

Actual Multimodal Transport Management, Support for Sustainable Development of the National Economy

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ABSTRACT

The importance of transport is no longer needed to be underlined. Despite all statistical numbers and whichever other analysis, it is obvious that a well developed transport system with certain leads to economic growth. The last decades lead to an unprecedented development of global foreign trade. Benefic from economic point of view, transport development determined a worrisome increase of environmental pollution degree. Minimizing negative effects produced by transport became a global priority. Multimodal transport is a sustainable alternative for transport development. Achieving an upgraded multimodal transport is a priority for all European Union countries, including Romania. In this paper, the authors make an “x-ray” of national multimodal transport, trying, at the same time, to find solutions to develop them.

KEYWORDS: *multimodal transport, management, national, policy, sustainable.*

JEL CLASSIFICATION: *R4*

INTRODUCTION

Geographical location of Romania, at the intersection of commercial axes joining northern and southern Europe, Europe and Middle East, more than 1000 km on the Danube which runs through the territory, the Constanta harbor, one of the biggest on the shores of the Black Sea, constitute a huge potential, which operated efficiently, may assure Romania a major role in the economic development, of pivot, to the regional and European level. In this context, the development and the judicious exploitation of Romanian transport infrastructure is a key element of national economical development.

1. MULTIMODAL TRANSPORT - NATIONAL POLICIES AND PROSPECTS OF THEIR CLASSIFICATION IN THE EUROPEAN REQUIREMENTS

For European Union sustainable transport development is a priority, mainly the especially impact that transport have concerning the environment. European transport development, on the same coordinates as up to know, could determine, with no doubt, a continuous and deep depth of environmental damage with major negative involvement on life quality and

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economic development. In this context, multimodal transport development is a major factor in reaching the desideratum to realize a sustainable transport development.

Goods transport transfer from road to rail is a concern for many years for many decisional European Union factors. In the last 10 years huge steps were made to achieve a rail goods transport unique market, to its disclosure and competitiveness grow, but expected results didn't appear. There are multiple economic causes (complicated financial problems to rail transport from different European Union countries and legislative - the nonexistence of a law that can make the external costs internalize, mainly, in goods road transport). At the same time the investments in rail infrastructure weren't at the level that may assure rail transport competitiveness grow compared to road transport. Because resources and environmental constraints will be more and more present, the achieving of a new vision concerning the development of this sector became compulsory. In the past 50 years the transport sector didn't suffer fundamental changes, although there is a progress in the field of car engine, infrastructure and systems of management and control. Today, transport continues to be dependent on oil, in a proportion in excess of 90%.

A priority action to achieve a sustainable transport is the development of multimodal transport. This system permits the transport of a big goods volume and of a big number of voyagers by the most efficient combination between different transport modes. Multimodal transport permits the optimal parameters use of transport logistics chains, achieving, in this way, important steps toward efficiency grow of energetic resources use and of the infrastructure. Romania, as a European Union member has the obligation to conform to these requests, thus enlisting more quickly on this trend.

The development of a complex terminal system at country level, but mainly on the main European corridors that transit Romania, will permit a more efficient connection of the Romanian economy to the European and Global market, which may be an important factor of National Economy revival. The intensive use of the European Rhine-Main-Danube Canal for fluvial (TEN-T 18 priority axis) and rail (TEN-T 22 priority axis) will create the premises of a significant decongestion of road traffic and the promotion of a sustainable transport system in Romania.

Multimodal transport development at National level implies a quick modernization of rail, maritime and inland waterway transport infrastructure of the links between different modes of transport that will permit goods and passengers transfer and transport in totally safe conditions, efficiently and rapidly, at European standards request level. An important role in the configuration of an upgraded multimodal transport system at national level return to Constanta harbor which is also, for Romania and for Central Europe, the main "gate" to foreign trade.

Multimodal transport is a transport optimization factor based on the use, with priority, of competitive advantages, that different transport modes shows – road transport flexibility and rapidity, low energetic consumption on one goods tone transported and the low pollution of rail and naval transport and reduced time in which the goods arrives to destination by air transport.

To align to multimodal transport European requests, Romania must concentrate its investments to rail sector to achieve an infrastructure that may assure high speed on special

corridors for goods transport and which may realize on this corridors, upgraded multimodal transfer points.

At the same time, at legislative level, becomes necessary the polluter-pays principle. Internalizing the outsourcings at all transport modes creates a transport costs more appropriate to reality. Taxes and tariffs paid by transporter must include pollution costs and infrastructure development maintenance.

A fair tax will determine a more efficient use of the infrastructure and a supplementary source of investments funds.

Different transport modes competition will develop on new and fairer coordinates which will determine an important impulse of multimodal transport development, because close competitiveness of different transport modes will determine transport beneficiary to choose the optimum variant by minimum social costs.

Multimodal transport is the most efficient, cheap and sustainable mode that improve competitive advantages – flexibility, capacity, security, contributing to bureaucracy increase, because there is only one operator that answer for the goods during the whole route, from producer to beneficiary with a unique transport document.

Addressing with priority to goods transport on long and medium distance, multimodal transport development in Romania, may determine the achievement of an optimum degree of road, rail and naval use.

The creation of a multimodal transport system is efficient, the benefits that they would bring an important element of Romanian's policy in this area. Achieving a multimodal transport system is linked by infrastructure quality and by interoperability degree between different modes of transport. For this purpose, there are major concerns regarding the modernization of the railway infrastructure, extension and modernization of harbor and road infrastructure.

Achieving an upgraded multimodal transport system is conditioned by the existence of an integrated transport system that may use new management, monitoring and inform system.

Multimodal transport network efficiency is directly linked by investment resources that may be attracted by infrastructure development and upgrading of equipments and of multimodal transfer points. Finances variety is important. Attracting private capital, structural and cohesion funds in national budget of assigned funds in this scope are mandatory conditions to achieve proposed objectives. Transport Ministry follows continuous improvement of legislative frame and evaluation and authorization procedures simplify of projects, by this following time and costs decrease for implementing projects in multimodal transport field.

To encourage multimodal transport, Romania concentrates its investment efforts to finalize TEN-T networks that transit Romania and some corridors especially made for goods transport, optimized by energetic consumption and by pollution emissions, so their impact on the environment must be at minimum level, but which, at the same time, may assure a high reliability of multimodal infrastructure and a significant decrease of traffic congestion degree. This way, exploit and administrative costs will significantly decrease, in

comparison with nowadays situation, which will determine Romanian multimodal attractiveness. An important element of national policy for the development of multimodal transport is the total liberalization of freight by rail, which Romania policy applies with consistency. Every Romanian enterprise has access to rail transport, the share of private operators in rail goods transport market, exceeding 50%, in 2010 (The Railway Insider, 2011) The development of inland waterway transport is another important element on national politics to achieve an efficient multimodal system. Assuring of optimum navigating conditions on the 7-th European Corridor for Romania and upgrading fluvial harbors networks are important elements of multimodal transport policy. Romanian fluvial harbors may become important logistic centers of multimodal transport infrastructure by upgrading its adjacent infrastructure, so the interoperability between inland waterway, rail and road modes may increase; facilitating goods rapidly transfer in maximum safe conditions.

Multimodal transport, performing at the national level creates the premises of competitiveness Romanian economy increase at European level. Transport efficiency is vital for assuring an economic harmonious development, so as constrains regarding non-renewable fuels and environmental resources became, more and more tough. Romania's commercial deficit is based on gas and oil imports, so every economic politics referring to the dependence oil decrease and implicitly the decrease of negative balance account of the commercial balance and competitiveness is beneficial. Multimodal transport development is an important alternative to nowadays transport. Efficiently and intelligent use of multimodal transport may induce good effects at social and economic level.

2. SOCIO-ECONOMICAL CONTEXT FOR ROMANIAN TRANSPORT

Romania, as all Europe, is facing from some years with a strong financial crisis with direct repercussions over the economy. At the same time climacteric changes problem, due to pollution in a continuous way gets new negative valences. Due to this conditions transport sector must face new challenges being forced to adapt under way in a quick rhythm to more and more restrictive conditions.

Huge amount of goods transfer from road to other transport modes and mainly to rail one is also a priority for Romania. This rebalancing of transport modes may be obtained by encouraging multimodal transport. Revitalizing of Romanian rail transport is indissoluble linked to remaking of rail infrastructure. Romania must totally use non-refundable funds that were allocated for the Transport sector by the European Union by POST 2007-2013 program, fond equaling 4,5 billion Euro. At the same time coherent development plans are necessary, plans that may revitalize goods rail transport activity and maybe, also the introducing of private management in rail state companies.

We consider the National Freight Railway Company "CFR Marfă" S.A. privatization in nowadays economic context being a huge economic and politic mistake, company being more undervalued at this moment.

Concerning rail sector, bringing Romanian part from the 4-th Pan-European Corridor at requested parameters from European agreement will permit to turn to advantage the huge potential that Constanta Harbor has.

Romania's decisional factors are conscious of the huge problem that our country inadequate infrastructure represents for the sustainability of future development. The last 20 years transport infrastructure investments were relatively modest both at quantity and quality level, being far from Romania's real necessities. Political interests, financial constrain and a defective project management are the main features constitute of National Politics for the last 20 years transport sector. Doubtful conditions of transport infrastructure tend to become a major obstacle both in increasing abroad investments in Romania and in economic relation consolidation with the European Union. The last 10 years economical grow wasn't accompanied by a proper transport infrastructure development. The reality is that transporters have less variant to optimize their activity so long as rail infrastructure and inland waterway transport don't suffer significant improvements. Balancing freight and passengers' traffic to road transport led to road infrastructure overstraining which is far from nowadays European standards.

Romanian Government didn't want or didn't succeed to apply one of the classical global solutions to emerge from the economic crisis – huge infrastructural investments. Such an approach could create many jobs and many related industries – cement, metallurgy etc. – may enlist on a ascendant trend.

The inefficient way in which European Funds are used is highlighted by the poor results between 2007 and 2012. From a 4.5 billion Euro placed at the measures of Romania to achieve transport infrastructure projects, only 415 million Euro were used, which represents almost 9.26% - the EU contribution payments in relation to the allocation EU 2007-2013 (Centrul de Informare Instrumente Structurale, 2012).

3. THE MAIN ROMANIA'S ECONOMIC INDICATORS EVOLUTION, PREMISES FOR MULTIMODAL TRANSPORT

Because multimodal transport is efficient mainly on long distances, Romania's foreign trade analysis may highlight a series of interesting aspects concerning the development opportunity of this kind of transport.

Romania's GDP evolution, between 2007 and 2011, highlights a series of interesting aspects: from a 123.7 billion Euro in 2007, to a growth with 10% in 2008 (at 136.9 billion Euro), when the economic crisis appeared. After a weak year, 2009, marked by GDP increase to 225.9% in 2010 and 2011, towards estimations, it was followed by an ascendant trend – 122.3 billion Euro, respective 129.1 billion Euro (Romanian Government, 2011).

Due to this complicate conjuncture, Romanian foreign trade knew a positive evolution. According to published data (Romanian Government, 2011), Romania's exports grew in 2010 with approximately 28% towards previous year, touching a level of 37.2 billion Euro, an absolute record for our National economy. In the analyzed period, one can remark the maintaining at high percentage (70%-74.3%) of exports to European Union countries, Germany, Italy and France being the main markets of goods for Romanian products. We consider that the nowadays condition of transport infrastructure influenced negative the Romania's foreign trade. The lack of highways and poor condition of the rail infrastructure were important obstacles to reach better performances and, at the same time, a major barrier in attracting a high volume of foreign investments.

Romanian exports maintained on an increasing trend between 2005 and 2010, even under the conditions of global financial and economic crisis. We expect that in the next few years exports volume to countries that aren't in the European Union, may grow significantly.

Internal market restraint and exports increase determined in 2010 in comparison with 2009, an exports grow rate of 27.9%, while imports had grow with 4.2%.

The analysis of the total volume of goods transported on all transport moods (figure 1.) highlights an ascendant trend between 2005-2008, with an annual rhythm of 4% a year, followed by a decrease of 21% in 2009, in comparison with 2008. In 2010, weights are almost at the same level with those in 2009.

Table 1. Romania's foreign trade by transport modes, between 2005 and 2010

Year	2005 (%)	2006 (%)	2007 (%)	2008 (%)	2009 (%)	2010 (%)
Total	100	100	100	100	100	100
Rail	6.02	6.15	5.81	5.71	3.38	3.79
Road	67.34	68.3	64.15	66.37	71.03	69.72
Maritime	20.80	19.07	17.55	19.67	17.06	17.18
Fluvial	0.73	0.93	0.75	0.88	1.03	1.12
Other	5.11	5.55	11.74	7.37	7.5	8.19

Source: Adapted from Romania's Statistics Yearbook (2012) in Chapter 18.6. Exports (FOB) and imports (CIF), by mode of transport, p.570

Even in 2009, when it was an economic crisis in Romania, year when Romania's foreign trade knew a significant decrease, road transport percentage grew with almost 5%. The dramatic decline of rail transport was due, in large measure, a significant transfer of freight from this mode of transport to the road.

The main cause of this process, in totally contradiction with what happens in the majority of European countries, is the insecure condition of rail infrastructure which conduces to the impossibility to have a real competitiveness between road and rail transport. At the same time, one can remark the ascendant trend of inland water transport, even if its share is at 1% level, much under the real possibilities of these transport modes.

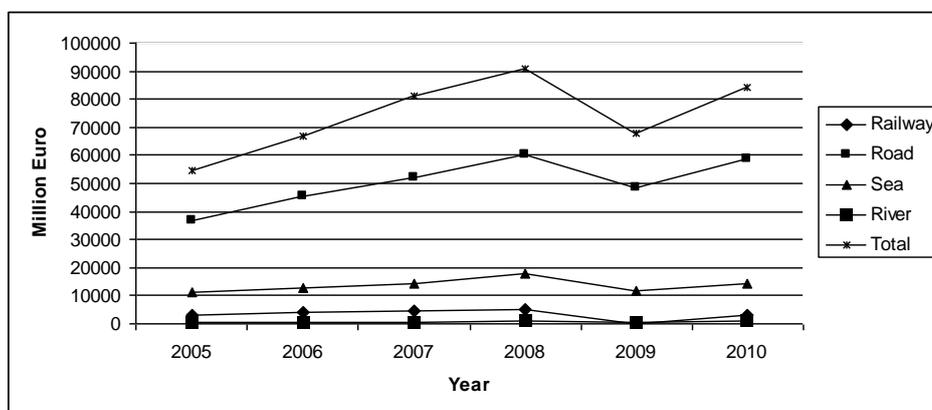


Figure 1. Foreign trade evolution by transport modes between 2005 and 2010

Source: Adapted from Romania's Statistics Yearbook (2012) in Chapter 18.6. Exports (FOB) and imports (CIF), by mode of transport, p. 570

Major imbalance between road transport and other modes of transport has emphasized, determining a continuous grow of non-renewable fuels and of environmental pollution degree, contributing to Romania's trade balance disequilibrium.

The optimizing of transport modes use by taking measures that encourage multimodal transport is an alternative to actual situation, the developing process of multimodal transport being a continuous concerning at European Union, translated to European requests made at European level by rebalancing transport modes.

In conclusion, analyzing the Romanian foreign trade in period 2005 - 2010 by transport modes, result the following major aspects:

- maintaining a constantly increasing trend of the share of road transport during the whole period analyzed, even in 2009 conditions, when exports and imports knew a significant decrease, as total volume;
- continuous decrease of the share of rail transport;
- shipping had the same evolution with the total volume of foreign trade, increasing/decreasing at the same rate;
- share of inland waterway transport has experienced a trend of generally rising, but remains at very low levels in comparison with other modes of transport.

We can appreciate that rail and inland waterway transport have huge development resources, existing the premises, from the point of view of transport capacity, that transport modes can be rebalanced. Thought one can remark the main Romanian foreign trade axes that are oriented to the western part of the European Continent on the main TEN-T that cross Romania. Putting into operation of sections that pass on the national territory would allow increasing competitiveness of Romanian, and by default, new opportunities for the development of foreign trade of Romania with the States of the European Union.

4. THE CURRENT ROMANIAN TRANSPORT MARKET, BY MODES OF TRANSPORT

Strategic objectives related to infrastructure, will generate a significant impact on the pace of development of the internal market, to increase economic competitiveness and the speed of the economic integration of Romania into the EU. The current situation of the Romanian transport infrastructure is characterized by the following aspects:

- the existence of an insufficient capacity to increase the volume of goods and passenger transportation, especially in some areas and at certain times of the year (summer, weekends);
- lack of coherent strategies for the development of transport infrastructure in line with the European transport strategy ;
- insufficiency of funds allocated in the budget for infrastructure development, even in the years of economic growth;
- attracting a lower volume of funds allocated to the Romanian transport by the European Union;
- access to Pan-European Corridors is difficult and limited by the transport capacity and the low quality of some infrastructure elements;
- high wear of rail infrastructure.

Even if Romania is in advantage by the geographical location, it has a transport system relatively poorly developed, and the lack of investment capital in this domain during the past 50 years became more and more a barrier for our country economic development. Therefore, the lack of upgrading of the main transport corridors can lead to loss of the advantages offered by the geographical position of Romania on the transit routes – East and West North-South.

The analysis of data showed in figure 2 and figure 3 highlights the following major aspects concerning the development of Romania's goods transport during the analyzed period:

- the volume of goods carried increased still in the 2000-2008, registering an increase of almost 35% in 2008 compared to the year 2000. Following two years with pronounced fall 2009 (-21%) and 2010 (-42%) compared to the year of 2008;
- road transport, held throughout the period under review a high proportion, about 70%. In this evolution 2010 is totally atypical. Decrease the share of 13.9% of road transport accounting for nearly half of the total decline in the volume of goods transported by all modes of transport (26.1%). 2010 is the first year in which the share of road transport decreases and it's losing market in the face of other modes of transport;
- the deep imbalance between goods quantity transported by road and by rail, imbalance which is maintained in the year 2010, a year in which only the share road transport was on a downtrend;
- maritime and inland water transport have remained relatively constant during the period analyzed;
- pronounced negative trend of rail transport whose share decreases to 18.8% in 2000 to 12.5% in 2009, with a slight recovery in 2010.

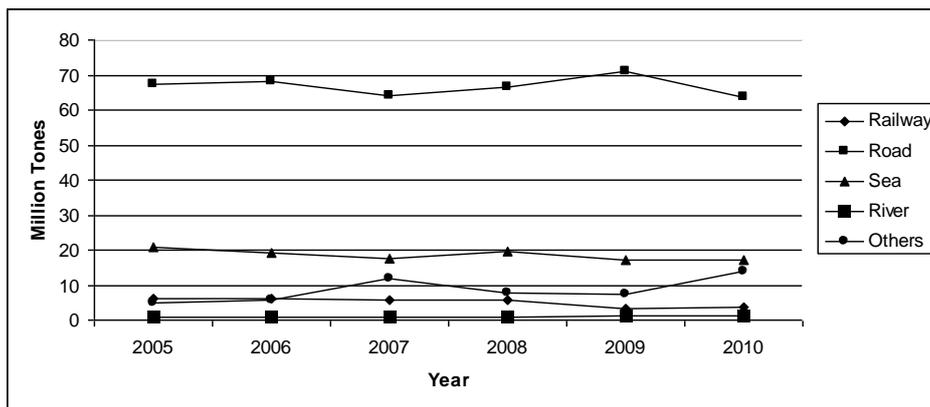


Figure 2. Romania's wares transport evolution between 2000 and 2010, by transport moods

Source: Adapted data from Transportation Ministry (2012)

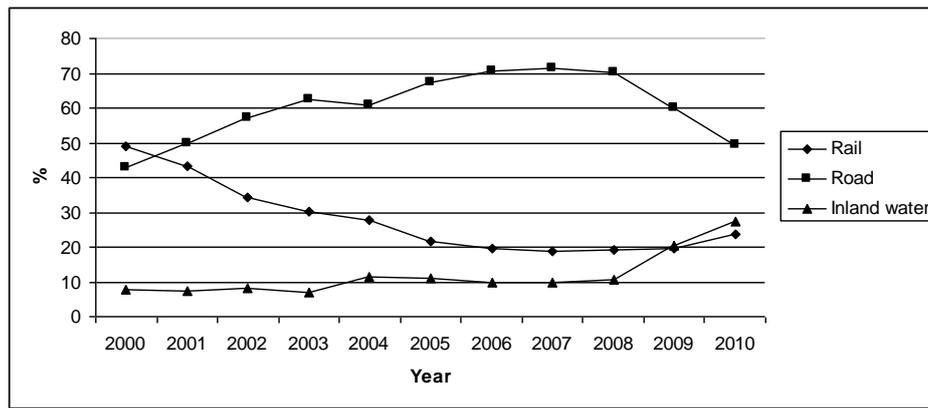


Figure 3. Evolution of share freight transport in Romania, by modes, during 2000 and 2010

Source: Adapted data from Transportation Ministry (2012)

Brief analysis carried out in the previous paragraph shows for Romania a common feature to all European Union countries – very high share of road transport compared to other modes of transport, that imbalance is particularly prevalent when compared road transport with rail transport and inland waterway. This imbalance has caused, both nationally and at European level, non-renewable fuel energy consumption continues to grow.

Road transport fuel consumption is especially lifted up in comparison with other transport modes consumption (figure 4.). Road transport weight energetic consumption increased continuously in the past 12 years, from 80% in 2000, to almost 90% by total consumption in 2011.

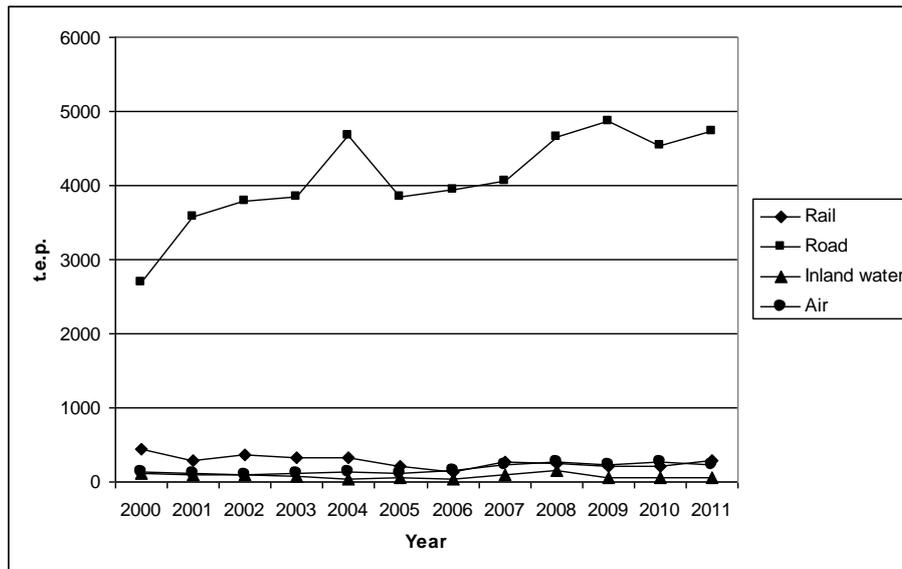


Figure 4. Energy consumption by transport mode, between 2000 and 2011

Source: Adapted from Romania’s Statistics Yearbook 2011 (Romanian National Institute of Statistics, 2012).

The only domain that has increased pollutant emissions was the transport, the increase being due in most part to the road transport. Increasing levels of pollution in the case of road transport was due to growth of the volume of goods transported, the number of traffic jams and congestion on certain segments of the road.

Concluding, the data presented above highlight the need for a better balance between the share of all modes of transport, the transfer of much more quantity of goods from road to rail and inland waterway, at both the national level and at European level.

5. A BRIEF ANALYSIS OF THE ROMANIA'S MULTIMODAL FREIGHT TRANSPORT

At national level, in multimodal transport domain, the main goal is the efficient transfer of goods by a integrated chain transport, by using at least two transport modes. Addressed with priority to long and medium distances goods transport, the development of multimodal transport, in Romania, may determine the achieving of an optimum use degree of road, rail and inland waterway.

Achieving a multimodal transport system is linked to infrastructure quality and to the interoperability between different transport modes. At the same time, this infrastructures must permit the efficient exploit of upgraded technology and of some transport integrated systems and must use new management, monitoring and informing systems.

Romanian policy concerning multimodal transport pursue to achieve in concordance with European Politics from this domain a reallocation of different modes rate by creating transfer conditions of a much more freight transport by road to rail and fluvial mode.

Multimodal transport relation efficiency is directly linked to investments resources that can be attract for infrastructure modernization and development, of equipments and multimodal transfer point. Finance source diversify is important. Attracting private capital and structural and cohesion funds and the existence in National budget of funds allocated in this purpose are mandatory conditions to realize the proposed goals.

To encourage multimodal transport, Romania must concentrate investment funds to finalizing TEN-T networks, that transit the National territory and of some special corridors for freight transport, optimized by energetic consumption point of view and by pollutant emissions, as so environmental impact may be minimum but at the same time may assure a high reliability to multimodal transport and a significant decrease of traffic congestion degree. In this mode, exploit and management costs will significantly decrease, in comparison with nowadays situation, which will determine attractively grow of Romanian multimodal transport system.

Multimodal transport development implies bringing rail infrastructure at qualitative parameters that may permit to successfully compete with road transport. In this direction, barely in 2011 things started to move noticeable.

Multimodal transports in Romania do not constitute a basic element in the national transportation system. By internal plan, unfortunately there doesn't exist a real complementary between different transports modes, mainly because of distortions appeared in costs because of the non-inclusion of some of their important elements mainly the ones that aim/concern pollution degree, traffic congestion, accidents and so on. As long as there won't be costs internalization, road transport will be in advantage. We consider, costs

internalization problem, as being much important to achieve real equilibrium between different transport modes costs and fair competitiveness between them. Natural consequence of costs difference, that appear because of external costs non-internalization is a preponderant orientation of goods transport to road transport with known consequences – high fuel consumption, pollution, traffic – jam and so on. At this, Romania adds precarious infrastructure condition for all transport modes and a slow rhythm of its rehabilitation.

Romania multimodal transport shows a series of particular aspects, as we remember:

- It is dominated by Constanta's harbor activity, approximately 70-75% of big container traffic. At the same time, UTI traffic volume without links to Constanta harbor aims to be 0 (Tănăsuică, 2011).
- Romanian transporters are strongly competing foreigners, on internal market.
- Terminals owned by State companies do not have the necessary facilities to develop an efficient activity.
- Transport infrastructure is more behind efficient, modern and upgraded transport requests.
- The majority of container train are dedicated to only one client.
- There doesn't exist rail container transport between Romanian's terminals.
- Use only two railway systems for multimodal transport- platform containers and specialized wagons for cars transport.

An efficient system enough used at European level, RO-LA road train with specialized railroad coach isn't functional at national level because high rail costs. Occurred first in mountain raised states, Switzerland and Austria, to facilitate goods traffic, RO-LA system (ROLLENDEN - LANDSTRASSEN), which consists of truck transport by railroad specialized wagon extended towards pressing environment problems.

A number of European countries have preferred to subsidize this kind of transport along with more stringent conditions for road transport, aiming in this way to protect road infrastructure and environment.

In 2006 Romania succeeded to transport in this system 7680 trucks between Golgovat – Wels and Wels – Episcopia Bihorului. A year later, RO-LA transport became inefficient because of rail transport price grow.

The price difference on remembered routes at about 570 Euro on railway in comparison with 350 Euro to road transport, leded to RO-LA system disappear in Romania in a moment when this kind of system was developing more and more at European level (Pătrascu, 2010).

Is interesting to remark that Romania was the only country from all countries from Marco Polo II program, which didn't succeed to attract European funds because not even one project was applied. Nowadays, Romania doesn't have the necessary infrastructure to quickly development of multimodal transport system. Container transport systems and RO-RO are the only one used. In 2009 trying to re-enter RO-LA system en-failed due to high costs of this system in comparison with road transport costs, for the same distance, conduced to a lack of demand and to the abandonment of this idea.

Another important factor that determine beneficiaries to prefer road instead rail transport is the big necessary time for goods transport to arrive to destination, so because rail infrastructure that doesn't permit high speed locomotion and because of frequent lags of loading – unloading – stationary in terminals, because of technical or inefficient management reasons. Is interesting to remark that medium speed of goods trains was in

2010 at about 24 km/hour, in concordance with official statistics of Transport and Infrastructure Ministry. The problems facing the railway infrastructure are particularly serious (Lucaci & Szenteş, 2011). It is obvious that without creating some special corridors for goods trains, that should assure the necessary conditions for an efficient traffic, not even that one cannot rebalance transport modes weight on specific market, but the demand for rail transport will decrease for every kind of goods that can be transported also on road.

Costs difference between road transport and the other modes came, mainly, from non-taxing at the real value of collateral effects made by this kind of transport. Vignette price, paid by road transporters reflects only in small measure the real costs of road transport. In this situation, even when the Romanian State makes shy tests to relaunch multimodal transport by according some facilities to rail transporters – cutting use tariff of infrastructure for transit train and free tax reinvested in terminals – rail transport costs aren't competitive, at this moment in time, toward road transporters costs.

Multimodal transports advantages by energetic consumption point of view are presented in many special literatures see Dragu (2009) and Enero & INCERTRANS (2001).

Over 90% of Romanian maritime transport is made by Constanta harbor. It can be used as starting point in achieving a development strategy of multimodal transport being an important transit centre for foreign trade of Central and Eastern Europe countries with Transcaucasia area, Central Asia and Faraway Orient. Constanta harbor presents a series of supplementary advantages as follows:

- modern equipment and depths that permit landing of the biggest ships that pass Suez Channel;
- direct links with all transport modes – road, rail, fluvial, air and by pipes;
- RO-RO and Ferry Boat terminals that can assure rapid links with Black Sea and Mediterranean harbors.

Table 2. SWOT analysis of Romania's infrastructure transport in multimodal transport

Strengths	Weaknesses
<p>a. The existence of a infrastructure that may be, if judicious investments are made, an operative network of efficient operative connection, in a Pan-European multimodal specialized transport.</p> <p>b. The dismissal of some agreements, at European level, that aims, with priority, the achieving of an upgraded infrastructure (specialized corridors) for rail goods transport – Deal Memorandum concerning goods rail implementation, number 7, signed by Romania's transport ministers from, Austria, Bulgaria, Greece, Czech Republic, Slovakia and Hungary, in 2011- and by/on inland water – The Danube Strategy, in 2010 – for which there are allocated European Union investment funds.</p>	<p>a. Lack of a general master plan for multimodal transport.</p> <p>b. Lean developed high-ways network, only 679.5 Km in 2012, September.</p> <p>c. Non-competitive rail infrastructure, mainly, because scarce condition of race and of carriage park specific to multimodal transport.</p> <p>d. Investments big volume necessary for road and rail infrastructure upgrade.</p> <p>e. Limited degree of European funds attraction attributed to Romania, by the European Union, between 2007-2013 (only 9.5% of funds were used until 2012, November).</p> <p>f. A reduced/small number of upgraded multimodal terminals.</p>

Strengths	Weaknesses
<ul style="list-style-type: none"> c. Infrastructure investments reorientation, with priority to TEN-T European corridors that passes Romania. d. Total opening for European operators of national road and rail infrastructure. e. Continuous infrastructure upgrading of Constanta harbor, the most important multimodal transfer centre for goods from Central and Western Europe, that assure efficient links by all transport moods. 	<ul style="list-style-type: none"> g. Distortion in transport costs because of the non-internalize of externalities, which advantages goods road transport. h. Many terminals don't have the possibility to achieve efficient links between different transport modes, because of the inexistence of an adequate infrastructure. i. Ferry boat inactivity, by different economic and technical reasons. j. The inexistence of a global approach of transport costs concerning externalities internalize.
Opportunities	Threats
<ul style="list-style-type: none"> a. The existence at European Union of a major interest concerning: <ul style="list-style-type: none"> o transport modes rebalancing, especially between road and rail transport; o nonrenewable fuel consumption reducing and oil import addiction; o environmental pollution decrease. b. The allocation, by the European Union of important non repayable investment resources, that, direct and indirect will determine goods transport optimization by using multimodal transport. c. Widely use of upgraded inform, management and control systems of the European traffic. 	<ul style="list-style-type: none"> a. The possibility of the extend of economic-financial crisis; b. The existence of alternative routes, with superior traffic conditions than Romania has, for goods from Near Orient, dedicated to Central and Western Europe.

In agreement to what we presented, we can say that Romania has in multimodal transport a series of opportunities that, intelligent exploited, may determine a positive evolution of this sector. Constanta harbor and the Danube are key factors from which this approach may start. Constanta harbor is the main gateway for goods from Orient and Caspian Sea to Central Europe, and Danube – Main – Rhine crossing connecting ports across Europe, Constanta and Rotterdam. Added to this is the railway routes of European interest Curtici – Craiova – Bucharest – Constanta, Arad – Brasov – Bucharest- Constanta and Iasi – Buzau – Bucharest – Giurgiu, included in PanEuropean TEN-T network. But, the main obstacle in Romanian multimodal transport development is, as we already told, the insecure form of infrastructure.

A peculiar but very important chapter for multimodal transport are multimodal terminals and its condition by technical and functional point of view. Nowadays, Romania has a network of almost 80 terminals that can be used in the development of multimodal transport process. More of them, almost 80% are rail-road terminals. Those from Constanta harbor and from some Danube harbors are naval-rail-road type. There are also a series of industrial terminals which strictly cater for industrial platform.

Transport and Infrastructure Ministry has, by CFR TRANSAUTO corporation as being operator of mixed transport and SNTFM CFR Marfa corporation as owner and national goods rail operator, 26 rail terminals with a 10500 TEU capacity, from which almost 50% are inactive.

In perspective, because of the necessity to align to E.U. request in multimodal transport, Romania must develop its terminal networks and at the same time, their technological level must assure a high competitiveness.

Goods flow analysis at National level and of those that crosses Romania highlights the necessity to place new terminals, especially on TEN-T networks route that crosses national territory. In the absence of a coherent strategy at national level, terminals development had been cared by private investors and by local authorities. From this point of view, we consider interesting and opportune the Timis County Council initiative to place a new terminal close to Timisoara. Timis County Council has an achieving project of a multimodal transport centre, a very important investments, that could assure jobs and supplementary incomes at local budget. Placing of this multimodal centre is planet to be in Remetea Mare or Recas districts situated very close to Timisoara, having direct access to road infrastructure (E 70), rail (CF 900) and airport. The total surface necessary for this terminal development is of 35000 square meters. The plans include also the achieving of two RO-LA terminals for truck transport. The investment is evaluated at almost 90 million Euros and will be done from local budget and European funds, by Operational Area Program (Regia Autonoma de Transport Timisoara, 2011).

Other initiative, a private one, has as promoter the Belgian Alinso Group that builds a modern terminal close to Ploiesti, named EURO GATE.

The Belgian Alinso Group, West Ploiesti Park developer, one of the biggest and modern industrial parks of Eastern Europe business, builds the first private Romanian multimodal terminal. The investments that equals 7 million Euro is placed at rail and road crossroads artery from that area.

The project with a total surface of 100000 square meters and 3 rail lines with a total length of 2200 meters will have at the end a storage capacity of 5750 TEU. The terminal's facilities include: permanent supervision by a upgraded video system, customs point, wares container station, containers repair station, fuel station, parking places for trucks and motor vehicles. EURO GATE Ploiesti terminal will act as a hub for delivered cargo by TEU standard containers and for bulk wares (Bernovici, 2011).

There is also a series of other areas that are very interest for placing or upgraded some terminals – Bucharest, Giurgiu, Oltenita, Brasov, Suceava and so on.

The most important rail routes, link Constanta to Bucharest and from here the border points from the rest of our country. The main multimodal transport axe is Constanta – Bucharest. The huge container wares quantity dedicated to Bucharest determined the appearance of a big number of logistical operators in this area.

The huge potential that Romania has by Constanta harbor determined the built of European Gateways Platform, public – private partnership between Holland Government and

Romanian – Holland companies that acts in infrastructure and logistics area. The declared goal is to transform Romania in a big player on commercial route that links Asia to Europe and Constanta harbor may become a big and important European logistic centre for multimodal transport. The great interest of Holland companies for the development of multimodal traffic in Romania starts from the idea that wares Orient traffic dedicated to Central European Market that transit Romania is under 1% from total. By a sustainable and a more efficient activity, Romania may attract almost 5 million TEU containers and 20 billion tones bulk annually from North - East European routs. Current routs from Holland, Germany and Belgium are longer and expensively (Archicom, 2010).

On Romanian multimodal transport market attend a series of experienced multimodal transport companies from which we remember:

- Delamode Logistics Ltd. that assure transport and logistics services for all chain, from producer to beneficiary, by all transport modes – road, rail, naval, air. Also organizes and assures containers rail transport by Constanta South Harbor –Bucharest. Starting with 2008, it created its multimodal transport division, also having a rail container terminal in Bucharest.
- Inter Ferry Boats that organizes container trains on Genk (Belgium) – Oradea and Sopron (Hungary) – Arad – Bucharest. Is interesting to remark that a part of these trains are operated in Romania by local subsidiary of Germany National transporter – Deutsche Bahn. The same operator assures transport on Anvers (Belgium) – Sopron (Hungary) in multimodal system. Sopron terminal assure container distribution to Greece, Turkey, Romania, Austria and so on. Is interesting that all this merchandise dedicated to Central Europe comes from Orient, by North route instead to come from Constanta harbor and to cross Romania (IFB, 2011).

Only through these small examples we can affirm that in order to develop an efficient transportation, economically, to be integrated into the sustainable development coordinates, Romania must develop a multimodal transport system. Romanian carriers must adapt to the European context, trying to optimize the transport of goods and passengers, and can thus lower the costs to become competitive and to develop national and European markets.

6. COMPONENTS FOR THE PROMOTION OF MULTIMODAL TRANSPORT AT THE NATIONAL LEVEL AND THE PROSPECTS OF THEIR CLASSIFICATION IN THE EUROPEAN REQUIREMENTS

European Union, in Transports 2050 Strategy (European Commission, 2011) proposed to reach ambitious goals, as follows: mobility level grow, rebalancing of transport modes, activity optimization and efficiency by multimodal transport development, in according to sever decrease of oil addiction and implicitly the decrease with 60% of carbon emission generated by transport. Multimodal transport development at PanEuropean level needs major investments in infrastructure and in management traffic systems. That's why the European Union coordinates and finances many research programs of whose results, once applied, create new management possibilities of European traffic, more and more efficient.

Romania, as community state, must frame European requests, developing a competitiveness transport, based on a upgraded multimodal transport. So, Romania can assure an advantageous position in the strong competitiveness system from European market. Having

a multimodal upgraded transport, Romania will create the premises to assure a great mobility and implicitly, of a significant economic increase.

To achieve proposed goals, Romania needs huge infrastructure investments. Achieving a complete integrated transport network at national level that should assure a high interoperability between different transport modes will assure this sector efficiency grow, by using at a large scale of multimodal transport. Goods and passengers transport must be reconsidered, a new strategy must be done, a new vision of these. In this context, multimodal transport must develop rapidly and with priority. Especially TEN-T networks routes that cross Romania need urgent investments to create some facilities that should permit the achieving of transfer centre for goods and passengers between different transport modes.

To achieve these performances, Romania must find economic, legislative and financial lever that must permit to face transport challenges in general and especially of those linked to multimodal transport.

European Union aims that till 2050 will succeed that over 50% of goods and passengers transport by medium and long distances must be transfer from road to rail, fluvial and maritime transport. To achieve this desideratum TEN-T network must become operable till 2030 and at the same time must permit an efficient transfer between different transport modes. Achieving the connection of the airports to rail network and of maritime harbors to rail and inland waterway, will determine a significant grow of interoperability degree of different transport modes and also assuring the conditions to strong development of multimodal transport. Is obvious that whole this structure will base on a upgraded informational system. This direction first steps were made by the implementation of smart management systems of road and fluvial – maritime transport.

An appropriate aspect of European policy that encourages multimodal transport is the highlight of strong necessity of applying the principle “polluter pays” to remove transport cost distortions, with different transport moods.

Given that transport is a fundamental element of economic development, but at the same time, the main non-renewable energy consumer and one of the biggest environmental polluter, Romania must establish as a priority goal in transport, competitiveness grow by achieving a complete integrated transport network in European Union transport structure which will determine the achieving of a total interoperability between different transport modes and implicitly, the obtaining of a structural equilibrium between different transport modes. For achieving this desideratum, an important place has multimodal transport development, transport that by minimizing energetic consumption and environmental pollution degree assure important premises to achieve a sustainable development of the transport.

Multimodal transport promoting do necessary at National level the achieving of a coherent transport policy that by financial and legislative measures must promote this transport mode. Given that, at global level, investors are being oriented to places that presents less obstacles for business development, Romania must valorize its competitiveness advantages at European level mainly by Constanta harbor and the Danube.

Transport infrastructure is a necessary but not sufficient condition to multimodal transport development. Attracting huge investments in this domain is a pressing priority for the moment. Romania must assure a stable and predictable business environment, must remove fiscal bureaucracy and must give multimodal transport companies a series of facilities that were accepted at European Union level and that are being applied in other community countries.

In this direction, we consider convenient that multimodal transport should benefit of a series of stimulants as it follows:

- financial support for investments relating to the construction and modernisation of the terminals and for achieving of new equipment and technologies for this, including the purchasing of specialized carriages;
- cutting down taxes for higher vehicles than 3.5 tones used in multimodal transport;
- subsidies for rail operators depending on carried quantity of container and the distance on which transport was performed;
- internalizing external costs considering road wares transport, to balance costs between different transport modes;
- giving facilities to transit wares in rail and inland water transport.

At the same time, it should be borne in mind:

- setting up a multimodal transport department in the Ministry of Transport and Infrastructure that should coordinate the activity and assure in an equal way the infrastructure access for all public and private competitors;
- attracting private capital to develop passengers and goods transfer points and their related services by implementing some legislative and fiscal measures that should encourage multimodal transport;
- encourage investments dedicated to achieve new terminal especially on TEN-T European corridor routes by giving fiscal facilities;
- directing, with priority, the investments for rail and harbor infrastructure rehabilitation afferent to the European corridors;
- locating the terminals so that is should be achieved fast connections between different transport modes;
- developing harbor infrastructure on the Danube and its interconnection with the rail network may be major competitiveness advantage to develop multimodal transport;
- priority modernizing rail infrastructure to allow travel speed growth that will help competitiveness grow due to road transport;
- achieving a legislative framework that should ensure equidistant conditions to establish transport costs no matter the modes – road, naval, rail, air ;
- introducing in total social costs for transport activity in accordance with the principle of polluter pays, costs related to the use of infrastructure and other kind of externalities may be an additional element in the interest of multimodal transport growth, by reducing the demand for road transport and at the same time may ensure equitable condition for the competition between different transport modes.

Attending e-Freight European Project may assure an optimal development framework of Romanian multimodal transport. Thought as an informatics platform unique for European

freight transport it will assure necessary information to fill in electronic transport papers and tracking goods no matter transport type in which goods are carried (European Commission, 2010).

The main goal of this project is to set up informatics infrastructure that should assure manufacturing and processing in real time of the information provided by location and tracking system of existing product by each transport mood.

E-Freight will give necessary information to European transport optimization and also will bring new opportunities for multimodal transport development.

CONCLUSIONS

At the beginning of 21 Century transport must face new major challenges. Permanent growth of particulate matter emissions, unreasonable consumption of non-renewable resources and more and more congestion due to continuous grow of road transport share are at this moment defining elements of this field. Continuous developing of transport must be done by noting them in sustainable development coordinates. Maintaining the present trend will determine soon or later, in many European countries, economic and social negative effects whose amplitude is hard to be evaluated. One of the viable solutions that should determine the transfer of a big amount of goods from road to rail and inland water transport is multimodal transport development, transport characterized by the optimization of the entire transport chain from producer to consumer. Multimodal transport must be understand as asset optimization of transport by exploring the benefits that is shows each transport mode.

Romania must be aligned to European Union requirements in transport and to develop in a faster pace multimodal transport. From the analysis performed in this paper it clearly results the difficult situation that Romanian transport contrasts, situation give by hard conditions of transport infrastructure, regardless road, rail, inland shipping transport. There are solution, but particularly low degree of attracting European funds and low investments are major obstacles in slowing Romanian problems. A coherent strategy is essential to be applied for the development of national transport where multimodal transport must be the main element. An upgraded multimodal transport will permit Romania to face E.U. request in this area and, at the same time, will create the premises for an economic integration from positions that put in value geographical strategy position and huge human potential.

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