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THE PREREQUISITES AND PECULIARITIES OF THE DEVELOPMENT AND MODERNIZATION OF TRANSPORT SYSTEM, LOGISTICS AND INFRASTRUCTURE IN THE COUNTRIES OF VISEGRAD GROUP: FROM THE PERIOD OF POSTCOMMUNISM TO THE PRESENT TIME

The article analyzes the preconditions, stages and peculiarities of the development and modernization of transport system, logistics and infrastructure in the countries of Visegrad Group, in particular from the period of Postcommunism to the present time. The factors that accelerated and slowed the development of transport system in the countries of the region were established. It is argued that the regulatory framework in the field of regulating the transport services in the Visegrad countries during the period from Postcommunism to the present time was harmonized with the legal requirements of the EU and profile international organizations that affected the modernization of transport system, logistics and infrastructure. However, transport systems, infrastructure and logistics in the countries of Visegrad Group are different, in particular in the categories of financial and investment components, condition of development and modernization, as well as the results obtained on the basis of this.

Keywords: transport, transport system, transport infrastructure and logistics, modernization, the countries of Visegrad Group.

ZAŁOŻENIA I CECHY ROZWOJU ORAZ MODERNIZACJI SYSTEMU TRANSPORTOWEGO, LOGISTYKI I INFRASTRUKTURY W KRAJACH GRUPY WYSZEHRADZKIEJ: OD CZASÓW POSTRADZIECKICH DO WSPÓŁCZESNOŚCI

W artykule przeanalizowano założenia, etapy i cechy rozwoju oraz modernizacji systemu transportowego, logistyki i infrastruktury w krajach Grupy Wyszehradzkiej, w szczególności od czasów postradzieckich do współczesności. Określono czynniki, które przyśpieszyły lub spowolniły rozwój systemu transportowego w krajach tego regionu. Uzasadniono, że w okresie od postkomunizmu do chwili obecnej w krajach Grupy Wyszehradzkiej ramy prawne w zakresie regulacji usług transportowych były zharmonizowane z wymogami prawnymi UE i odpowiednimi organizacjami międzynarodowymi, które wpłynęły na modernizację systemu transportowe, infrastruktura i logistyka w krajach Grupy Wyszehradzkiej są odrębne i zmienne, w szczególności w kategoriach finansowo-inwestycyjnych a także pod względem rozwoju i modernizacji.

Slowa kluczowe: transport, system transprtowy, infrastruktura i logistyka transportowa, modernizacja, kraje Grupy Wyszehradzkiej.

The transition from the «real socialism» to post-communism regime, and subsequently European integration of the Visegrad Group countries, were both predetermined by an entire range of qualitative and quantitative changes of political-institutional and social-economic nature, which ultimately stipulated specific prerequisites, peculiarities, as well as transit and modernization of the transport system, logistics and infrastructure in the region. The fact is that political and social-economic transition in the Visegrad countries, manifesting itself in shifting priorities from public to private transport, made an impact upon both the new transport geography and the new transport system, logistics and infrastructure in the region. Having at least partially identified and overcome transport problems, inherited from the communist period, in the course of transit and post-transit periods the development of the transport system in the Visegrad group countries was aimed at constructing new organizational, management and logistical structures, new transport links and routes, new equipment and technology, as well as infrastructure and services upgrades. Shortly after the collapse of the Warsaw Pact system, new market conditions in the Visegrad Group countries created a multi-vector system of transport competition directly between the countries of the region in question, and between those (as a new transport node), and Western countries.

Nonetheless, awareness of the current state of the transport system, infrastructure and logistics in the Visegrad countries required effort in the realm of their development, transit and modernization, hence this process was consistent, yet controversial at times. Upon the collapse of the intergovernmental Council for Mutual Economic Assistance for Socialist Countries and the subsequent collapse of the old Soviet economy, the inflow of Western investment and technology, accompanied by the continual political instability in the region, initially gave little hope of a successful reconsideration of the structure of trade relations and the transport system in the region. Especially given that by mid-1989, the "people's democracy" regimes, run by the Communist party had, after decades of relative inertia and command system, pursued an utterly rigid economic and social policy, characterized by large-scale state ownership, considerable employment figures, however, population personal mobility remained at a low level. As a consequence, the transport system of that period was almost completely state-owned, and therefore it bore attributes of congestion, poor quality of service, outdated technologies and low productivity¹. This conditions that insufficient and underdeveloped transport infrastructure and logistics in the Visegrad countries, established in the socialist period and inherited in the period of post-communism, appeared to put one of the main obstacles in the way of economic modernization, increasing international

¹ Hall D, Impacts of economic and political transition on the transport geography of Central and Eastern Europe, "Journal of Transport Geography" 1993, vol 1, nr. 1, s. 20-35.

trade flows and foreign investment in the region². This is clearly proved by the findings of E. Ehrlich, who compared the state of transport infrastructure development in the region under analysis with other contemporary post-communist and developed countries of Europe since the initial stages of transformation in the Visegrad Group countries (see Table 1 for details)³. The scholar based his research on the following criteria: length of roads and railways in proportion to the total area and population size, the number of vehicles per capita, etc., which primarily reflected the available resources of transport systems rather than the quality (speed, reliability) of services and the state of transport infrastructure. Such data being nearly the only information available at that time, it was the crucial to use them for the purpose of comparison. Moreover, the country rating was carried out on a relative scale from zero (lowest development level) to one hundred (highest level of development) points. In particular, it was found that the Visegrad countries lagged significantly behind the Western countries, simultaneously considerably outperforming other post-communist European countries. At the same time, the state of transport infrastructure development in Poland and the former Czechoslovakia was at the Central European level, slightly ahead of Hungary. It is noteworthy that the region under analysis was quantitatively characterized by quite a developed railway infrastructure, as well as high rates of passenger and freight traffic. However, in terms of quality, the region was positioned as low-performing in terms of production traffic intensity, density of highways, relative fares for transport services, average age of vehicles, speed of delivery of people, goods and services, etc.

It could be accounted for by the fact that even in the period of "real socialism", the centralized planned economy was characterized by underdeveloped transport infrastructure, particularly in respect of its correlation with the GDP level. There were several reasons for this, such as: investment policy focused on the "productive sphere", while the development of transport infrastructure was kept to a lower limit, often resulting in shortfalls and hindering the efficient functioning of other industries⁴; neglect of the transport development in the postwar period made a sharp contrast with the situation in the late nineteenth century and during the interwar period, when transport (primarily railways) construction preceded and promoted industrial development; transport services in the central planning system had to meet structurally different needs than those during the transition to a market economy; industry and agriculture were dominated by materials-intensive industries that targeted large manufacturing sites, resulting in higher transport tonnage than similar market economies; poor specialization of government agencies, a static assortment of products and a high level of the transport sector inventory were peculiar for production, which required, above all, transportation of large quantities of goods (particularly railway transport)

² Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economics & Economic Transformation" 1995, vol 7, nr. 3, s. 369-384.

³ Ehrlich E., Infrastructure development in Eastern Central Europe, 1920-1990. An international comparison, Paper presented at the symposium "Politische Desintegration und Wirtschaftliche (Re)Integration", Graz, 14-17 September 1994.

⁴ Ehrlich E., Infrastructure, [w:] Kaser M., Radice E. (eds.), The Economic History of Eastern Europe 1919-1975, Wyd. Clarendon Press 1985.

rather than the speed and timeliness of transportation; transport services were provided by monopolistic rather than competing companies, and the construction and maintenance of transport was financed by expenditures from the state budget; given the prices for transport infrastructure services were extremely low, large industrial consumers additionally benefited from heavily subsidised prices; infrastructure networks in the transport system reflected the hierarchical nature of communications in society.

Rating number	Country	Overall scores of the transport infrastructure development 51,5					
1	Germany						
2	Luxembourg	49,2					
3	Norway	45,5					
4	Belgium	45,4					
5	Netherlands	43,8					
6	Denmark	40,9					
7	France	39,5					
8	Italy	39,2					
9	Austria	36,7					
10	Czechoslovakia	35,5					
11	Sweeden	34,5					
12	Spain	32,1					
13	United Kingdom	31,4					
14	Poland	30,5					
15	Finland	28,7					
16	Ireland	27,6					
17	Hungary	25,9					
18	Greece	25,7					
19	USSR	24,4					
20	Bulgaria	24,1					
21	Yugoslavia	19,9					
22	Portugal	16,3					
23	Romania	16,0					
	The average score for Europe	33,2					
	The average score for Western Europe	36,8					
The a	verage score for post-communist countries	25,2					
The average s	core for the Visegrad group countries countriespyпi	30,6					

Table 1. Comparison of the state of transport infrastructure development in the Visegrad Group countries and other European countries at the point of «real socialism» regimes collapse

Źródło: Ehrlich E., Infrastructure development in Eastern Central Europe, 1920-1990. An international comparison, Paper presented at the symposium "Politische Desintegration und Wirtschaftliche (Re)Integration", Graz, 14-17 September 1994.; Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economies & Economic Transformation" 1995, vol 7, nr. 3, s. 369-384. However, in the course of and yet more following the collapse of the communist regimes in the region, transport geography and the very system began to alter, particularly in the following directions: new organisational and administrative structures originating from the processes of decentralisation, demonopolisation, privatisation, emergence of new independent countries, resulting in the increase in foreign economic activities; (b) new communication links and routes, having begun their development as a result of removal of constrains on personal east-west traffic, given the significant growth of tourism, and in view of the creation of new trade links as well as western orientation; c) new equipment and technologies that have been obtained within cooperation with Western partners, in particular through the direct sale or lease, or purchase of production licenses for the production of new transport technologies within the region; d) quantitative and qualitative modernization of infrastructure and services such as catering, retail, ticketing, fuel supply, equipment maintenance, owing to the market-orientation of the region's economy, joint ventures with Western companies, and growing trade and political cooperation with the West⁵. This by and large created favourable conditions for the transformation of the Visegrad Group countries into a competitive regional transport hub.

Right at that time major systemic changes in transport infrastructure and logistics began to emerge. The fact is that in the late 80's - early 90's of the XX century the Visegrad countries faced an "unexpected challenge" to the existing transport structures and infrastructure, along with crucial political and social-economic reforms. This was primarily reflected in the processes of economy contraction all on the rebound of transformational shock, which had a double effect on the transport system. On the one hand, depression in manufacturing diminished demand for transport services, as some utilities had not previously required urgent expansion, yet needed maintenance operations. On the other hand, home investment resources decreased as well, leaving little room for the transport sector restructuring. In addition, the social-economic processes of the early 90's were characterized by the monetary and fiscal constraints in the region, intended to stabilize the devalued inflationary resources, necessary to finance investments. Therefore, investment in transport infrastructure, despite being considered a priority, was initially substantially reduced. Of utter importance was the fact that in the Visegrad Group countries the price liberalization and reduction of subsidies for transport services were commenced not so sharply as in other sectors of the national economy, thus transport fares were frequently lower than transport costs, in particular for social reasons. Also, due to high level of the transportation tariffs subsidization, the increase in fares for transport services was often higher than consumer goods. It was also augmented by the collapse of the Warsaw Pact trading system, leading to a redirection of trade links and a change in the geography of demand for transport infrastructure services. Among the positive points one cannot but mention the liberalization of passenger flows, which

⁵ Hall D., Impacts of economic and political transition on the transport geography of Central and Eastern Europe, "Journal of Transport Geography" 1993, vol 1, nr. 1, s. 20-35.

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caused a significant increase in cross-border travel, as the Visegrad Group countries opened themselves to international tourism and their citizens gained access to unlimited travel opportunities. Similarly, economic liberalization has led to numerous structural and qualitative alterations to transport infrastructure, for over the course of several transit years the number of business organizations has increased against the background of their decreased size, causing a shift in transport demand towards the supply of fewer goods and services, but in a more flexible way and at a more flexible speed. This was reflected in the fact that the region was characterised by an increase in the share and competitiveness of private road transport, in particular at the expense of other modes of communication.

On the other hand, following the collapse of the Warsaw Pact the region faced up to a number of problems in the transport sector, dating back to the «real socialism» era⁶, specifically: insufficient infrastrusture servicing in all transport sectors, particularly traffic network, traffic lanes capacity, poor road surface, maintenance and road signs, as well as insufficient roadside services - gas stations, catering, retail stores etc; b) low technologies, starting with costly aircraft, outdated vehicles and telecommunications systems, regarded as endemic symptoms of the Soviet economic system in the region's transportation systems; c) organizational and structural impediments, manifesting themselves in tension between public transport and economic development agencies, between public and private sectors, as well as between old and new public sector organizations; d) human resources neglect, reflected in the low quality of passenger services in the region in comparison with Western standards, which resulted in poor working conditions, low levels of employees' morality and lack of incentives for self-development; e) obstacles to transport mobility, since even following 1989 a number of travel bans for citizens of the Visegrad Group countries were abolished, yet some existed until the countries of the analysed region joined the EU. The fact is that after the collapse of the USSR the single European market was confined to Western Europe, consequently the countries of the Visegrad Group seeking EU membership had to modernize their cross-border checkpoints in order to cope with the indirect outcomes of potential accession to the EU membership. This led to the necessity to integrate local border economies in the shortest possible time so as to facilitate the traffic currents of both goods and passenger transportation; e) fiscal problems, manifested by the lack of stable exchange rates in the region, which resulted in currency problems in investment planning, joint venture development and export pricing; (g) neglect of environmental considerations, which reflected in the fact that the transport infrastructure development was not in fact determined by environmental concerns, in spite of both science and the public awareness of the environmental challenges; g) unbalanced investments, conditioned by the fact that during the period of "real socialism" regimes, the focus was

⁶ Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economics & Economic Transformation" 1995, vol 7, nr. 3, s. 369-384.

on quantity rather than product quality, due to which investments focused on several grand projects rather than on quality improvement and overall infrastructure support⁷.

Moreover, upon the collapse of the "real socialism" regimes, the transport system of the Visegrad Group countries even seemed to experience some short-term deterioration. This was reflected in: (a) the outflow of large state / government subsidies (during the privatization process) from public transport; b) modal shift in freight transport from inaccessible railways to highways; c) deterioration of roads condition, both as a result of insufficient funding, and the rapid increase in use of of personal road transport, which was a reflection of a change in modalities, increased tourism and free cross-border traffic; d) increase in transit traffic through the countries of the region, which in the early 90's bordered on the military conflict zones and areas of political conflict (for example, in the former Yugoslavia, Moldova / Transnistria, etc.); e) significant stagnation and lasting process of replacement of the aviation fleet, and reconstruction or expansion of airports; e) uncertainty in the private sector and international financing of the region transport system and infrastructure. Even though, following the collapse of the Warsaw Pact system, Visegrad Group countries initiated far-reaching economic restructuring processes, manifested in: privatization⁸; elimination of institutes of the planning and command and administrative system, as well as the system itself, that governed the centralized economic branch; implementation of currency convertibility related to market-based reform of the price system; creation of a private banking system; introduction of a tax system relevant to the market economy; reform of domestic investment and regulation of foreign trade⁹. They were conditioned by the fact that transport systems and institutions, inherited from real socialism regimes and, were attended by high overhead expenditures and often extremely inefficient in terms of technology and labour. On the other hand, attempts to privatize large parts of the national economies of the Visegrad countries in a very short period of time, were not decisive, as they lacked the institutional, legal and even mental prerequisites and background¹⁰.

Nonetheless, the entire concept of the transport system restructuring resulted from the assumption that privatization, or at least partial private-state ownership, creates greater competitiveness and, consequently, higher efficiency of transport enterprises¹¹. Moreover, such reasoning, along with transport system and infrastructure modernization in the early 1990s (especially automobile transport), was realised (both independently and through concessions with other states and corporations) in the Visegrad countries, even though accompanied by

⁷ Sawiczewska Z., The impact of economic and political change on Polish sea transport, [w:] Hall D. (ed.), Transport and economic development in the new Central and Eastern Europe, Wyd. Belhaven 1993.; Taylor Z., Recent transport development and economic change in Poland, [w:] Hall D. (ed.), Transport and economic development in the new Central and Eastern Europe, Wyd. Belhaven 1993.

⁸ Milanovic B., Privatization in Postcommunist societies, "Communist Economies und Economic Transformation" 1991, vol 3, nr. 1, s. 5-39.

⁹ Hall D, Impacts of economic and political transition on the transport geography of Central and Eastern Europe, "Journal of Transport Geography" 1993, vol 1, nr. 1, s. 20-35.

¹⁰ Hook W., The political economy of post-transition transportation policy in Hungary, "Transport Policy" 1999, vol 6, s. 207-224.

¹¹ Knowles R., Hall D., Transport policy and control, [w:] Hoyle B., Knowles R. (eds.), Modern transport geography, Wyd. Belhaven 1992, s. 33-50.

some propensity towards conflicts in the state-to-state relations in post-communist Europe. In particular, in 1990 Hungary held a debate, regarding the expediency of constructing more than 500 kilometers of new highways in the direction of the western countries, attended by charging fares, since at that period only 218 km of dual roads accounted for 10 thousand km of state roads in the country¹². Similarly in Czechoslovakia, and later in the Czech Republic, there arose a need to expand the existing highway network from 540 km to 1800 km by the end of the twentieth century, which required and envisaged an estimate of more than \$ 8 billion with the attraction of foreign (Western) investors. Likewise, in April 1992, Poland intended to build at least 2,000 km of roads, estimated to cost nearly \$ 5 billion, a significant share of which was to be drawn from the national budget and financial assistance from the World Bank, as well as the European Bank for Reconstruction and Development. This presupposed that, on the whole, the process of renewing transport infrastructure in all countries of the region commenced upon ensuring that they are effectively and reliably integrated with the West, which was regarded as a crucial and most effective precondition for economic growth. On the contrary, these processes had been constantly criticized for their impact on the quality of public transport deterioration and the potential generation of enormous environmental conflicts¹³. It was supplemented by permanent conflicts between neighbouring countries and the European Commission over the expediency and amount of payment for the transit of goods and services through their territories. The fact is that, by increasing the transit fee, the governments of the Visegrad Group countries (primarily Hungary) planned to use and eventually used the accumulated funds to further develop the transport system and infrastructure, making them environmentally-friendly, in particular for the construction of bimodal transport systems and for intensifying container transportation (first of all, river and rail), which hardly existed during the period of «real socialism» regimes.

From the political and social-economic point of view, the processes of early transport system restructuring in the Visegrad Group countries in the early 1990s occurred within the framework of certain algorithms and prerequisites. Firstly, given the political and economic instability in post-communist Europe, the Balkans and Transnistria in particular, having conditioned the disintegration of Czechoslovakia into the Czech Republic and Slovakia, so their further collaboration with Poland and Hungary within the Visegrad Group, was perceived as a certain catalyst, intended to facilitate the growth of domestic and foreign investment in their own and regional transport system on the whole¹⁴. Secondly, in view of the emergence of two new competition levels: on the one hand, the Visegrad Group countries initiated increasing competition with each other, specifically in order to gain the advantage and status of a regional transport center; on the other hand, the Visegrad Group countries, primarily in capacity of one region, began to compete for trade and political influence with some Western European

¹² Hook W., The political economy of post-transition transportation policy in Hungary, "Transport Policy" 1999, vol 6, s. 207-224.

¹³ Hall D., Impacts of economic and political transition on the transport geography of Central and Eastern Europe, "Journal of Transport Geography" 1993, vol 1, nr. 1, s. 20-35

¹⁴ Hall D., Czech mates no more?, "Town and Country Planning" 1992a, vol 61, nr. 9, s. 250-251.

countries, including the new transport destinations organization, as well as the improvement of the transport services quality. This was primarily determined by low labour costs in the countries of the region, at least against the background of Western countries, which tempted investors to get in the European market through the «back door»¹⁵.

Herein, upon the completion of the social-economic and partial transport recession of 1993-1994, all the Visegrad countries anticipated the increasing transport demand in the future, resulting from the European integration processes intensification. Moreover, it began to be realized mainly in the format of a constant reorientation of transport flows not to the east, but towards the west, and therefore resulted in the growth of transport volumes not from north to south, but from east to west, and vice versa¹⁶. In addition, the trend of planning the development of transport infrastructure and logistics in the countries of the Visegrad Group presupposed awareness of the two following facts: a) freight and passenger rail traffic will not be restored to the previous level; b) freight and passenger road traffic will be steadily increasing, in particular by at least three times between 1990 and 2000¹⁷. This agreed with steady trends, concerning the increase in the density and quality of road transport in the countries of the region, as well as in the overall rapid development and modernization of transport production in the region by national and foreign economic entities (see Table 2 for details). Simultaneusly, there remained the problem that the whole of the transport policy of the Visegrad Group countries within the period of the early – mid-1990s had not changed, having been designed mostly to ensure the consumer demand forecasting. Normally, the region did not actually have the courage to take steps to limit the rapid increase in the road traffic, and lacked the skills and resources to make alternative vehicles more competitive¹⁸.

Country	1985		1990		1992		1993		1995		2000	
	RT	RoadT										
Czech Republic	117	99	100	100	н.д.	н.д.	62	83	н.д.	н.д.	н.д.	н.д.
Hungary	145	96	100	100	60	79	н.д.	н.д.	н.д.	н.д.	н.д.	н.д.
Poland	144	122	100	100	н.д.	н.д.	77	136	н.д.	н.д.	87	311
Slovakia	110	97	100	100	72	155	60	н.д.	56	н.д.	60	н.д.

Table 2. Dynamics of the change in transportations tonnage (in tonne-kilometers, as of 1990 = 100) by rail and road transport in the communist and post-communist countries of the Visegrad Group (1985-2000)

Źródło: Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economies & Economic Transformation" 1995, vol 7, nr.

3, s. 369-384.

¹⁵ Hall D, Impacts of economic and political transition on the transport geography of Central and Eastern Europe, "Journal of Transport Geography" 1993, vol 1, nr. 1, s. 20-35.

¹⁶ Richter S., Tath G., Perspectives for Economic Cooperation among the Visegrad Group Countries, Wyd. Franco-Austrian Center for Economic Rapprochement in Europe 1994.

¹⁷ Hook W., The political economy of post-transition transportation policy in Hungary, "Transport Policy" 1999, vol 6, s. 207-224.

¹⁸ Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economics & Economic Transformation" 1995, vol 7, nr. 3, s. 369-384.

As a result, over the last communist decade and the first years of the post-communist one, the Visegrad Group countries were aware, on the one hand, of their low performance in the field of transport logistics and infrastructure, yet, on the other hand, of the importance of transport services for the their social and economic sector modernization. Respectively, following the collapse of the Warsaw Pact system, an investment policy in the transport system of these countries appeared to be scattered and non-standardised because, on one hand, national governments failed to pay sufficient attention to transport, but on the other hand demanded assistance from the EU and other organizations and investment funds (in particular in the form of subsidised foreign loans and direct investments). The situation began to alter in the mid-1990s, when the share of transport in GDP, investments and even employment of the Visegrad Group countries began to significantly increase, considerably stabilizing national economies. This occurred due to the 1989-1993 trend, when gross fixed capital formation in the Czech Republic decreased by 11 percent, and in Hungary by 22 percent, and investment in transport actually did not decrease and even increased¹⁹. A resembling situation was observed in Poland and Slovakia, but since the early 1990s it was increasing mainly due to investments in road transport.

Therefore, in the Visegrad Group countries of the early and mid-1990s, that is, in the period of post-communism, there began internal competition between the road and rail transport, representing the two main clusters of freight and passenger transportation of the present and past respectively. Concurrently, the development of railway transport in the countries of the region was supervised both nationally and through the so-called TER project (Trans-European Railways)²⁰. Moreover, in the early 90's the Visegrad Group adopted European standards in the rail transport development projects, however, in reality the sector lacked investment to modernize it. The main reason was absence of a realistic strategy for the development of rail transport, which could respond to a decrease in demand for rail services, attended by growing costs of the rail network maintenance. Consequently, likewise in the «real socialism» period, the revenues from railway services failed to even cover the costs of railway transport operation, even though by the mid-90s railways in the Visegrad countries had partly undergone privatization or communalization²¹, especially in Poland and Hungary, to a lesser extent in Slovakia and the Czech Republic. Instead, the development of road transport in the countries of the region followed completely different patterns. On the one hand, it was almost entirely privatized, on the other hand, it laid foundations for the formation of a future international road system, consisting of separate national units primarily in the east-west direction, less towards

¹⁹ Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economics & Economic Transformation" 1995, vol 7, nr. 3, s. 369-384.

²⁰ Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economics & Economic Transformation" 1995, vol 7, nr. 3, s. 369-384.

²¹ Hook W., The political economy of post-transition transportation policy in Hungary, "Transport Policy" 1999, vol 6, s. 207-224.

north-south. Although, such a system was developed in the late 70's of the twentieth century, it began to be implemeted in the TEM project format (Trans-European Motorway) starting with the early 90's of the twentieth century. However, it encountered a range of challenges, for instance: from the intended length of more than 13,000 km of motorways in post-communist European countries (specifically in the Visegrad countries), only 2,5 thousand km of roads had been built by 1993, another 800 km of roads were under construction. Moreover, there occurred numerous interstate disputes over the direction and manner of the key highways in the region. On the whole, it proves that in the post-communist period, the development of transport, as well as transport system and infrastructure in the Visegrad Group countries took place with a prospect of the EU membership. Hence, in the early 90's of the twentieth century the Visegrad countries participated in the European Conference of Ministers of Transport and East-West Relations and were therefore included in the Pan-European Transport Corridors Development Plan²². Simultaneously, they were notified of all the shortcomings of their transport systems with formulated requirements to improve the situation in the future²³.

The core problem of both the transport systems and infrastructures of the Visegrad countries of the transit (post-communist) and post-transit (post-European integration) periods has always been mainly institutionally determined. This is primarily illustrated by the fact that transport infrastructure of the analyzed region during the period of «real socialism» regimes, especially by the end of the 1980s, had adapted to economic, social and geopolitical conditions within the framework of Council for Mutual Economic Assistance. Therefore, regardless of the differences in the level of development as well as standards (both with the western countries and among each other), this transport infrastructure largely met the contemporary existing needs. However, following the collapse of the Warsaw Pact system and the Fall of the Iron Curtain, the existing transport system continued to operate under entirely new external and internal circumstances, in most cases hardly withstanding their challenge. Essentially, the development and modernization of the transport system became a priority goal, reaching which stipulated the ultimate success of the transformation processes in the region.

However, even at the beginning of the 1990s specific, including institutional, barriers to the development of transport emerged. They became particularly noticeable against the background of the change in an entire range of criteria of the Visegrad countries' transport infrastructure performance. The internal factors were as follows: a) a sharp acceleration of the transport structure change rate of both freight and passenger transport, first of all due to the diminished importance of railways and inland water transport, accompanied by dynamic growth of road, pipeline and air transport importance b) decentralization and privatization of the economy, including trade (primarily due to the increased demand for short-haul freight) and transport (primarily through

²² Documents of the Second Pan-European Transport Conference, Crete, 14-16 March 1994.

²³ Hunya G., Transport and Telecommunications Infrastructure in Transition, "Communist Economic Science Communication" 1995, vol 7, nr. 3, s. 369-384.

the automobile cluster); c) lesser role of heavy industry and, hence, the demand for bulk freight; d) rapid growth in the number of passenger cars; e) financial complications (along with associated reduction in the range and quality of service) of major state carriers²⁴. External factors included: a) opening of borders and the increase in cross-border traffic of people and vehicles; b) change in the main directions of foreign trade and transit, since the Germany and other EU countries became the main trading partners in the early 1990s instead of the USSR in the late 80's; c) the emergence of competition for seaports and air ports with similar sites in Western Europe, particularly Hamburg, Trieste, Rotterdam, Berlin and Vienna; d) negotiating the the EU membership of the Visegrad Group countries along with integrating them into the European Transport Corridor System (TINA). This was determined by the adoption of the transport corridor system, determining potential investment priorities²⁵ by the countries of the region.

It should be mentioned that the main drawback of the transport infrastructure of the countries of the region over a lengthy time span of the transit and post-transit periods (and even today) was the fact that the planned or intended institutional infrastructure, directly or indirectly affecting transport and likewise trasport itself, did not adapt to new conditions. Shortly after the collapse of the Warsaw Pact system, especially in 1994-1999, the state of transport infrastructure development seemed to underperform in comparison with the economic development alongside altered lifestyles of most of the Visegrad countries' population. This puts forward arguments in favour of the fact that the transport system of the countries of the region proved less resilient exactly when facing institutional, social-economic and political transformations of the post-communist period. Therefore, transport infrastructure frequently acted as a hindrance and impediment to foreign investment and overall economic growth for the Visegrad Group countries²⁶. At times there were various reasons to account for that, however, the decisive role could be attributed to institutional barriers, identified during the transport development process in the course of transformation and post-communism.

An important institutional impediment to the transport development in the Visegrad countries in the 1990s was lacking or insufficient consistency of means to achieve the transport policy goals. The fact is that at that time there were virtually no rules to force the state budgets of the analyzed countries to allocate any part of their revenues to the development and modernization of transport infrastructure. Even though in the mid-90's of the twentieth century an existing road tax, included in the price of fuel, and for the most part going to local budgets in the form of a road subsidy, tax funds were often spent not on the very transport, but on local administration, education or health care, etc. Equally, excise taxes were also directed towards other needs or

²⁴ Komornicki T., Specific institutional barriers in transport development in the case of Poland and other Central European transition countries, Wyd. Polish academy of sciences 2005.

²⁵ Komornicki T., Specific institutional barriers in transport development in the case of Poland and other Central European transition countries, Wyd. Polish academy of sciences 2005.

²⁶ Namyslak B., Spatial condition for foreign investment in Poland, [w:] Rozwoj regionalny i lokalny a procesy globalizacji, Wyd. Uniwersytet Wroclawski 2002, s. 135-146.

to increase government revenues, rather than attracted as investments in the transport sector. Therefore, at the time a limited amount of transport infrastructure funding had to be incorporated in the choice of a particular direction or model of public transport policy, in particular European or American. The first model has traditionally been defined by a clearly defined priority of "ecologically clean" modes of transport, a higher degree of regulation and higher taxation on fuel. Instead, the second model was restricted to establishing the role of private road transport as essential for meeting the household transport needs, a much lower level of regulation and lower fuel taxes²⁷. However, in practice, there was no clear choice of a state transport policy model of in the Visegrad Group countries, since elaboration of a transport policy in the region was permanently conditioned by an excessive burden of social expenditures from the state budget, which, on the one hand, did not presuppose refusal from revenues, the road transport development, however, did not leave room for an efficient and comprehensive transport investment policy. The fact that the decision-making process regarding individual entreprises, related to transport infrastructure was mainly carried out at the parliamentary level, was not justified, either. Along with this and a lack of funds in the process of adopting state budgets compelled deputies to simply transfer funds from one transport project to another. The desire for a «budgetary consensus» thus facilitated the further allocation of funds, which were in any case limited. This was accompanied by the irrational «better-and-more-efficient» use of the existing infrastructure», since in the long run it posed a significant threat to the EU's support for the transport sector, especially given that such an approach failed to overcome the already-existing disparity in the density of modern transport networks between the old and new EU member-states.

The Visegrad Group countries faced yet another institutional barrier on the way of the transport infrastructure development, namely the passivity of spatial development plans in the industry in question. Since the initial days of the social-economic transformation in the countries of the region, there arose an acute need for rapid improvement of road infrastructure, in particular the construction of national roads and first-class motorways. However, while devising highway construction programmes hardly any effort had been made to change the existing concepts and fundamental models of essential international and domestic infrastructure links. Likewise, the internal structure of foreign trade and spatial distribution of cross-border traffic illustrated that in the 1990s most attention was focused on parallel communications, with slightly less attention to diagonal connections, and least attention to meridional connections. Thus, insufficient adaptation of planned routes to domestic and international consumer demand was one of the reasons to account for the failure of the entire highway and local highways programme in the region, at least in the 1990s. Such inertia also explicitly affected the problem of sustainable transport development. However, such predicament depended primarily on the financial deficit in the considered sector, as well as significant political risks, associated with governance (particularly, induced by citizen discontent).

²⁷ Komornicki T., Specific institutional barriers in transport development in the case of Poland and other Central European transition countries, Wyd. Polish academy of sciences 2005.

An additional institutional barrier to the development of transport infrastructure was, in its turn, the reluctance of major state-owned carriers, reflected in the absence of government subsidies, accompanied by the absence of either sweeping changes, or errors in the course of implementing such alterations during transport restructuring²⁸. It is common knowledge that the poor state of major public carriers, attended by degradation of rail transport in the Visegrad countries have always been associated with a sharp reduction in budget subsidies. In practice, however, the declining demand for transport services for both freight and passenger transportation noticeably affected these processes. In addition, in the 1990's the region received an apparent positive feedback, regarding the correlation between the decline in demand, the curtailment of state subsidies, and the associated increase in transport rates. Moreover, a change in the ratio of fuel prices and public transport tariffs is regarded as one of the factors, having contributed to the car boom in the Visegrad countries. A rapid decentralization of public / national transport did not emerge as a result of rapid privatization and «shock therapy». However, it is worth reiterating that all the negative effects of road restructuring across the countries of the region were considerably lesser than those of rail transport, which immediately started operating under the resource and cost-saving scheme.

One should not overlook such an institutional barrier as excessive liberalization of procedures for protesting and blocking investment projects by local social groups. The so-called «social protests» against transport investment projects in the Visegrad countries were extremely heterogeneous, having been clustered according to various types of participating actors. These included individuals and their groups, local governments, and other bodies (organizations and associations). Meanwhile, their protests were realised both through court procedures, and through lobbying processes aimed at self-government or central government, as well as through the media²⁹. Therefore, both the subject-matter and the objects of the protest were utterly important in assessing the social and legal rationale for anti-transport protests. Hence, it is obvious that low performance of the Visegrad Group judicial system at that period appeared to be an institutional impediment to the efficient development of transport infrastructure.

Finally, a relatively rigid policy in the area of improving road safety has remained one more barrier. A significant increase in the use of motor vehicles was among the reasons for making amendments to the relevant traffic legislation, particularly in relation to traffic itself, along with parking systems. However, practical changes were being introduced in a slow and controversial manner. Hence, as of the 1990's, the existing 1970s and 1980s traffic rules, when the number of cars on the roads was considerably smaller, were not actually able to cope with the trends stirred by mass development of private transport in the region. It was succeeded by reducing the quality of cars on the roads; deterioration of road infrastructure quality; increasing the number

²⁸ Komornicki T, Specific institutional barriers in transport development in the case of Poland and other Central European transition countries, Wyd. Polish academy of sciences 2005.

²⁹ Komornicki T., Specific institutional barriers in transport development in the case of Poland and other Central European transition countries, Wyd. Polish academy of sciences 2005.

of inexperienced drivers; reducing the level of social recognition of legislative regulations. As a result, the countries of the region under analysis had to resort to approbation of a minimally flexible and spatially indistinguishable policy in the realm of vehicle traffic regulation.

Respectively, institutional barriers, hindering the transport infrastructure development have mostly negatively affected the potential prospects for achieving sustainable transport development in the Visegrad countries. This was particularly noticeable at the background of a rapid development of the social-economic sector in the region. As a result, transport infrastructure in the early 21st century found itself in relative margins in terms of lost opportunities³⁰ (however, considerably outperforming transport infrastructure in the rest of the post-communist countries of Europe). Consequently, in 2004, the Visegrad Group countries gained the EU membership, yet retaining a slightly different transport infrastructure than that of 1989. Moreover, the infrastructure had even undergone some deterioration, resulting from a substantial wear due to the "efficient use of an existing network" policy". This was especially observable in Poland, which during the end of post-communism period was in the worst situation among all the Visegrad countries, even in comparison with Slovakia and Hungary (especially considering the square footage of the area as well as the demographic potential of the latter). This partly explains that the differences between Western and Visegrad countries have remained dramatic even following reintegration of the transport networks of the latter into the single EU transport system³¹. In the intra-regional context, it largely complicated competition with other European countries, especially for Poland and Hungary, and to a lesser extent for the Czech Republic and Slovakia. This, in turn, proved that, additionally to the market size and the cost of labour, the importance of transport accessibility became a very important factor in the allocation of foreign investment³².

Nonetheless, starting with the late 1990s, but mainly since the beginning of the 21st century, particularly upon the Visegrad countries EU accession, the situation with transport in general, transport systems, logistics and overall infrastructure in the region started to significantly improve, largely owing to a new range of opportunities for public-private partnership, created by the EU and further facilitated by the national legislation. Despite the fact that the very concept of public-private partnership in the countries of the region was adopted or initiated as early as the 1990s, little attention was paid to the ways and means of realizing public partnership and its consequences, or rather how the national political, legislative and administrative context influences the success of public-private partnerships³³. The situation visibly changed only after 2004, when the governments of the Visegrad countries formulated their own strategies not

³⁰ Taylor Z., Zmiany w polskiej polityce transportowej ostatnich lat, [w:] Wybrane zagadnienia geografii transportu, Wyd. Uniwersytet Szczecinski 2002, s. 72-83.

³¹ Banister D., Stead D., Steen P., Akerman J., Dreborg K., Nijkamp P., Schleicher-Tappeser R., European Transport Policy and Sustainable Mobility, Wyd. Spon Press 2000.

³² Komornicki T., Specific institutional barriers in transport development in the case of Poland and other Central European transition countries, Wyd. Polish academy of sciences 2005.

³³ Witz P., Leviakangas P., Lukasiewicz A., Szekeres K., Implementation of transport infrastructure PPPs in the Czech Republic, Finland, Poland and Slovakia – a comparative analysis on national contexts, "*International Journal of Management and Network Economics*" 2015, vol 3, nr. 3, s. 220-237.

only for real implementation, but also for improving public-private partnership models in the transport sector³⁴, due to the impact of the EU institutions. This was particularly evident in the case of Poland and Hungary, where public-private projects had become standard practice, and to a much lesser extent in Slovakia and the Czech Republic, where there were either few or no public-private transport projects whatsoever³⁵.

In general, it was found, that compared to the 1990s, the public-private partnerships development in the Visegrad Group countries was initiated, conditioned and accelerated in response to social-economic depression and turbulence of the post-communist period, particularly following insufficient investment in government infrastructure and logistics, including transport³⁶. Prior to the Visegrad countries EU integration, unstable political and social-economic environment restricted implementation of public-private partnership projects, since neither state nor private transport associations were fully prepared for such tasks and methods. In addition, the public stance was quite peculiar, albeit natural under such circumstances, since, upon the collapse of «real socialism», it was expected that the state would by itself proceed with taking care of transport infrastructure, which used to seem accessible and free to all. Yet after the political and social-economic systems of the Visegrad countries had relatively stabilized, they began to implement public-private partnership transport projects, albeit to varying degrees. This was the main reason accounting for the fact that the capital deficit in the region was increasing, especially against the background of growing demand for capacity and quality of infrastructure, as well as wealth and living standards of the population. Thus, in all the Visegrad countries, almost immediately upon their accession to the EU (or even prior to that), extremely influential lobby groups, led by large international transport, construction and consulting companies, began to form, pushing the idea of public-private partnerships. Even though the development of publicprivate partnerships in the Visegrad countries was unified at first glance, it was indeed significantly correlated in respect of success rate, as well as timeliness of implementation. In this context, Poland and Hungary had always been at the forefront (with somewhat delayed project implementation, though), whereas Slovakia and the Czech Republic, with frequently failing and facing colossal penalties public-private partnership transport projects, lagged behind.

When it comes to political and administrative support for public-private partnership in transport, it is always appropriate to distinguish between rhetorics and the actual state of affairs. The fact is that active support of major parties has always been an indispensable prerequisite for successful implementation of public-private partnership projects in any country of the Visegrad Group. Since not all planned projects can prove worth the expenses at the initial stages, it is quite

 ³⁴ Lukasiewicz A., PPP in Poland, [w:] in Verhoest K. (ed.), Public-Private Partnerships in Transport: Trends & Theory, Wyd. COST 2014.
³⁵ Szekeres K., PPP in Slovakia, [w:] in Verhoest K. (ed.), Public-Private Partnerships in Transport: Trends & Theory, Wyd. COST 2013.; Witz P., PPP in the Czech Republic, [w:] Verhoest K. (ed.), Public-Private Partnerships in Transport: Trends & Theory, Wyd. COST 2013.

Witz P, Leviakangas P, Lukasiewicz A., Szekeres K., Implementation of transport infrastructure PPPs in the Czech Republic, Finland, Poland and Slovakia – a comparative analysis on national contexts, "*International Journal of Management and Network Economics*" 2015, vol 3, nr. 3, s. 220-237.

common for politicians to take responsibility for the current state of affairs and, upon signing contracts, ensure successful implementation, preventing certain projects from failing, even given a completely different attitude towards such politicians on the part of the public. On the other hand, the situation is less complicated by the fact that, in the wake of populism at its highest in the countries of the region, even after a specific public-private partnership project receives final approval, there inevitably occurs a situation when any change in government or public service will neither affect implementation or even undermine the future of such a project. This determines a sufficient level of confidence of private investors, being able to count on fairly reliable conditions of their business starting with the tender until the termination of the contract³⁷. Yet, there have occurred numerous cases when public-private partnership transport projects in the region were not implemented upon an in-depth analysis of their potential and expediency³⁸, and in view of potential political risks³⁹ (especially in the Czech Republic). This is accompanied by the fact that the norms, regulating public and private procurement, and hence public-private partnership, appear to be quite volatile in the Visegrad countries. Accordingly, it sometimes leads to erroneous perception that public-private partnership is a procurement method, calling for specific legal mechanisms⁴⁰.

In general, from the period of post-communism to the present day, the legal and regulatory framework in the Visegrad countries in the scope of public and private regulation of the entire transport service package has been congruent with the legal requirements of the EU, the provisions of the WTO, as well as the relevant international organizations. Therefore, in their law-making activities, as well as in law enforcement practice, the Visegrad Group countries take into account all the EU initiatives and recommendations. However, this does not imply the absence of peculiar features of the public and private transport sector regulation. Ultimately, it stipulates that the Visegrad countries have gone through a similar path of developing and reforming their transport systems, thus frequently facing quite similar problems. However, in detail, the transport systems, infrastructure and logistics in the Visegrad Group countries are quite distinct and variable, particularly regarding financial and investment component along with conditionality of development and modernization, as well as findings, obtained on the basis of their analysis.

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