and Balti. Due to its favourable geographical position, both close to the capital city and central to Moldova, Chisinau International Airport is the main airport in the country. It is located 14 km from Chisinau city centre on an area of 363 ha. Chisinau Airport is a 100% state owned company under the responsibility of the Ministry of Economy of Moldova.

The airport consists of one single operational runway (3,590 m long and 45 m wide) in east-west alignment which is suitable for most aircraft. The airport was designed for the soviet type aircrafts which resulted in lower pavement classification numbers, dimensions as well as bearing capacities of runway and aprons. The existing pavement of runway, taxiways and aprons reached its design life and is in need of rehabilitation. The airport has two terminal buildings consisting of a passenger terminal and a VIP terminal. The passenger terminal has a total area of ca. 10,000 sqm and is reaching capacity in its current configuration.

Between 1998 and 2001 Chisinau International Airport implemented its first modernization project with an amount of 12 million USD (circa 9.5 million EUR). 9 million USD (circa 7.1 million EUR) from this amount was provided by EBRD, 3 million USD (circa 2.3 million EUR) - by the Government of the Republic of Moldova. At the end of 2008 Chisinau International Airport signed loan agreements with total amount of 47.25 million EUR with EBRD and EIB to implement further upgrades. The project includes:

- Rehabilitation of the runway, apron and the extension of taxiways;
- Expansion of the new passenger terminal and procurement of airport equipment;
- Refurbishment and modernization of aviation ground lighting, electrical equipment, modernization of the transforming stations and modernization of drainage system. With a 1.75 million EUR grant of the European Union's Neighbourhood Investment Facility, Chisinau Airport prepared the 20 year Master Plan until 2030. The Master Plan was completed in May 2010. It is a major strategic development document of Chisinau Airport which includes the following phases:
  - Phase 1: Implementation of the Modernization Project II, funded by EBRD and EIB, which includes rehabilitation of the existing airfield. (Time period 2015/2016);
  - Phase 2: Development of a new passenger terminal at the west side of the existing passenger terminal and expansion of the aprons according to ICAO regulations (Time until 2025);
  - Expansion of the airfield, the passenger terminal and support facilities to meet growing demand (Time period until 2030).

The other airports in Moldova are currently not being used for passenger traffic and despite attempts by sub-national Government to attract investors it appears that in the foreseeable future, these airports remain dormant.

#### Ports

Moldova does not have direct access to the sea although an 800 m long stretch of the River Danube has been developed as the port of Giurgiulesti to provide a strategic asset for the country. The port consists of two sections, the Giurgiulesti state passenger and cargo terminal and the Giurgiulesti International Free Port (GIFP).



The state passenger and cargo terminal was finalized in 2009 by the Moldovan Government in parallel with the establishment of a passenger ferry line to Istanbul. It consists of a passenger terminal building and a berth with an area for loading and unloading. The passenger terminal building houses the Port Captain office and the Customs authority.

The International Free Port of Giurgiulesti comprises an area of 120 ha (leased for 99 years). The entire territory has a status of a free economic zone until 2030. Danube Logistics currently occupies an area of 55 ha, which is divided into six functional areas:

- Refined oil terminal
- Vegetable oil terminal
- Grain terminal
- Dry bulk cargo terminal
- General cargo and container terminal
- Business park

The maximum depth at berth is about 7 meters, which enables vessels up to 12,000 ton to load and unload at the port.

Fluvial transport is currently not possible in Moldova. Both the Prut and Nistru River are not navigable due to silting of the riverbed and require substantial investment in the waterway itself and port infrastructure in order to restart operations.

#### Trade Facilitation Infrastructure

Trade Facilitation infrastructure, for the purpose of this Strategy defined as Border Crossing Points (BCP) and Inland Customs Depots (ICD), are of mixed quality. BCP's are generally of sufficient capacity assuming that existing commitments under international agreements are adhered to. Access roads to BCP's are currently not facilitating traffic separation as is desirable. Inland Customs Depots are, especially in Chisinau, not fit for purpose, as they are located in residential areas and were not specifically designed for their current use.

#### TRANSPORT SERVICE

#### Road Transport Services

The road transport sector is relatively competitive in terms of price in spite of the generally poor condition of the roads. The sector is dominated by private enterprise and is seen as reasonable, reliable and competent by its customers.

Nevertheless, some local manufacturers and shippers prefer to not use Moldovan transport companies due to service quality issues. Some of these quality issues are related to the unwieldy and unhelpful legal framework or its lack of enforcement. In addition, some more mundane problems such as difficulties and delays obtaining visas or drivers running out of cash during foreign trips play a role. Other quality issues can be related back to, for example, a lack of reliable, specialised equipment such as temperature-controlled semi-trailers or the use of somewhat older tractor units.

Interurban bus services forms an important component of the travel network in Moldova. Especially since the provisons of rail passenger services is limited in some locations. Transport services are organized through "Î.S. Gările şi Stațiile Auto a state owned enterprise that provides



for nation-wide ticket sales, regulates public transport fleet and compliance with regulations. Issues of concern in the sector are the type and age of the vehicle fleet, non-compliance with existing regulations, wich also pose a serious safety issue.

International bus services are provided by the private sector. Domestic long distance buses are a mix of mini buses and larger buses that are privately owned. The sector provides a reasonable standard of services at a competitive price and hence draws passengers from the railway.

#### Rail Service

Under the Government decision no. 582/17.08.1995, the railways are considered a natural monopoly due to their major contribution to the state's economy, through exclusive rights of developing and controlling economic activities in the sub-sector. In other words, the law treats the railway industry as a fully state-owned unit with little or no opportunity for private participation. The Moldovan Railway is rated rather inefficient by comparison with its regional peers. It employs around 10,000 persons to transport about 13,000 passengers per day.

Its users rate freight rail transport in Moldova as slow, expensive and unreliable, which is confirmed by the rail study report as well as the case studies on railway performance. As a result of the perceived poor service at high prices, the railway company (CFM) has been losing both market share and market in absolute volume terms for a considerable period of time. Many users have simply switched to the faster and more competitive road transport sector. CFM services are now partially offered and sold by private intermediary companies, although the impact of this development on sales is as yet unclear.

An additional issue for users, resulting in a switch from the railway to road transport, is that the railway company is not able or willing to provide the smaller quantities of rail wagons that are often required to transport goods other than bulk cargo.

The local and suburban passenger operations are provided on the basis of state-regulated tariffs and are internally cross subsidized within CFM by the freight revenues. This is evidenced by stable passenger social-oriented tariffs over the last 15 years, while the freight rates were increased twice in 2010.

#### Aviation

Air travel to and from Moldova is characterised by limited choice and high cost. The price of a ticket from and to Chisinau is around twice as high as the same distance travel from Kiev or Bucharest. With an annual growth rate of about 13%, passenger transportation has tripled in the last ten years. 2011 was a record-breaker for Chisinau Airport. The passenger number in Chisinau Airport reached 1,046,086, an increase of 11.6% over the previous year. The peak months were June with 121,993 passengers, August – 131,653 and September – 115,335 passengers. In 2011 aircraft movements at the airport amounted to 13,065.

The flag carrier, Air Moldova, is comparatively small and is kept flying by increasing its debt to, for example, Chisinau Airport by not paying airport charges. The airline lacks the critical mass to compete, while at the same time it is too inefficient to grow to something larger in a competitive market.

The market is further served by a number of "full services" carriers from both east and west and around 31 destinations are regularly served from Chisinau. The destinations and flight



frequencies are governed by bilateral agreements. Auxiliary services are provided by a number of public sector (municipality and state) owned companies that are currently the only providers of such services. None of the independent operators of Ground Support Services normally found on other airports is active in Moldova.

#### Ports and Waterborne Transport

The Giurgiulesti International Free Port (GIFP) is operated on the basis of a concession and competes against other river ports across the region but also against Constanta and Odessa. The port handled in 2011 a little over 380,000 tons of cargo. The main activities in Giurgiulesti port include: Grain and vegetable oil export, oil import, Import of gravel and sand, and container import and export. The share amongst GIFP and the state passenger and freight terminal is about 84% to 16 % of the total handling volume.

Since 2009 there has been no regular passenger service from the state owned and operated passenger terminal. However, some river-cruise operators included Giurgiulesti as a stopping point on Danube cruises.

There are no inland waterway services in Moldova, though the "State Register of Ships" functions as a classification society for inland craft. The Government prepared the draft Law regarding Inland Naval Transport of Moldova which was sent to the Parliament of Moldova for the second reading in October 2012.

#### Trade Facilitation Services

The Moldovan customs and the various official bodies providing certificates for export and import cargo are the largest factors in international trade facilitation. These services, except the customs at BCP's, work from Monday to Friday between 8:00 and 17:00 and are mostly based in Chisinau. There is no single window system for export documents, so exporters spend a lot of time collecting documents in the capital. Customs operates Inland Customs processing terminals in a number of places. These also work only 5 days per week and users are not free to choose their location but must go to the terminal nearest to the territorial tax inspectorate where their company is registered.

#### Traffic Forecast

During the course of the Strategy development, traffic forecasts by mode were developed. Historical trends as well as existing trade relations, together with a general economic growth forecast were used. Overall findings are that the historical mode shift from rail transport towards car and bus (passenger) and truck (freight) will continue.

If rail sector reforms are implemented, the absolute amount of tonnage transported by rail will remain stable; however percentage wise rail will continue to decrease. Traffic on roads will increase by around 5% annually over the next 5 years. The aviation sector is expected to continue to experience high traffic growth rates resulting in a doubling of passenger numbers in the coming 10 years. Cargo volumes at Giurgiulesti port are forecast to grow by approximately 11% annually over the next decade.

Figures below give an indication of the development of modal spilt in long-distance passenger transport and the transport of freight by mode over a 20 year horizon.





Forecast of Long Distance Passenger Modal Split, 2012 – 2032





#### **Estimate of Road Traffic Growth**

Estimated traffic volumes on the Moldovan road network in the year 2032 are presented in the figure below. The colours indicate where additional capacity in the road sector will be needed. Sections of road in red will need widening or other improvements to handle the estimated traffic.



### December 2012



#### Estimated Traffic Distribution 2032 - Moldova

Given the existence of a well-developed road network it is not foreseen that new roads will be added to the network in the foreseeable future. However, in close coordination with its neighbours and in the European context Moldova will need to improve certain road sections of international importance. Particularly corridors that connect to the European networks will need to be brought up to international standards and specifications.



#### Focus in Road Sector on Priority Network

Given the limited amount of funds available and increasing needs in the road sector the rehabilitation efforts have been focused on the National road network, comprised of Magistral (M) and Republican roads. The 3,300 km of national road network are further differentiated in a priority and remaining network, based on the amounts of passenger and freight trips on the roads.



Table below summarizes the transport sector in Moldova.



## MOLDOVA TRANSPORT SECTOR SWOT ANALYSIS

#### **STRENGTHS WEAKNESSES** Poor condition of infrastructure assets Existence of well-developed infrastructure (Rail / Road) from ex-USSR Absence of coordinated Transport and Education and training levels in transport **Trade Strategy** Some monopolistic situations exist sector Existing trade and transport operators Lack of information and data for decision Strong growth in some of the transport making sectors (i.e. Aviation) Incompatibility of some aspects of the legal Potential for foreign direct investments framework adds to unnecessary costs for Overall sustained recent traffic growth transport operators Cost of financing of transport equipment high: capital remains expensive and fleet renewal does not take place fast enough Development of rural areas remain low resulting in low levels of infrastructure provision • Unwieldy and sluggish export and customs procedures hinder trade and exporting companies and discourage transit traffic **OPPORTUNITIES** THREATS Existence of transport demand in various Shortage of external financial support leads to insufficient finance available for needed sectors Gateway between EU and CIS countries improvements Establishment of new financing Failure to make sectoral reforms means that mechanisms (i.e. Road Fund) there is no transparent basis for Interest by International Financial investment Institutions to support modernisation Migration within Moldova as well as abroad efforts results in significant changes to travel Low wages (even in comparison to patterns Romania) provide some temporary The development of parallel infrastructure window of opportunity to build a leads to overcapacity and as a result transport sector that competes on excessive costs **European Level** An efficient legal framework (compatible, lightly regulating and facilitating trade) can make Moldova a manufacturing centre



### DEFINITION OF THE PROBLEM ADDRESSED BY THIS STRATEGY

Moldova scores badly in many comparative surveys in relation to the quality of its infrastructure and logistics performance. This, among other factors, has a dampening effect on Foreign Direct Investment into the country, which in turn is the cause of underemployment and low wages. This lost productivity results in low levels of GDP per capita and depressed tax income of the Government, limiting the potential to invest in construction, upgrade and maintenance of infrastructure, in particular transport infrastructure.

The main reasons for the challenges Moldova faces in the transport sector stem from a number of key issues in the transport sector:

- An incomplete transformation of the structure of the transport sector in Moldova, from a State planned economy (command economy) to a market driven transportation demand economy;
- Decline of the industries that would be most likely to make use of rail transport;
- Infrastructure legacy resulted in partially redundant and parallel transport corridors. There is currently an over provision of transport infrastructure in Moldova relative to the size and population of the country;
- Political Instability and unresolved Transnistria conflict;
- A lack of funding for almost 20 years in the areas of maintenance, operations and rehabilitation of the existing infrastructure led to degradation of infrastructure condition;
- Available funds to rehabilitate infrastructure are limited given the current status of the economy and the prioritization of the available funds amongst the competing sector needs;
- Many of the existing procedures, laws and regulations are bureaucratic, monopolistic and at times serving self-interests, leading to enrichment and corruption, and are a hindrance to the development of a market economy;
- Migration patterns, particularly the established pattern of significant net out- migration from Moldova. For example, the many Moldovans working and living abroad do have a high impact on the aviation sector.

The problems Moldova is facing are not unique for the country or have to be insurmountable obstacles. The sub-sectors studies have provided a wealth of information on the problems to be solved through this Strategy. The problems to be addressed by this Strategy and the related action plans are summarised below on a sector-by-sector basis linking service delivery and infrastructure together.

#### Roads and Road Transport Services

Most roads in Moldova are of poor quality in terms of geometric elements as well as their current state of maintenance. The combination of both, as well as other factors, results in dangerous traffic situations and subsequently in a high number of casualties in road traffic every year. Furthermore, the poor state of roads as reflected in the Roughness Index leads to increased vehicle cost and lower speeds, again increasing the costs of road transport for society.

Though Moldovan roads are still rated among the worst in Europe, the recent availability of funding for reconstruction and maintenance is starting to make a difference. The ongoing road rehabilitation program shows tangible results in improving road condition as well as maintenance and operation. These efforts will need to be continued for many years in order to bring the roads into a condition similar to the regional average.



Taking into consideration the length of Moldova's road network and its current condition, the task is challenging, especially given the current depressed state of economic development and the low population density.

In addition to rehabilitating and maintaining the roads, there are some missing links in the network that cause traffic to be slower than necessary. For example, the absence of a complete ring-road around Chisinau forces some long distance traffic into the city.

Road transport services in Moldova mostly consist of private vehicles and public passenger transport, much of which is also privately owned. All vehicle operators suffer from higher than necessary operating cost due to the poor state of the roads. The professional goods transport sector suffers from an unwieldy and unhelpful legal framework due to the failure of the Government to implement its international commitments in a timely manner. When implemented, this is often done half-heartedly or not enforced sufficiently. This creates an environment where those who do not observe the law gain an unfair competitive advantage by avoiding the costs of observing regulations.

Road passenger transport is primarily carried out with an aging fleet of mini-buses, which often do not comply with regulation. This poses a serious safety risk to the travelling public. Further enhancement of the regulatory framework as well as enforcement in the road passenger sector is needed. Furthermore, the absence and lack of enforcement both of compatible EU harmonised legislation and domestic legal acts related to private sector contract law causes problems. For example, customers who have cargo damaged in transit have nowhere to turn to as contract conditions and liability is, in many cases, not backed up by insurance.

#### Rail Sector

The railway network in Moldova has suffered from years of under-funding of maintenance and repair and the bad condition of much of the network is an obstacle to making the Moldovan railway competitive.

Notwithstanding the above, the main issue in the rail sector is that a sector reform and the rationalisation of services are long overdue. Unfortunately, little progress has been made in the past decade. The current railway reform plan is unambitious and will not allow for fast improvement. To accelerate the reform, the following problems need to be addressed:

- The Railway is financially unsustainable and depends on a non-transparent system of subsidies and cross subsidies for its survival;
- Staff productivity is among the lowest of regional railway companies, indicating the need for drastic restructuring;
- Service delivery by the railroad is at times unreliable and often the railway has no wagons available for potential customers. Intermediate private freight forwarding companies, however, appear to make CFM's wagons available at the same time at an increased freight rate, which indicates questionable practices and potential corruption issues;
- Due to its high rates and often low service quality, CFM is persistently losing market share in freight transport;
- The network is underused and some rail sections are neither viable in freight or passenger transport, creating important operating losses;
- CFM's rolling stock is out-dated and in poor condition.



Real political will is needed to implement the urgent reforms that are aimed at revitalising the railway. This high level political support is especially important due to the fact that any restructuring will inevitably result in substantial reductions in staff numbers of CFM.

#### Aviation Infrastructure and Services

Flights in and out of Moldova are expensive and choice is limited due to a lack of competition. Air Moldova, the state owned designated carrier is in a precarious financial situation and has large debt to other state owned companies such as Chisinau Airport. The company lacks the economies of scale of some of its regional peers, reflected in its cost base. Furthermore, Air Moldova is unable to provide cost effective travel through connecting airports, thus its passenger market is largely limited to travellers originating in Moldova and in the countries of destination.

Market Liberalisation is around the corner through the ratification of the ECAA. Most likely this will result in increased competition with downward pressure on ticket prices. On the other hand, operating cost, such as for fuel, will remain the same or might even increase. Under such a scenario, the long term survival of Air Moldova as an independent airline is far from assured and only a privatisation and/or sale to a larger aviation group can create a business model that is sustainable.

Currently, the airport operation is a tangle of different ownerships and control, which is not helpful in creating the efficiencies that are needed in the modern aviation market. The current ownership structure and management of activities through state-owned enterprises is not efficient. The current set-up serves more as a tool to protect the state owned companies involved in the aviation sector rather than providing competitive services to the travelling public. Though this makes sense from the short term perspective of those directly benefiting from the status quo, it is a hindrance for further development in the aviation sector and the wider economy. Airport handling and catering services are in theory open to competition, in practice this has not occurred. To ensure higher efficiency, the ground handling market needs to be opened up to competition by privatising the current operators.

The airport terminal will shortly reach its capacity limit and will require substantial investment to be carried out to accommodate future demand. This investment, for which the airport does not have the funds readily available, could be carried out by the private sector after restructuring and award of a concession contract. On the regulatory side, the situation is reasonably good in the sense that currently there are no major problems. However, Moldova has committed itself to the ECAA, which implies the adoption and maintenance of a large body of legislation in aviation.

#### Ports and Maritime Shipping

The maritime/ sector has a very limited practical impact on the domestic transport and logistics market. Due to the alternatives available to shippers and forwarders the prices and services available are comparative to those in other nearby markets. Improved rail access to the Port of Giuriulesti has been identified as one of the main priorities for the port operators, though as earlier discussed, this will only be beneficial if there is improvement in the rail sector service delivery as well.

The Moldovan registered merchant fleet remains an embarrassment for the reputation of the country, as it is blacklisted (by the The Paris Memorandum of Understanding on Port State Control) due to its poor technical condition, which points at a failure of the Government to enact and enforce its obligations as a flag state under the IMO conventions to which it is a party.



Though there are some legal acts that may assist the implementation, most issues are caused by failure to implement and enforce exisiting laws and regulations. A full scale in depth review of working pracitice is required.

#### Fluvial Shipping

There are currently no inland waterway services in Moldova, However, the Government has prepared a draft Law regarding Inland Naval Transport which was sent to the Parliament of Moldova for a second reading in October 2012. However, fluvial in-land transport on Prut and Nistru rivers will need further investigation based on expected demand levels. Currently an over-capacity on the existing parallel transport corridors exists, and adding an additional corridor will result in further straining limited available resources.

#### Trade Facilitation

Reform in customs, border-crossing processes and beyond-the-border facilitation has been slow and inconsistent to date, resulting in an unpredictable environment for import and export companies. This unpredictability is one, though not the only, factor in the poor export performance of Moldova. Moldovan importers and exporters must collect a large number of documents for their respective customs clearance procedures. To do so, they must travel to Chisinau and visit several offices to obtain approvals on documents that, once completed, enable the customs operation to take place.

In the absence of alternative sources of funds, a high dependence on duties and indirect taxes such as VAT and duties on imports has reinforced the need for Customs to carry out many controls on import and export processes to protect the revenue base. As a result, logistics processes in Moldova are relatively expensive and unpredictable. This is caused by a combination of suboptimal processes at Inland Customs Depots, duplication of Controls at BCP's, poor access to BCP's for Heavy Goods Vehicles as well as onerous documentation requirements for import and export operations. Furthermore, poor transport infrastructure has some effect on the efficiency of operations, further increasing costs that erode the competitive advantages that Moldova has.

There is a lack of critical mass especially in the agricultural export sector, resulting in an absence of professional logistics processes such as storage, sorting and packaging. Furthermore, as a result of the small scale of the operators, they are not able to provide the market with quantities of produce in the consistent quality required by major buyers. This, however reflects problems in wider economic governance that cannot be addressed by this Strategy but should be given attention by policy makers at the highest level.

#### The Legal Framework

The review of the legal framework has revealed that, despite Moldova's commitment under the Partnership and Cooperation Agreement (PCA) of over 15 years to bring its legislation more in line with the EU *acquis*, very little actual reform has happened. The entire legal framework needs complete overhaul to bring it in line with the rest of Europe and create a level playing field. The need for this is for example reflected by the fact that, despite the lower wages in comparison with Romania, Moldovan transport companies report a similar cost base as companies in Romania.

The legal reform and its accompanying institutional restructuring are integral to any attempt to make the Transport and Logistics sector more competitive and supportive to the economy.



This however should be done with the aim to create competitiveness rather than because it has to be done under some agreement. The list of acts to be adopted for all sectors can be found in the approved legal approximation plan.

#### Conclusion

The transport and logistics sector is still, after numerous earlier attempts to reform, hampered by monopolistic set ups, not clearly defined roles and responsibilities of governmental bodies, semigovernmental enterprises and private operators, which at times do not serve the travelling public and the transport of goods but rather serves the self-interest of a few. As stated in the latest edition of the Global Competitiveness Index report, the three most problematic factors for doing business in Moldova are: 1. Corruption, 2. Policy instability, and 3. Inefficient government bureaucracy.

Strong political will is needed to address the stated points to also allow the transport sector to flourish in a transparent, fair, market-oriented economy.



## **GENERAL POLICY OBJECTIVE OF THE STRATEGY**

The overall objective to be achieved through the implementation of the Strategy is "an efficient transport and logistics system that supports citizens' needs for mobility and which facilitates trade in domestic and international markets, with a strong view of the role Moldova can play as a link between EU and CIS countries".

## SPECIFIC OBJECTIVE (PURPOSE) OF THE STRATEGY

The purpose of this Strategy is to:

- "Guide the Government's actions towards the creation of an adequate legal, institutional and physical environment for the transport and logistics sector of the country to facilitate sustainable economic development in the Republic of Moldova";
- Provide an enabling framework for each of the modes of transport to jointly contribute to the economic development of Moldova with specific focus on the development of external trade;
- Provide a framework for transparent resource allocation decisions in relation to infrastructure investment and expenditures, and to establish a basis for agreements with Moldova's external partners such as IFI's and the donor community;
- Guide the process of EU integration and the implementation of international commitments in the transport sector as well as in relation to Border Crossing Facilitation.

## ASSUMPTIONS UNDERLYING THE STRATEGY

Based on the assessments carried out during the preparation of the Transport and Logistics Strategy (which are presented in separate reports) a number of assumptions have been made to frame the strategic choices made:

- The centre of economic gravity as well as population development in Moldova will be on the axis Chisinau Balti, the Central Development Corridor;
- The population size stabilises, but no significant increase can be expected on the basis of current information;
- Raising incomes will result in an increase in both car ownership and car use;
- The trend in change of modal split between road, rail and aviation is expected to remain the same for the duration of the Strategy;
- The share of agriculture and employment in the economy will continue to be significant, but a gradual industrialisation may take place along the development corridor, mainly based on manufacturing for assembly elsewhere;
- Experience from elsewhere has shown that Moldova cannot continue to rely on remittances from Moldovan expatriates to tackle poverty and finance domestic consumption;
- The services sector will gradually gain importance as an economic factor;
- There will be a gradual shift of economic focus away from the CIS towards the EU market, resulting from the signature and subsequent ratification of the EU Association Agreement and the conclusion of a Deep and Comprehensive Free Trade Agreement with the EU;
- Visa free travel will result in increased passenger travel to and from the EU, though also Moldovans living abroad and visiting home will be a substantial factor in future passenger



travel, especially after the cost of air travel is reduced;

- There will always be an insufficient amount of funds available for construction and maintenance of the infrastructure network, and prioritisation is required to make the best use of available funds;
- Multi-modal transport (especially road/rail), which has gained substantial market share in the EU, will at some point in time also make its inroads in Moldova;
- EU Integration will remain a top priority for Moldova.

## PRINCIPLES UNDERLYING THE STRATEGY

There are, apart from the above assumptions, also a number of principles that have been applied when preparing the Transport and Logistics Strategy:

- The transport system, in its entirety, should benefit all segments of society, independent of the transport mode;
- Legal, Institutional and Regulatory reform shall precede capital expenditure to ensure that investments are sustainable and achieve their envisaged return for society;
- The population of Moldova has a right to expect the provision of adequate infrastructure, regardless of their location in the country;
- Maintenance of existing infrastructure has priority over new infrastructure investments;
- Wherever possible, long-distance travel shall be routed to avoid build up areas;
- Transport safety, across all modes shall be improved so as to meet at least the level of the EU NMS<sup>3</sup> by 2022 and EU 27 by 2032;
- There shall be a balance between environmental protection and economic development. Though important, protection of the environment shall not impede economic development;
- Infrastructure projects shall be subject to environmental legislation in force;
- Land use and use of infrastructure are interlinked and it shall be ensured that current and future legislation limiting land use in the vicinity of infrastructure is adhered to<sup>4</sup>;
- Each transport mode shall pay its fair share of the costs incurred in development and operation;
- Where costs cannot, or cannot easily be recovered from users, investment decisions should consider the cost for society of infrastructure over the entire lifecycle of the asset (construction, operating and maintenance cost);
- It is of strategic importance for Moldova to maintain direct access to international waters, by developing Giurgiulesti port and ensuring its connection to the central development corridor<sup>5</sup>;
- The Moldovan transport network shall be connected to international transport corridors so as to facilitate cross border trade;
- The Government shall concentrate on its role as a facilitator for the private sector by providing an adequate legal and institutional framework, carrying out its regulatory tasks, ensuring enforcement of the law;
- Regulatory bodies shall be funded by the state to ensure that enforcement is not hampered by potential financial interest.

<sup>&</sup>lt;sup>3</sup> New Member states (of the EU).

<sup>&</sup>lt;sup>4</sup> This for example relates to the land use and access restriction that apply to different classes of roads. These are currently in place but are not enforced. This creates unsafe situations and undermines the concept of road classifications. Another example is the need to restrict construction in the vicinity of airports to avoid excessive cost of meeting the EU noise directives related to airports. Unrestricted construction now may limit airport development in the future, forcing large investments to mitigate the nuisance.
<sup>5</sup> The Central Development Corridor is defined as the region between Chisinau and Balti including a small circle around Chisinau.



## CONSTRAINTS AFFECTING THE STRATEGIC OUTLOOK

- The unresolved issue related to Transnistria limits the policy options in Road, Rail and Inland Waterway development;
- The infrastructure legacy of the Soviet Union causes some parts of transport infrastructure to be in locations and of a size that does not necessarily support current development.

#### **OUTLINE STRATEGY**

More specifically, to achieve the overall objectives of this Strategy the following sector objectives are to be achieved through the implementation of the identified actions. Actions are divided into "soft" and "hard" measures.

**Soft** measures consist of the adoption of legislation, its enforcement and compliance by users and the development of institutions for facilitation and enforcement. It also includes limited investments in physical assets needed for these institutions to carry out their work. These measures do not necessarily limit themselves to specific transport and logistics related institutions or to the government sector only, but also assume a role for the private sector in its own development and efforts to improve the general business climate in Moldova.

*Hard* measures relate to investment in hard infrastructure, such as roads, bridges, railway track and others such as airport and port infrastructure to the extent that it does not directly compete against the private sector.



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## **ROAD SECTOR**

#### Objectives (Goal) to be achieved

- Minimize the total Road Transport Costs to society in a sustainable manner;
- Ensure that all the roads (1,974 km) in the Priority Network<sup>6</sup> are rehabilitated and in maintainable condition by the year 2018;
  - Remaining national roads<sup>7</sup> (1,361 km) by 2022;
  - Improve local roads (5,987 km) by year 2032;
- Provide year around access on local / rural roads to these national road system from all localities in the country;<sup>8</sup>
- Reduce the number of road accident fatalities by 50% by 2020<sup>9</sup>;
- Ensure safe and reliable road passenger transportation.

#### Indicators of achievement

- Global Competitiveness Index Indicator 2.02 (Roads) on a par with EU 27 average<sup>10</sup> by 2022;
- Improve approximately 390 km of national roads per year to complete improvement of Priority network by 2018;
- Improve approximately 272 km of remaining national roads per year to complete improvement of Priority network by 2022;
- Attract 120 million EUR per year (up to 2021) of external funding for road rehabilitation<sup>11</sup>;
- Reduce average vehicle operating cost from current 0.18 EUR/km to 0.17 EUR/km for cars; 0.8 EUR/km to 0.7 EUR/km for trucks;
- 100% of the priority road network is classified as in Good or Fair condition by 2018;
- 100% of the remaining national road network is classified as in Good or Fair condition by 2022;
- Increase the quality of the national road network (3,335 km) to 35% good, 35% fair, and 30% poor to bad by 2018;
- Increase the quality of the road network (9,322 km) to 45% good, 45% fair, and 10% poor to bad by 2032;
- Vehicle fleet and operators in road passenger transportation are in conformance with established standards by 2015.

<sup>&</sup>lt;sup>6</sup> The major road corridors of Moldova as revealed by the traffic modelling of the national road network carried out for the current TLS study. For further details refer to TLS Report A1 - Road Sector. <sup>7</sup> Remaining set of national roads for improvement and maintenance following the Priority Road Network. For further details refer to TLS Report A1 - Road Sector.

<sup>&</sup>lt;sup>8</sup> The need to provide year around access is based on the principle that there is a right for adequate access to infrastructure. This, however does not mean that the entire rural road network should paved, but for example a well maintained gravel road may provide in some conditions a better year around access than a potholed asphalt road.

<sup>&</sup>lt;sup>9</sup> Source: Moldova 2020.

<sup>&</sup>lt;sup>10</sup> Current Score: 142 out of 142. EU 27 Average for 2011 is 52.

<sup>&</sup>lt;sup>11</sup> MoTRI Financial Forecasts 2012-2021.



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#### Actions to be implemented

- Provide a legal and institutional framework that meets the needs of Moldova's road transport sector
  - Implement and enforce Moldova's existing commitments under international conventions and agreements of which it is party;
  - Transpose and Implement EU Legal Acts as identified in approved legal harmonization plan and the Association Agreement, including the development of appropriate institutions.
- Reduce the number of road fatalities
  - Implement the actions of the road safety strategy and action plan as well as actions identified in the road sectors action plan;
- Improve infrastructure through maintenance and investments
  - Ensure well-funded and effective road maintenance based on performance targets;
  - Implement the Government Action Plan for Road Sector Reform;
  - Upgrade infrastructure identified as identified in the Action plan below.

#### Road Sector Action Plan

## Objective: Minimize the total road transport costs to society in a sustainable manner

Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
Overarching objective	Road transport costs are high and journey speeds are low within Moldova.	Reduced transport costs and journey times within Moldova and to/from its neighbours and trade partners.	Global Competitive Index Indicator 2.02 (Roads) at par with EU 27 average by 2022.	See below	2022
Improvement and proper maintenance of all major roads in the Priority Road Network of Moldova (See Figure 2.34)	74% of the Priority Road Network is in bad or poor condition and is deteriorating due to insufficient funding for maintenance.	Weak links in the Priority Road Network eliminated. Road user costs significantly reduced to competitive levels.	1,974 km of Core Road Network classified as in good to fair condition r(IRI 2-4). 1,974 km of Priority Road Network under proper	Identify and implement road improvement projects for the Priority Road Network Implement appropriate maintenance regime for the Priority Road	2018 2018
	65% of road freight and	Prioritized allocation of available resources to most	maintenance by 2018. Average travel speed increased	Network.	



Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
	85% of road passenger trips are carried on the Priority Road Network.	beneficial road projects. Funding and rehabilitation works concentrated on Core Road Network.	and travel times reduced on Priority Road Network. Increased average travel speed by 20 km/h to reach 70 km/h on Priority Network. Reduction in average vehicle operating costs (VOC) on Core Road Network: - from current 0.18 EUR/km for cars and 0.8 EUR/km for trucks; - to 0.17 EUR/km for cars and 0.7 EUR/km for trucks (economic costs).	Assure further support from IFIs of 120 million EUR annually or Increase funding level of MD Government Road Fund for maintenance activities and for improvement activities accordingly.	2018
Improvement and proper maintenance of the remainder of main road network in Moldova	Funding for road improvement and maintenance of the remainder of the main road network is limited.	Elimination of remaining weak links in the main road network. Road user costs reduced to competitive levels. Prioritization of allocation of available resources and selection of most beneficial road projects.	<ul> <li>7,348 km of remaining main road network classified as in good condition (IRI 2-4).</li> <li>7,348 km of remaining main road network under proper maintenance by 2017.</li> <li>Average travel speed increased and travel times reduced on total main road network. Increased average travel speed by 20 km/h</li> </ul>	Identify and implement road improvement projects for the remainder of the main road network. Implement maintenance regime for the remainder of the main road network which protects the gains achieved by improvement. Implement a needs based resource allocation system based on Road Management System.	2022-2032 2017 2014
			to reach 70 km/h. Reduction in average vehicle operating costs (VOC) on total main road network: - from current 0.18 EUR/km for cars and 0.8 EUR/km for trucks - to 0.17 EUR/km for cars and 0.7 EUR/km for trucks (economic costs).	management dystem.	



Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
Continue implementation of Action Plan for Road Sector Reform	Road sector management capacity has significantly improved, however further capacity development is needed.	Improved road sector performance. Transparent and accountable expenditure of funds.	Implementation and monitoring of Action Plan for Road Sector Reform.	Reorganization by fusion of the road maintenance joint stock companies and state enterprises completed by end 2012.	2012
				Adjustment of the legal and regulatory framework and technical standards to the requirements of the new maintenance system by 2015	2015
				Implementation of the modern technologies for road maintenance and acquisition of necessary equipment.	2013-16
				Implementation of the new road maintenance contracts adjusted to best international practice by 2016.	2013-16
				Tendering the road routine maintenance works by 2017	2013-17
				<ul> <li>Gradual implementation of the road and bridge management system and computerized accounting of the maintenance works, supported by:</li> <li>Functional Classification system</li> <li>Resource allocation procedure</li> <li>Updated design and maintenance manual</li> <li>Geographic information system installed to administer roads, and associated condition data;</li> <li>Established traffic and condition surveys carried out</li> </ul>	2013-16



Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
	Reform of Road Maintenace funding has been key condition for external financing for road projects. Funding levels as agreed have not been reached. A funding gap between agreed amount and projected amount of – 12.5% in 2013 and –	Closing of funding gap between agreed amount and actual allocation.	Reach the agreed upon level of fuel excise tax allocation of about 4,150 MDL per ton of gasoline and 3,470 MDL per ton of diesel. To increase Road taxes twice.	Capacity and managerial building of the personnel involved in road maintenance. Development and implementation of a sustainable training programme for management and technical personnel. Increase excise tax as per LTIS agreement.	2013-16 2015
Provide year round access to the National Highway System from all localities in the country	14.9% in 2014 exists. Majority of local road network is in poor condition. Rural population has at times no reliable access to main road network. Access from rural areas to to markets and to social and administrative services is limited and often uncertain due to weather events.	Improved local road infrastructure throughout the country. Improved farm to market road access to support local economic development. Improved road access from rural areas to social and administrative services.	70% of the Moldovan road network (magistral, republican and local roads) by length in maintainable fair or goodcondition (IRI 2-6) by 2022. 100% of the Moldovan road network in maintainable fair or good condition (IRI 2-6) by 2032.	Identify roads to be transferred to local jurisdictions. Ensure resource allocation to local governments for local road maintenance and rehabilitation. Provide for capacity transfer to local governments for planning, programming and executing local road maintenance and improvement works. Incorporate best practice approach in cost effective local road rehabilitation.	2022 / 2032 2014 2014 2015



Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
Reduce number of fatalities by 50% by 2020	Approximately 500 people, of whom almost 10% are children, lose their lives on	Reduction of road fatalities by 50% and total road accidents by 50%.	Number of fatalities in 2020 less than 250.	Implement National Road Safety Strategy.	2020
	the roads of Moldova each year, and as many as 3,000 are injured.		Number of road injury accidents in 2020 less than 1,400.	Incorporate road safety improvements into road design.	2013
	Vehicle ownership is still low and is likely to increase. As it does so,		Accidents per 10m vehicle kms less than 6 in 2020.	Incorporate road safety improvements into maintenance activities.	2013
	there is a danger that the number of accidents will increase also.			Implement road safety campaigns, driver education programmes and enforcement programmes.	2013
Provide legal and institutional framework for the planning, operation and	Legal constraints	Legal outcome: Institutional outcome:	Legal. Institutional.	Implement and enforce Moldova's existing commitments under international conventions	2016
maintenance of the road network	Planning constraints: lack of transparent methodology for identification and	Planning outcome: a transparent methodology for identification and prioritisation of road infrastructure projects.	Establishment of statistics and planning unit. Establishment of a national traffic	Transpose and implement EU legal Acts as identified in Appendix I and the Association Agreement.	
	prioritization of road infrastructure projects.		model. Establishment of an annually	Establish and maintain database of traffic and transport statistics.	
			updated project pipeline.	Publication of Statistical Yearbooks and online statistics.	
				Provision of statistics to EU / global institutions.	
				Establish and maintain national traffic model.	
Integrate the Moldovan road network with the European network	The Moldovan road network is not currently planned in coordination	Established "international transport corridors" in accordance with the EU	Conclusion of the agreement on the continuation of the Trans- European transport network into	Implement the concept on the creation and development of the national network of international	2016



Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
	with the European network. This leads to inconsistent standards and discontinuities across borders.	guidelines for developing the Trans-European transport network. Integration of the Moldovan transport network into the common European network.	Moldova.	transport corridors. Prioritize upcoming road projects by their suitability for international integration Corridor IX Corridor VII	2014
Ensure safe and reliable road passenger transportation	Public road transport is provided primarely by private operators. Vehicle fleet is mostly composed of aging former light goods vehicles; Regulations in the sector are not complied with and not effectively enforced. This leads to low levels of service provisions and un- safe conditions.	Provisions of high level service provisions and safe operation through-out the country.	Compliance of vehicle fleet with established regulations. Modernisation of fleet by private operators.	Enforcement of regulations, Strengthening of regulatory control, Strengthening of public transport planning within Ministry	2015



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#### Map: Priority Road Network





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## **RAIL SECTOR**

#### Objectives (Goal) to be achieved

Providing quality services for rail passenger transportation at an acceptable cost to society and to support national and international • trade operations over medium and long distance.<sup>12</sup>

#### Indicators of achievement

- Global Competitiveness Index indicator 2.03 (Rail) on a par with EU 27 average by 2032<sup>13</sup>;
- The first railway package is transposed within two years and implemented within 4 years;
- The second railway package is transposed and implemented depending of progress of rail road reform;
- The third railway package is transposed and fully implemented depending of progress of rail road reform;
- Both Freight and Passenger trains achieve a minimum speed of 60 km/h on the backbone railway<sup>14</sup> lines by 2020 (lines to be defined).

#### Actions to be implemented

- Provide a legal and institutional framework that meets the needs of Moldova's rail transport sector
  - Restructure the railway before any capital expenditure takes place; -
  - Implement and enforce Moldova's existing commitments under relevant international conventions and agreements of which it is party;
  - Transpose and Implement EU Legal Acts as identified in approved legal harmonization plan and the Association Agreement;
  - Implement the three EU railway reform packages (restructuring and recapitalisation, freight traffic liberalisation, passenger traffic liberalisation) as well as future emerging acts.
- Improve infrastructure and rolling stock
  - Upgrade infrastructure identified in the rail sector;
  - Implement the action plan on the upgrade of rolling stock in accordance with the rail action plan below.

 <sup>&</sup>lt;sup>12</sup> Source: Land Transport Strategy
 <sup>13</sup> Current Score: 64 out of 142. EU 27 Average for 2011 is 31.

<sup>&</sup>lt;sup>14</sup> Suggestion to define the backbone railway network as follows: A single rail corridor that connects the central economic development zone to the strategically important port infrastructure without transiting a third country and provides access to the TEN-T network.

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Rail Sector Action Plan

		Obje	ctive:						
Provi	Providing quality services for rail passenger transportation at a for society acceptable cost and to support national and international trade operations on medium and long distance								
		d Accompanying Equipment	investment supporting services	development					
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation				
Implement the first EU railway package (restructuring, recapitalization, and rationalization, liberalization of international freight)	The first railway package contains actions such as establishing the independence of management of the railway companies, a separation of accounts of infrastructure and transport operations, debt restructuring and the related rationalisation of the operations as well as provisions for liberalisation of international freight operations.	The railway will have made its first step on the way to become a sustainable, commercially operated company. Cross subsidising of passenger traffic and freight operations ceased. Transparent financial structure and cost of provision of services clear to policy makers, Competitive freight and international passenger services. Transparent local passenger services.	Railway incorporated. Operational units financially separated and sustainable. Stations and lossmaking lines closed. Legislation prepared and adopted by Parliament, secondary legislation in place. Regulatory framework in place for access to the railway sector for private business.	Incorporation of the railway company. Separation of infrastructure and operations, spinning off non core assets. Rationalisation of the network, closing unprofitable lines and stations unless mandatory under public service contracts. Restructuring of debt and recapitalisation. Introducing legislation developing the enabling framework for restructuring and for a staged liberalisation of services. Introduce legislation for public service obligations for passenger transport and sign PSO agreements between Government and CFM.	2013 2013 2013 2013 2013 2014				



Implement the Second Railway Package (further liberalization, railway safety and harmonization of technical standards)	The second railway package opens up the national freight market to competition, sets the requirements for a regulatory structure and contains rules on safety and technical standards. The harmonisation of safety standards is particularly important in the case Moldova would decide to construct 1,435 mm railway connecting directly to Romania.	Competitive market in domestic freight. Compatible safety standards.	Legislation prepared and adopted by Parliament, secondary legislation in place. Proper Regulatory bodies established, funded and operating. Accident and safety body established, funded and operating	Establish rail safety authority and accident and incident investigation body (this can be transport safety and accident investigation board covering all modes). Establish independent railway regulator. Prepare and adopt legislation as required.	Depending of progress of railroad reform
Implement the third railway package to the extent possible	The third railway package deals with further liberalization of the market such as cabotage and international passenger transport.	Competition on the international passenger market. Possibility of further competition on the domestic market through cabotage.	Legislation in place.	Prepare, adopt and implement required legislation on time.	Depending of progress of railroad reform
Adopt other legal acts to support the development of the railway sector	There is an extensive body of railway legislation other than the packages that needs approximation.	A legislative framework that is compatible with the EU and supports the further development of the railway market.	Legislation in place as identified in the approved harmonization plan.	Prepare, adopt and implement required legislation on time.	Continuous starting 2013

Infrastructure and equipment investments						
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation	
Purchase of 8 two wagon rail busses for passenger transport	These trains will replace 16 existing rail carriages that have exceeded their useful life already.	Lower energy costs, and higher speed, improving the cost effectiveness of the railway operations.	Economic Assessment of future viability of train routes. Purchase and commission of trains.	Assess viability of the action by assessing economics of current traffic levels and possible future level with improved other modes. Purchase new trains if viability proven.	After implementation of the first railway package.	


		Infrastructure and eq	uipment investments		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
Giurgiulesti Port Access to/from Romania	To compete better with Romanian ports, the Port of Giurgiulesti needs access to the Romanian railway network over the existing bridge. Furthermore, this will provide the potential of a transshipment terminal at the Port.	Improved port access by Rail.	Railway line constructed and commissioned, meeting EU standards.	Railway access from Romania	2013
Giurgiulesti Port Access to/from Moldova	There are two railway lines to Giurgiulesti port from the north. Only one is wholly on the territory of Moldova. The railway via Cahul was constructed but never completed properly and is now out of service.	Improved port access by rail.	Railway line completed and commissioned up to the legal required standard with a minimum average operating speed of 60 km/h.	Completion of railway access from Cahul or alternatively building the bypasses on the Eastern line.	After implementation of first railway package.
Railway line rehabilitation	The main tracks of the Moldovan railways for many years had been underfinanced that is objectively leading to the lower speeds and lower transport safety and will unavoidably need urgent budget investments in the future.	Higher operating speeds increase line capacity and competitiveness against other modes.	Freight train speed can reach 70 km/hour. Passenger train speed can reach 100 km/h.	Chisinau – Bender railway. Chisinau – Ungheni railway. Within the project the rehabilitation works should be undertaken including the disassembling the existing tracks, re-ballasting, putting the new sleepers and rails, track trimming, other works if necessary.	After implementation of first railway package.
Ungheni Transshipment terminal	This terminal will provide the service of transferring cargo or containers from 1,435 mm to	Increases opportunities for transit traffic and intermodal traffic with EU.	Feasibility study completed,. Construction of terminal.	The project principally should include the site planning and equipment with	Feasibility depends on possible future



		Infrastructure and eq	uipment investments		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
	the 1,520 mm railway network.			<ul> <li>1,520 – 1,435 parallel tracks and the gantry crane to transship the intermodal units between the parallel trains (at the first stage the reach stacker is the possible option).</li> <li>The site can also include the yard for intermodal units' temporary storage.</li> <li>If the local traffic will grow the site can be also equipped with the facilities for stripping/stuffing and trucks loading/unloading.</li> </ul>	1,435 mm railway development.
Rail Access to the (Muliti-Modal) Logistics Center Chisinau	If a private investor decides to construct and operate a multi- modal terminal in the Chisinau region, the railway must construct terminal access.	Is necessary to develop the multi-modal logistics centre.	Feasibility study completed and positive. Agreement with terminal operator reached on future operation and prices. Construction of access lines.	Feasibility study. Agreement with terminal operator. Construction of access lines.	

	Private Sector Investments						
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation		
Establishment of National Wagon company	Moldovan exporters cannot obtain the necessary number of the rolling stock to ship their production, in particular, in	The project implementation will help to: - avoid the dependence on the CIS rolling-stock "common	Company established and wagons purchased.	Establish Company under Moldovan legislation.	Depends on the speed of liberalisation in the market.		



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		Private Sector	r Investments		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
	agriculture. At the same time, the wagons of the CFM are often used by foreign railways under the conditions of the CIS "Common fleet" agreement.	fleet" agreement that pays the Moldovan freight cars sent abroad to the disposal of the foreign railways; - supply the national shippers, primarily – agricultural products exporters – with necessary capacities to export their goods; - attract private investments and market management skills into the railway industry	Company operating.		
Multi-Modal Logistics Center Chisinau	Moldova has no modern logistic centers to prepare the cargo and to supply some value-added services besides transportation itself. It is an obvious decision to set up the modern intermodal logistic center nearby Chisinau (LCC).	The centre can provide access to market by providing additional services such as storage and packaging to producers that are too small to have their own facilities. This especially is relevant for the agro food sector	Feasibility study and market surveillance completed. Construction and operation by the private sector of the terminal.	Feasibility study and market surveillance. Construction and operation by the private sector of the terminal.	Any time when a private investor can be found.

**Note:** There are additional proposals for the development of certain services, but in line with the view that the market must do its work, these are not considered viable project or projects to financed by IFI's or donors but should only be developed in a liberalized market on the basis of commercial considerations. When and if viable, IFI's may contribute to financing if required.



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### **AVIATION SECTOR**

#### Objective (Goal) to be achieved

• To develop the civil aviation sector according to the strategic interests of the national economy, strengthen competition and ensure a non-discriminatory approach towards air operators<sup>15</sup>.

#### Indicator of achievement

- Global Competitiveness Index indicator 2.04 (Air Transport Infrastructure) on a par with EU 27 average<sup>16</sup>;
- Cost of air travel to and from Moldova is within a 15% range in comparison with Bucharest and Kiev airport to comparable destinations by 2020.

#### Actions to be implemented

- Provide a legal and institutional framework that meets the needs of Moldova's air transport sector by implementing the actions in the Appendix I (Approved Legal Approximation Plan), inter-alia:
  - Transpose and implement the legal acts identified in the ECAA agreement;
  - Ensure continued compliance with ICAO regulations by regularly updating the various technical regulations and ensuring compliance;
  - Upgrade ATC infrastructure as required to follow technological progress;
  - Increase independence of the CAA by strictly separating policy and legislative duties of the Ministry of Transport from the technical and regulatory duties of the CAA;
  - Privatise Air Moldova after restructuring and spinning off of non-core assets to the strategic or highest bidder;
  - Privatise operation of Chisinau Airport under a Public Private Partnership (concession), ensure sufficient regulation by the competition agency to avoid abuse of monopoly;
  - Privatise Aeroport Handling and Aeroport Catering to the strategic or highest bidder;
  - Carry out detailed actions as defined in action plan below.

<sup>&</sup>lt;sup>15</sup> Adapted from the Civil Aviation Strategy for Moldova (Government Decision No 987 from 30.08.2007 on approving the Civil aviation development strategy 2007-2012 (published in the Official Gazette No 146-148/1030 from 14.09.2007).

<sup>&</sup>lt;sup>16</sup> Current Score: 114 out of 142. EU 27 Average for 2011 is 49.



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Aviation Sector Action Plan

Objective:

Creating of the competitive market environment in civil aviation sector to enhance safety and security in accordance with the international standards. Ensuring a sustainable growth of air transportation, which contributes to social and economic development of Moldova.

	Soft Measures and Accompanying Equipment investment supporting services development							
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation			
Liberalization of the aviation market and harmonization of the regulatory framework in civil aviation with the EU regulation	This action includes development of regulatory framework in civil aviation compliant with the European Common Aviation Area (ECAA) agreement. To this target, the norms and standards of the EU have to be implemented.	Liberalization of the aviation market in Moldova; New market opportunities for local carriers to reach EU aviation market. High-level European aviation standards, which supports improved aviation safety and security.	Implementation of the aviation regulatory framework referred to in the ECAA annex. Ratification of the ECAA.	Adoption of: The legislation for the liberalisation of the market access, traffic rights and fares; The regulation on airport ground handling and slot allocation; The safety and security regulations; in close cooperation with EASA. among others implementation of APIS; The rules on competition and state aid; The rules of air traffic management; The environmental standards and consumer rights in civil aviation.	2013			
Strenghtening of the civil aviation sector	Strenghtening of civil aviation is an important part of harmonization of the Moldovan	Elimination of conflicts of interest between CAA and Ministry of Transport and Road	Increase independence of CAA's decision making process. Establishing of the effective	Increase independence of the CAA by strictly separating policy and legislative duties of	After harmonization of the regulatory			



	Soft Measures and Accompanying Equipment investment supporting services development						
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation		
	civil aviation with the EU standards. It includes strenghtening of Civil Aviation Authority (CAA) as independent regulator and implementation of its activities in accordance with ICAO standards. The restructuring	Infrastructure. Prevention of monopolistic activities and unfair competition in aviation sector.	economic regulation system.	the Ministry of Transport from the technical and regulatory duties of the CAA Development of tailored economic regulation system to prevent monopolistic prices and ensure required standards of performance and quality in	framework 2013		
	process also includes the establishment of a predictable and transparent regulatory system.			Chisinau Airport.			
Privatization in the Moldovan civil aviation sector	Privatization creates opportunities for Moldovan government to attract private capital in the development of the aviation sector and to improve efficiency of the state enterprises.	Attraction of private investment in aviation sector. Increased efficiency of the state owned enterprises.	Increase aviation passenger number and aircraft movements in Chisinau Airport. Reduction of costs and increase total revenue the Airport.	<ul> <li>Approving the privatization of:</li> <li>Chisinau International Airport;</li> <li>Air Moldova;</li> <li>Aeroport Handling;</li> <li>Aeroport Catering.</li> <li>Preparation of tender for: Concession of Chisinau International Airport;</li> <li>Full privatization of Air Moldova;</li> <li>Full privatization of Aeroport Handling;</li> <li>Full privatization of Aeroport Catering.</li> </ul>	2013		
				Promoting private investments in Marculesti International Airport, which will focused on			



	Soft Measures and Accompanying Equipment investment supporting services development						
Action	Action         Key Issue addressed by action         Desired outcomes         Milestones and Indicators         Needs / actions         Time Fring						
				charter cargo flights, VIP aviation, flight aviation school, lflight trainings, aircraft maintenance and military aviation.			

Infrastruc	Infrastructure and equipment investments (to be carried out by the private sector upon award of concession for airport operations)							
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation			
Construction of new air cargo terminal at Chisinau Airport	New air cargo terminal aims to establish air cargo infrastructure to the minimum western standards and attract international carriers.	Improved service level; New air cargo services; Increased air cargo volume.	Increase of air cargo volume. Attraction of the new carriers.	Demolish existing air cargo terminal and construction of the new facility. Development of the new services.	Depending on privatization			
Expansion of the main passenger terminal in Chisinau Airport	Expansion of the passenger terminal is essential to meet the projected market demand in Chisinau airport. It's also important to strengthen competitive position of Chisinau International Airport.	Increase of number of air passengers; Improvement of level of services; Strengthening competitiveness of the airport as a regional aviation hub.	Expansion of the existing passenger terminal. Improvement of passenger services.	Acquisition of private investment in the expansion of terminal trough the concession of the Chisinau Airport.	Depending on privatization			



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### MARITIME AND INLAND WATERWAY SECTOR

#### Objectives (Goal) to be achieved

• To provide otherwise landlocked Moldova with strategically important, cost effective access to Maritime and Inland shipping by encouraging the development of efficient port logistics and hinterland connections as well as high quality privately owned merchant shipping.

#### Indicators of achievement

- Global Competitiveness Index indicator 2.04 (Port Infrastructure) on a par with EU 27 average<sup>17</sup>;
- By 2020, the technical standard of the Moldovan Maritime Merchant fleet in operation is of such level that Moldova is on the grey-list of the Paris MOU;
- The legal and institutional framework ensures the implementation of Moldova's commitments under international conventions of which Moldova is a party.

#### Actions to be implemented

- Provide a legal and institutional framework that meets the needs of Moldova's Inland Water transport and Maritime transport sector
  - Ensure the full implementation of IMO conventions of which Moldova is a party;
  - Transpose and Implement Relevant EU Legal Acts, including the development of institutions as required by these acts as identified in approved legal harmonization plan;
  - Ensure separation of legislative, regulatory and commercial activities.
- Infrastructure maintenance and investment
  - Carry out the infrastructure investments as identified in the Maritime and Inland waterway sector action below.

<sup>&</sup>lt;sup>17</sup> Current Score: 125 out of 142. EU 27 Average for 2011 is 45.



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Maritime and Inland Waterway Action Plan

		Ob	jective:					
To provide	To provide otherwise landlocked Moldova with strategically important, cost effective access to maritime and inland shipping by encouraging the development of efficient port logistics and hinterland connections as well as high quality privately owned merchant shipping.							
	Soft Measures and	d Accompanying Equipment	investment supporting services	development				
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation			
Implement the legal reform action plan	Moldova has some problems with the state of affairs in the Maritime sector due to its failure to implement and enforce the existing commitments on under various agreements. Though these problems do not directly affect the trade performance, the continued blacklisting of the Moldovan merchant marine vessels under the Paris MOU is not helpful in enhancing the reputation of the country. Furthermore, the overlap of regulatory activities with other, more commercial acivities raises concerns in relation to conflict of interest that could affect judgements.	Moldova is removed from the Paris MOU blacklist. Closer integration with EU and fulfilment of the commitments under the Association Agreement.	Legal Acts adopted and implemented.	Ensure the full implementation of IMO conventions of which Moldova is a party. Transpose and Implement Relevant EU Legal Acts, including the development of institutions as required by these acts.	To start immediately.			
Separate Legal, Regulatory and Commercial services	There is a conflict of interest between the role of the "Giurgiulesti Harbour Master"	Clear separation of duties.	Concession awarded to the highest bidder.	Consider award Concession for operation of Giurgiulesti Passenger terminal to the	2013.			



as a regulator representing the state and as operator of the Passenger terminal. This conflict of interest must be solved for the market to	highest bidder.	
function normal.		

		Infrastructure and eq	uipment investments		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation
Maintain guarantied minimum depth to the port access	While dredging the berths is the task for the port operator, the Government is responsible for maintaining fairway access to the port at a guarantied minimum depth.	Continued access to the port.	Regular fairway maintenance provided and depth meets standards set in nautical charts.	Dredge regularly the fairway and ensure that beacons are in the correct position.	Continuous.
Giurgiulesti Port Access	To compete better with Romanian ports, the Port of Giurgiulesti needs access to the Romanian railway network over the existing bridge.	Improved port access by Rail (See also the railway action plan).	Railway line constructed and commissioned, meeting EU standards.	Railway access from Romania (standard gauge).	2013.
Giurgiulesti Port Access	There are two railway lines to Giuriulsti port from the north. Only one is wholly on the territory of Moldova. The railway via Cahul was constructed but never completed properly and is now out of service.	Improved port access by Rail from the Moldovan Hinterland. (See also the railway action plan).	Railway line completed and commissioned up to the legal required standard with a minimum average operating speed of 60 km/h.	Completion of railway access from Cahul.	After implementation of first railway package.
Reactivation of inland waterway transport on the Prut and Dniestr river	There is a believe among proponents of the reactivation that there is a need for an additional transport corridor. In practice, it has not been possible to make a case for	The study will establish the cost and benefits to society of inland shipping on the Prut and Dniestr river based on current and future modal split and origin destination of bulk	Feasibility study completed.	Carry out Comprehensive socio economic feasibility study on the viability of restart of inland shipping in Moldova on both rivers. This comprises of considering	When capacity utilisation on existing corridors reaches 50%.



	Infrastructure and equipment investments							
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs / actions	Time Frame for Implementation			
	cost effective (for society) investment in inland waterway. A further constrain is that there are actually no inland waterway vessels that meet modern technical and safety standards.	cargos.		market demand (based on a reformed railway), investment cost as well as recurrent cost.				



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### **CROSS SECTOR AND TRADE FACILITATION**

#### Objectives (Goal) to be achieved

• To provide the Logistics sector with a clear and compatible legal and institutional framework, and to facilitate international trade by implementing the letter and spirit of international conventions that Moldova is a party to.

#### Indicators of achievement

- Improvement in the doing business ranking on "trading across borders" to EU 26<sup>18</sup> average by 2020, more specifically:
  - number of documents for import export operations not exceeding 5 (by 2020);
  - number of days to obtain import/export document not more than 10 (by 2020);
  - reduce the cost of import / export of a container to EU 26 average (by 2020)<sup>19</sup>;
- Border crossing processing times for exports do not exceed 20 minutes for any class of goods except goods subject to excise tax;
- Border crossing processing times for imports do not exceed 30 minutes for any class of goods except goods subject to excise tax;
- Queue waiting times to enter BCP's shall not exceed 1 hour in peak time;
- BCP processing time for empty heavy goods vehicles does not exceed the processing time for light vehicles.

#### Actions to be implemented

- Reduce time to access markets for imports and exports by implementing the actions identified in the Action Plan
  - Reduce the number of import and export procedures, including documentation requirements;
  - Introduce a single window for import / export procedures for goods and ensure 24/7 operation;
  - Reduce the overall border crossing waiting times, including time spent waiting before entry of the BCP;
  - Reduce the length of BCP processing time;
  - Create traffic separation on access roads to BCP's, separating empty, TIR and other vehicles.

<sup>&</sup>lt;sup>18</sup> There is no "Doing business" assessment on Malta.

<sup>&</sup>lt;sup>19</sup> A reduction of 10% will not be sufficient to bring Moldova in line with the EU average, which is currently 1,100 USD vs 1,740 USD for Moldova. A reduction of at least 36.5% will be needed to bring Moldova to the EU average.



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- Provide a supportive legal and institutional legal framework (all modes)
  - Implement the commitments from international conventions related to Border Crossing and Trade facilitation of which Moldova is a party and accede to those relevant conventions of which Romania and Ukraine are a party;
  - Transpose and Implement Relevant EU Legal Acts identified in the approved harmonization plan on trade facilitation and multi-modal transport;
  - Improve the level of technical competence of logistics staff by providing internationally recognised and accredited education and continuous professional development;
  - Carry out detailed actions as defined in action plan below.

#### Cross Sector and Trade Facilitation Action Plan

	Objective: Achieving predictable export supply chains and reducing time to market. Provide a supportive legal and institutional framework (all modes).											
		Soft Measures and Accompa	nying Equipment investment									
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation							
Increase Efficiency of Customs Behind the border and Border Processes while protecting revenue by upgrading IT infrastructure and software Provide choice of ICD to exporters and importers Implement commitments under	Lack of information technology preventing traders to obtain faster access to electronic documents; Moldova Customs Service (MCS); ASYCUDA server working near maximum capacity; Exporting companies reporting ASYCUDA delays during	<ul> <li>(i) faster and accurate tariff information for clients; less client import value errors and more accurate revenue collection by MCS;</li> <li>(ii) customs duty guarantee system in place-MCS will receive and give customs duty discharge information</li> <li>(iii) reducing time to prepare export declaration and all export support documents;</li> <li>(iv) enabling trucks to get checked at BCP with Ministry of Transport databases;</li> </ul>	MCS monitoring import declaration clerical error rates and detecting attempts to defraud the treasury owing to deliberate wrong HS Code entries by traders; More accurate declarations and therefore less prone to arbitrary MCS fines; Accurate tariff codes and descriptions and import and export staffs save time finding the correct tariff codes and descriptions; Time to validate documents reduced	Improve ICT Systems at BCP and ICD. (i) integrated tariff management system; (ii) New Computerised Transit System software; (iii) electronic Single Window System; (iv) vehicle number registration scanners; (v) information exchange between Customs	Short to medium term.							



		Soft Measures and Accompa	nying Equipment investment		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation
international conventions already in place and accede to new conventions as required	Mondays and Fridays; Lack of electronic Single Window System (SWS); Lack of ITMS; Lack of vehicle registration number plate scanners at ICDs and BCPs; Lack of NCTS.	<ul> <li>(v) eliminating checking the same trucks twice at the same border crossing point</li> <li>(vi) electronic ASYCUDA customs module in use;</li> <li>(vii) ATA Carnet system;</li> <li>(viii) MCC module used;</li> <li>(ix) ROO module used;</li> <li>(x) PCA software used creating more audits;</li> <li>(xi) IPR software used resulting in an increased detection of IPR infringements;</li> <li>(xii) increased number of contraband and pirate goods detected and seized with an accurate record of storage and destruction.</li> </ul>	to 10 – 20 minutes while retaining level of accuracy.	administrations at the same border crossing points based on the Krakow Conclusions; (vi) reconfigure ASYCUDA World to implement electronic customs; (vii) ATA Carnet module; (viii) Maritime containers control (MCC) module; (ix) Rule of Origin module; (ix) Rule of Origin module; (ix) Post Clearance Audit software; (xi) Intellectual Property Rights management software integrated into ASYCUDA; (xii) equipment identifying contraband and pirate goods plus an inventory management system for seized goods.	
Introducing the use of real time entity based risk management to target risk cargo and risk traders and facilitating legitimate traders and their intermediaries	Risk management program not implemented, resulting in 100% superficial controls	<ul> <li>(i) information technology enabling real time entity based risk assessment;</li> <li>(ii) extra capability to detect smuggling and human trafficking;</li> <li>(iii) enabling staff to use equipment to detect harmful elements and smuggling;</li> <li>(iv) CCTVs installed at all ICDs and BCPs, monitoring staffs and managers</li> </ul>	Increased number of smuggling and trafficking detections; Controls result in high number of detected cases (at least 50% of controls result in case being detected); Increased number of transit trucks at BCPs.	<ul> <li>(i) new computer servers and laptops enabling staff and managers to focus on high risk cargo and facilitating legitimate traders;</li> <li>(ii) non intrusive inspection using fixed tunnel X-Ray scanning equipment at road (8) rail (2) and port (1) border</li> </ul>	All short term.



		Soft Measures and Accompa	nying Equipment investment			
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation	
		to deter discretionary decisions and detect corrupt practices; (v) installed and used to facilitate legitimate transit giving faster transit procedures at BCPs.		<ul> <li>crossing points;</li> <li>(iii) non intrusive truck and cargo inspection tools;</li> <li>(iv) CCTV cameras installed at all ICDs and BCPs linked to a central monitoring station;</li> <li>(v) transit risk management module;</li> <li>(vi) Training courses in Risk Management and risk based controls for customs and border guards as part of introduction of integrated border management;</li> <li>(Vii) Other training for customs and border guards.</li> </ul>		
Investigate and if feasible introduce Joint Controls on those BCP where not already in existence	Often, the same physical inspection process is carried out on export and import. Joint controls reduce the need for these duplicate controls by enabling one customs organization to carry out the control for both steps.	Reduced BCP waiting time due to increased processing capacity. Lower costs for both countries.	Reduced overall border crossing times.	Agree with neighbouring countries on joint controls at BCP's in accordance with existing international conventions.	Urgent as this also determines the future need for equipment.	
Reduce the need to go to specific ICD's at	Exporting companies cannot send trucks to	Faster and more predictable export supply chains.	Increased export volumes	Eliminate Order No.288-0 allowing exporting companies	Short term.	



		Soft Measures and Accompa	nying Equipment investment		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation
tax office of registration				to send trucks to an ICD of their choice.	
Improve the process of obtaining export documents	ove the process taining exportChambers of Commerce not openCOO issued by chamber of commerce during longer opening office hours by		More exports getting cleared at ICDs and BCPs during early hours and at weekends	Creating harmonious working hours between private industry and border control agencies and chambers of commerce; Pilot experiment at the Balti Free Economic Zone; late closing hours and open during weekends	Short term
Improve the process of obtaining export documents	ining export offices open from Phytosanitary Service offices and		Reduced export truck congestion at ICDs and BCPs;Creating exporting agency user friendly working hours for exporting companies for example at the Phytosanitary Service; Piloting Phytosanitary Service longer opening office hours and opening at week ends.		Short term.
Developing and achieving faster import and export procedures at border	Currently lack of information exchange and Joint Customs Controls for example	Reducing export and import BCP procedure time.	MCS meeting with EU DG TAXUD; Reducing export and import procedure time by using information	National legislation and Memorandums of Understanding and other legal instruments allowing the	Short term.



	Soft Measures and Accompanying Equipment investment									
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation					
crossing points with the EU by introducing information exchange	MCS with Romania Customs Service.		exchange.	development and implementation of Joint Customs Controls and information exchange.						
Increase predictability of import operations	, , , , , , , , , , , , , , , , , , ,		Faster import clearance for importers making imports of same goods using BTI; More predictable import supply chain.	MCS introduces BTI for compliant importing companies.	Short term.					
Review documentation requirements for export and eliminate those that cannot be justified	Moldova requires a lot of documents for export and import operations. Each document costs time and money to obtain and adds to cost.	Review programme for documentation completed.	Moldova meets the benchmark related to import export documents as scheduled.	Political will to eliminate documents and accept that employment positions need to be eliminated in line with the reduction	Start immediately, continuous process.					
Improve competitiveness of the National Railway Company	The railway is not able or willing to provide its customers with a competitive price for its services.	Lower and more transparent tariffs for freight transport services.	Moldovan railway tariffs for domestic freight are comparable with those of its regional peers.	Implement the first three EU railway packages.	Start immediately, to be finalized by 2017.					

	Infrastructure investments											
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation							
Widening some BCP export approach roads to match the current number of	Border crossing points designed using traditional linear layout with one entry	Reducing BCP approach road waiting time for export trucks and helping get product faster to market; More predictable export supply chains.	Reducing border crossing point approach road waiting times from 3.8 to 4 hours to about 20 to 30 minutes;	Widening Leuseni BCP approach road from one lane to 5 lanes each by 300 metres in length, matching	Short term to medium term.							



		Infrastructure	investments		
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation
export traffic lanes inside the Customs Control Zones (CCZ) of road border crossing points	and one exit gate.		<ol> <li>hour maximum peak time waiting time;</li> <li>BCP approach road inter agency queuing task force.</li> </ol>	the 5 export traffic lanes inside the Customs Control Zone (CCZ) of the BCP; Widening export approach road at the Palanca BCP from 1 lane to 4 lanes by 400 metres.	
Creating a new fit for purpose Chisinau inland clearance depot	Chisinau ICDs is too small to manage current traffic levels	Fit for purpose ICD on the outskirts of Chisinau close to other transport modes able to process and manage current and future levels of import and export traffic.	Faster import and export procedures giving more predictable export supply chains; 24 hour/7 day each week operation.	Moving the 5 Chisinau ICDs out of the city centre and building a new fit for purpose ICD.	Medium to long term.
Border crossing point modernization	ler crossing Some BCPs in 1 new modernized BCP at Palanca;		Faster and safer truck crossings and agreement from Ukraine Customs they will modernize their side of the river crossing at Unghen plus install new approach roads.	Palanca BCP: New 1 hectare site complete with admin building, secondary inspection area, ASYCUDA installation room, tunnel X-Ray scanner, truck weighing machine, security and work area lighting, and 4 export approach lanes.	Short to middle term.
	border guard efficiently carry out			Otaci BCP:	Long term.
	their operations and procedures.			Structural bridge survey; Feasibility study;	
				Build BCP approach road;	
				Get Ukraine cooperation regarding similar improvements on the Ukrainian side of the Unghen bridge site;	



	Infrastructure investments									
Action         Key Issue addressed by action         Desired outcomes         Milestones and Indicators         Needs         Time Frame Implementa										
				Build new import and export BCP.						

		Actions to be taken outs	side the logistics sector			
Action	Key Issue addressed by action					
Introduce and enforce marketing and other standards for fruit and vegetables	Lack of specific fresh fruit and vegetable growing standards for specific markets.	Modernised standards and trained personnel.	Increased level of exported fresh fruits and vegetables.	Modernizing Moldova Marketing Standards for specific markets and enforce existing standards.	Long term.	
Ensure credible product certification where required	Moldovan certificates are not trusted due to systemic weaknesses in quality and food	Moldovan certificates are taken at face value based on mutual recognition agreements and / or an audit and inspection regime.	Faster export supply chain, especially important for fresh produce, but also important for other exports.	Enforce existing legislation in relation to sanitary, phyosanitary testing and control;	Urgent, but will take time to achieve.	
	safety infrastructure.			Reform Quality infrastructure institutions to meet EU requirements and sign mutual recognition agreements.		
Enhancing professional knowledge of transport sector staff	Lack of trained staffs and managers because of the lack of international transport, warehousing and logistics training courses and	More professionally trained and accredited transport, warehousing and logistics staffs and managers in Moldova; More employment opportunities.	International transport and logistics training and education institutes partnering with Moldova colleges and universities; Trained national lecturers and trainers to international transport and logistics standards;	Ministry of Education and Ministry of Transport to invite European transport and logistics institutes to Moldova to partner with colleges and universities with the aim to deliver transport and logistics courses;	Short to medium term.	
	courses and accreditation		Moldova transport and logistics courses accredited by international transport and logistics institutes	Transport and logistics courses accredited by European transport and logistics institutes	Short to medium term.	



	Actions to be taken by the private sector											
Action	Key Issue addressed by action	Desired outcomes	Milestones and Indicators	Needs	Time Frame for Implementation							
		Increased level of exported fresh fruits and vegetables.	Moldovan primary producers must establish producer associations that can function as professional intermediary traders, including storage, sorting, packaging and marketing.	Long term.								
Demand that a credible quality infrastructure is established and that existing requirements are enforced	that a quality cture is ned and thatMoldovan certificates are not trusted due to systemic weaknesses in quality and food safety infrastructureMoldovan certificates are taken at face value based on mutual recognition agreements and / or an audit and inspection regime.		Faster export supply chain, especially important for fresh produce, but also important for other exports.	Continue lobbying the authorities for improvement in Quality infrastructure related systems.	Urgent, but will take time to achieve.							



### **IMPACT AND COST**

The implementation of the Strategy will provide Moldova with a top-notch legal, regulatory and institutional environment for the development of both domestic and international trade logistics as well as the development of passenger traffic.

Furthermore, when fully implemented, the transport infrastructure investment programme will provide the country with an adequate and affordable transport network that is able to serve the needs of citizens and business alike, assuming that infrastructure continues to be maintained properly.

Failure to provide for the legal, regulatory and institutional reform mentioned earlier ahead or simultaneous with the infrastructure investments, not just in the transport and logistics sector, but also across the economy will undo much of the benefits of improved infrastructure.

The implementation of the investment programme, provided that the labour force is available in Moldova, will have a positive impact on the economy by providing employment for some time to come in the construction sector. The implementation of the legal, regulatory and institutional reforms will, reduce the cost of doing business in Moldova and improve competiveness of Moldovan business.

The costs of implementing this Strategy and the action plans are estimated at:

•	Road Sector	777.3 million EUR
•	Rail Sector	104.0 million EUR

- Aviation Sector 55.0 million EUR
- Maritime and Fluvial Sector 18.0 million EUR
- Trade Facilitation
   44.2 million EUR

#### TOTAL COST

998.5 million EUR

The table above reflects the estimated investment (one off) cost at current prices and exchange rates. In addition to these costs, there is the need to allocate a hard infrastructure annual maintenance budget of 10 - 12 % of the initial investment cost.

For periodic maintenance, approximately every 5-6 years 25% of the initial investment cost should be allocated.



#### **Road Sector Financing**

The reform of road maintenance financing and a large increase of funding for road maintenance has been a key condition for the financing of road investments by the IFIs including of the Road Fund Law. In late December 2009 the revised Road Fund Law was enacted to include a commitment for allocating no less than 50%, 65% and 80% of the revenue from the fuel excise tax, in budget years 2010, 2011, and 2012, respectively, to the Road Fund for road maintenance.

Based on previously agreed excise tax levels the following Road Sector Financing Scenario is envisioned to implement road rehabilitation in Moldova.

#### **Road Sector Financing Scenario**

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Road Fund Revenues	83	91	100	110	122	134	147	162	178	196
2	External Investments	120	157	195	190	120	120	120	120	85	0
3	Maintenance Allocation RF	76	82	84	79	74	75	77	79	80	82
	Periodic Maintenance and										
4	repair* RF	7	9	16	31	48	58	70	83	98	114
5	Sub total, (2)+(4)	127	166	212	221	168	178	190	203	183	114
6	Kms improved per year	254	332	423	443	335	356	380	406	366	570
7	Kms improved cumulative	254	586	1009	1452	1787	2143	2523	2930	3295	3865

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1 Road Fund Revenues	207	220	233	242	252	262	273	284	295	307
2 External Investments	0	0	0	0	0	0	0	0	0	0
3 Maintenance Allocation RF	83	85	87	88	90	92	94	96	98	100
Periodic Maintenance and										
4 repair* RF	124	135	146	154	162	170	179	188	192	195
5 Sub total, (2)+(4)	124	135	146	154	162	170	179	188	192	195
6 Kms improved per year	621	674	732	450	810	851	894	939	639	652
7 Kms improved cumulative	4486	5160	5892	6342	7152	8003	8897			

\* to address backlog of maintenance that led to the serious deterioration of the road network.

costs are expressed in mEUR

Notes/Assumptions made:

- Row no. 1: The trend is based on LTIS provisions and reflects if taxes on fuel import would start to increase gradually, by 10% per year, in period 2014-2022 to reach the levels commited in LTIS "2008-2017" (petrol 4,150 MDL /ton, diesel 3,470 MDL/ton, liquid gas 2,160 MDL /ton), 6% in period 2023-2025 and 4% in period 2026-2032;
- The expected growth of the RF is based on central vehicles growth rate, developed under current strategy. The values represent 80% of fuel excise revenues. Other tax revenues can be considered to RF.
- Row no. 2: External investments till 2021 are allocated for rehabilitation of the national road network. After rehabilitation of national network, external investments will not be attracted.
- Row no. 3: Maintenance allocation volumes from RF are calculated based on the existing 2013 RF distribution provided by MoTRI. The value includes Medium repairs, Routine



maintenance, traffic safety, design, regulations, Procurement of Road Equipment and axle control.

- **Row no. 4:** Allocation volumes from RF result in subtracting maintenance allocations and diverting the remaining means to <u>periodic maintenance and repair</u>\*.
- Row no. 5: The numbers represent the sum of allocations from RF and External investments for roads rehabilitation.
- Row no. 6: The numbers represent the number kms improved yearly based on available funds, on average of 500,000 EUR/km (for national road network) and 200,000 EUR/km for local road network).
- Row no. 7: The cumulative length of roads improved based on the available funds.
- The costs are expressed in EUR millions
- Exchange rate is 1:15

The following chart presents the case of gradual increase of revenues to Road Fund.

#### Revenues to Road Fund with Fuel Tax Increase to Agreede Levels



Increasing the fuel taxes to above mentioned levels, the amounts of generated revenues will contribute to improvement of local roads network without the need of support from IFI's. During the period of 2022-2030 the estimated funds to local roads will constitute 1,372 million EUR.



### IMPLEMENTATION STAGES AND PROVISIONAL TIMETABLE

The strategy has a lifespan from 2013 through 2032 and is divided in short, medium and long term actions, which are largely dependent on budget limitations and capacity constraints in the implementing institutions. Many of the intermediate targets have been set to be achieved by 2020 or 2022. Timing for specific actions is set in the sub-sector specific action plan, which serves as a to-do list and a monitoring tool for the monitoring of activities.

#### MONITORING

#### The Monitoring and Evaluation Concept

The preparation of any strategy inevitable involves making a number of assumptions about the future that may or may not hold up over time. This means that the strategy must be continuous subject to review and tough the main directions should be retained over the duration, adjustment to the changing environment. This is even more important as the overall impact of strategy implementation may be visible only sometime after actions have been implemented. There are three levels of indicators that have been identified and each has their specific purpose:

- Action Indicators;
- Sub-sector indicators;
- Strategic Indicators.

In more detail, these indicators are as follows:

#### Action Plan Indicators

The action plans annexed to this strategy identify specific actions to be carried out. These actions are believed to contribute to achieving the overall objectives and are assigned by the Government to particular institutions for implementation. Assuming that this assignment also included the necessary funding, it is important to measure the performance of institutions in implementing the actions. The questions to be answered in this context are:

- Has the action been implemented in accordance with the agreed schedule within the budget;
- If not, what was the reason and can it be corrected?

Every year, the compliance with the timeframe should be measured and in case of identified risk of delay or delay, mitigating action shall be taken to ensure that strategy implementation stay on track. However, measuring this indicator does only tell more than that something has been done on time and in budget (or not). The more important question, to be assessed on an annual basis is the in sub-sector indicator discussed below.

#### **Sub-Sector Indicators**

While the action plan indicators tell us that actions were done at a particular time at a particular cost, this is of no relevance if these actions do not result in an overall improvement of the sector of sub-sector performance. Thus, sub-sector indicators tell us:

• Did we do the right thing (e.g. the correct road, railway, etc.) and did the sector performance improve as a result.



The sub-sector indicators are drawn from a number of sources and have been chosen because they have been earlier approved for use or are internationally recognised performance indicators for which data is collected regularly. Some of these, such as rankings of the Global Competiveness index are relative and involve a comparison with for example EU New Member states. This is important; as Moldova's competitive position is also relative to others and not absolute<sup>20</sup>. The indicators are outlined in the "Indicator of Achievement" section of each sub-sector strategic outline and are not repeated here.

Progress towards these indicators should be monitored on an annual basis when respective reports where these indicators originate are published. Other indicators must be collected on an annual basis where not provided by third parties.

#### Strategic Indicators

Development should be even across sectors to ensure that all segments of the economy will be served better in the future. Furthermore, to measure the overall impact of the strategy implementation, high-level indicators have to provide insight in the overall progress of reforms. More specifically, these indicators are expressed as:

- To achieve a ranking on a par with EU average in both the Global Competitiveness Ranking "on Quality of Infrastructure"<sup>21</sup> and the World Bank "Logistics Performance Index (LPI)" by 2022. More specifically:
  - LPI score for Customs Operations at 2.55 by 2022;
  - LPI score for Logistics Competence at 2.50 by 2022.
  - LPI score for Customs Operations at 3.25 by 2032;
  - LPI score for Logistics Competence at 3.47 by 2032.

Note: The LPI for 2032 should be at least equal to today rank of the average EU 27 or so.

<sup>&</sup>lt;sup>20</sup> Countries compete on relative competitvenss. Thus while an increse in performance of 10% may seem a lot, if everybody elso also improves 10%, it means that no progress was made in becoming more competitive.

<sup>&</sup>lt;sup>21</sup> Baseline 2012 EU average is a ranking of 44.3, wich is the average of the EU averages in Road, Rail, Ports and Air. The current average rank of Moldova across the 4 sub-sectors is 111.25.

# **APPENDIX I – APPROVED LEGAL APPROXIMATION PLAN**

(to be inserted by MoTRI)

**APPENDIX II – PRELIMINARY LIST OF INVESTMENTS PROJECTS** 

# Preliminary Ranking

Ref no	Mode	Name of project	Project	Proponent	Total cost	Strategic relevance	Rank
BC05	Customs	Electronic Single Window System	Installation ( adaption of hardware ( astware	TTFA	7.60	2	
RD07	Road	Electronic Single Window System R6 M1 - laloveni 3.5	Installation / adoption of hardware / software Rehabilitation	RSPSP/SRA	10.00	2	1
RD20	Road	R34 Cahul - Slobozia Mare	Rehabilitation	RSPSP	11.21	2	2
PT01	Port	Giurgiulesti Port access	Completion of port railway access	TTFA	0.20	2	2
RD18	Road	R34 Leova - Cantemir 3.4	Rehabilitation	RSPSP/SRA	11.50	2	5
RD45	Road	M3 Comrat bypass 3.8	New construction	SRA	17.00	2	6
RD45 RD11	Road	R16 Balti - M14 jct. 3.2	Rehabilitation and upgrading	RSPSP/SRA	3.56	2	7
RD04	Road	R1 Ungheni - Sculeni	Overlay	RSPSP	4.36	2	8
RD17	Road	R34 Hincesti - Leova 3.4	Rehabilitation	RSPSP/SRA	4.30	2	8
RD12	Road	R16 M14 jct Falesti 3.2	Rehabilitation and upgrading	RSPSP/SRA	9.87	2	10
RD12 RD19	Road	R34 Cantemir - Cahul 3.4	Rehabilitation	RSPSP/SRA	27.60	2	10
RD13	Road	R16 Falesti - Sculeni 3.2	Rehabilitation	RSPSP/SRA	22.06	2	12
RD09	Road	R13 Balti - Floresti 3.3	Rehabilitation and upgrading	RSPSP/SRA	31.00	2	12
BC01	Customs	Leuseni Border Crossing Point	Widen approach road from 1 to 5 lanes	TTFA	31.00	2	14
RD46	Road	M3 Slobozia Mare, Cislita-Prut and Giurgiulesti bypasses 3.9	New construction	SRA	22.00	2	15
RD40	Road	M3 Porumbrei - Cimislia 3.7	New construction	SRA	38.00	2	16
RD43	Road	M21 Chisinau bypass 3.11	New construction	SRA	25.00	2	10
RD45 RD75	Road	R2: Chisinau - Anenii Noi	Rehabilitation	TTFA	14.00	2	18
RD89	Road	R37: Ceadir Lunga - Comrat	Rehabilitation	TTFA	14.00	2	10
RD42	Road	R14 Balti - Sarateni - M2 3.1	Rehabilitation	SRA	38.00	2	20
BC04	Customs	Chisinau new ICD	New construction at new location	TTFA	11.59	2	21
RD55	Road	M3: 4 lane start - Porumbrei	Rehabilitation	TTFA	19.81	2	21
BC07	Customs	Palanca BCP	Widen approach road from 1 to 4 lanes	TTFA	11.51	2	23
AV01	Aviation	Modernisation of Chisinau Airport	Expansion of passenger terminal	TTFA	53.00	2	23
BC06	Customs	Customs Training Centre	New construction of customs training centre	TTFA	0.58	2	25
RD90	Road	R38: M3 jct - Cahul	Rehabilitation	TTFA	18.15	2	26
RD66	Road	M14: Bravicea - Chisinau	Rehabilitation	TTFA	24.44	2	27
RD94	Road	R30: Anenii Noi - Stefan Voda, Lot 2	Rehabilitation	SRA	9.69	2	27
RD63	Road	M14: Edinet - Rascani	Rehabilitation	TTFA	16.30	2	29
RD65	Road	M14: Balti - Bravicea	Rehabilitation	TTFA	40.74	2	30
RD108	Road	R30: Grigorievca bypass	Rehabilitation	SRA	1.67	2	31
RD64	Road	M14: Rascani - Balti	Rehabilitation	TTFA	14.77	2	32
RD67	Road	M14: Chisinau - Gura Bicului	Rehabilitation	TTFA	29.03	2	33
RD62	Road	M14: Briceni - Edinet	Rehabilitation	TTFA	16.30	2	34
RL17	Rail	Intermodal Services Department	Container platforms	TTFA	2.00	2	35
RD47	Road	M1 Chisinau bypass 3.12	New construction	SRA	16.00	2	36
RD110	Road	R26: Causeni - Cimislia, Lot 2	Rehabilitation	SRA	23.37	2	37
RD87	Road	R20: Rezina - Calarasi, Lot 2	Rehabilitation	SRA	16.53	2	38
RD111	Road	R30: Anenii Noi - Stefan Voda, Lot 3	Rehabilitation	TTFA	6.25	2	39

BC03	Customs	Otaci BCP	New BCP and approach road construction	TTFA	9.00	2	40
RD107	Road	R30: Troita Noua bypass	Rehabilitation	SRA	4.40	2	41
RD84	Road	R7: Soroca - Riscani	Rehabilitation	TTFA	29.35	2	42
RD109	Road	R30: Causeni bypass	Rehabilitation	SRA	5.92	2	43
RD93	Road	R26: Causeni - Cimislia, Lot 3	Rehabilitation	TTFA	3.50	2	44
RD08	Road	R9 Arionesti - Otaci	Rehabilitation	RSPSP	2.87	2	45
RD92	Road	R47: Cimislia - Sarata Noua	Rehabilitation	TTFA	20.00	2	46
RD86	Road	R13: Gura Camencii - Rezina	Rehabilitation	TTFA	24.25	2	47
RD61	Road	M14: Criva - Briceni	Rehabilitation	TTFA	19.86	2	48
RL19	Rail	Logistic Centre Chisinau	New construction	TTFA	30.00	2	49
RD88	Road	R36: Ceadir Lunga - M3 jct	Rehabilitation	TTFA	11.75	2	50
RD69	Road	M21: M2 jct - Dubasari	Rehabilitation	TTFA	11.74	2	51
RD91	Road	R46: Pleseni - largara	Rehabilitation	TTFA	5.10	2	52
RD85	Road	R8: Otaci - Edinet	Rehabilitation	TTFA	27.60	2	53
RD41	Road	R9 Soroca - Arionesti 3.6	Rehabilitation	SRA	16.00	2	54
RL16	Rail	Establishment of National Wagon Company	Rolling stock	TTFA	15.00	2	55
RL15	Rail	Chisinau - Bender	Rehabilitation	TTFA	13.00	2	56
RL14	Rail	Chisinau - Ungheni	Rehabilitation	TTFA	24.00	2	57
RL18	Rail	Ungeni Trans-shipment Terminal	New construction	TTFA	20.00	2	58
AV05	Aviation	Chisinau air freight terminal	New construction	TTFA	2.00	2	59

# Preliminary Ranking of Road Projects

Ref no	Name of project	Project	Proponent	<b>Total cost</b> EUR m	Strategic relevance	Rank
RD07	R6 M1 - Ialoveni 3.5	Rehabilitation	RSPSP/SRA	10.00	2	4
RD20	R34 Cahul - Slobozia Mare	Rehabilitation	RSPSP	11.21	2	2
RD18	R34 Leova - Cantemir 3.4	Rehabilitation	RSPSP/SRA	11.21	2	3
RD45	M3 Comrat bypass 3.8	New construction	SRA	17.00	2	4
RD11	R16 Balti - M14 jct. 3.2	Rehabilitation and upgrading	RSPSP/SRA	3.56	2	5
RD04	R1 Ungheni - Sculeni	Overlay	RSPSP	4.36	2	6
RD17	R34 Hincesti - Leova 3.4	Rehabilitation	RSPSP/SRA	40.00	2	6
RD12	R16 M14 jct Falesti 3.2	Rehabilitation and upgrading	RSPSP/SRA	9.87	2	8
RD19	R34 Cantemir - Cahul 3.4	Rehabilitation	RSPSP/SRA	27.60	2	9
RD13	R16 Falesti - Sculeni 3.2	Rehabilitation	RSPSP/SRA	22.06	2	10
RD09	R13 Balti - Floresti 3.3	Rehabilitation and upgrading	RSPSP/SRA	31.00	2	11
RD46	M3 Slobozia Mare, Cislita-Prut and Giurgiulesti bypasses 3.9	New construction	SRA	22.00	2	12
RD75	R2: Chisinau - Anenii Noi	Rehabilitation	TTFA	14.00	2	13
RD43	M21 Chisinau bypass 3.11	New construction	SRA	25.00	2	14
RD44	M3 Porumbrei - Cimislia 3.7	New construction	SRA	38.00	2	15
RD89	R37: Ceadir Lunga - Comrat	Rehabilitation	TTFA	16.85	2	16
RD42	R14 Balti - Sarateni - M2 3.1	Rehabilitation	SRA	38.00	2	17
RD55	M3: 4 Iane start - Porumbrei	Rehabilitation	TTFA	19.81	2	18
RD90	R38: M3 jct - Cahul	Rehabilitation	TTFA	18.15	2	19
RD66	M14: Bravicea - Chisinau	Rehabilitation	TTFA	24.44	2	20
RD94	R30: Anenii Noi - Stefan Voda, Lot 2	Rehabilitation	SRA	9.69	2	20
RD63	M14: Edinet - Rascani	Rehabilitation	TTFA	16.30	2	22
RD65	M14: Balti - Bravicea	Rehabilitation	TTFA	40.74	2	23
RD108	R30: Grigorievca bypass	Rehabilitation	SRA	1.67	2	24
RD64	M14: Rascani - Balti	Rehabilitation	TTFA	14.77	2	25
RD67	M14: Chisinau - Gura Bicului	Rehabilitation	TTFA	29.03	2	26
RD62	M14: Briceni - Edinet	Rehabilitation	TTFA	16.30	2	27
RD110	R26: Causeni - Cimislia, Lot 2	Rehabilitation	SRA	23.37	2	28
RD87	R20: Rezina - Calarasi, Lot 2	Rehabilitation	SRA	16.53	2	29
RD47	M1 Chisinau bypass 3.12	New construction	SRA	16.00	2	30
RD111	R30: Anenii Noi - Stefan Voda, Lot 3	Rehabilitation	TTFA	6.25	2	31
RD107	R30: Troita Noua bypass	Rehabilitation	SRA	4.40	2	32
RD84	R7: Soroca - Riscani	Rehabilitation	TTFA	29.35	2	33
RD109	R30: Causeni bypass	Rehabilitation	SRA	5.92	2	34
RD93	R26: Causeni - Cimislia, Lot 3	Rehabilitation	TTFA	3.50	2	35

RD08	R9 Arionesti - Otaci	Rehabilitation	RSPSP	2.87	2	36
RD92	R47: Cimislia - Sarata Noua	Rehabilitation	TTFA	20.00	2	37
RD86	R13: Gura Camencii - Rezina	Rehabilitation	TTFA	24.25	2	38
RD61	M14: Criva - Briceni	Rehabilitation	TTFA	19.86	2	39
RD88	R36: Ceadir Lunga - M3 jct	Rehabilitation	TTFA	11.75	2	40
RD69	M21: M2 jct - Dubasari	Rehabilitation	TTFA	11.74	2	41
RD91	R46: Pleseni - largara	Rehabilitation	TTFA	5.10	2	42
RD85	R8: Otaci - Edinet	Rehabilitation	TTFA	27.60	2	43
RD41	R9 Soroca - Arionesti 3.6	Rehabilitation	SRA	16.00	2	44

# Preliminary Ranking of Rail Projects

Ref no	Name of project	Project	Proponent	Total cost	Strategic relevance	Rank
				EURIII		
DI 47	la terre del Osmitese Demontre ent			0.00		
RL17	Intermodal Services Department	Container platforms	TTFA	2.00	2	1
RL19	Logistic Centre Chisinau	New construction	TTFA	30.00	2	2
RL16	Establishment of National Wagon Company	Rolling stock	TTFA	15.00	2	3
RL15	Chisinau - Bender	Rehabilitation	TTFA	13.00	2	4
RL14	Chisinau - Ungheni	Rehabilitation	TTFA	24.00	2	5
RL18	Ungeni Trans-shipment Terminal	New construction	TTFA	20.00	2	6

# Preliminary Ranking of Customs and Trade Facilitation Projects

Ref no	Name of project	Project	Proponent	<b>Total cost</b> EUR m	Strategic relevance	Rank
BC05	Electronic Single Window System	Installation / adoption of hardware / software	TTFA	7.60	2	1
BC01	Leuseni Border Crossing Point	Widen approach road from 1 to 5 lanes	TTFA	3.99	2	2
BC04	Chisinau new ICD	New construction at new location	TTFA	11.59	2	3
BC07	Palanca BCP	Widen approach road from 1 to 4 lanes	TTFA	11.51	2	4
BC06	Customs Training Centre	New construction of customs training centre	TTFA	0.58	2	5
BC03	Otaci BCP	New BCP and approach road construction	TTFA	9.00	2	6

# Preliminary Ranking of Aviation Projects

Ref no	Name of project	Project	Proponent	<b>Total cost</b> EUR m	Strategic relevance	Rank
AV01	Modernisation of Chisinau Airport	Expansion of passenger terminal	TTFA	53.00	2	1
AV05	Chisinau air freight terminal	New construction	TTFA	2.00	2	2

# Preliminary Ranking of Port Projects

Ref no	Name of project	Project	Proponent	<b>Total cost</b> EUR m	Strategic relevance	Rank
PT01	Giurgiulesti Port access	Completion of port railway access	TTFA	0.20	2	1
PT02	Giurgiulesti - Chisinau via Cahul	Completion of rail access	TTFA	18.00		