UPDATED NATIONAL TRANSPORT STRATEGY OF UKRAINE

PART 1: TRANSPORT SECTOR POLICY NOTE
AUGUST 2016
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**Update / Upgrade National Transport Strategy 2030**

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THE VISION, TRANSPORT POLICY AND THE STRATEGY
1 INTRODUCTION

The purpose of the National Transport Strategy (hereafter “NTS” or ‘the Strategy’) is to establish conceptual basis for implementing the state policy in order to provide sustainable and efficient transport sector operation, to create conditions for social and economic development of the country, to improve competitiveness of national economy and wellbeing of its people.

The Association Agreement between the European Union and its Member States and Ukraine of June 2014 enable Ukraine to drive reforms, to consolidate the rule of law and good governance; and to give an impetus to economic growth in the region by granting access to the world’s largest internal market and by encouraging cooperation across a wide range of sectors.

Through the Deep and Comprehensive Free Trade Area (hereafter “DCFTA”) as an integral part of the Agreement and with extensive regulatory approximation Ukraine will further develop and achieve economic integration.

By the time the National Transport Strategy of Ukraine up to 2020 was developed, Ukraine was characterized by different political and geopolitical frameworks and European Unions’ Eastern Partnership and the extension of the Trans-European Transport Network (TEN-T) were not on the agenda during the development of the Strategy. The document was created in 2009 and does not reflect the changes in Ukraine in recent years. The changing political situation in Ukraine in 2014 calls for new approaches for establishing a new Ukraine.

The National transport Strategy starts with a setting the vision and the strategic framework for the development of transport sector as part of national development goals and continues with introduction of key challenges and diagnosis in the transport together with the strategic framework enable the definition of the global goals, objectives and priorities that are crumbled into specific strategies and measures.

The Consultation with the stakeholders created the transport sector policy / priorities.

Implementing the Strategy would allow for:

- Satisfying the need of transport users for transport services
- Upgrading transport system and improving its operation efficiency
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- Improving the quality and accessibility of transport services
- Refining the transport sector governance /management system
- Increasing transport network handling capacity
- Delivering transport service in proper time
- Improving transport safety rate
- Reducing volumes of hazardous substance emissions in the atmosphere (by 30%)
- Decreasing the transport power consumption (by 15-20%, including in road transport from 43.6 to 34.8 gram of coal equivalent per 1 ton/km and in rail transport from 10.30 to 8.75 gram of coal equivalent per 1 ton/km)
- Accelerating rates of national transport system integration into the single European and global transport systems and maximise utilisation of transit potential
2 DESCRIPTION OF THE APPROACH

The methodology adopted for updating and upgrading of the National Transport Strategy incorporates common strategic planning methods.

In that order, drafting the Updated National Transport Development Strategy is mainly based on:

- recommendations of a mid-term review on the National Transport Strategy, conducted in October 2015 (Ref. to Annex),
- sub-sectorial inputs – strategic plans of individual sub-sectors development up to 2020, approved by the Minister of Infrastructure in December 2015 (Ref. to Annex), and their assessment,
- impact of the national and European Union developments
  - official statistical data on the transport and other industries, on trade modalities; urban, sub-urban and regional transport performance in Ukraine;
  - transport and other national and European Unions’ development policies;
  - Association Agreement between the European Union and its Member States and Ukraine.

The updated National Transport Strategy is built on the findings and the assessment. All information was analysed and merged in this step taking into account multimodal considerations.

As a results,

- a data inventory is developed;
- SWOT analysis are performed to obtain a clear picture of the current situation of the transport sector;
- goals and objectives are defined;
- priorities, measures and actions to be implemented to meet these objectives are identified;
- targets and the key performance indicators are introduced.

The Strategy follows from the global goal into vertical and cross-sectional objectives and priorities; their fulfilment is approached through individual strategies and measure.

The update of the National Transport Strategy was pursued along specific steps:

- Policy Concept – a set of basic objectives and principles (policy concept) to guide the efforts to meet these objectives;
- Transport sector diagnosis;
- Assessment of the sector challenges to meet the objectives;
- Introduce priority axis, measures and actions, as well as targets and key performance indicators;
- Progress monitoring;
- Mechanism for updating or adjusting the National Transport Strategy.
This methodology of updating the Strategy has been performed in parallel with the Strategic Environmental Assessment procedure (SEA) to which the preparation of the Strategy is subjected, according to the European and International Conventions. As a result of the SEA process, an Environmental Report has been prepared (ref. to Annex), the findings of which have been integrated into the Strategy.

Main steps of the methodology used in updating the National Transport Strategy are presented below:

2.1 DATA SCREENING
All relevant data/information about the organization, operations and infrastructure of the relevant sub-sector of the transport system are collected (data inventory) and presented in a way appropriate to a situation and strategic analysis. Based on that, a data analysis on the quality and actuality of the collected data as well as the identification of the missing data are performed.

2.2 SITUATION ANALYSIS

2.2.1 SECTOR AND SUB-SECTORS ANALYSIS
For each transport mode (sub-sector) the relevant analyses (demand analysis, accessibility analysis, infrastructure quality assessment, capacity assessment, interoperability assessment, operational constraints analysis, delay analysis, accident black spot analysis, functionality, environment, etc.) have been performed in order to identify significant/key issues. The analysis is based on the existing data.

2.2.2 REGIONAL ANALYSIS
The analysis has been based on the existing data, focussing on the transport needs from a long distance, regional, suburban and local perspective considering the sectorial inputs prepared as a basis for the Strategy updating, and identifying key aspects that should be improved, taken in advantage and/or solved.

2.2.3 THE VISION, GLOBAL GOALS AND OBJECTIVES
Taking into account the outcomes of the analysis (SWOT), the vision of transport sector development up to 2030, a global goal and specific objectives and the priorities has been established to address the needs and potentials, to keep the strengths or to overcome the weaknesses or threats of the transport Sector.

For each priority axis the measures and actions has been introduced and the targets and indicators are set.
2.3 **STOCK TAKING AND STAKEHOLDER CONSULTATIONS**

The elaboration of National Transport Strategy is based on an implementation of a top-down planning approach followed by a bottom-up consultation processes with transport sector stakeholders and users at a later stage. The major groups of stakeholders to be covered include:

- the *Strategy Work Group* established at a Ministry of Infrastructure of Ukraine (MIU) and let by the Minister of Infrastructure and 1st Deputy Minister that includes:
  - Technical Team at the Ministry of Infrastructure;
  - Departments of Ministry of Infrastructure dealing with rail, road, air, maritime and river transport;


- other regulatory bodies and structures facilitating the transport, e.g. border-crossing and customs service, State Security Service of Ukraine, State Fiscal Service of Ukraine, ministries of finance and economy, other profile ministries (fuel and energy, industrial production, agriculture, etc.);

- freight forwards, air and sea port operators, Civil Society Organizations and other users in the field of transport and business promotions;

- donor community (multi-lateral and bi-lateral, International Finance Institutions (IFIs)).

After having exchanged on views and policies included into the draft National Transport Strategy with the above mentioned stakeholders, the Strategy Work Group receives a generalized transport sector feedback. Based on this information a final decision on the strategy is taken.
3 TRANSPORT SECTOR DIAGNOSIS

3.1 TRANSPORT SECTOR IN A WIDE CONTEXTS

The transport sector significantly contributes to Ukrainian economy. Its dynamics heavily depends on the performance of national economy.

The transport sector of Ukraine accounts for about 6% of the country's GDP and 7% of total employment. As reported by the State Statistics Service of Ukraine, in Q1 2016 GDP generated by transport decreased by 13.8% (from 20.994 mn UAH to 18.099 mn UAH).

Ukraine: GDP produced by transport and storage

![GDP trends, 2010-2015, % yoy*](image)

Transport sector in Ukraine integrates five modes:
- land transport (road and rail),
- waterborne transport
- air transport.

Over 2014-2015 Ukrainian economy experienced a significant downturn. The economy has been hit by unprecedented shock due to conflict in Eastern Ukraine, annexation of Crimea that resulted both in a loss of transport assets (roads, railway tracks and stations, airports, sea ports) and the market. Besides of that, an additional load on social infrastructure has been created due to the allocating of temporarily displaced people at controlled territories and fighting a growing unemployment rate. On the external markets Ukraine faced a significant reduction of commodity prices. All the above mentioned reasons have multiplied by a backlog of structural reforms in Ukraine and resulted in a drastic economic crisis. Real GDP contracted by 6.8% and 9.9% in 2014 and 2015, correspondingly. In 2015 real GDP i amounted to 1 979.5 bn UAH and GDP per capita constituted 46 201 UAH.
On 27 June 2014 the Association Agreement between Ukraine and European Union was signed. Since 1 January 2016 the Clause IV of the Agreement dealing with the establishment of a Deep and Comprehensive Free Trade Area started to be applied provisionally.

Following a considerable downturn, the economy started to stabilize. In Q1 2016 real GDP increased by 0.1% yoy and decreased by 0.7% in quarterly terms. Real GDP in the 1st quarter of 2016 amounted to 453.2 bn UAH and GDP per capita – 10 605 UAH (the 1st quarter of 2015 – 8 753 UAH).

GDP trends, 2011-2016 (quarterly), % yoy*

* data excluding temporarily occupied territories of AR of Crimea and Sevastopol, and territory of anti-terrorist operations

Over January-June 2016 the industrial production index (excluding the temporarily occupied territories of AR of Crimea and Sevastopol, and territory of anti-terrorist operations) started exhibiting a slight increase by 2.0% yoy.

According to State Statistic Service of Ukraine, in June 2016 industrial production index constituted 97.9 (seasonally adjusted – 97.5) implying a slight contraction of industrial production by 2.1% (2.9%) in monthly terms.

The passenger transport services have been rendered to 2.4 bn passengers, which is by 6.6% less than in S1 2015. Over the same period transport enterprises shipped 291.0 mn tons of cargo, which is by 3.9% more than in S1 2015.

Along with wholesale and retail trade, repair of motor vehicles and motorcycles (14.6%), manufacturing (12.1%), agriculture, forestry and fishing (11.9%), transport is one of important sectors of Ukrainian economy.
economy. Transport costs have a direct contribution to a retail price of various goods. In 2015 transport, storage, postal and courier sector contributed to up to 6.6% of GDP.

**GDP by types of economic activity, 2015 and Q1 2016**

Source: State Statistic Office of Ukraine

In 2015 about 998 thousand employees (6.1% of total labour force excluding temporarily occupied territories of AR of Crimea, city of Sevastopol and part of the anti-terrorist operation zone) worked in transport, storage and communication sector, or.

In 2014 the number of business entities in transport, storage and communication activities accounted for 111.8 thousand (5.8% of total business entities), out of which 14.9 thousand (13.3%) constituted legal persons and 96.9 thousand (86.7%) – natural persons-entrepreneurs.

According to preliminary data, in 2015 the number of enterprises accounted for 15.1 thousand, including 32 (0.2%) large enterprises (with more than 250 employees), 13 973 (92.5%) – small enterprises (with less than 50 employees) and 1 095 (7.3%) middle-size enterprises. About 75.9% of small enterprises had less than 10 employees and annual income of less than 2 mn Euro.

### 3.2 TRANSPORT SECTOR CHARACTERISTICS

#### 3.2.1 THE MODES OF TRANSPORT

Ukrainian transport covers five distinct transport modes: land (road and rail), waterborne (maritime and inland waterways) and air transport.

In 2015 the share of transport modes in freight transportation was as follows: railways – 25.4%, road – 74.1%, maritime – 0.2%, inland waterways - 0.2%, aviation – 0.01%.

In Ukraine the road transport has the largest share in the passenger transport modal split. Road transport is covered by mostly private motor vehicles.

**Passenger transport mode split, January-June 2016**
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Passenger turnover by transport mode I-VI/2016 per passengers transported

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>railway</td>
<td>8%</td>
</tr>
<tr>
<td>motor vehicles</td>
<td>42%</td>
</tr>
<tr>
<td>trolleybuses</td>
<td>21%</td>
</tr>
<tr>
<td>tram</td>
<td>15%</td>
</tr>
<tr>
<td>aircraft</td>
<td>0%</td>
</tr>
<tr>
<td>water</td>
<td>0%</td>
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Passenger turnover by transport mode I-VI/2016 per passenger km

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>railway</td>
<td>37%</td>
</tr>
<tr>
<td>motor vehicles</td>
<td>35%</td>
</tr>
<tr>
<td>trolleybuses</td>
<td>6%</td>
</tr>
<tr>
<td>tram</td>
<td>4%</td>
</tr>
<tr>
<td>aircraft</td>
<td>0%</td>
</tr>
<tr>
<td>water</td>
<td>0%</td>
</tr>
<tr>
<td>underground</td>
<td>5%</td>
</tr>
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Excluding the temporarily occupied territories of AR of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone. Railway including transportation by urban electric trains.

Freight transport modal split, January-June 2016

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>railway trains</td>
<td>82%</td>
</tr>
<tr>
<td>motor vehicles</td>
<td>16%</td>
</tr>
<tr>
<td>water</td>
<td>2%</td>
</tr>
<tr>
<td>aircraft</td>
<td>0%</td>
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<table>
<thead>
<tr>
<th>Mode</th>
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</tr>
</thead>
<tbody>
<tr>
<td>railway trains</td>
<td>68%</td>
</tr>
<tr>
<td>motor vehicles</td>
<td>31%</td>
</tr>
<tr>
<td>water</td>
<td>1%</td>
</tr>
<tr>
<td>aircraft</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: State Statistic Service of Ukraine

1 Excluding the temporarily occupied territories of AR of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

3.2.2 INSTITUTIONAL FRAMEWORK AND LEVELS OF COMPETENCY

Ministry of Infrastructure

The Ministry of Infrastructure is in charge of development and implementation of national policy in road, rail, maritime, river transport and aviation, postal services, roads, navigation and hydrographic support of navigation, merchant shipping, safety of road, urban electric, rail, maritime and river transport, and state supervision of road, urban electric, rail, maritime and river transport safety (except maritime safety of vessel fishing fleet).
Besides the Ministry of Infrastructure, several other executive and independent bodies, public institutions are in charge of various areas of transport sector:

**Transport safety**

The State Service of Ukraine for Transport Safety ("Ukrtransbezpeka") is a central executive body directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister of Infrastructure. It implements state safety policy and state supervision (control) of road, rail, maritime, river (except maritime safety of vessel fishing fleet) and urban electric transport; licensing (passengers and goods transportation by road, rail, maritime and river transport), weight control of vehicles on public roads and charging fees. It is in charge of operational controlling.

**Road transport**

State Roads Agency of Ukraine (Ukravtodor) is a central executive body directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister of Infrastructure. It implements state policy in road maintenance and management; organizes construction, reconstruction, repair and maintenance of roads; develops and implements national strategy and program for road infrastructure; develops standards for construction, reconstruction, repair and maintenance of roads in coordination with relevant government authorities on road safety, provides concession bidding.

State Road Transport Research Institute is a state enterprise under the Ministry of Infrastructure. Its functions include research, certification, expertise, standardization and metrology, testing of vehicles, designing, issuing of tachograph cards, consulting, etc.

**Rail Transport**

The railway network is operated by Public Joint Stock Company "Ukrainian railways" (Ukrzaliznytsya) fully state owned. The company was established according to the Decree of the Cabinet of Ministers of Ukraine dated of 25/06/2014 №200 "On the establishment the Public Joint Stock Company "Ukrainian railways". The company has been established on the basis of merging State Administration of rail transport, enterprises and institutions of public rail transport. The Cabinet of Ministers performs the functions of the company's supreme governance body.

The operations of PJSC “Ukrzaliznytsia” areas are as follows: i) freight transport, ii) passenger transport, iii) infrastructure and iv) industrial entities. The structure of Ukrainian Railways includes following entities:

- 6 Railways – Donetsk, Lviv, Odesa, Prydniprovsk, Southwest, South
- 18 Enterprises
- 6 Industrial production enterprises
- 5 State Design – survey institutes of railway transport
- 3 Scientific organisations
- 4 State enterprises of other kind of activities
Structure of PJSC “Ukrzaliznytsia”

With more than 300,000 employees, Ukrzaliznytsia is currently one of the largest employers in Ukraine, including (non-core) activities, such as medical facilities and engineering research institutions.

**Certification bodies** of rail transport (Dnipropetrovsk rail transport certification body, Automated and automatic control systems for rail transport certification body) provide certification of rail transport.

**Maritime Transport**

The Ukrainian Sea Ports Authority (USPA) is a state unitary enterprise subordinated to the Ministry of Infrastructure. It acts as a state commercial enterprise. The Company was established according to the Law “On Sea Ports of Ukraine” № 4709-VI of 17.05.2012. USPA is responsible for the management and ensuring the safety of navigation, the maintenance, efficient use and development of state property assigned to USPA on the right of economic authority. It has Headquarters Office in Kyiv, a Main Representative Office in Odessa, and branches in all sea ports of Ukraine, the «Delta-pilot» Branch, Maritime Search and Rescue Service. The company employs more than 10,500 persons.

**Maritime Rescue Service** is a state enterprise subordinated to USPA. It ensures a proper functioning of seaports, manages and controls safety of navigation, maintenance, efficient use and development of state property assigned to USPA.

**Classification Society Shipping Register of Ukraine** is a state enterprise ensuring safety of maritime and river transport.

**The Inspectorate for Training and Certification of Seafarers** is a state organization and operates under the supervision of the Ministry of Infrastructure of Ukraine in charge of training and certification.

**Inland Waterways Transport**

The State Administration of River Ports is a state commercial enterprise subordinated to the Ministry of Infrastructure. It ensures efficient use of inland waterways, the passenger fleet and other state property and control over their construction, maintenance, repair and modernization, recovery and efficient use of river port charges in river ports, passenger and goods transportation; repairs, modernization and reconstruction of hydraulic structures and river ports fleet.

**State Enterprise of Inland Waterways “Ukrvodshlyakh”** is a state commercial enterprise subordinated to the Ministry of Infrastructure. It is in charge of implementing transport, technical and environmental
policies in operating inland waterways and shipping gateways, as well as dredging, providing for safe operations of inland waterways and shipping locks.

**Air Transport**

The State Aviation Services of Ukraine (SASU) is a state executive body. Its activity is directed and coordinated by the Cabinet of Ministers via the Minister of Infrastructure of Ukraine that implements state policy in the field of civil aviation and airspace; implements state control and supervision of civil aviation safety and air navigation services.

The National bureau of air accidents investigation of Ukraine is the national civil aviation incident investigation authority of Ukraine, a "specialist expert organization" subordinated to the Cabinet of Ministers of Ukraine.

The Ukrainian State Air Traffic Services Enterprise “Ukraeroruh” is subordinated to the Ministry of Infrastructure. It is in charge of air traffic management, air traffic services, organization and management of airspace; radio and electrical support of air traffic services and flight operations; development and maintenance of subdivisions of civil and military air traffic management system; organization of emergency notification and participation in search and rescue operations; provision of aeronautical information; and training.

### 3.2.3 TRANSPORT NETWORKS AND ROLLING STOCK

Ukraine has one of the largest railway networks in Europe with links to Russian Federation, Belarus, Moldova, Poland, Romania, Slovakia and Hungary, as well as the Ukrainian seaports.

Owing to its favourable geographical position, a number of international transport corridors passes through the territory of Ukraine:

- Pan-European transport corridors № 3, 5, 7, 9;
- Rail Co-Operation Corridors (ORC) № 3, 4, 5, 7, 8, 10 and
- European Transport Corridors - Caucasus - Asia (TRACECA) and Europe - Asia.
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

Update / Upgrade National Transport Strategy 2030
PART 1: Transport Sector Policy Note

International transport corridors passing through Ukraine

Source: Ministry of Infrastructure of Ukraine

Transport routes, 2013-2015, km

<table>
<thead>
<tr>
<th>Year</th>
<th>Operational length of:</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>public railways</td>
<td>21604.9</td>
<td>20948.1</td>
<td>20954.2</td>
</tr>
<tr>
<td></td>
<td>including electrified tracks</td>
<td>10237.5</td>
<td>9975.5</td>
<td>9974.5</td>
</tr>
<tr>
<td></td>
<td>public navigable river routes</td>
<td>2120.7</td>
<td>1613.1</td>
<td>1562.6</td>
</tr>
<tr>
<td></td>
<td>public automobile roads</td>
<td>169648.5</td>
<td>163027.6</td>
<td>163024.2</td>
</tr>
<tr>
<td></td>
<td>of which, with hard coating</td>
<td>166084.9</td>
<td>159463.2</td>
<td>159447.1</td>
</tr>
<tr>
<td></td>
<td>trolley bus routes (single-track)</td>
<td>4379.0</td>
<td>3567.9</td>
<td>3350.8</td>
</tr>
<tr>
<td></td>
<td>public tram routes (single-track railroads)</td>
<td>1914.6</td>
<td>1803.0</td>
<td>1584.1</td>
</tr>
<tr>
<td></td>
<td>subway (double-track railroads)</td>
<td>112.3</td>
<td>112.3</td>
<td>112.3</td>
</tr>
</tbody>
</table>

*Excluding the temporarily occupied territories of AR of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone

Source: State Statistic Service of Ukraine

The priority transport network of Ukraine:
Road Networks

The road transport infrastructure of Ukraine is characterized by a relatively low density compared to other European countries.

Total road length in Ukraine constitutes 163,024.2 km, out of which 159,447.1 km are paved roads. About 31% of paved roads are state roads and 69% - local. Most of these roads are in non-satisfactory technical conditions. In particular, ca 50% of the roads do not meet roughness standards, ca 40% - that for road strength. The average speed on highways is 2-3 times lower than in Western European countries.

Priority road network of Eastern Partnership (TEN-T):

---

1 Excluding the temporarily occupied territories of AR of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone
The road transport network (100% state-owned) is managed by the State Road Agency of Ukraine (Ukravtodor).

Railway Networks

The network of railways of Ukraine is about 20,954.2 km of tracks. out of which 9,974.5 km (47.6%) is electrified. It is (by far) the largest railway networks in Europe.

Priority railway network of Eastern Partnership (TEN-T):
**Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine**

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---

**Railways Fleet**

JSC Ukraine Railways UZ possessed 5 289 passenger cars, 36 180 freight cars, 1 749 electric locomotives, 2 281 diesel-powered locomotives.


<table>
<thead>
<tr>
<th></th>
<th>Freight transport</th>
<th>Passenger transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric locomotive</td>
<td>1 270</td>
<td>498</td>
</tr>
<tr>
<td>Diesel locomotive (without maneuverable locomotives)</td>
<td>693</td>
<td>71</td>
</tr>
<tr>
<td>Freight cars</td>
<td>116 063</td>
<td>-</td>
</tr>
<tr>
<td>Passenger cars</td>
<td>-</td>
<td>5 291</td>
</tr>
<tr>
<td>High speed inter-regional trains</td>
<td>-</td>
<td>14 trains</td>
</tr>
</tbody>
</table>

Source: Ukrzaliznytsia

Overall, private companies account for approximately 40% of the total freight car fleet (with about 70% in the tank car segment, 50% for open cars, and 5-10% for hoppers, platform and box cars), private operators have about 138 000 wagons (mostly gondolas).

The degree of depreciation of freight cars (wagons) is 89.7%, passenger cars – 86%. 100% of locomotives and 56% of passenger cars have an average age more than 40 years.
Waterborne Networks

Ukraine has 1.6 thousand km navigable waterways. The water transport industry of Ukraine is based on a network of sea and river ports, as well as loading terminals, moorings and transport facilities of various forms of ownership. According to MOIU, 130 000 persons are employed in maritime transport, out of which 36 000 employees working in 38 public or private enterprises.

At present 492 ships of a total deadweight of 607.44 thousand tons are operated under Ukrainian flag. The average operational life of river crafts is 21-25 years, and only 18% of fleet is operated over less than 20 years.

As of July 2014, there have been 13 sea ports (excluding 5 sea ports operate in AR Crimea) operated in continental part of Ukraine. The biggest of them in terms turnover are Yuzhnyi (deep sea) port, Odessa and Illichivsk sea ports.

Two main river arteries are Danube river (Waterway E 80, E 80-09 according to UNECE classification) and Dnipro river (Waterway E 40 according to the UNECE classification). The existing port infrastructure on Dnipro river covers 16 river ports and terminals that can potentially provide for transporting and processing of up to 50 mn tons of cargo. Major port infrastructure belongs to private companies (Ukrrichflot, Nibulon and Germes- Trading).

At the beginning of 2015 the total length of Ukrainian navigable IWW equaled to 1562.6 km. Key IWW arteries that are operated now include Dnipro river (Kyiv and Kaniv sections for cabotage and Zaporizhzhia/Dnipro-Kherson section for river-sea transport), Yuzhnyi Bug river (Mykolaiv-Nova Odessa section) and Danube river.

The capacity of IWW is limited by the capacity of navigable water along key river arteries. For Dnipro river the controlling depth indicator varies from 1.9 m to 3.6 m and for Yuzhnyi Bug river – up to 2.2 m.

Figure 1: Navigable water along Ukrainian inland waterways, meters
Although the cargo throughput of Ukrainian river ports increased since 2008, it still merely reaches about one fifth of total river port design capacity.

Table 1: Technical characteristics and cargo throughput at Ukrainian river ports

<table>
<thead>
<tr>
<th>River ports:</th>
<th>Technical characteristics</th>
<th>Cargo throughput, mn t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Design capacity, mn tonnes</td>
<td>Length of berths, m</td>
</tr>
<tr>
<td>Chernygiv</td>
<td>6.7</td>
<td>n/a</td>
</tr>
<tr>
<td>Kyiv</td>
<td>37.9</td>
<td>1479</td>
</tr>
<tr>
<td>Cherkassy</td>
<td>4.6</td>
<td>519</td>
</tr>
<tr>
<td>Kremenchuk</td>
<td>13.0</td>
<td>608</td>
</tr>
<tr>
<td>Kam`ianske</td>
<td>5.4</td>
<td>340</td>
</tr>
<tr>
<td>Dnipro</td>
<td>26.3</td>
<td>1345</td>
</tr>
<tr>
<td>Zaporizhzhia</td>
<td>31.4</td>
<td>2786</td>
</tr>
<tr>
<td>Nova Kakhovka</td>
<td>2.9</td>
<td>1200</td>
</tr>
<tr>
<td>Kherson</td>
<td>12.7</td>
<td>950</td>
</tr>
</tbody>
</table>
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

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Mykolaiv | 10.4 | n/a | n/a | 0.8 | 0.9 | 1.3

Source: River information service of Ukraine

Commodity structure of freights transported by IWW is overpresented (ca 80% of total freight throughput) by dry bulk cargoes, namely, ferrous metals and construction materials.

Figure 2: Commodity structure of freights transported by river ports, 2014, %

All types of vessels navigating Ukrainian IWW and utilizing river locks are charged a lock fee. Effective lock rates are defined by the Government of Ukraine (CMU Resolution No553 dated of 16/10/2014).

Table 2: Effective lock rates, UAH per vessel

<table>
<thead>
<tr>
<th>Type of vessel, m³</th>
<th>up to 2000</th>
<th>2001-4000</th>
<th>4001-10000</th>
<th>over 10000</th>
</tr>
</thead>
<tbody>
<tr>
<td>for Kyiv, Kaniv, Kremenchuk and Kamenskoe locks:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vessels calling abroad</td>
<td>806</td>
<td>1241</td>
<td>1614</td>
<td>1981</td>
</tr>
<tr>
<td>Cabotage vessels</td>
<td>251</td>
<td>372</td>
<td>497</td>
<td>557</td>
</tr>
<tr>
<td>for Zaporizhzhia lock:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vessels calling abroad</td>
<td>3344</td>
<td>4958</td>
<td>6569</td>
<td>8183</td>
</tr>
<tr>
<td>Cabotage vessels</td>
<td>618</td>
<td>991</td>
<td>1241</td>
<td>1614</td>
</tr>
<tr>
<td>for Kakhovka lock:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vessels calling abroad</td>
<td>2169</td>
<td>3223</td>
<td>4337</td>
<td>5457</td>
</tr>
<tr>
<td>Cabotage vessels</td>
<td>497</td>
<td>618</td>
<td>869</td>
<td>1112</td>
</tr>
</tbody>
</table>

Source: UkrVodShliakh

Maritime Fleet

In 2015 Ukrainian maritime fleet amounted to 477 vessels in 2015 compared to 729 ships in 2011.

Ukrainian Maritime Fleet, 2011-2015, thousand deadweight tonnes

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Urban Transport Networks

Urban trolleybus networks of account for up to 3.4 thousand km, tram tracks - for around 1.6 thousand km.

Ca 93% of tramcars, 59% of trolleybuses and 76% of subway cars have been operated for about 15 years.

According to State Statistics Service the depreciation rate of transport (including land, water, air transport, additional transport services and auxiliary operations) stands at about 96%.

State programs to upgrade railway rolling stock and electric transport, roads actually are not effectively implemented due to lack of funding.

Passenger transport should be commercialized, self-sustainable and commercially attractive. This would make it possible to attract private capital and to upgrade transport systems.

3.2.4 FREIGHT TRANSPORT

In 2015 road transport accounted for 21% of total freight turnover in tkm, rail transport - for 76.7%, waterborne transport - 2.2%, and air transport - 0.08%.

In 2015, the freight transportation accounted for 1 377.2 mn tons (-9.6% in comparison to 2014). Freight turnover experienced a 6.8% reduction in 2015.

Over the period of 2005-2013 freight transportation increased by 7.5% (in tons), despite a sharp economic decline of 2009. Since 2014 the sector has entered another economically and politically unstable period due to military actions in Eastern Ukraine.

Freight transport, 2005 – 2015, mn tons
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In January-June 2016, transport enterprises shipped 291.0 mn tons of cargo, i.e. 152 087.0 mn tkm of cargo, which is by 3.9% more in terms in annual terms.

Although in 2013-2015 cargo transport dropped by 16.8% (from 379 045.0 mn tkm to 315 341.8 mn tkm), in January–June 2016 cargo transportation resumed growing in Ukraine.

In of January – June 2016, rail transport represented more than 82% of total cargo transport (excluding pipelines).

Total Shipment of Cargo, January-June 2016

<table>
<thead>
<tr>
<th>Freight turnover I-VI 2016</th>
<th>Freight shipped I-VI 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mn. T*km</td>
</tr>
<tr>
<td>TOTAL SHIPMENT WITH PIPELINES</td>
<td>152 087.0</td>
</tr>
<tr>
<td>TOTAL SHIPMENT WITHOUT PIPELINES</td>
<td>107 814.6</td>
</tr>
</tbody>
</table>

out of which, by

|                           |                           |                        |       |                    |
| railway trains | 88 780.8 | 82.35  | 162.2  | 67.61              |
| motor vehicles | 17 227.0 | 15.97  | 75.2   | 31.34              |
| water | 1 690.7 | 1.57   | 2.5    | 1.04               |
| pipelines | 44 272.4 | -      | 51.1   | -                  |
| aircraft | 116.1   | 0.11   | 0.04   | 0.01               |

1 Excluding the temporarily occupied territories of AR Crimea, the city of Sevastopol and part of the anti-terrorist operation zone

Source: State Statistics Service of Ukraine
Road Transport

In January – May 2016 freight turnover by road amounted to 14.1 bn t*km and exhibited an increase of 5.8% yoy. By the same period of time 60.7 mn tons of cargo (by 13.4% more in annual terms) has been transported.

In Ukraine road transport dominates in domestic transport; its share in international and transit transport is relatively modest. The domestic transport covers mining and metal products, coal and mineral construction materials.

Rail Transport

In January-June 2016 136.7 mn tons of cargo have been transported within Ukraine and exported by rail. Rail transport is mainly used to transport bulk cargo. During the 1st semester of 2016 certain bulk cargo categories showed an increase in transport volumes (chemicals and mineral fertilizers, oil and oil products, ferrous metals, coke), others (construction materials, scraps, timber, cement) – decreased.

### Rail transport commodity structure, January-June 2016

<table>
<thead>
<tr>
<th></th>
<th>Total, mn tones</th>
<th>Annual growth rate, %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freight total</strong></td>
<td>162.2</td>
<td>98.8</td>
</tr>
<tr>
<td>of which, shipped</td>
<td>136.7</td>
<td>100.1</td>
</tr>
<tr>
<td>of which, by commodity groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>coal</td>
<td>27.1</td>
<td>100.6</td>
</tr>
<tr>
<td>coke</td>
<td>3.6</td>
<td>115.7</td>
</tr>
<tr>
<td>oil and oil products</td>
<td>1.3</td>
<td>109.6</td>
</tr>
<tr>
<td>iron and manganese ore</td>
<td>35.0</td>
<td>95.6</td>
</tr>
<tr>
<td>ferrous metals</td>
<td>12.3</td>
<td>112.5</td>
</tr>
<tr>
<td>scrap ferrous metals</td>
<td>1.3</td>
<td>75.1</td>
</tr>
<tr>
<td>timber</td>
<td>2.4</td>
<td>92.2</td>
</tr>
<tr>
<td>chemical and mineral fertilizers</td>
<td>2.2</td>
<td>102.9</td>
</tr>
<tr>
<td>grain and milled products</td>
<td>12.8</td>
<td>109.6</td>
</tr>
<tr>
<td>cement</td>
<td>2.7</td>
<td>75.1</td>
</tr>
<tr>
<td>construction material</td>
<td>14.8</td>
<td>80.3</td>
</tr>
<tr>
<td>other commodities</td>
<td>21.2</td>
<td>119.1</td>
</tr>
</tbody>
</table>

*Source: State Statistical Office of Ukraine*

Waterborne Transport

According to official data, in 2015 the freight maritime transport accounted for 1 246 thousand tons (37.9%) of domestic transport and 2 045.6 thousand tons (62.1%) of international transport.
Freight turnover at Ukrainian sea ports accounted for 453.7 mn t*km (11.7%) of domestic transport and 3 408.4 mn t*km (88.3%) of international transport.

The river freight transport reached ca 2 mn tones (62.3%) of domestic transport, and 1.2 mn tones (37.7%) of international transport. The river freight turnover estimated at 0.3 bn t*km (18.1%) in domestic transport and 1.3 bn t*km (81.9%) in international transport.

Over 2013-2015 cargo processing in Ukrainian sea ports dropped down from 153 541.7 to 136 714.5 or by 11.0%.

<table>
<thead>
<tr>
<th>Cargo transport at Ukrainian sea and river ports, January-November 2015¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of which:</td>
</tr>
<tr>
<td>Freight turnover, thousand tons</td>
</tr>
<tr>
<td>Sea ports</td>
</tr>
<tr>
<td>% to January-November 2014</td>
</tr>
<tr>
<td>River ports</td>
</tr>
<tr>
<td>% to January-November 2014</td>
</tr>
</tbody>
</table>

¹ Excluding the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol.

Source: State Statistical Office of Ukraine

Air Transport

According to State Statistics Service of Ukraine, in 2015 air international freight transport represented most (about 99.9%) of the total air transport freight turnover.

In January-May 2016 the air transport turnover amounted to 94.4 mn t*km, which is by 3.5% more than in January-May 2015. Air transport carried 32.2 tons of cargo, which is by 14.1% more than in January-May 2015.

3.2.5 PASSENGER TRANSPORT

Passenger Transport

According to official data during the last four years the demand for passenger transport was decreasing demand.
In 2015 passenger transport services of were rendered to 5.2 bn passengers (-12.3% yoy). During the first semester of 2016 ca 2.4 bn passengers have been transported (-6.6%).

Over 2015-2016 the passenger transport modal split of remained stable: 41.8% journeys (1 009.3 mn passengers) by buses, 21.4% (517 mn passengers) – by trolleys, 14.6% (352.3 mn passengers) – by trams, 14.1% (339.4 mn passengers) - by subway, 8% (192.9 mn passengers) – by rail, 0.14% (3.3 mn passengers) – by air, and 0.004% (0.1 mn passengers) – by water transport.

The buses remained the most commonly used mode of public transport. Bus transport is the only public transport service in 412 out of 460 cities and covers more than 96% of transport services in rural settlements.

### Passenger transport, 2013-2015, thousand passengers

<table>
<thead>
<tr>
<th></th>
<th>railway</th>
<th>sea</th>
<th>river</th>
<th>automobile (buses)1</th>
<th>air</th>
<th>trams</th>
<th>trolley-buses</th>
<th>subway</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>425216.9</td>
<td>6642.0</td>
<td>631.1</td>
<td>3343659.5</td>
<td>8107.2</td>
<td>757382.8</td>
<td>1306228.5</td>
<td>774794.0</td>
</tr>
<tr>
<td>2014</td>
<td>389305.5</td>
<td>29.4</td>
<td>565.1</td>
<td>2913318.1</td>
<td>6473.3</td>
<td>769911.1</td>
<td>1096884.8</td>
<td>725819.9</td>
</tr>
<tr>
<td>2015</td>
<td>389794.1</td>
<td>25.5</td>
<td>550.8</td>
<td>2243734.9</td>
<td>6302.7</td>
<td>738603.2</td>
<td>1080772.6</td>
<td>700369.5</td>
</tr>
</tbody>
</table>

1 Including transportation of passengers by businessmen of small business (legal and natural persons)
2 Excluding the temporarily occupied territories of AR of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone

Source: State Statistic Office of Ukraine

### Passenger transportation. January-June 2016

<table>
<thead>
<tr>
<th></th>
<th>Passenger turnover</th>
<th>Passengers transported</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mn. Pass*km</td>
<td>% yoy</td>
</tr>
<tr>
<td>Total transported, including:</td>
<td>48161.9</td>
<td>102.9</td>
</tr>
<tr>
<td>railway</td>
<td>17682.5</td>
<td>105.9</td>
</tr>
<tr>
<td>motor vehicles</td>
<td>16795.5</td>
<td>96.0</td>
</tr>
<tr>
<td>water</td>
<td>12.0</td>
<td>108.1</td>
</tr>
<tr>
<td>aircraft</td>
<td>6110.5</td>
<td>124.2</td>
</tr>
<tr>
<td>tram</td>
<td>2028.0</td>
<td>100.2</td>
</tr>
<tr>
<td>trolleybus</td>
<td>2932.2</td>
<td>97.8</td>
</tr>
<tr>
<td>underground (metro)</td>
<td>2601.2</td>
<td>97.4</td>
</tr>
</tbody>
</table>

1 Excluding the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone
2 Including transportation by urban electric train
Another important observation is that bus passenger transport dominates over rail passenger transport.

### Modal split of passenger transport, 2015, % of total passengers

![Pie Chart showing modal split of passenger transport]

1 Excluding the temporarily occupied territories of AR Crimea, the city of Sevastopol and part of the anti-terrorist operation zone

2 Including passenger transportation by city train (Kyiv – 4,892.7 thousands passengers)

#### Passenger transport by the type of connection:

According to State Statistics Service of Ukraine, in 2015 road passenger transport accounted for: urban transport – 1,659.9 mn passengers (74%), suburban transport – 459.7 mn passengers (20.5%), intercity transport – 122.9 mn passengers (5.5%), international transport – 1.2 mn passengers (0.05%).

Passenger turnover by road covered: urban transport – 14.7 mn passengers (42.6%), suburban transport – 8.8 mn passengers (25.4%), intercity transport – 10.4 mn passengers (30%), international transport – 0.7 mn passengers (2%).

In 2015 rail passenger departures structure looked as follows: 6.7% - by through trains, 3.4% - local, 89.9% - suburban.

**Maritime passenger transport:** domestic – 9.7 thousand passengers (38%), international – 15.8 thousand passengers (62%). Maritime transport passenger turnover: domestic – 216.1 thousand p*km (1,5%), international – 14 mn p*km (98,5%). The regions of maritime passenger transportation are Odesa and Mykolayiv oblasts.

River passenger transport is solely entitled for domestic market: 549.3 thousand passengers (99.7%) and international transport covers 1.5 thousand passengers (0.3%). In terms of river transport passenger turnover, domestic transport contributes to 66.6% (5.4 mn p*km), implying that international transport is associated with long-distance travels (2.7 mn p *km or 33.4%).

Air passenger transport is dominated by international travels: 5,678 thousand passengers or 90.1% of total passenger transport. Air transport passenger turnover confirms that the same tendency: international travels cover 11.1 bn p*km or 97.5% of total passenger turnover.

### 3.2.6 Urban Mobility
The division of labour between the Minister for Regional Development and the Ministry of Infrastructure re. the urban mobility is not clear. Ministry of Infrastructure is involved in tariff regulation and licensing, Ministry of Regional Development is in charge of urban development and norms, however, the overall tasks of guidance in respect of urban mobility is not taken up. At present, the cities are more or less left on their own.²

Populated places of Ukraine are split into two categories: urban and rural. From around 45.9 (2013) million of inhabitants about 39% people of Ukraine live in urban areas.

Figure: Ukraine Administrative Division


Figure: Cities of Ukraine (No. of cities/towns per No. of inhabitants)

Source: Urban Mobility in Ukraine: The 13 billion Euro gap, GIZ, April 2014

### Number of Cities/towns

- Large city (≥ 1 million inhabitants): 5
- Medium-sized City (0.5 - 1 million inhabitants): 4
- Small city (100 000 - 500 000 inhabitants): 37
- Large town (50 000 - 100 000 inhabitants): 55
- Medium-sized town 20 000 - 50 000 inhabitants): 133
The increasing popularity of private cars has cities firmly in its grip. Congestions, accidents, lack of parking space, air pollution and overcrowded buses and trains affect urban transport users alike.

Urban transport services and infrastructure have encountered enormous devastation. Many tram and trolley bus systems are in danger of being shut down due to the lack of investments in rolling stocks and infrastructure. The investment in rolling stock has stopped at early nineties.

Inadequate tariff regulations underfinanced investments and only partially compensated free-rider privileges are major reasons.

The low fares, limited investments, declining service quality and ridership resulting in ever less revenues are all visible in any cities.

Fuel taxis are a major income sources for public budgets. Low fuel prices create higher use of private cars. Transport fares are comparatively low, single trip fares are low and so monthly passes are not attractive. There is also lack of integration of fares for all public transport modes.

Pedestrians and cyclists are involved in traffic accidents, mainly because of high speed of motorised traffic and lack of safe cycling lines and road crossings.

The investment in sustainable urban mobility is hampered by outdated standards and regulations as well as insufficiently staffed and equipped institutions. In most cities, responsibilities in transport are spread over a wide range of stakeholders that limits the identification and implementation of projects to improve the mobility.

The overall investment need of a comprehensive investment scenario of Urban transport development was estimated to 13,495,600,000 (GIZ, Urban Mobility in Ukraine: The 13 billion Euro gap, April 2014). This includes rehabilitation of tram tracks, trolley track, rehabilitation of or procurement of new trams, trolleybuses and buses, road safety measures, mobility planning, etc.

![Figure: Investment needs in urban transport in Ukraine](image-url)

Source: GIZ: Urban Mobility in Ukraine: The 13 billion Euro gap, April 2014
The governmental bodies (Ministry of regional Development and Ministry of Infrastructure) have to reassess their roles on respect of urban mobility. A national urban transport funds needs be established to tackle immediate deficit in quality of urban transport infrastructure.

3.2.7 EXPORT/IMPORT AND TRANSIT

Export/Import

Due to stagnating economy, the volumes of Ukrainian exports went down from 63.3 bn USD in 2013 to 38.1 bn USD in 2015 or by 39.8 %. At the same time imports reduced from 76.96 bn USD in 2013 to 37.5bn USD in 2015 or by 51.3 %. During the 1st semester of 2016 the same tendency continued: exports reduced by 11.5% yoy and imports – by 6.2% yoy.

As for commodity structure of Ukrainian imports, growth is observed in live animals, animal products, sugar and confectionery, cork and cork articles, straw articles, silks and textile fibres, hats, processed feather and down. Growing export commodities include plant products, cereals, base metals and corresponding articles, ferrous metals and machines, equipment and mechanisms, electric and technical equipment.

Commodity structure of Ukrainian foreign trade, January-May 2016

<table>
<thead>
<tr>
<th>Commodity groups</th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>th.USD</td>
<td>th.USD</td>
</tr>
<tr>
<td></td>
<td>% yoy</td>
<td>% in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>exports</td>
</tr>
<tr>
<td>Total, including</td>
<td>13 693 732.7</td>
<td>88.5</td>
</tr>
<tr>
<td>II. Plant products</td>
<td>2934160.4</td>
<td>101.7</td>
</tr>
<tr>
<td>10 cereals</td>
<td>2326669.0</td>
<td>102.2</td>
</tr>
<tr>
<td>III.15 Animal or plant fats and oils</td>
<td>1597632.6</td>
<td>121.1</td>
</tr>
<tr>
<td>V. Mineral products</td>
<td>1004606.5</td>
<td>76.5</td>
</tr>
<tr>
<td>XV. Base metals and preparations thereof</td>
<td>3124852.8</td>
<td>73.8</td>
</tr>
<tr>
<td>72 ferrous metals</td>
<td>2713611.1</td>
<td>75.3</td>
</tr>
<tr>
<td>XVI. Machines, equipment and mechanisms, electric and technical equipment</td>
<td>1401275.2</td>
<td>89.9</td>
</tr>
</tbody>
</table>

In 2014 transit freight accounted for ca. 13% of foreign freight transported by all transport modes except pipelines (66.5% for exports and 19.7% for imports).

Structure of cargo transit by modes of transport, th. tones, 2010-2014

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>4 649.12</td>
<td>5 011.20</td>
<td>4 850.03</td>
<td>5 584.97</td>
<td>5 863.86</td>
</tr>
</tbody>
</table>

Source: State Statistical Office of Ukraine

In 2010-2014 Ukraine lost 1/3 of its transit traffic. The most concerned by transit are railways (by 34%) and maritime transport (78.2%), while the road transit recorded a growth (26%).

Transit

84 nuclear reactors, boilers, machines  
570059.7  73.9  4.2  1654288.0  138.2  11.5
85 electric machines  
831215.5  105.5  6.1  1112629.5  114.1  7.7
XVII. Ground, air and water transport facilities  
210724.8  85.6  1.5  1062657.3  179.7  7.4
87 ground transport facilities excluding railway  
54299.3  73.0  0.4  1026928.3  188.2  7.1

1 Excluding the temporarily occupied territories of AR Crimea, the city of Sevastopol and part of the anti-terrorist operation zone.

Source: State Statistics Office of Ukraine
Support to the Implementation of the Association Agreement
and of the National Strategy in the Transport Sector in Ukraine

Update / Upgrade National Transport Strategy 2030
PART 1: Transport Sector Policy Note

<table>
<thead>
<tr>
<th>Mode</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail 2</td>
<td>44 511.77</td>
<td>48 669.54</td>
<td>40 940.14</td>
<td>32 983.02</td>
<td>29 398.29</td>
</tr>
<tr>
<td>River</td>
<td>-</td>
<td>-</td>
<td>7.58</td>
<td>2.16</td>
<td>-</td>
</tr>
<tr>
<td>Maritime 3</td>
<td>3 660.41</td>
<td>3 912.07</td>
<td>1 637.72</td>
<td>1 519.33</td>
<td>797.25</td>
</tr>
<tr>
<td>Aviation</td>
<td>1.58</td>
<td>2.81</td>
<td>2.99</td>
<td>0.77</td>
<td>1.16</td>
</tr>
<tr>
<td>Pipeline 4</td>
<td>99 440.26</td>
<td>93 119.52</td>
<td>76 978.38</td>
<td>79 249.24</td>
<td>65 796.20</td>
</tr>
<tr>
<td>Others 5</td>
<td>90.64</td>
<td>527.84</td>
<td>477.07</td>
<td>787.10</td>
<td>136.61</td>
</tr>
<tr>
<td>Total</td>
<td>152 353.78</td>
<td>151 242.98</td>
<td>124 893.91</td>
<td>120 126.59</td>
<td>101 993.37</td>
</tr>
</tbody>
</table>

1 Including volumes of goods transported through control checkpoints in Autonomous Republic of Crimea and Sevastopol in January-June 2014.
2 Except road vehicles in railway wagons
3 Uploaded goods in containers or without them
4 Heavy vehicles – pipelines, power lines and so on
5 Road vehicle in a railway carriage, railway carriage on ships, unaccompanied trailer or semi-trailer on sea vessel, mail, river vessel on sea vessel, self-propelled road transport, hand luggage, unknown mode of transport

Source: State Statistics Office of Ukraine

The main transit route via Ukraine (The New Silk Road)

Transport Corridor Black Sea – Baltic Sea: Projects «Viking» and «ZUBR»

Source: Ministry of Infrastructure of Ukraine
Trends in Ukraine – China export 2013-2015:

- Ukraine is a convenient transportation hub between China and the EU
- Ukraine is #1 exporter of sunflower oil and #2 grain exporter in the world
- The volume of grain exports from Ukraine to China has increased significantly over the past 2 years and continues to increase

Ukraine export to China:

Source: Ministry of Infrastructure of Ukraine
3.2.8 TRANSPORT SAFETY AND SECURITY

Road safety

Ukraine road safety remains one of the worst in Europe in terms of road accidents and fatalities.

International comparison: road fatalities per 1 mn inhabitants

Source: Ministry of Infrastructure of Ukraine

In 2005-2015 the number of people killed in road accidents reduced from 7 229 to 4 003 (or by 44.6%) in Ukraine.

According to WHO the annual losses due to road accidents in Ukraine are estimated at about 4-5 bn USD.

In 2005-2015 total number of reported road accidents reduced by 45.2% and the total number of people killed or injured in these accidents decreased from 63 228 to 35 603.

Traffic accidents at roads and streets, 2010 - 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic accidents at roads and streets, number</th>
<th>out of which fatal accidents</th>
<th>Victims of traffic accidents, persons</th>
<th>out of which killed</th>
<th>out of which injured</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>31 914</td>
<td>4 223</td>
<td>43 850</td>
<td>4 875</td>
<td>38 975</td>
</tr>
<tr>
<td>2011</td>
<td>31 281</td>
<td>4 344</td>
<td>43 086</td>
<td>4 908</td>
<td>38 178</td>
</tr>
</tbody>
</table>

3 excluding the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone
4 Information by the Ministry of Infrastructure
The number of traffic accidents with victims.

Excluding the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of the anti-terrorist operation zone

Source: State Statistics Service of Ukraine

Ukraine’s objective in 2020: road traffic accident fatalities – decrease by 50% to 2 700.

3.2.9 TRANSPORT ENVIRONMENTAL AND HEALTH ISSUES

In 2015 air emissions of pollutants amounted to 4 521.3 thousand tons, including stationary sources of pollution – 2 857.4 thousand tons, road transport – 1 475.2 thousand tons, aviation, railway, water transport and production equipment - 188.7 thousand tons.

Carbon dioxide emissions totalled to 162 mn tons, including stationary sources of pollution - 138.9 mn tons, road transport - 16.9 mn tons, air, rail, water transport and production equipment - 6.2 mn tons.

Road transport CO$_2$ emissions accounted for 73.2% of transport emissions.

3.2.10 TRANSPORT SECTOR FUNDING

As of 2015, the transport sector funding constituted 31.1 bn UAH and contributed to 4.6% of Ukrainian consolidated budget. About ¾ of this amount was funded by the State budget of Ukraine. The remaining 8 bn UAH was due to local budgets.

Transport: state and local budget funding, 2015, mn UAH

If to consider the structure of public funding in transport, it could be easily noticed that roads have been an obvious priority in 2015. Most of state budget funds (99%) have been used to support road networks. At the same time local budgets contributed up to 70% of their total funding to O&M of roads.

A significant share of public funding was allocated to State Road Agency or Ukraine (73.6%) and MOIU management (11.3%). Other transport authorities received only 15% of state finance.
**Structural budget funding in 2015, %**

- MOIU management
- State railways transport administration
- State special transport service
- National agency for EURO 2012 and infrastructure projects
- State aviation service
- State transport service of Ukraine
- Subventions from state to local budgets*

* cover purchases of tram cars

**Road Sector**

To support the needs of road sector in operation, maintenance and development the State Road Fund of Ukraine was established in 1991. Until now it functions as a general budget fund and very much depends on financing other publicly funded sectors. Since road maintenance and construction works heavily depend on weather, the road sector frequently suffers from under financing.

**Road maintenance needs, 1980-2014, km**

Source: State Road Agency of Ukraine

At the meantime, the revenues of State Road Fund of Ukraine shall cover the following sources:
- Excise and import duties on oil products;
- excise and import duties on imported cars and tires;
- concession fees;
- charge on overweight or oversized vehicles;
- donations of legal or natural persons.

Until now only the first two sources replenish the State Road Fund of Ukraine. Other sources are subject to needed improvements in regulatory and legal framework for public-private partnerships and weight control over the vehicles.

In 2015 the above mentioned excise tax and import duties accounted to 23.6 bn UAH:

<table>
<thead>
<tr>
<th>Indirect taxes:</th>
<th>Effectively collected in 2015, bn UAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excise tax on vehicles excluding motor- and bicycles</td>
<td>2.46</td>
</tr>
<tr>
<td>Excise tax on petrol for vehicles</td>
<td>6.93</td>
</tr>
<tr>
<td>Other oil products</td>
<td>12.12</td>
</tr>
<tr>
<td>Import duties on oil products, vehicles and tires</td>
<td>2.11</td>
</tr>
</tbody>
</table>

*Source: Ministry of Finance of Ukraine*

Provided the current road sector needs, available public finding under the State Road Fund is short: as of 2015 road sector needs have been estimated at 34.2 bn UAH.

**Road sector needs, 2013-2018, mn UAH**

![Graph showing road sector needs from 2013 to 2018](image)

*Source: State Road Agency of Ukraine*

**Railways Sector**

As of December 1\textsuperscript{st}, 2015 PJSC “Ukrzaliznytsia” (UZ) was established. UZ now shall perform the functions of freight and passenger transportation, but also maintain railway networks.

UZ has concluded 2015 with a loss of 16.78 bn UAH. The structure of its revenues was as follows:

<table>
<thead>
<tr>
<th>Operations</th>
<th>External sales, bn UAH</th>
<th>Internal sales, bn UAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight transport</td>
<td>49.37</td>
<td>-</td>
</tr>
<tr>
<td>Intercity passenger transport</td>
<td>5.43</td>
<td>-</td>
</tr>
</tbody>
</table>
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

**Update / Upgrade National Transport Strategy 2030**

**PART 1: Transport Sector Policy Note**

<table>
<thead>
<tr>
<th>Suburban passenger transport</th>
<th>0.59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary operations</td>
<td>5.27</td>
</tr>
<tr>
<td>Other segments</td>
<td>0.35</td>
</tr>
<tr>
<td>Eliminations</td>
<td>-</td>
</tr>
<tr>
<td>Corrections</td>
<td>(0.88)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>60.13</strong></td>
</tr>
</tbody>
</table>

Source: PJSC “Ukrzaliznytsia”

Although it has encounter losses in 2015, UZ contributed 118.68 mn UAH to state budget as retained earnings and dividends.

In 2016 UZ is expected to close with a net profits of 96.4 mn UAH. 75% of company’s net profits shall be directed to state budget. Up to 40% of net profits shall be directed to company’s development fund.

**Maritime Sector**

In March 2013 a SE “Ukrainian Sea Ports Administration” (USPA) was established. The company is in charge of ensuring proper operation of port infrastructure. At certain sea ports state stevedoring companies operate; there are involved in different port operations and cannot interfere into port administration.

USPA generates its revenues that are generated due to port fees (tonnage, docking, anchorage, sanitary), ice channelling fee and harbor pilotage. The company accumulates these revenues and is in charge of financing sea port infrastructure.

In 2015 USPA generated 2.99 bn UAH in net profits, 32% out of which have been transferred to state budget.

The main problems of transport industry are significant depreciation of fixed assets, obsolescence of the infrastructure and rolling stock; outdated legal framework, insufficient investment required to upgrade and support innovative development of the industry; unsatisfactory level of road safety, increase environmental stress in cities.

Capital investment for economic activity ”Transport, storage, postal and courier activities” in 2014 totalled 15.5 billion USD (17.7% less than in 2013, and by 52.8% less than in 2012).

Currently, the main source of road financing are revenues from excise and import duties on petroleum products, excise duty and import duty on imports into Ukraine of vehicles and tires for them.

According to recent amendments to the legislation, targeted source of financing of roads that previously accumulated in a special fund of the state budget cancelled, and funding all costs of road management introduced from the general fund budget.

A special fund for road repairs is financed from excise and import duties on petroleum products and vehicles, as well as charges for vehicles that exceed the normal road load⁵.

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⁵ Article 3, Law No. 1562-XII of 18 September 1991 "on the Source of Financing Road Maintenance"
In 2015, Hrv 20.8 billion were allocated to Ukravtodor, of which Hrv 17.4 billion were to be used for repaying the company’s debts and Hrv 3.4 billion for road maintenance and development.

The Cabinet of Ministers of Ukraine with its decision has redistributed the budget of the State Agency of Automobile Roads (Ukravtodor) for 2016, reducing the debt payment of the agency by UAH 1.5 billion, and sent the money to the program of the general purpose roads repair and maintenance, according to the decree of the Cabinet of Ministers (No.435).

### 3.2.11 TRANSPORT USERS AND THE DEMAND FOR SERVICES

#### A. Industries

**Freight Transport**

Although the volumes of industrial production experienced two major downturn periods (end of 2008 till mid-2010 and then since Q1 2014), Ukrainian industries remain major contributors to country’s foreign trade operations.

Over the last 5 years the structure of Ukrainian exports and imports considerably changed. In 2012, Ukrainian imports have been dominated by extraction industry, coke, chemicals, other non-metal ores, machinery production and automobile transport. Two years later:

- coal extraction shrunk its share in Ukrainian imports considerably, thereby leaving gas and oil extraction important;
- imports of food staff, beverages and tobacco increased their share in total imports;
- oil processing became more important within the overall structure of Ukrainian imports;
- machinery, but also transport and storage maintained their importance.

Except the reduction of automobile transport share, over 2012-2014 the structure of Ukrainian exports remained almost unchanged. Agriculture, food staff, metals/metallurgy, transport and storage still constitute more than 50% of total exports.

---

Taking into account the expected growth of Ukrainian exports, in 2017:
- agricultural products and grain shall increase at 3-10% yoy;
- metallurgy shall expand at 6-7% yoy;
- ore extraction shall grow at 5-7% yoy;
- machine building shall grow at 7% yoy;
- chemicals shall grow at 3-4% yoy.

In 2018-2019 the rates of industrial growth shall reach 3.3-4.5% yoy and 3.5-4.7% yoy, respectively. Agricultural production is expected to grow at 0.6-2.8% yoy and 0.8%-2.9% yoy, respectively.
Industries

Based on current tariffs, the most profitable lines of cargo business are:

- metals, machinery, light oil products, alcohol, acids and oxides, followed by oil and heavy oil products, construction materials, grain, coke, timber and food. The least profitable are coal, fertilizers, cement, ores, salt, limestone and sugar beet.

The index of industrial production by regions in the period of I-V/2016 indicates production growth in many regions in comparison with 2015. In accordance with the official statistical data the core industrial areas of Ukraine and the areas of the growth for transport service are:

- Dnipropetrovsk, Donetsk, Zhytomyr, Zakarpattyya, Kyiv, Kirovohrad, Luhanks, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Ternopil, Kharkiv, Kherson, Khmelnytskyi, Cherkasy, Chernihiv and the City of Kiev with an increase of industrial production higher than 100%, where the main demand for transport services is expected also in the future.

Transport providers

Road Transport

In 2013 in the road transport sector operated officially 78,400 legal entities. To provide road transportation services, carriers must be registered as a legal entity and are subject to activity licensing. Cabotage is permitted (passengers and cargo), subject to a permit from the State Service for Transport Safety (Article 57 of the Law on Road Transport). Some transportation fares remain government-regulated. Among the vehicles (owned or leased) that operated in 2013, 43.9% consisted of trucks, 9.9% of buses, 27.3% of passenger cars, 18.9% of special and specialized cars.

Enterprises, individual entrepreneurs, declared or undeclared, of Ukraine that operated in road transport for 2013 carried 1.2 billion tons of cargo, which corresponded to the level of 2012. Freight turnover totalled 38.8 billion ton-km, which is 1.8% more than in 2012.

**Leading Players:**


Railway transport

The Railway Company accounts for about 60% of cargo transport and 38% of passenger transport volumes. Private operators have gradually increased their market share in different railcar segments. Overall, private companies account for approximately 40% of the total freight car fleet (with about 70% in the tank car segment, 50% for open cars, and 5-10% for hoppers, platform and box cars).

Based on current tariffs, the most profitable lines of cargo business are metals, machinery, light oil products, alcohol, acids and oxides, followed by oil and heavy oil products, construction materials,
Leading Players:
The State Administration of Railway Transport of Ukraine (Donetsk, Lviv, Odesa, Pivdenna, Pivdennozakhidna and Prydniprovska Railways), Ukrzalizpostach.

The largest private operator is Lemtrans with a fleet of more than 18,000 open railcars. Smaller operators with around 1,000-2,000 cars include Poltavskiy GOK (iron ore producer), Investment Railcar Company, InterLeaseInvest, VTB Leasing Ukraine, Azot, Metinvest Shipping, and Transgarant Ukraine.

Maritime transport

Leading Players:
Pivdennyi Port, Illichivsk Sea Trade Port, Odesa Sea Trade Port, Delta-Lotsman, Ukrichflot, Ukrtranskonteiner, Nika-Terra Specialized Sea Port, Kherson Sea Trade Port, Berdiansk Sea Trade Port, Commercial Fleet of Donbas, Bilhorod-Dnistrovsyi Sea Trade Port, Kyiv River Port.

Air transport

Leading Players:
Aerosvit, Donbassaero, MAU, Dniproavia, Ukrainian International Airlines, Anton Airlines, Boryspil Airport, Aviacharter, Lviv Airlines, Kyi Avia.

Passengers Transport

Passenger transportation remains loss-making. In 2013 the companies for road passenger transport serviced 1.9 billion passengers, or 28.7 billion pass-km, which was respectively by 0.1% higher in case of passengers transported and 0.4% lower in case of pass-km than in 2012.

Some 25 passenger categories are entitled to reduced fares. Although Article 9 of the Law "on Railway Transport" provides that losses for the transportation at preferential rates shall be reimbursed from the state or local budgets, reimbursements do not cover accrued losses.

8 See Ministry of Economic Development and Trade of Ukraine (2015)
9 See Ministry of Economic Development and Trade of Ukraine (2015)
B. Urban, Sub-urban and Regional Users

In accordance with the Official Statistic Data provided by the State Statistic Office for the period of 2010-2014, the core users of transport services in urban and sub-urban areas, including the cities are the users of private cars, of public road transport in cities, long-distance public road transport, railway transport, inland waterway transport, maritime transport, domestic aviation and underground/metro transport.

The total demand for transport services in all modes of transport between 2010-2014 has decreased, from 118 973.7 million pass km in 2010 to 94 545.1 million pass km in 2014, i.e. by 20,5%.

In 2014, private cars transportation covered approximately 35.5% of the demand for road transport services, while road public transport represented 57.9% of services in the cities and 42.1% of services in long-distance transportation.

The rate of passengers road transport reached in 2014 in general a rate of 55.8% while railway transport reached a rate of 37.9% an underground transport 5.9%.

Table: Passenger transport demand in Ukraine 2010-2014, Source:

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Road transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger transport demand</td>
<td>million pkm</td>
<td>62326,9</td>
<td>63123,1</td>
<td>61966,8</td>
<td>60080,1</td>
<td>52795,0</td>
</tr>
<tr>
<td>of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private cars</td>
<td>million pkm</td>
<td>24384,5</td>
<td>22940,1</td>
<td>22226,1</td>
<td>21045,5</td>
<td>18747,6</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>39,1</td>
<td>36,3</td>
<td>35,9</td>
<td>35,0</td>
<td>35,5</td>
</tr>
<tr>
<td>Road public transport in cities</td>
<td>million pkm</td>
<td>37112,9</td>
<td>37132,0</td>
<td>36331,2</td>
<td>35104,0</td>
<td>30575,5</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>59,5</td>
<td>58,8</td>
<td>58,6</td>
<td>58,4</td>
<td>57,9</td>
</tr>
<tr>
<td>Long-distance road public transport</td>
<td>million pkm</td>
<td>25214,0</td>
<td>25991,1</td>
<td>25635,6</td>
<td>24976,1</td>
<td>22219,5</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>40,5</td>
<td>41,2</td>
<td>41,4</td>
<td>41,6</td>
<td>42,1</td>
</tr>
<tr>
<td><strong>Railway transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger transport demand</td>
<td>million pkm</td>
<td>50247,6</td>
<td>50593,5</td>
<td>49329,2</td>
<td>48981,3</td>
<td>35865,2</td>
</tr>
<tr>
<td><strong>Inland waterways transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger transport demand</td>
<td>million pkm</td>
<td>17,6</td>
<td>18,4</td>
<td>15,2</td>
<td>16,3</td>
<td>4,8</td>
</tr>
<tr>
<td><strong>Maritime transport</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger transport demand</td>
<td>million pkm</td>
<td>34,4</td>
<td>33,4</td>
<td>30,2</td>
<td>25,5</td>
<td>0,2</td>
</tr>
<tr>
<td><strong>Domestic aviation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Passenger transport demand

<table>
<thead>
<tr>
<th>million pkm</th>
<th>561,9</th>
<th>660,7</th>
<th>698,1</th>
<th>675,2</th>
<th>317,9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Underground transport (metro)</strong></td>
<td>[5785,3, 5925,5, 5912,9, 5934,9, 5562,0]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total passenger transport demand

<table>
<thead>
<tr>
<th>million pkm</th>
<th>118973,7</th>
<th>120354,6</th>
<th>117952,4</th>
<th>115713,2</th>
<th>94545,1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total passenger transport demand</strong></td>
<td>[118973,7, 120354,6, 117952,4, 115713,2, 94545,1]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>of which</th>
<th>%</th>
<th>52,4</th>
<th>52,4</th>
<th>52,5</th>
<th>51,9</th>
<th>55,8</th>
</tr>
</thead>
<tbody>
<tr>
<td>share of road transport</td>
<td>%</td>
<td>42,2</td>
<td>42,0</td>
<td>41,8</td>
<td>42,3</td>
<td>37,9</td>
</tr>
<tr>
<td>share of railway passenger transport</td>
<td>%</td>
<td>0,01</td>
<td>0,02</td>
<td>0,01</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>share of inland waterways transport</td>
<td>%</td>
<td>0,03</td>
<td>0,03</td>
<td>0,03</td>
<td>0,02</td>
<td>0,0002</td>
</tr>
<tr>
<td>share of maritime transport</td>
<td>%</td>
<td>0,5</td>
<td>0,5</td>
<td>0,6</td>
<td>0,6</td>
<td>0,3</td>
</tr>
<tr>
<td>share of domestic aviation passenger transport</td>
<td>%</td>
<td>4,9</td>
<td>4,9</td>
<td>5,0</td>
<td>5,1</td>
<td>5,9</td>
</tr>
</tbody>
</table>

### Passenger transport demand per capita

<table>
<thead>
<tr>
<th>Country population</th>
<th>million</th>
<th>45,9</th>
<th>45,7</th>
<th>45,6</th>
<th>45,5</th>
<th>43,0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Passenger transport demand per capita</strong></td>
<td>[2592,0, 2633,6, 2586,7, 2543,1, 2198,7]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.3 SWOT Analysis for Transport Sector and Individual Transport Modes and Conclusions

As explained above, the current features of Ukrainian economy, namely its industrial concentration and spatial planning, have a major impact on transport sector. Firstly, the Ukrainian regions vary by population number and have different industrial structure. This influences their capacity to attract and generate traffic. As a result, each territory requires a specially tailored approach to ensure existing needs in transport.

Second, all Ukrainian territories (regions, counties, rural and urban settlements) possess a different propensity to finance transport. As of June 1st 2016, local budgets contributed to 21.7% and 13.5% of consolidated budget revenues and expenses, respectively. Besides of this, the amount of inter-budgetary transfers constituted additional 27.2% of consolidated budget expenses signalling of the necessity to adequately size local budget revenues.

Keeping this in mind, the updated National Transport Strategy shall take into account existing:

- “strengths” of transport sector, which Ukraine can leverage to promote further development;
- “weaknesses”, which Ukraine would need to address to eliminate current restraints to transport development;
- “opportunities” that Ukraine can use to promulgate major improvements in transport sector and/or specific modes of transport;
- “threats” exhibited by transport sector environment that might preclude it from development.

The global framework of SWOT (strengths – weaknesses – opportunities – threats) approach shall conduce the Government of Ukraine to reshuffle transport sector priorities that will cut way to Ukraine’s social and economic development.

<table>
<thead>
<tr>
<th>General transport conditions</th>
</tr>
</thead>
</table>

### Transport sector

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Association Agreement and deep and comprehensive Free Trade Area with EU in place;</td>
<td>Lack of transport sector continuous financing;</td>
</tr>
<tr>
<td>Strategic position in the region favourable for integrating the national transport networks with extended TEN-T to neighbouring countries and the third countries;</td>
<td>Lack of instruments for PPP implementation;</td>
</tr>
<tr>
<td>Strong industry of Ukraine background and increasing volume of international trade;</td>
<td>Transport market liberalisation in an early stage, No foreign competitors on local market;</td>
</tr>
<tr>
<td>The density of railways and relatively satisfactory length of navigable inland waterways;</td>
<td>Insufficient state property management (corporate governance);</td>
</tr>
<tr>
<td>Law on railway transport drafted;</td>
<td>Insufficient transport planning; deficit for a long term (multiannual) planning and programming;</td>
</tr>
<tr>
<td>Law on National Committee for Transport Regulation drafted;</td>
<td>Transport market disproportions (subsidies, tariffs, … ), unfair competition;</td>
</tr>
<tr>
<td></td>
<td>Low levels of maintenance and infrastructure development in last</td>
</tr>
</tbody>
</table>
**Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine**

**Update / Upgrade National Transport Strategy 2030**

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- Thirteen operating seaports;
- Satisfactory capacity of the Kiev’s international airport;
- Strong political support to transport;
- Low environmental impact and low accident rate of railway and inland waterway transport;
- Adequate split of shares of freight transport between railway, road and inland waterway transport;
- Skilled labour force.

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thirteen operating seaports;</td>
<td>Lack of continuous project documentation development;</td>
</tr>
<tr>
<td>Satisfactory capacity of the Kiev’s international airport;</td>
<td>Lack of project preparation facility;</td>
</tr>
<tr>
<td>Strong political support to transport;</td>
<td>Transport network limitations (critical sections and bottlenecks, infrastructure of ports, etc.);</td>
</tr>
<tr>
<td>Low environmental impact and low accident rate of railway and inland waterway transport;</td>
<td>Lack of interoperability and coordination between transport modes;</td>
</tr>
<tr>
<td>Adequate split of shares of freight transport between railway, road and inland waterway transport;</td>
<td>Lack of the safety management systems established;</td>
</tr>
<tr>
<td>Skilled labour force.</td>
<td>High rate of road accidents;</td>
</tr>
<tr>
<td></td>
<td>Insufficient political support to intermodal transport;</td>
</tr>
<tr>
<td></td>
<td>Restructuring of transport sector/system still in early stage.</td>
</tr>
</tbody>
</table>

- Transport sector as a driver for the Economy, reduction of costs, and improvement of the accessibility;
- Transport sector attracting EU, IFIs and private funding;
- Increase of public mobility;
- Increase of national industry grow and demand for fast and save transport services;
- Adoption of new technologies;
- Transport traffic model and the General Master Plan for Transport in Ukraine development in consideration;
- Perspective for concluding Open Sky Agreement
- The demand from the European Union to extend TEN-T Network and improve the interoperability;
- Increasing demand for fast passenger interregional and regional transport;
- High demand for improvement of transport planning in the cities and suburban areas;
- Enhancing potential for higher productivity by improving the quality of transport networks and services and the capacity of cost-effective intermodal transport;
- Potential for stabilisation of the share of railway and waterway freight transport

- Regional and local political and economic crisis;
- High ageing rate of sector fixed assets as a result of permanent shortage of investments;
- Lack of investment in Ukraine;
- Change of government priorities;
- Conflict in state management model (separation of functions and authorities);
- Insufficient financing of infrastructure maintenance and development;
- Losing qualified staff because of low motivation;
- Losing geographical advantage by slow harmonisation of legislation and implementation of European standards;
- Inability to meet challenging environmental requirements in sufficient time;
- Falling share of railway and water transport due to a faster development of the road infrastructure and road services and rail transport support;
- Losing funds because of slow/late project documentation development;
- Force majeure.
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

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by providing infrastructure of necessary capacity and quality and by improving the services;
- Reduction in the negative impact of transport on the environment by supporting environmentally-friendly transport modes;
- Policy support to green transport modes.

---

**Freight transport**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High density of transport infrastructure available;</td>
<td>• High ageing rate of rolling stock (railway cars, trucks, vessels);</td>
</tr>
<tr>
<td>• Increase of Ukraine export/import and a demand for transport services;</td>
<td>• Poor conditions of infrastructure resulting in decreasing transport safety and slowing down the traffic;</td>
</tr>
<tr>
<td>• Started transformation of PJSC Ukrzaliznytsia;</td>
<td>• High share of road transport in freight segment (up to 24.5% of cargo (in tons) and 11% of cargo (in tkm) transported by road);</td>
</tr>
<tr>
<td>• Transport market reform under consideration;</td>
<td>• Poor weight control leading to soon deterioration of road infrastructure;</td>
</tr>
<tr>
<td>• Availability of private freight transport operators (e.g., stevedore companies, freight forwards, shipping lines);</td>
<td>• Poor connection between sea ports and hinterland (e.g., access roads and rails) transport infrastructure;</td>
</tr>
<tr>
<td>• Existing pre-shipping cargo solutions at sea ports and National Transport Control System (export module);</td>
<td>• Lack of multimodal transport solutions benefiting long-distance haulages;</td>
</tr>
<tr>
<td>• Available dry port facilities to speed up customs clearance.</td>
<td>• Lack of city bypasses to re-direct freight traffic leading to low commercial speed;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improvement of transport services by transport market liberalization;</td>
<td>• Cargo transport safety and security behind European standards.</td>
</tr>
<tr>
<td>• Increasing safety by adopting ITC;</td>
<td></td>
</tr>
<tr>
<td>• Private investors are ready to take up initiatives to renew rolling stock, cargo handling equipment and transport infrastructure;</td>
<td></td>
</tr>
<tr>
<td>• A perspective involvement of waterborne transport (IWW and maritime) in multimodal transport solutions;</td>
<td></td>
</tr>
</tbody>
</table>
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

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- UZ restructuring, implementation of PPP projects (sea and airports) will favour further private sector involvement;
- Trade intensification with EU and Asian countries

<table>
<thead>
<tr>
<th>Passenger transport</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td><strong>Weaknesses</strong></td>
</tr>
<tr>
<td>UZ restructuring, implementation of PPP projects (sea and airports) will favour further private sector involvement;</td>
<td>Poor conditions of public infrastructure decrease public transport safety and slowing down the traffic;</td>
</tr>
<tr>
<td>Trade intensification with EU and Asian countries</td>
<td>High ageing rate of busses, trolleybuses and trams;</td>
</tr>
<tr>
<td>Demand for transport mobility shall resume after stagnation (international and national transport);</td>
<td>About 40% of passengers travel by road (cars and buses) mostly in urban areas and to suburbs. In 90% of cities buses is the only available public transport mode;</td>
</tr>
<tr>
<td>The availability of high-speed train solutions for inter-regional transport;</td>
<td>Only 8% of passenger transport is covered by railways;</td>
</tr>
<tr>
<td>The competition between railway and air transport at low-cost domestic market segment</td>
<td>About 23% of rural inhabitants suffer from absence of regular transport services;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish transparent competition in railway passenger transport;</td>
<td>Absence of integrated passenger information systems on modern ITC technologies;</td>
</tr>
<tr>
<td>Establish transparent competition in road passenger transport;</td>
<td>Absence of multimodal passenger transport terminals at key regional transport nodes (e.g., central railway stations normally remain apart of road transport stations, airports without access to railway network, etc.);</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growing rate of private passenger cars and decreasing demand for public transport vs. private cars utilization;</td>
<td></td>
</tr>
<tr>
<td>Decrease of population incomes can</td>
<td></td>
</tr>
</tbody>
</table>

- High number of socially vulnerable people enjoying transport subsidies;
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

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- Getting rid of cross-subsidies between passenger and freight transport;
- Introduce Public Service Contract scheme to ensure a desirable Service Level in passenger transport;
- Promote e-ticket solutions to enjoy the benefits of integrated transport (e.g., cover several modes), better control over revenues generated by operators, possibility to integrate a targeted social assistance module;
- Increasing safety by adopting ITC;
- Policy support to non-motorized transport;
- Policy support to green modes of transport.

---

**Transit**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to economic stagnation/downturn (reduced turnover in foreign trade) the occupancy rate of transport infrastructure is reducing thereby providing more capacities at key transport nodes for processing transit cargo;</td>
<td>In 90% of cases transit is served by road;</td>
</tr>
<tr>
<td>About 28% of transit cargo is transported by rail;</td>
<td>In 2010-2014 transit reduced by 33%;</td>
</tr>
<tr>
<td>About 50% discount on transit cargo recently launched;</td>
<td>Unfavorable transit terms at Silk Road concerning time, formalities and cost;</td>
</tr>
<tr>
<td>National Transport Control System (NTCS) tested to facilitate documentation flows in transport.</td>
<td>Limited capacity in passing cargo via the territory of Russian Federation (only 1 border crossing in Belarus operated for processing Ukrainian transit to Central Asian countries), existence of non-physical barriers;</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attracting transit by better marketing Ukraine transport capacity and adoption ICT technologies in transport.</td>
<td>Strong competition for transit traffic in the region;</td>
</tr>
</tbody>
</table>

---

| | In 90% of cases transit is served by road; |
| | In 2010-2014 transit reduced by 33%; |
| | Unfavorable transit terms at Silk Road concerning time, formalities and cost; |
| | Limited capacity in passing cargo via the territory of Russian Federation (only 1 border crossing in Belarus operated for processing Ukrainian transit to Central Asian countries), existence of non-physical barriers; |
| | Prolonged embargo on transiting via Russian Federation to Kazakhstan (2% of UA exports) and Kyrgyzstan (increased the cost of transit by 30%); |
| | Rigid tariff rates at sea ports and railway transport; |
| | Absent through rates; high disbursement costs at Ukrainian sea ports. |

---

**Transport financing**
### Strengths
- Public financing system established and evolved in transport;
- PPP scheme introduced;
- Targeted state budget programs available for transport projects financing;
- Private operators interested in financing and operating transport infrastructure (e.g., leasing several sea port terminals, 5 river ports owned and operated by one private company);
- National Transport Strategy in place;
- The interest of IFIs in supporting transport sector development confirmed (grant and loan funding for infrastructure, loans and mixed financing for private operators, etc.);
- Experience in budget support to transport.

### Weaknesses
- Underfunded operation and maintenance of transport infrastructure;
- Absence of mid-term budget planning prevents transport authorities from properly assessing the available public funding vs. transport infrastructure in due technical conditions;
- High share of state budget subventions to local budgets signals of low financial sustainability at local level;
- Strong need to prevent public financing misuse in transport, namely, in infrastructure finance;
- Public funding provision to projects that do not demonstrate the highest evident added value and could be implemented by a proper operation/management or rehabilitation of existing infrastructure.

### Opportunities
- Output-based contracts (OPRC) scheme in road operation and maintenance in place for utilization by other modes of transport;
- Road fund is in place and shall become more effective;
- Private sector interest in taking the share from the market currently operated/financed by the state;
- Decentralization, administrative and territorial reforming increase the attractiveness of local authorities in keeping adequate transport infrastructure and operating transport services at local level;
- Open platform ProZorro providing opportunity for Local authorities (e.g., oblavtodors) to publish their public procurements;
- NTS update due to the conclusion of Association Agreement between Ukraine and EU.

### Threats
- Persistent economic downturn limiting the revenue side of the state and local budgets;
- Low willingness on the side of local authorities to establish territorial communities/agglomerations;
- Lower priority of transport sector in public spending in comparison to other sectors of public finance (e.g., national security and defense);
- PPP current legislation limits of promoting wider involvement of private investment.

---

**High contribution of transport sector to economy.** Transport contributed to 7% of Ukrainian GDP and 6% of employment. 4% of Ukrainian enterprises operate in transport. More than 95% Ukrainian transport enterprises are SMEs.
Aged rolling stocks and vessels. 62% of passenger railcars are operated beyond their service life; 90% of freight railcars value is written off. The majority of commercial and passenger vessels exceeds 15 years.

Slow rates for transport infrastructure maintenance and overhaul/rehabilitation. 30% of road transport infrastructure maintained in due time, which puts at risk road transport safety. The majority of river locks are in urgent need for capital overhaul. Several air ports need to rehabilitate their runaways.

Lack of public investments in transport sector. The majority of state transport development (road infrastructure, railway transport, air and sea ports development) programs are underfinanced. In 2015 the effective road construction and maintenance funding constitutes up to 80% of planned amounts.

Establishment of the National Committee for Transport Regulation. Transport sector contributes to 2.9% of subsidies provided to all sectors of Ukrainian economy. The law on establishing the National Committee for Transport Regulation drafted and is under the Parliamentary consideration now. The Committee shall monitor transport tariffs, but also help to eliminate cross-subsidizing between the freight and passenger transport.

Trade intensification with EU and Asia. Although during the last 4 years the overall foreign trade turnover of Ukraine considerably reduced, the share of foreign trade with EU and Asian countries increased considerably. This gives an opportunity for Ukraine to adapt to transport needs of these two growing markets.

Perspective for the development of green transport modes. EU targets at shifting to “green” transport modes, which will inevitably involve multimodal solutions within the scope of international long-distance haulage chains.

Reduction of foreign trade volumes. Owing to the overall reduction of Ukrainian foreign trade (exports and imports) the occupancy rate Ukrainian transport infrastructure might reduce. In this connection, it becomes reasonable to reorient Ukrainian transport network towards the needs of domestic and transit traffic. This can help sustaining transport operations in a mid-term perspective.

High competition on alternative routes connecting EU and Asia. Ukrainian transport network is integrated into international transport corridors competing with each other in terms (travel time and cost) and conditions (transport and clearance technologies, safety) of transport. To succeed in bringing international traffic

Railway transport

Sub-sector Strengths:
- High share of railway mode in total passenger and freight transport, which is seen as a strategic backbone for future sector development
- High railways density compared to EU member states
- Integration into international rail corridors
- Administrative and commercial operation functions of State Rail Transport Administration (UZ) have been separated in 2015; UZ corporatized and established as a public entity
- UZ, “Ukrsaliznytsia” (formerly state enterprise), transformed into a public JSC. This allows separating the functions of railways operator and regulator

Sub-sector Weaknesses:
- Shortage of rail cars (e.g., hoppers) and their delayed turnaround (7 days at the average)
- Restricted capacity of key railway stations/nodes
- Shortage of logistics centers
- Low commercial speed of rail transport (30 to 40 km/h)
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- Rigid state regulation of rail transport tariffs
- Absence of competition in rail transport
- High load on UZ in terms of granting the privileges to socially vulnerable groups and subsidizing suburban transportations
- Obstacles to land transit via the territory of Russian Federation

Sub-sector Opportunities:
- Ongoing State Rail Transport Reforming Programme can help liberalizing the market and develop competition
- The law of Railway Transport elaborated and submitted to the Parliament for consideration. It shall promote the maintenance of state ownership over rail tracks and locos, and establishing a competition in railway transport. The concept for social railways passenger transportations to be established

Road transport

Sub-sector Strengths:
- High contribution to passenger and freight transport in Ukraine
- One third of road network includes the roads of state importance
- High contribution to door-to-door deliveries
- The only mean of transport in small town and rural settlements

Sub-sector Weaknesses:
- Poor vehicle weight control
- Delays in O&M resulting in poor road driving quality
- Small share of 1A roads category
- High road accident rate
- Insufficient traffic intensity and poor legal environment to support the involvement of private operators based on the principles of public-private partnership
- High prevalence of illegal (shadow) operations on road transport market
- Lack of logistic centers and multimodal terminals
- Restricted capabilities of local authorities to ensure local roads O&M
- Poor legislation in the field of public-private partnership that is not capable of protecting the interests of private road operators
- Ban on land transit via the territory of Russian Federation

Sub-sector Opportunities:
- Reform of state roads management system, including a perspective establishment of pubic JSC “State roads of Ukraine”
- A growing pressure to revise the licensing requirements for road transport operators within the frames of Association Agreement
- Ongoing road sector management reforms are designed to better separate the road management and operation functions; road maintenance sector shall open to attract private O&M companies
- Piloting roads OPRC contracts for O&M of road infrastructure
- Implementation of automated weight control at road transport started;
- Mechanism to charge overloaded vehicles to be put in place
- Implementation of DSTU ISO 39001:2015 for road traffic safety management system shall be launched
- Road Fund of Ukraine shall transfer from a general to special fund facility with clearly defined targeted sources of funding

**Maritime transport**

**Sub-sector Strengths:**
- Gradual progress with introduction of electronic documentation exchange at Ukrainian sea ports
- Elaborated and implemented procedures for container processing prior to their entry to sea ports
- Available dry port facilities, which can ease transport formalities outside of sea ports
- Ukrainian seafarers working on board foreign ships have a positive impact on the local economy

**Sub-sector Weaknesses:**
- Modest share of maritime transport in freight and passenger transportation
- Lack of Ukrainian Flag fleet and a growing pressure for establishing a State Shipping Register
- 80% of sea ports infrastructure is depreciated
- Unbalanced cargo and reducing transit
- Long cargo dwell time at sea ports
- Ukrainian Port State Control practices not in line with international standards (does not target sub standards ships)
- Limited number of deep sea port facilities; restricted depths at approach channels
- Lack of infrastructure facilities capable of service large scale vessels (Capsize, VLOS, etc.)
- Rigid state control of transport tariff setting
- Sea port fees appear uncompetitive within the context of long-distance transport haulages
- Absent legislation in the field of port operations on PPP principles

**Sub-sector Opportunities:**
- Road Map for adaptation of EU directives and regulations established
- An agreement reached between USPA, regulatory and controlling authorities operating at sea ports, stevedoring companies, maritime agents and freight forwarding companies on information exchange
- Strong interest of state to attract private funding on the principles of public-private partnership (PPP)
- Methodology for sea port charges to be revised. It shall propose clear and transparent tariff setting

**Inland waterways**

**Sub-sector Strengths:**
- Presence of a private operator (JSC Ukrmorrichflot operates 5 river ports)
- Availability of privately-owned river berths and terminals

**Sub-sector Weaknesses:**
- Low share of river mode in freight transport; river is currently used only for cabbotage (short shipments) purposes
- Obsolete vessels and lack of proper cargo handling equipment
Growing pressure to open river to foreign flag vessels
- Low carrying capacity of river locks; high lock fees
- The navigation along Dnipro is limited to low capacity self-propelled vessel, which is the only alternative to slow barge convoys or 1500 th TEU vessels

Sub-sector Opportunities:
- Ongoing revision of inland waterways legislation
- Opening of river navigation for foreign flag fleet can help bringing more operators and vessel to deliver river transport services

Air transport

Sub-sector Strengths:
- Significant role in long-distance passenger transportations
- Slow, but steady progress of Ukrainian air ports in attaining ICAO certificates
- Significant progress in the conclusion of Open Sky agreement
- FAA confirmation on flights safety from Ukraine (FAA category 1 previously granted in 2013)
- The integration of air flights safety indicator started
- Full membership in ICAO, EUROCONTROL and ECAC
- Extensive background in terms of bilateral international commitments
- Established transparent public tendering procedures to define a carrier for airline routes

Sub-sector Weaknesses:
- Lack of financial means to support infrastructure development
- Minor impediments to Open Sky finalization due to disagreement between UK and Spain regarding Gibraltar, which might resolve with UK withdrawal from EU
- Existing pressure for legal harmonization
- Needed separation of functions and authorities
- Inefficient state management approach
- Absence of sector-specific legislation regulating the implementation of public-private partnership

Sub-sector Opportunities:
- Perspective establishment of the National Bureau for Air Event and Civil Aircraft Incident Investigation to investigate air events and incidents with Ukrainian and foreign civil aircraft
- Air ports certification and airworthiness shall become in line with EU directives
- Signing new bilateral agreements to promote air transport
- Existing Concept of State Airport Development Program up to 2023 can give a chance for airport rehabilitation, expansion of runaways, aprons, other facilities

Urban/regional transport

Sector Strengths:
- Urban mobility plans adopted at some cities
- Started initiative on creating/conserving public space

**Sector Weaknesses:**
- Absence of due attention to spatial planning both at urban and regional levels
- Transport infrastructure is not supported by any thorough transport modelling
- Urban and regional transport dominated by carbon-intensive transport modes
- Lack of ITS solutions for traffic management
- Absence of dedicated traffic lanes and public transport priority in traffic regulation
- Obsolete rolling stock (buses, electric transport), absence of high capacity public transport vehicles
- Absence on multimodal passenger terminals
- Absence of urban parking space and control over parking rights

**Sector Opportunities:**
- Initiative to delegate powers to local authorities in setting electric public transport tariffs is launched
- Further progress with integrating bicycle paths into urban infrastructure
- Perspective E-ticketing solutions

**Multimodal transport**

**Sector Strengths:**
- Existing capacities for processing multimodal traffic (container terminals, multimodal railway stations, ferry lines, deep sea berths)
- Existing cargo flow that could be potentially transported by multimodal transport
- Private operators of multimodal transport and stevedores operate at Ukrainian sea ports; container lines making calls to Ukrainian sea ports
- River transport operators deliver containers to Ukrainian sea ports (short shipping)
- Available vessels, railcars and cargo handling equipment

**Sector Weaknesses:**
- Small share of multimodal transport in total freight turnover
- Bureaucratic procedures in obtaining permits for constructing road and railway approaches
- Unbalanced container and RoRo traffic; high share of empty (or partially full) transport units in return direction
- Slow turnaround of railcars, especially in rail platforms
- Majority of containers belong to cargo owners; the share of containers operated by container lines still small
- Uncompetitive disbursement fees at Ukrainian sea ports
- Opaque and unclear railway tariff setting; long waiting to obtain quotations

**Sector Opportunities:**
- Less time required for loading-unloading operations at Ukrainian sea ports
- Regular container and RoRo service increase their operation
Facilitation of the side of customs formalities; implementation of electronic documentation exchange

Conclusions of SWOT analysis

Following the above analysis it can be concluded that the transport sector of Ukraine, as well as its specific transport modes (sub-sectors), already possess a needed potential. The updated National Transport Strategy builds around these strong points, but also leverages on existing weaknesses and opportunities.

Based on the above analysis, five tentatively priority areas have been introduced for inclusion in the National Transport Strategy as core areas for transport development until 2030.

Priority 1: Efficiency in Public Governance in the Transport Sector

- general:  - establish the National Committee for Transport Regulation;
- rail:  - introduce clear and transparent tariff setting;
- promote competition in rail transport, continue sector reform and liberalization;
- adopt law of Ukraine on Railway Transport;
- reduce social load on Ukrzaliznytsia;
- road:  - create opportunities for private sector involvement;
- establish better market control, regulation and licencing to prevent illegal operations and ensure quality of road transport services;
- strengthen the existing legal and regulatory framework for public-private partnerships;
- replicate result-based contracts for O&M;
- transfer State Road Fund into special state budget fund, establish territorial road funds;
- enhance road safety standards;
- maritime:  - establish State Shipping Register;
- introduce control over sub-standard ships;
- transfer to market-based tariff setting practices;
- establish legal and regulatory background for public-private partnerships;
- promote electronic data exchange with port and other authorities (NCTS);
- air:  - establish the National Bureau for Air Event and Civil Aircraft Incident Investigation;
- continue with safety certification of Ukrainian airports;
- promote liberalization within the frames of Open Sky initiative;
- support legal harmonization with EU.

Priority 2: Provide Quality and Efficient Transport Services

- general:  - enhance environmental and energy efficiency considerations for transport;
- promote non-motorized means of transport;
- renew rolling stock and vessels;
- rail:  - restricted capacity of key railway stations/nodes;
- shortage of logistic centers;
- low commercial speed;
- road:  - small share of 1A roads;
delays in O&M resulting in poor driving quality;
- poor vehicle weight control;
- lack of logistic centers and multimodal terminals;
- limited number of deep sea port facilities; restricted depths at approach channels;
- lack of infrastructure facilities capable of service large scale vessels;
- unbalanced cargo and reducing transit;
- long cargo dwell time at sea ports;
- obsolete vessels and lack of proper cargo handling equipment
- growing pressure to open river to foreign flag vessels
- low carrying capacity of river locks; high lock fees
- restricted navigation along Dnipro due to low draft
- unbalanced container and RoRo traffic;
- high share of empty (or partially full) transport units in return direction;
- slow turnaround of railcars, especially railway platforms;
- majority of containers belong to cargo owners; the share of containers operated by container lines still small;
- uncompetitive disbursement fees at Ukrainian sea ports;
- opaque and unclear railway tariff setting; long waiting to obtain quotations

Priority 3: Achieve Sustainable Financing for Transport

- low rates for transport infrastructure maintenance and overhaul;
- lack of public investments in transport sector;
- shortage of rail cars (e.g., hoppers) and their delayed turnaround (7 days at the average);
- restricted capabilities of local authorities to ensure local roads O&M;
- need for effective vehicle weight control mechanism and pricing policy for overload vehicles;
- lack of financial means to support infrastructure development

Priority 4: Improving Transport Safety and Security

- high road accident rates;
- absent road safety audits;
- necessity to converge geometric road design parameters with international road safety standards;
- support Ukraine in implementing the action plan for implementing the requirements for maritime safety
- air ports certification and airworthiness shall be in line with EU directives.

Priority 5: Improved Urban Mobility and Regional Integration

- absence of due attention to spatial planning both at urban and regional levels;
- transport infrastructure is not supported by any thorough transport modelling;
- urban and regional transport dominated by carbon-intensive transport modes;
- lack of ITS solutions for traffic management;
- absence of dedicated traffic lanes and public transport priority in traffic regulation
- obsolete rolling stock (buses, electric transport), absence of high capacity public transport vehicles;
- absence on multimodal passenger terminals;
- absence of urban parking space and control over parking rights;
- support local authorities in decentralization of local transport infrastructure.
4 THE VISION

4.1 LONG-TERM VISION

The Strategy for Sustainable Development “Ukraine 2020” that was approved by the President of Ukraine in January 2015 introduces the vision of “New Ukraine”, as a country with strong economy and brand-new innovations, with hardworking and talented people that can do everything for the creation favourable conditions on both state and legislative levels, in specific industrial and household spheres, and execute all required reforms.

New Ukraine will be strong, protecting European values, protecting its own borders and ensuring peace not only on its own land but in the region, guarantying security to its citizens – in all senses of the word. New Ukraine will become a country of the responsibility, and of pride.

The top priorities of Ukraine 2020 are: reform of the national security and defence system, renewal of authorities and anti-corruption reform, judicial and law enforcement reform, decentralization and public administration reform, deregulation and development of entrepreneurship, healthcare reform and tax reform.

Within the vision and priorities introduced for Ukraine until 2020, the National Transport Strategy of Ukraine up to 2020 with a prospect of 2030 formulates the vision for transport sector development and performance as follows:

“Ukraine shall develop a transport sector that is safe, secure, effective, efficient, and multi-modal”.

A safe, efficient and sustainable transport system is one of the key priorities for Ukraine. Vision of the Ministry of Infrastructure of Ukraine is:

– to have a modern, well maintained and integrated transport network system in place adapted to the needs of the country and in support to the sustainable development and growth of the national economy as well as the regional and international trade exchange;
– to offer a modern, safe, reliable an affordable integrated transport system to the public and ensuring the mobility of the citizens, especially the young, older and special care needing ones.

In pursuing this vision, the goal of transport policy and the strategy is to develop a transport system that is safe, secure, effective, efficient, multi-modal and sustainable and shall deal primarily with the following topics:

- “Good governance” is promoted through the separation of functions in the transport sector
- The focus on transport and not only on infrastructure is maintained to make best use of existing facilities
- Mechanisms for planning of public funding are enhanced
- Criteria for the prioritization of public investments are established
- Private sector investments are promoted and eliminate regulatory obstacles
- Integration with TEN-T Core and Comprehensive network is strengthened
- Multi-modal approach is implemented
- Transport safety and security, but also the integration of environmental considerations into the overall transport policy framework are ensured
- A competitive environment for transport sector development and pricing principles are established
- Subsidies in the transport sector are reduced

The targets are defined based on the objectives and are quantified by verifiable indicators with a target year based on 3 horizons: 2020, 2025 and 2030.

4.2 TRANSPORT POLICY AND THE STRATEGY

Transport is one of the key sectors of the Ukraine economy with considerable significance for international relations. Transport users in varying degrees, any natural or legal person. Demand for transport of persons and goods continues to grow and challenge the public administration is to create legal and economic conditions for the provision of public transport services for the transport business and to ensure adequate transport infrastructure growth in transportation needs.

Transport is strongly influencing all domains of public and private life as well as the business. It is financially very demanding but also contributes significantly to the income of public finances. Ukraine transport policy is oriented towards making it possible for the sector to contribute more to economic growth with direct consequences leading to improvement of the standard of living of the population, preserving the environment and poverty reduction.

Transport sector and its development are considered necessary for improving the competitiveness of Ukraine, any problems in transport may, therefore, result in large direct or indirect losses for the country and the whole society.

In case of economic recession strong savings measures apply to all sectors of the economy, including the transport sector. These however must be considered with the understanding that all transport segments form a single whole, i.e., the areas that require support from public funds are indispensable for the functioning of the whole system and cannot be separated from sectors appearing to be “net payers”.

The disintegration of the system of public transport services as a result of across-the-board cuts of financing would have negative impact both on the “functioning” transport areas (congestion, accident rates and general increase of externalities) and on other areas of society.

Transport policy is a fundamental document for the transport sector that set basic objectives and principles (policy agenda) to guide the efforts to meet these objectives. The strategy declares what state and its executive bodies will do as commitments, also from the perspective of social / economic needs.
and with respect to the financial possibilities. It creates a rule for a longer planning. Transport policy is a part of the state economic policy that affects other areas of government policy, such as defence, ecology, social sphere, education, culture, etc.

The transport strategy creates conditions for ensuring quality service focusing on its economic, social and environmental impacts within the principles of sustainable development and lays a true foundation for starting the change in the proportions between the different modes of transport.

Strategy is a high level plan to achieve one or more goals under conditions of uncertainty. Strategy is important because the resources available to achieve these goals are usually limited. Strategy generally involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions and describes how the ends (goals) will be achieved by the means (resources).

Transport strategy of Ukraine is subject to political cycle in which the strategy has to reflect dynamics on national level. The following chart shows the strategy development and update cycle.
Transport is one of fundamental sectors of national economy, and its efficient functioning constitutes a necessary condition for ensuring defence potential, protecting economic interests of the state, and improving the lives of its citizens.

Though Ukrainian transport sector meets general transportation needs of national economy, the level of its safety, quality and efficiency of passenger and freight services, energy performance, production of pollution and pressure on the environment do not comply with contemporary requirements.

The transport sector faces crucial challenges, i.e. a significant wear and tear of plant and equipment, in particular fleet; insufficient volume of investment required for renewing and developing innovatively the sector physical infrastructure; shortage of budget funding and depreciation payments; imperfect leasing procedure; a low level of the state’s transit potential utilization.

Technical and infrastructure upgrade for railways, airports, and sea ports; expansion of public road network according to the country’s car ownership growth rates requires urgent attention.

The length of motorways almost increased for almost twenty years; their density falls considerably behind the developed countries’ indicator. The motorway conditions are unsatisfactory, with 51.1% of roads not meeting requirements for smoothness, and 39.2% - for strength. The average traffic speed on the motorways is 2-3 times lower than in the Western European countries.

The system of governance and management in rail, sea, and road transport as well as road infrastructure should be reformed.

The transportation safety rate is low. Road incident rates are much worse comparing to the EU countries. Aircraft of national airlines have been many times black-listed, including a ban to fly to the EU countries. The unsatisfactory shipping safety control has resulted in black-listing of the State Flag of Ukraine, according to the Paris Memorandum (Paris MoU on Port State Control).

5.1 Ukraine 2020 Strategy for Sustainable Development

Ukraine has introduced its strategy of development in up to 2020 and the goals, objectives and targets to be achieved.

The Strategy for Sustainable Development of Ukraine until 2020 determines goals and indicators of their achievement, as well as directions and priorities of state development. The purpose of reforms achieve the European standards of life and decent place in the world for Ukraine.

The Strategy provides ground for establishing a new Ukraine, for which the transport sector shall contribute. The 2020 Strategy foresees, among other things:

- Establish a strong economy and brand-new innovations;
- Protection of European values;
- Security of property i.e. honest judges and a transparent tax system;
- Security of business means lustration at all levels of government and strict anti-corruption control.
Sixty-two reforms and programs of the State are outlined in the roadmap and top priorities of the strategy implementation. The development pillar sets forth that Ukraine shall “introduce the reforms, take the path of development and rising of living standards. It is our confidence that we will earn money honestly”. The reforms are of particular relevance for the transport sector strategy:

Reform Program 4: Reform of protection of economic competition;
Reform Program 9: Reform of transport infrastructure;
Reform Program 11: Program participation in trans-European networks;
Reform Program 12: Reform of the public customs and integration into the European Union customs community.

Other reform programs may also have an impact on the strategy such as:

- Update authorities and anti-corruption reform;
- E-government program;
- The reform of law enforcement;
- Decentralization and public administration reform;
- Deregulation and business development;

The Strategy includes 62 reforms. 8 reforms and 2 programs are the top priorities among them. The Strategy also defines 25 key indicators of successful state development, i.e. growth of the average GDP per capita from $8 700 to $16 000, FDI net inflows for the period of 2015-2020 of $40 billion, maximum percentage of government deficit to GDP; energy intensity of GDP decrease by 40%, etc.

The top priorities of the Strategy 2020 are: reform of the national security and defense system, renewal of authorities and anti-corruption reform, judicial and law enforcement reform, decentralization and public administration reform, deregulation and development of entrepreneurship, healthcare reform and tax reform.

The socio-political context of Ukraine 2020 is characterized by decentralization and public administration reform and the requirements to involve the regional administrations in the strategy development. The decentralization alone is not the answer to inherited system deficiencies and inefficiencies. A participatory approach will ensure the regional and communities integration and counteract decentralized bottlenecks to the regions, where countermeasures could be more complex.

The implementation plan of the strategy needed to focus on the quest for optimal solutions to problems of transport and not on the infrastructure. This is determined by the people and the drivers of economic development of the country and the region. The socio-political orientation of transport refers to the objectives of economic development aimed towards developing transport services likely to support the development of other socio-economic sectors, and to stimulate the expected growth during the medium and long term.

The transport sector policy was inspired by UKRAINE 2020 vision and development targets. With the update for the National Transport Strategy in Ukraine; efforts are geared towards addressing the need for key reforms responding to the changing situation in a comprehensive manner and making the transport system safe, secure, effective, efficient, multi-modal and sustainable.

According to the Ukraine 2020 the economy is evaluated as investment innovative which is expected to strengthen its competitive abilities. Up to 2020 the amounts of the cargo transportation would raise up to 2 535 million of tons, cargo operations in state sea commercial ports would raise to 233.4 million tons, passenger transportation volumes would reach 10 250.9 million of people.
5.2 EUROPEAN FRAMEWORK

5.2.1 EUROPE 2020

Europe 2020 is a strategy of the European Union to support sustainable general development. European Union has set up ambition goals in five specific areas, to be reached by 2020:

- Employment – 75% of the population aged 20 to 64 should be employed
- Innovation – 3% of EU GDP should be invested in research and development
- Climate change – the goals should be reached according to the principle climate/energy“20/20/20”, including emissions reduction by further 30%
- Education – the proportion of persons with unfinished education should be under 10% and at least 40% of population aged 30 to 34 should have finished university studies or comparable education
- Poverty – alleviation of poverty with the goal of eliminating the risk of poverty or exclusion of at least 20 million inhabitants.

Individual Member States have introduced Reform Programs representing their contribution to reaching the goals of the Europe 2020 Strategy.

5.2.2 POLICY WHITE PAPER

The European Union policy white paper, titled “Roadmap to a Single European Transport Area – Towards a Competitive and Resource Efficient Transport System” The document represents the European transport policy for 2012 -2020 with the prospect of 250 and is followed by the Trans-European Transport Network Policy (TEN-T), as well as the main instruments for the development of European transport and transport infrastructure for long distance transport flows with the objective to support the European Single Market.

The White Paper on transport system includes 40 specific initiatives for the establishment of a competitive transport system during the period. Between the main objectives of this policy is to reduce the dependency in oil import, to reduce carbon emission by 60%, phasing out fueled cars in the cities, using of 40% of low-carbon fuels in the air transport, reduce the emissions in the water-born transport by 40%.

The goals of the policy should be achieved by the following measures:

- shifting 50 % of medium and long-distance freight transport from the road to the rail and waterborne transport and in case of passenger transport significantly raising the proportion of the rail transport (also moving away from the air transport in distances under 1,000 km, making room to air transport for long distance flights)
- introducing alternative energy sources for transport
- introducing more efficient engines
- adopting ITS systems in all modes of transport with the view to optimizing transport and traffic processes (elaborated in the EU ITS Policy – Directive 2010/40/EU)

The goals and objectives of the European transport policy have been considered and included in the Association Agreement between the European Union and its Member states and Ukraine.
5.2.3 TRANSEUROPEAN NETWORKS POLICY

The policy introduces the principles for the development of the European transport infrastructure including measures leading to the provision of high-quality services. It defines a two-layer European transport network for the rail transport (separately for passenger and freight transport), road network, sea and inland waterways, air infrastructure and infrastructure for multimodal freight transport (bi-modal and tri-modal terminals).

The core TEN-T network shall be completed by 2030, so-called comprehensive TEN-T network should be completed by 2050.

One of the goals of TEN-T policy is to connect the TEN-T networks with infrastructure of neighboring countries that will also enhance strong and reliable management of the movement of persons across EU external border. A particular focus is on border crossing points, to ensure seamless traffic flow, border checks, border surveillance and border control procedures.

By a Ministerial declaration on the Developing the external dimension of the Trans-European Transport Networks (TEN-T) of 21 June 2016 the Commission and the neighboring countries are invited to identify mature projects that can be implemented within next programming period.

In relation to Ukraine, the TEN-T extension is already included in the Association Agreement. The comprehensive and core network dual-layer approach and the associated deadlines are of the essence.

5.3 ASSOCIATION AGREEMENT BETWEEN THE EUROPEAN UNION AND ITS MEMBER STATES AND UKRAINE

The Association Agreement ratified by Ukraine in September 2014 has the most important European context impact on transport. It has raised new issues for the Government of Ukraine on implementing systemic reforms in the transport sector and approximating with 49 EU Directives and Regulations.

In the respect of the transport sector, the Agreement sets up conditions for cooperation in the areas of Trade and trade related matters (Title IV on Trade and trade related matters, Section 5 – Regulatory framework, Sub-section 7 re. transport services, international maritime transport, road, rail and inland waterways transport, air transport and regulatory approximation with EU acquis, as well as in coordinating the procurement procedures of entities operating in transport (Title IV, Section 5, Chapter 8 on Public procurement), in energy use and energy efficiency and environmental friendly technologies (Title V on Economic and sector cooperation, Chapter 1 on Energy cooperation including nuclear issues), in expanding and strengthening transport cooperation to contribute to development of sustainable transport systems (Title V on Economic and sector cooperation, Chapter 7 on Transport).

The Agreement also sets up the cooperation on an integrated maritime policy (Title V on Economic and sector cooperation, Section 2 on Maritime policy) and pursuing of economic activity through integrated use of the Danube river basic (Title V on Economic and sector cooperation, Chapter 19 on the Danube river).

The major impact of the Association Agreement on transport sector development is seen and can be categorized as:

- Transport sector restructuring and modernization;
- Approximation of current Ukrainian standards and policies with EU policies;
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

Update / Upgrade National Transport Strategy 2030
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- Development of a multi-modal transport network linked to the Trans-European Transport Network;
- Elimination/reduction of administrative, technical, and border obstacles for transport flows;
- European values and priorities: the liberalization of the European transport market is one of the Community’s earliest common priorities;
- Extension of the TEN-T;
- Context of DCFTA on Ukraine.

The cooperation specifically aims at:

- Improving the movement of passengers and goods,
- Increasing fluidity of transport flows between Ukraine, the EU and third countries,
- Removing administrative, technical, cross border and other obstacles,
- Improving transport networks and upgrading the infrastructure.

The cooperation set up by the Association Agreement covers, inter alia, the areas of the development of a sustainable transport policy, development of sector strategies, development of multimodal transport network connected to Trans European Transport Network (TEN-T), accession of Ukraine to international transport organisations and scientific and technical cooperation and of promotion of the use of intelligent transport systems and information technology in all transport modes.

Taking into account the cooperation envisaged with the Association Agreement, the National transport Strategy of Ukraine should set up the goals and objectives as well as to introduce the measures and efforts to be made to:

- Improve the state of infrastructure and the quality of transport services in order to reduce the constraints that limit the economy and the population in effective mobility and access to markets. Particular attention will be given to coordinating with national and local authorities for the matter of undertaking concerted actions for improving secondary networks as feeder systems to the Trans-European Network.

- Increasing the efficiency of urban public transport services to reduce congestion and pollution. A special concern shall relate to the expansion of transport services in rural areas, thereby supporting the inclusivity and widening the accessibility of various user groups. The capacity of local budgets to finance transport infrastructure shall be assessed versus the existing development needs.

5.4 OTHER STRATEGIES AND STARTING POINTS

5.4.1 AT THE EUROPEAN LEVEL

Ukraine is part of several regional initiatives that will be considered in the development of the strategy, such as Transport Corridor Europe-Caucasus-Asia (TRACECA) international transport program involving the European Union and 14 member States of the Eastern European, Caucasian and Central Asian region.
Established in 1993, upon the signing of Multilateral Agreement on International Transport for the development of transport initiatives (including the establishment and development of a road corridor) between the EU, the Caucasus and Central Asia and the Black Sea Economic Cooperation (BSEC).

Connectivity with the TEN-T network should be given a high priority in the policy development. Also connection through Belarus and Russia should be sought in the international context in the medium and long term.

Establishment of EU-China connectivity platform should also be considered in the development of the Strategy.

### 5.4.2 AT THE NATIONAL LEVEL

**State Target Programme for Airport Development for the period of up to 2023**

Ukraine’s Cabinet of Ministers on February 24, 2016, approved a state-funded targeted program for the development of 17 Ukrainian airports until 2023 with the financing of the program projected at UAH 8.7 billion. About UAH 1.2 billion will be raised from private investors for the development of airport infrastructure not related to airfields. Program will also use, among other things, loans to be raised against state guarantees, airports’ own assets and private investment.

The program foresees the construction, renovation, modernization of airfields, runways and airport facilities; airport infrastructure owned by Ukrainian airlines, the creation of an integrated state-owned chain of airports through mergers and transfer of state and municipally owned airports to the Ministry of Infrastructure. The program is designed to improve the efficiency of state-owned property management.

Aviation transport infrastructure will be brought in line with international standards and Ukraine is expected to strengthen its status as a transit state due to its unique geographic location.

The program will be financed not only from local budgets, but will also use, among other things, loans to be raised against state guarantees, airports’ own assets and private investment.

The program foresees that overall passenger flows should grow to 24.3 million people by 2023, while airport capacity should double with simultaneously bringing airport services in line with international standards. The time of handling one aircraft is expected to shorten to 35-40 minutes.

**State Target Programme for Flight Safety for the period of 2014-2016**

**State Target Economic Programme for Road Transport Development**

**State Program for Inland Waterway (IWW) Development**

**Single and Comprehensive Strategy and Action Plan for Agriculture and Rural development for 2015-2020**: the ongoing reform in the agriculture sector requires the corresponding development of the transport infrastructure that will help to
unleash its full potential and to remove the existing bottlenecks, as follows:

- Encourage improvement of the regulatory environment in the area of railway service and rolling stock;
- Stimulate the extension of the capacities of port railway stations;
- Stimulate the development of a concept/tools to prevent overload of surface transport facilities;
- Encourage competition in the river transportation market between the domestic and foreign carriers
6 STRATEGIC PLANNING OF TRANSPORT DEVELOPMENT

6.1 KEY CHALLENGES TO BE ADDRESSED IN THE TRANSPORT SECTOR, EXPECTED RESULTS AND TARGETS

The future challenges arise from the implementation of the Strategy 2020 as well as from the approximation of the Ukraine transport sector to the EU transport system and the European challenges will be reflected into the Ukrainian transport. Those could possibly be:

- Ensuring country integrity.
- Demand for reforming the sector to European standards.
- Demand for transport increase (freight transport alone is expected to grow by around 50% (1.1% p.a.) by 2050) and the trend for urbanization will continue.
- The transport sector, particularly road transport, depends almost completely on oil as a fuel source. Given volatile oil markets and likely future difficulties in sourcing oil, reliable fuel alternatives must be found.
- The EU has committed to reduce its greenhouse gas emissions by at least 80% by 2050. Transport, as a major polluter responsible for a quarter of the EU’s greenhouse gas emissions, has to make a major contribution towards reaching that target.
- One of the worst transport problems is congestion, especially on the roads and in the skies. Congestion costs Europe about 1% of its GDP every year and also causes heavy amounts of carbon and other unwelcome emissions.
- There is a need to raise transport efficiency, this need a comprehensive renovation and modernization which also involves improving logistics and creating smarter ‘travel behaviour’ by making the best use of modern ICT and satellite-based technology.
- Transport safety aspect of decreasing the number of accidents.
- Focusing on research and innovation will keep Europe’s transport sector competitive in the global marketplace and at the cutting edge of technological advances in transport. Infrastructure: the aim is to complete the Trans-European Transport Network; to better integrate road, rail, air and waterborne travel (sea and inland waterways) into a seamless logistics chain; to remove the main bottlenecks, and to construct missing links, particularly across borders.
- While much progress has been made across transport towards completing the internal market, there is still work to be done in sectors such as road and rail to open up markets and ensure fair and open competition.

A recent survey (published in 2016) in the transport industry shows:

- Over 60% see fighting corruption as the market’s major requirement for the industry;
Over 55% require a changed model and methodology of tariff regulation for the railways and ports; 
Over 35% acknowledge that the development of a new strategy for the transport sector is one of the major priorities.

6.1.1 INSTITUTIONAL CHALLENGES
The current institutional structure shows deficiencies in discharging functions and lacks good governance, ultimately leading to bottlenecks in sector coherence and manageability, but also hindering the fight against corruption. This is overlaid with the lack of management skills across the transport sector.

- A proper implementation of a transport strategy requires a clear and efficient institutional set-up, where good governance is the overriding concern, leading to separation of functions with well-defined responsibilities.
- The public sector suffers from a lack of professional resources and skills in strategic planning and policy making.
- The institutional structure is not geared towards encouraging private participation in the transport sector.

6.1.2 PLANNING AND INVESTMENT CHALLENGES

- “Irregular” transport sector funding, low cost-efficiency and ineffective administration, but also a lack of long-term budget planning. Efficient funding use must be an overriding concern with just priorities towards strategic objectives.
- Private investment should be able to find opportunities for infrastructure investment and operation. Donors funding should be sought to serve the priority actions.
- Private operators should be given preference to deliver transport services provided that they can offer a least-cost transport solution, promote accessibility and availability of transport services to users.
- In the light of inadequate funding, a balanced approach between completing existing networks and new infrastructure is required.

6.1.3 PRICING, COST RECOVERY, TAXATION AND SUBSIDY CHALLENGES

- Transparent and competitive price setting (rules and practices) are not driven by demand but by supply factors.
- Increased efficiency needs to be achieved both operationally and financially through value capturing.
- Cross-subsidies (e.g. freight and passenger traffic) create market imbalances for trade and transport.
- The structure of taxes and levies perceived by ports and the maritime authorities need to be revised under the principles of being cost-based and non-discriminatory.
6.1.4 **OPERATIONAL, REGULATORY AND LICENSING CHALLENGES**

- Non-Physical Barriers. Resulting from the institutional structure and administrative bottlenecks, such as border crossing and customs formalities, have negative impact on sector efficiency.

- Legal framework. While laws are being transposed to match European directives and regulations, this process is slow and facing many pitfalls both in the drafting of the primary laws and secondary laws, but also in the parliamentary process.

- Lack of regulation of road transport is having serious impact on multi-modality and on road safety.

- Multi-modality. Targets for transit traffic with the role of transport modes contributing to the overall system efficiency need to be introduced (Railways and Inland Waterways).

6.1.5 **SAFETY CHALLENGES**

- Road safety indicators in Ukraine are significantly worse than in EU

- The death rate in Ukraine is 2-3 times as high as the average in EU; every year over 4,500 killed and over 32,000 injured.

- This costs the country around US$ 5 billion per year - about 3.7 % of annual GDP - this loss is over twice as much as Ukraine invests in roads each year.

- Pedestrians and cyclists account for around 40% of the deaths and this is the worst across the whole of Europe.

- Implementation of maritime safety regulations in Ukraine leaves room for improvement. The country is ranked in the grey list of the Paris MoU of port State control.

- Transport Security

6.1.6 **REGIONAL/POLITICAL CHALLENGES**

- Political instability, corruption and the anti-terror operation in the east have impacted the main transport flows in the corridors towards EU borders.

- Operational and/or organizational bottlenecks at borders often result in high travel times and low average speeds reducing the attractiveness of international journeys. The elimination of bottlenecks at borders is a special challenge for Ukraine.

- Transport policy needs to address territorial cohesion through accessibility and connectivity for all regions in order to reduce regional disparities and ensure Ukraine’s sustainable growth.

- Careful consideration of the interaction of urban and national transport is necessary to achieve sustainable development of the sector.

6.1.7 **ENVIRONMENTAL CHALLENGES**

- Private vehicle ownership has risen steadily in Ukraine over the years. The same applies with the increasing role of road freight transport with adverse consequences include: negative externalities such as air quality deterioration (especially in urban areas), increase in congestion and then travel time, higher fuel bills at national level and worsened road safety.
Environmental and social impacts of new transport infrastructure need to be properly taken into account.

6.2 TRANSPORT SECTOR GLOBAL GOAL AND OBJECTIVES

In general, the global goal of each European Transport Policy is to create conditions for the development of high-quality transport system based on the utilization of technical, economic and technological properties of individual transport modes, on the principles of competition, having regard to its economic and social impact and the impact on the environment and public health.

Starting from the above mentioned global goal and in view of the key challenges and socio-economic and geopolitical framework, the transport strategy will be developed along policy axes. Policy axes express aspirations and provide the guiding philosophy for decisions and investment priorities in the sector. They are especially important if the sector is undergoing reform and the necessary adjustments involve radical change.

The Transport Strategy follows from the global goal, into vertical and cross-sectional priorities. The cross-sectional priorities have general validity and are included in all vertical priorities. The vertical priorities will be divided into individual areas - specific objectives. Their fulfilment will be ensured through individual measures emerging from these objectives.
Within this goal, the Ukraine’s modern European transport sector shall share the following strategic objectives:

- Pairing up infrastructure upgrade with institutional, regulatory and pricing measures;
- Ensure particular attention to safety, accessibility, gender and environmental issues;
- Ensure sustainability with regard to the environment, pricing and cost recovery, and;
- Wisely deploy new technologies and ITS to exploit the capacities of existing infrastructure.

Ukraine will reach overall strategic goal by means of targeting at the attainment of the following policy principles by making it transport sector:

**EFFECTIVENESS AND EFFICIENCY OF THE SYSTEM IN TRANSPORTING GOODS AND PASSENGERS IN ALL TRANSPORT MODES**

**EFFECTIVE:**

- In internal organization and sector governance
- In operating and maintaining existing transport networks (rural, urban and international) and perspective
- In planning for further sector development focusing on effective prioritization of transport investments and adequate allocation of financial resources
Support to the Implementation of the Association Agreement and of the National Strategy in the Transport Sector in Ukraine

PART 1: Transport Sector Policy Note

Through greater integration of transport modes

EFFICIENT:

- In facilitating the access to cost effective transport services that are built around further TEN-T network development
- In implementing transparency and good governance principles along the whole transport infrastructure management cycle
- In establishing a set of socially agreed indicators to control the implementation of transport policies of the strategy and providing a basis for the review of the strategy

SAFETY AND SECURITY INCREASE

SAFE and SECURE:

- In transporting goods and passengers in all transport modes

MULTIMODAL CAPACITY DEVELOPMENT

MULTI-MODAL IN:

- facilitating an increased interoperability of different transport modes
- fitting the existing capacity of key transport nodes to current and perspective transport flows

TRANSPORT SUSTAINABLE DEVELOPMENT

WITH SUSTAINABLE TRANSPORT SYSTEMS THAT

- Harmonize transport infrastructure development plans with the master model for national development, and land resource use plans
- Operate transport enterprises as self-sufficient companies
- Strengthen the institutional framework and capacity of transport institutions and stakeholders in planning, funding and managing the transport sector
- Make affordable and offer choice of transport mode to support economy
- Limit emissions and wastes, consumption of non-renewable resources

WHICH EMBODY MARKET PRINCIPLES BY MEANS OF:

- Implementing a rigid antimonopoly policy
- Liberalizing transport prices
- Gradually eliminating the existing cross-subsidies in freight and passenger transportation

RESPONSIVENESS TO THE NEEDS OF INDUSTRY AND THE CITIZENS

RESPONSIVE to the needs of industry and the citizens of Ukraine in order to:

- Make transport services accessible for all groups of users, including disabled and low-income persons
- Ensure the implementation of a targeted social assistance to vulnerable population groups
- Increase mobility to improve access to essential services, e.g. education, employment, etc.
6.3 **Governance Principles**

The horizontal principles that guide the proposed priority axes and apply to all proposed measures and actions.

**Rule of Law**

All people and institutions are *subject to and accountable to law that is fairly applied and enforced*.

**Transparency**

Public officials, civil servants, managers and directors of companies and organisations have the duty to act visibly, predictably and understandably and to manage and publish information in a responsible manner.

** Accountability**

Officials in public, private and voluntary sector organisations are answerable for their actions and there is redress when duties and commitments are not met.

**Clear objectives, assessment of results, and review**

The measures and actions will have clearly communicated and described objectives with monitoring mechanism for assessing achievements. The measures will be reviewed in case of objectives not achieved yet safeguarding the accountability principle.

**Efficient and effective regulatory framework**

Laws, regulations and administrative procedures are kept to the necessary minimum and focused to enable the sector operation. Abolishment of unjustified laws and regulation will be pursued.
7 PRIORITY AXES, MEASURES AND ACTIONS

PRIORITY AXIS 1: EFFICIENCY IN PUBLIC GOVERNANCE IN THE TRANSPORT SECTOR

Improvement of governance and transparency in the transport sector as integral part of fighting corruption. Deregulation and liberalization attracting private operators alongside corporate governance for SOEs.

The focus is on enhancing the policy making of the Ministry and non-biased regulatory role of the state agencies in line with the public administration reform.

PRIORITY AXIS 2: PROVIDE QUALITY AND EFFICIENT TRANSPORT SERVICES

Apply approach for integrated transport systems serving the users’ needs maximizing the economic benefits of current assets. Deploy new technologies to improve efficiency of transport operation and services, where maintenance will be prioritized over new investment.

Enhance energy efficiency and respect environmentally policies.

Eliminate existing barriers to logistics and multi-modal solutions within the framework of national corridors, integration to TEN-T and improving terms of transit corridors.

PRIORITY AXIS 3: ACHIEVE SUSTAINABLE FINANCING FOR TRANSPORT

Adequate and reliable financing of transport (direct and non-direct taxes, other relevant non-tax charges) is the corner stone for sustainable provision of transport services.

Respect “user pays” principles and introduce mechanism for Ear Marked funding for transport. The involvement of private capital with evident Value for Money shall be promoted. A continued dialogue with IFIs is crucial within the context of supporting transport sector development.

Allocation of public funds will follow transparent prioritization mechanism and its administration shall safeguard cost efficiency and transparent public procurement rules. Establish open communication and Information disclosure on budget planning and spending.
**Priority Axis 4: Improving Transport Safety and Security**

Reducing risk of transport to human lives particularly in urban areas and improve the security of transport users as a basic right.

**Priority Axis 5: Improved Urban Mobility and Regional Integration**

Provide affordable, responsive and reliable public transport services with focus on regional connectivity to support the development of regional clusters and labour mobility.