

## **DIRECTIONS OF ACTION FOR THE DEVELOPMENT OF ROAD AND RAIL GOODS TRANSPORT IN ROMANIA**

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### **Abstract**

*Transport is one of the sectors that lead to the economic development of a country. This paper aims to identify the main directions of action that Romania should implement in order to have a high-performance railway and road transport, which would, in turn, lead to sustainable development of this sector and solutions to reduce pollution.*

**Key words:** transport, economic growth, goods

### **INTRODUCTION**

Transport represents a part of economic activity through which goods or people are moved in space in order to meet the material and spiritual needs of the human society.<sup>1</sup>

Transport has become an essential element of life, providing members of society with the means to travel, communicate, perceive and assimilate as much of what civilization has to offer. Modern society, characterized by a huge pace of development in various fields, can only function with an efficient transport system.<sup>8</sup>

In modern economy, transport is a diminishing factor, which requires that the road transport of goods and people be optimized, in order to meet the requirements of openness and sustainable development<sup>5</sup>.

Romania's economy has stabilized, showing growth tendencies in certain areas and, consequently, the demand for transport and mobility has increased as well. Customers are willing to pay for efficient transport services, production has increased, the population is moving more, these factors leading to substantial investments in this field.

The transport sector has a major impact in all areas of social and economic life. For this reason, it is necessary to achieve an efficient transport system, as a precondition for economic development and growth of local, regional and international change. This involves the

implementation of transport policies that take into account the achievement of minimum costs and reducing emissions.<sup>6</sup>

## **MATERIALS AND METHODS**

Romania is located in Southeastern Europe and shares borders with Hungary and Serbia in the West, with Ukraine and the Republic of Moldova in the Northeast, and Bulgaria in the South. In the Eastern part, Romania has an exit to the Black Sea of a length of 245 km, between the Chilia arm of the Danube - Musura Gulf (border with Ukraine) and Vama Veche (border with Bulgaria). Going out to sea facilitates connections with the countries belonging to the Black Sea basin and, through it, with the rest of the world. In the South, Romania is crossed by the Danube, the second largest river in Europe, on a length of 1,075 km<sup>3</sup>.

Romania's population is evenly distributed throughout the territory, with the exception of the Bucharest municipality. In 2009, Romania had a population of approximately 21.5 million inhabitants, being ranked 7th among the European Union states in terms of population. The country's capital, Bucharest, is the largest city with a population of about 1.9 million, representing 9% of the total population and 16.1% of the country's urban population. The cities with a population of over 300,000 inhabitants are: Iași, Cluj-Napoca, Timișoara, Constanța and Craiova. Other important cities in terms of population are: Galați, Brașov, Ploiești, Brăila and Oradea. Among the countries of Central and Eastern Europe (Bulgaria, Czech Republic, Croatia, Poland, Slovakia, Slovenia and Hungary), Romania is the second country in terms of both population and area. With an area of about 238.391 km<sup>2</sup> and an average population density of about 90.2 inhabitants per km<sup>2</sup>, Romania ranks 6th among CEE countries in terms of average population density<sup>11</sup>.

In 2020, Romania's GDP decreased by 3.9%, industry, trade and agriculture contributing negatively to the evolution of the economy. The National Institute of Statistics revised downwards the data on economic growth in Q4 / 2020, from 5, 3% to 4.8%, but maintained the estimate according to which Romania's GDP decreased by 3.9% in 2020 compared to 2019, the better evolution compared to that recorded in the Eurozone, the main economic partner, where the annual decline was 6.8%<sup>11</sup>.

Most branches of the economy contributed to the decline of the GDP in 2020, among which the industry sector with one of the most significant impacts of 19.7% in GDP and whose volume of activity decreased by 9.3%; wholesale and retail trade; vehicle repair; transport and

storage; hotels and restaurants with a share of 18% in GDP formation and whose volume of activity decreased by 4.7%<sup>11</sup>.

Romania's trading partners are mainly the member states of the European Union, thus, in 2019, Romania's imports into the EU-27 accounted for 73.1% of total imports, and exports to the EU-27 had a share of 74.3 % of Romania's total exports<sup>11</sup>.

Romania is one of the most attractive countries in the EC for foreign direct investment. The main foreign investors in Romania in the last decade come from the Netherlands, Italy, Germany and France, and the main investments have been made in the industrial sector.

Regarding the transport sector, there was an upward trend in the volume of goods in road transport in 2020, i.e. an increase of 4.7% compared to the previous year, and, when it comes to road transport nationally, the increase was twofold, 11.8% more precisely<sup>4</sup>.

Another important aspect is given by the fact that in the structure of international trade, the share of road transport is 70.5% of total exports, respectively 71.2% of total imports, which represents a significant difference from the share of maritime transport, being 19.5% and 15.4%, respectively.<sup>6</sup>

## **RESULTS AND DISCUSSIONS**

The SWOT analysis of the Romanian transport sector when it comes to the development of intermodal transport highlights the following aspects:

### **Strengths:**

- the geostrategic position of Romania and it's potential in terms of intermodal transport opportunities with neighbouring countries and the Black Sea for international trade
- growing interest in the industrial sector for intermodal transport due to increased attention for environmental protection
- skilled labor and low costs,
- advantageous location on the TEN-T network accessible to neighboring countries,
- well organized and competitive road freight services,
- extended railway network, accessible to private operators, providing competitive local services

### **Weaknesses**

- the lack of a General Master Plan for Transport, which should also include a strategy for intermodal transport,
- relatively low quality of transport infrastructures,
- the existence of reduced transport volumes prevents the organization of frequent and competitive shuttle transport services,
- Insufficient investment for the rehabilitation / modernization of the national railway and road transport infrastructure; insufficient road connections with intermodal terminals and / or ports to attract potential beneficiaries of intermodal transport
- lack of subsidies in the infrastructure of existing terminals and their related connections,
- high maintenance costs for existing specialized rolling stock,
- decreased activity on the traditional freight transport market in the railway sector,
- lack of container warehouses,
- lack of information on the possibilities of intermodal transport in / through Romania,
- lack of performance contracts concluded with the national infrastructure manager,
- lack of promotion of the use of intermodal transport,
- lack of adequate tools for applying the legal framework.

### **Opportunities**

- Community policies favorable to the development of intermodal transport,
- the existence of EU funding sources (SOP-T or TEN-T Program)
- reducing the negative impact of road transport on the environment by using rail transport,
- reduction of greenhouse gas emissions belonging to the road vehicle fleet,
- limiting the noise threshold in localities, which facilitates the use of rail transport,
- reducing the rate of road accidents,
- implementing intelligent traffic monitoring systems in order to increase traffic safety, real-time tracking of intermodal cargo and streamline intermodal transport
- encouraging less polluting modes of transport,
- the perspective of internalizing external costs,
- strengthening the business climate in order to increase the transport demand,
- encouraging the industrial sector to place production centers in the vicinity of intermodal terminals,
- promoting industrial parks in the areas covered by the network of intermodal terminals,

- cooperation between logistics operators and transport operators,
- integrating extended customs services in the intermodal supply chain.

### **Threats**

- the precarious state of the railway transport infrastructure,
- the lack of actions for the development of intermodal transport leads to the country's impossibility to achieve the EU objectives on climate change,
- delays in project preparation, elaboration of feasibility studies, land acquisition and in auction procedures,
- delays in carrying out priority infrastructure projects,
- insufficient coordination between modes of transport,
- insufficient professional training of the consultants employed and of the beneficiaries involved in the preparation of the projects,
- reluctance of some customers towards the use of intermodal transport,
- fragmentation of the transport market,
- lack of investments in intermodal transport

The SWOT analysis shows that Romania's general objective is the development of the national intermodal freight transport system in order to streamline freight transport and improve the impact of transport on the environment and traffic safety in Romania.

Achieving this goal will directly contribute to increasing Romania's accessibility by decongesting national roads and protecting road infrastructure, promoting the balanced development of all modes of transport and improving the quality and efficiency of services, reducing gas emissions and minimizing adverse effects on the environment.

At the same time, this objective implies the need for regulation and coordination of the freight transport market by the state through a better distribution of traffic towards greener, safer and more energy efficient modes of transport.

The state coordination of the intermodal transport sector must take into account the principles of the free market, the existing competitive distribution and the current situation of the activity in freight transport, the coordination between the infrastructure managers, the transport operators and the local authorities.

The specific objectives considered for achieving the general strategic objective are:

- modernization and / or construction of intermodal terminals and related infrastructure;

- achieving quality intermodal services;
- implementation of a system for tracking, planning and managing the intermodal freight transport, using the intelligent transport systems available on the market;
- stimulating the promotion of the national intermodal transport system
- Modernization of road and railway infrastructure which will lead to competitive costs in the field

## CONCLUSIONS

Currently, both companies and consumers demand efficient, quality and flexible transport services. The development of railway and road transport services in Romania is the basis of the country's economic development. In order to be able to develop this sector, Romania must invest in infrastructure and intermodal transport services. This will, in turn, minimize transport costs, further increasing the competitiveness of the sector. On the other hand, it is necessary to intensify the efforts that will lead to the reduction of pollution caused by this sector of activity.

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