

The reduced mobility of the population of Palócföld

Accessibility proposal for better traffic in the Ipoly Valley

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Abstract

The territories and borders of European countries changed a lot during the last century, which had a positive effect on some states and a negative effect on others, but in all cases it can be said that it led to a reorganization of territorial processes. In addition to the loss of territory, Hungary does not have a border region where the new state border would not have divided a naturally formed region in two. The borders, among other things, by eliminating transport options, turned the border areas into "backwaters", which led to devaluation. The purpose of the research is to prove that a specific aspect of value creation is the creation of cross-border transport, including the realization of transport accessible to everyone by creating the availability of public transport services. The purpose of cross-border transport is to improve the situation of two peripheral regions that exist side by side, but are unable to cooperate on a permanent basis due to the lack of transport connections. The first stage of linkages is the existence of infrastructure on which certain activities can be carried out, such as individual modes of transport, organized group transport and freight transport. However, the existence of public transport or public transport services occupies a prominent place in the development of regions. During the research, in addition to the state of the infrastructure, different public transport services were mapped and compared, and the value-creating power of public transport services was verified by comparing social and economic phenomena

Keywords: *cross-border transport, public transport services, networking, regional development*

JEL: *R14*

Preamble

One of the main goals of the creation of the European Union, in addition to maintaining peace, is the realization of a supranational organization that ensures citizens the possibility of free movement, along with social and economic development and territorial equalization. Article 174 of the Treaty on the Functioning of the European Union economic, social and territorial cohesion XVIII. defines cross-border regions as priority development areas. Its aim is to increase the value of the most disadvantaged regions.

The purpose of this study is to explore the possibility of value creation in the border peripheral area, where the lack of transport options and public services leads to the loss of value of the area. You can only truly appreciate the importance of something when you are forced to endure its absence, and this is no different with transportation options: infrastructure and services based on it. The viability and livability of an area is determined by the availability of the usual or expected supply, it is no coincidence that transport is compared to the vascular network of the living

organism, on which the organs receive the necessary nutrients and oxygen, and the cooperation between the various organs is realized.

There is almost no area of life that could do without infrastructure, including the high-quality transport network, which has become almost decisive in the development of an area in terms of efficiency, competitiveness and quality. The infrastructure provides a wide range of services to the productive and non-productive sectors, as well as to the population, on the basis of which its prominent role in regional development cannot be questioned. Areas with different characteristics are "positioned" by the provision of good infrastructure, and those with inadequate infrastructure are held back or downgraded. Areas in such inadequate condition are the border areas, where the vascular network of transport is interrupted or is available, but the circulation does not work. If the transport network is similar to the vascular network, then the organization can be the world, and in this case the different countries and state organizations represent only one organ (Abonyiné, 2007). And the body can function well if the connections between the organs function healthily, i.e. they are connected by blood vessels or the built infrastructure and that blood flow is ensured by transport services.

By healthy operation, I mean the achievement of the transportation option that can be used directly by everyone, i.e. it is not possible to take into account only the roads provided for passenger vehicles, since - especially in the border region - it is not available to everyone due to their age, health or financial situation. In addition, today, more and more emphasis must be placed on the more efficient and economical use of resources in transport, as one of the key players in environmental sustainability and sustainable development is mobility.

Transport, which connects areas, settlements, people, cultures and services and helps development, is hindered by its lack or deficiency. The lack can be a lack of infrastructure, but it can be a total or partial lack of services when mobility is not available to everyone. Transport accessible to everyone also means that those people who themselves only participate in transport as passengers and cannot participate in transport as a driver due to some reason - age, health condition or financial situation - should not be excluded from services for this reason. be able to connect to the blood circulation.

Within the country, the territorial distribution of public transportation services is not uniform, in the case of larger cities and their agglomerations, transportation opportunities are generally better than in the case of fragmented settlement networks, which is explained by the territorial extent and the relatively low proportion of the population to be provided with the services. In recent decades, the question of how the depopulation of the countryside and poor transport connections interact has been the subject of serious professional debates (Lieszkovszky, 2021). There is no doubt about the interaction between the two processes, which can best be seen in the fact that the improvement of transport options can have a favorable effect on the future of the region that is breaking away (Csaba, 2023).

An extreme example of this is the border region, where cross-border transport is limited: border crossing points for cross-border transport are rare, border public services are located strictly parallel to the border, apparently carefully ensuring that the two sides of the border are not connected by public transport services, and the different efforts to solve the problems arising from regulation have so far not met with resounding success. It basically determines the relations between settlements, since the relations between settlements play an increasingly important role in the economic life of the country, and the lack of research is felt even more in regions with uncertain attractiveness (Bujdosó, 2004). Z. Bujdosó characterizes the catchment areas divided by county borders, which are set "only" by the state administration, with such an uncertain relationship of attraction, the situation of relationships cut apart by the state border is much more uncertain. The

relations between the center and its countryside are slowly being redefined in the areas near the internal borders of the European Union, but it is necessary to promote the reversal of the unfavorable border processes with targeted developments.

It is worth looking at the border area from a slightly different perspective, in the course of this study, a small section of the Slovakian-Hungarian border, which is a connected landscape unit that can be distinguished by the peculiarities of Palóc.

Material and method

When defining the value of the topic, transport and transport services, the meaning of the word value must first be considered. According to the Magyar Értelmező Kéziszótár, value is the esteem of something, a material or object that satisfies a need, which is appreciated by society, or, in a third interpretation, something that satisfies some human need.

Based on the answer of the artificial intelligence, the concept of value has not changed much, in general, value is what indicates the importance or usefulness of a given thing or property.

The value of transport, i.e. its usefulness and its meaning to satisfy human needs, can be derived from humanity's mobility needs. As Ferenc Erdősi puts it, of all the inventions, with the exception of the alphabet and book printing, the ones that shortened distances and which he calls space-conquering technologies did the most for civilization. Shortening in this case does not only mean the physical shortening of distances, but also the smaller time requirements due to the reduction of travel times (Erdősi, 2004).

Transport: change of location. There are several definitions of transportation in the literature, but they all have in common the change of location and the movement of people and material goods over greater distances. According to Erdősi, transportation means the independent or mass, individual, or organized and mostly regular change of location of persons or material goods (Erdősi, 2005). In a little more detail, transportation is a change of location that usually takes place with suitable technical equipment, its task is to satisfy the needs of production, distribution, and consumption to change location; in other words, the change of location of persons and objects, with appropriate technical means, which are used to overcome distances (Jászberényi – Pálfalvi, 2009).

The peculiarity of transport is the flow of goods and passengers, as well as information, which is such a strong human need that its existence can be proven as far back as the first organized societies. The need for transport does not stop at state borders, which is why transport also has a so-called supranational characteristic (Lapsánszky, 2016). Historical evidence for this can be found in the period following the fall of the Roman Empire, when the smaller sovereign states that formed had to cooperate based on their mutual interests. This is no different nowadays, since one of the most important conditions for maintaining relations and trade between states is the existence of adequate quality transport, which has cross-border and cross-border needs. On the other hand, ensuring international relations - just as in ancient times, as well as today - can only be achieved with infrastructure and service networks connected at the appropriate level (Tóth, 2016). In the geographical area of the present study, in the border area of Ipoly, the section between Ipolytarnóc and Nógrádszakál was formerly used by two railway sections, but nowadays it is still a joint-use traffic. The shared-use line can be used by another railway company on the basis of a contract with the owner, within this, if the neighboring state only has the right of free passage - i.e. it does not stop, pick up passengers and cannot disembark - the passage line, while the peage-type use in the "foreign" area, the railway also participates in passenger traffic (Urbán, 1984).

Tóth's statement well reflects the political mood of many decades, which indicated the relationship between the states formed after the world wars: cooperation was more of a compulsion than the cooperation described by Lapsánsszky, which goes back several thousand years and is realized at least for the sake of a common goal. It is precisely in these states that the value of transport networks can be seen in action: with the elimination of contact, the border area became impassable and worthless.

The framework for cooperation is created by the European Union, which makes it possible to facilitate transport in international transport that overcomes long distances, but at the same time, the areas along the borders still struggle with serious shortages during transport.

The many sovereign states that emerged in Europe in the 20th century were created by annexing the territory of larger empires, where originally the transportation facilities were good, but at least up to the standards of the time. The losses of the wars were also manifested in the infrastructure, in warfare, traffic and transport are of strategic importance, therefore the road and railway network also suffered significant damage. During the reconstruction after the wars, there was no aim to create the permeable borders of the newly created borders, the lack of re-construction of the elements of the transport network ensured the imperviousness – for the military, but also for the population and goods.

Z. Bujdosó characterizes the catchment areas divided by county borders, which are set "on-ly" by the state administration, with such an uncertain relationship of attraction, the situation of relationships cut apart by the state border is much more uncertain. The relations between the center and its countryside are slowly being redefined in the areas near the internal borders of the European Union, but it is necessary to promote the reversal of the unfavorable border processes with targeted developments.

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Traffic along the border

Transport is an important tool for the accessibility of an area, which is one of the key tools for the development of the population and the economy, essentially one of the indispensable aspects of regional development. Tóth and Káposzta (2014) made a very important finding that territorial development is one of the most important goals of territorial policy and territorial planning. This includes both urbanization and settlement development, not forgetting, of course, the general economic one nor development. Káposzta (2019) clearly defines the means of development, but the most important thing is to improve the region's resources and public services.

The reorganization following the wars of the 20th century took a long time, the transformation of the relations between the new states depended on the foreign policy relations of the neighboring states. All of this had an impact not only on the capital and big cities, but also in areas where it used to be everyday and natural to keep in touch and pass through. The II. After the end of World War II, the states focused on reconstruction, and the built environment was also renovated during the creation of new frameworks for society and the economy. On the other hand, the borders do not experience construction, but a kind of conservation of the conditions, as well as the further dismantling of the infrastructure specifically to ensure impassability. However, the local population has always found a way to keep in touch even in difficult circumstances.

After the accession of individual states to the European Union, new opportunities arose to make the conditions for the development of relations more favorable, however, the lack of transport

conditions posed serious obstacles. During the distribution of the available financial resources, border patency is not being improved at an adequate pace, and the cross-border possibilities of public transport services are lagging behind infrastructure construction.

Public transport services are a special category of public services. The concept of public services is not defined (Bordás, 2021), however, it can generally be said that public services are services that are essential for social development and improving the quality of life of the population, and that serve the interests of the community. according to the definition of the European Commission, services are provided directly by state bodies or intermediary public service providers for the functioning of the economy, the environment, transport, healthcare, education, culture and many other areas of society, the lack or insufficiency of public services can have serious consequences for the lives of citizens and for society as a whole. An important feature of public services is that the services provided by state or other public service providers ensure equal access and equal opportunities for all residents, regardless of their origin, economic or social situation. Public services play a central role in promoting social development and cooperation and operate with loyalty to the interests of the community.

During the research, the focus area was the 50 km strip below the border area, which is also used by the European Commission, i.e. the 25 km strip of both states from the border line, which was displayed by the European Commission during a study to map cross-border public transport services (CBPT, 2021).

In order to get to know the antecedents, the relations between settlements were examined on historical maps, i.e. when there were no borders. Due to the rapid development of technology, at this time there was no public transport in the modern sense in the region, as buses were not widespread in the countryside either - but in many cases transport was also difficult due to the road conditions. On the contrary, there was a railway network on which "anyone" could travel. The railway network connected the countryside regardless of today's borders, creating connections between cities and connecting smaller settlements in the process. Even at this time, the role of the railway was collecting, the population from the surrounding settlements reached the station using the available means.

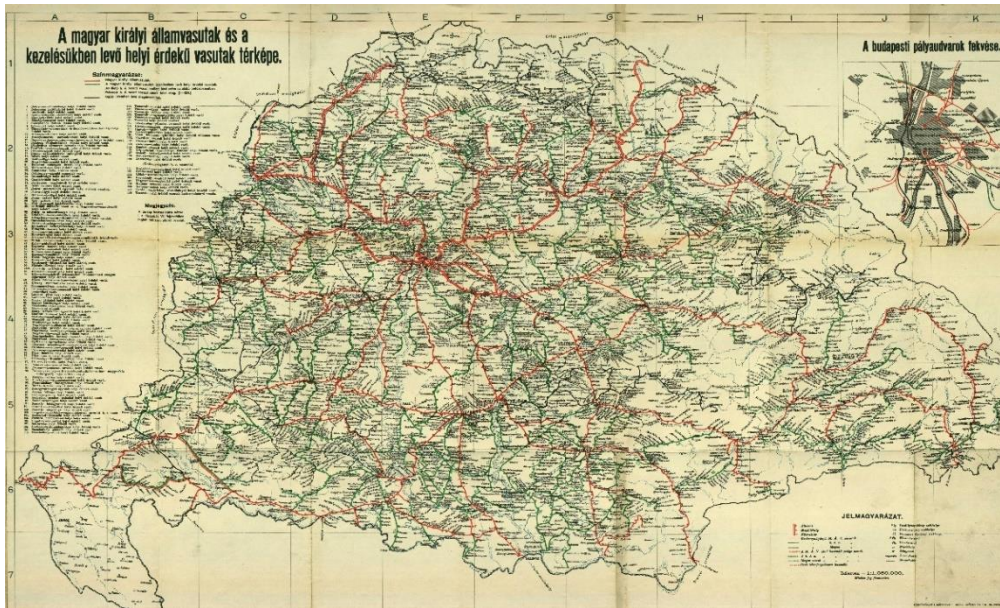


Figure 1. Map of the Hungarian royal state railways and the railways of local interest under its management

Source: MÁV, 1914.

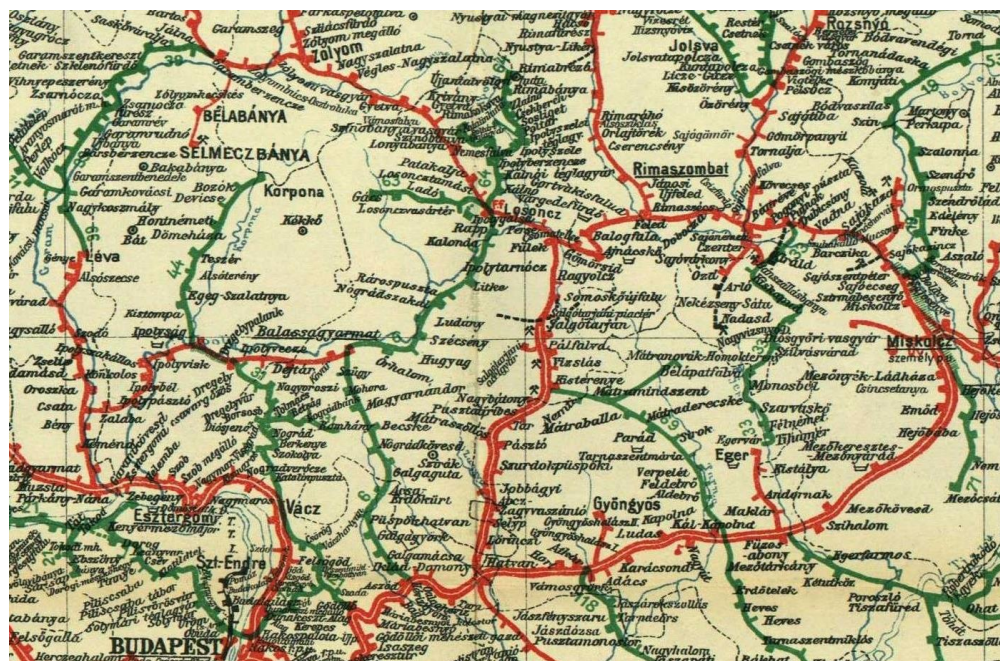


Figure 2. Detail from the map of the Hungarian royal state railways and the railways of local interest under its management

Source: MÁV, 1914.

In the examined area, only a few small and medium-sized towns were formed, such as Ipolyság (Sahy), Balassagyarmat, Szécsény, Kékkő (Modry Kamen), and Nagykürtös (Velky Krts), Losonc (Lučenec), Salgótarján, Fülek (Filakovo), Poltár) and Rimaszombat (Rimavská Sobota). The cities can be found on both sides of the border, and as can be seen in Figures 1 and 2, the connection was realized in view of the technical possibilities of the time and the topography.

In addition, it should be mentioned that although the public road network was not built to an adequate standard, at least one bridge or series of bridges suitable for crossing the Ipoly in each pair of settlements ensured the transport needs of the local population. Based on the traffic and direction of the existing road network, the hierarchy was already formed at that time, and the optimal route between the cities was confirmed and stabilized.

The already established transport network helps to recognize the previously existing connections, which became impossible when the border was drawn. The road and railway infrastructure has been disrupted in many places, which can cause difficulties in the organization of public transport services. Despite everything, the existing network would also be sufficient for the most basic services to start.

In 2021, the European Commission prepared a study to map cross-border public transport services at internal borders (CBPT, 2021). As part of the work, the cross-border public services located at the border sections were mapped, and a total of 36 specific public service gaps were examined, but among these there are some that go beyond the 25 km border strip they defined. One of the results of the study is the typification of the permeability of internal borders with the availability of community public services. From the prepared CBPT map (hereinafter: CBPT map) it is clear that it is also true at the European Union level that the external areas of the Union form a kind of peripheral area in terms of community public services. Cross-border public services are typically available in internal areas, but less and less so at the borders of peripheral countries and post-socialist countries.

According to the communication published by Zillmer (2021) in connection with the research, the permeability of the border sections is determined by the population of the border section, where the population density is high - i.e. the countryside is urban - a greater demand for cross-border public transport can be demonstrated. Conversely, where the population density is low, "the lack of services coincides with the lack of demand".

In the Slovak-Hungarian border section, the demand for public transport services was expressed in the examined area, here the lack of service does not coincide with the lack of demand, however, there is no service that could be used, which Zillmer (2021) points out: "However, if the services were increased, if latent demand were established, the ratio of impermeable borders could be significantly reduced".

Zooming in on the Hungarian-Slovak border area on the CBPT map, it is clear that there is a complete lack of public transport services in the examined area.

Results

There is no cross-border public transport in the middle section of the Slovak-Hungarian border, between Esztergom and Miskolc. Demonstrating the need for public transport services is difficult, as the area is characterized by a fragmented network of settlements - also due to the topography - and the formation of "backwaters" due to the borders is not conducive to development.

The "backwater area" can be easily observed on community or public transport network maps: as long as almost all settlements within the border, regardless of their size and backlog nature, are

supplied with at least a couple of buses a day by the public service provider, they will delicately remain on one side of the border. The CBPT map shows cross-border public services, or more specifically, their absence. The line network maps of the public bus transport of the border counties and the district corresponding to the Slovak county draw attention to the parallelism of the individual networks (VOLÁNBUSZ 2023; Slovenská autobusová doprava Zvolen, 2023).

Among the towns in Nógrád county, Salgótarján, Balassagyarmat and Szécsény are located along the border, so that the northern area of their catchment area can be determined beyond the state border, despite this, bus transport is possible at the border crossing points providing roads connected to the catchment area of the castles - Hont (Parassagyarmat), Balassagyarmat, Szécsény, Nógrádszakál, Ipolytarnóc, Somoskőújfalu and Cered do not cross the border either. Public bus service is available in dwarf and small villages, as well as in enclaves that were forced due to the withdrawal of borders, however, in order to effectively establish a cross-border public service system, it is justified to review the replacement of the still missing infrastructure. One of the key factors in this is the missing bridge between Hugyag and Szécsénykovácsi, which provides an opportunity and alternative for transportation between Balassagyarmat, Szécsény, Nagykürtös and Losonc.

Similar to the Nógrád county road public service map, there are no cross-border public services in the northern border area of Pest county. In order to provide public services efficiently, it is necessary to explore the shortcomings of the infrastructure, especially the bridges over the Ipolyon. At the northern foot of the Börzsöny, on the Hungarian side, there are small and medium-sized villages whose population belongs to the Vác catchment area, however, whenever possible, the various services - shopping, buying fuel, medical services financed by non-health care, etc... - are used in the town of Ipolyság (Sahy).

Ipolyság (Sahy) is the easternmost settlement of the southern - county and country - border section of Nyitra County, a central city with central functions, the catchment area of which extends not only to the county, but also beyond the national border. The reason for the lack of cities in the northern Börzsöny region is the avoidance of hiking on the Ipolyság state border. The leaders of the Hont, Drégelypalánk, Kemence and Bernecebáráti settlements belonging to the catchment area of Ipolyság applied for the provision of community public services with Ipolyság, but their request has so far been unsuccessful.

Some of the settlements located in the south-western area of Besztercebánya district also belong to the catchment area of Ipolyság, however, due to the availability of district-level public and state administration tasks and services resulting from the administrative division, these settlements belong to Nagykürtös. The bus transport of the border districts of the Besztercebánya district is similar to that in Hungary, along the border, the mobility needs are ensured with public services.

The district of Besztercebánya borders the counties of Nógrád and Borsod – Abaúj-Zemplén, and in a very short section the county of Heves is wedged in between, which, however, did not have a border crossing point due to the topography of the area, so this was not the subject of the investigation in this study. There is no cross-border transport in the affected border section of Borsod – Abaúj – Zemplén county, which would provide transport opportunities for the residents of neighboring settlements and cross-border urban catchment areas.

In the county of Nógrád, the only exception to the above is the Budapest-Rétság-Sahy (Ipolyság) route 230, which provides transportation primarily for students and weekly commuters on the last working day of the week and on holidays before the first working day of the week. Given the nature of the flight, it can meet the conditions of cross-border traffic to a small extent, since it does not run on a daily basis, and its purpose is rather to facilitate commuting in Budapest.

In addition to public transport on the public road network, the possibilities of the railway must also be taken into account, as it creates a solid and permanent connection between the areas connected to the network, but its area exploration is limited (Remenyik – Szabó – Tóth, 2014).

Railway services show a similar picture in the field of public cross-border transport services, with the fact that the Slovak railway map, surprisingly as shown in Figure 3, also marks three border crossings that are not currently in operation: at Ipolytarnóc, Somoskőújfalu and Bánrève border crossings. The railway infrastructure is available before the operation of the environmentally friendly mode of transport, and the public demand also forms the basis for the implementation of the public service, which, however, can only be truly successful if the standard of the public service reaches the expected level, i.e. the speed of the trains is at least 80 km/h, and modern fittings ensure passenger comfort.

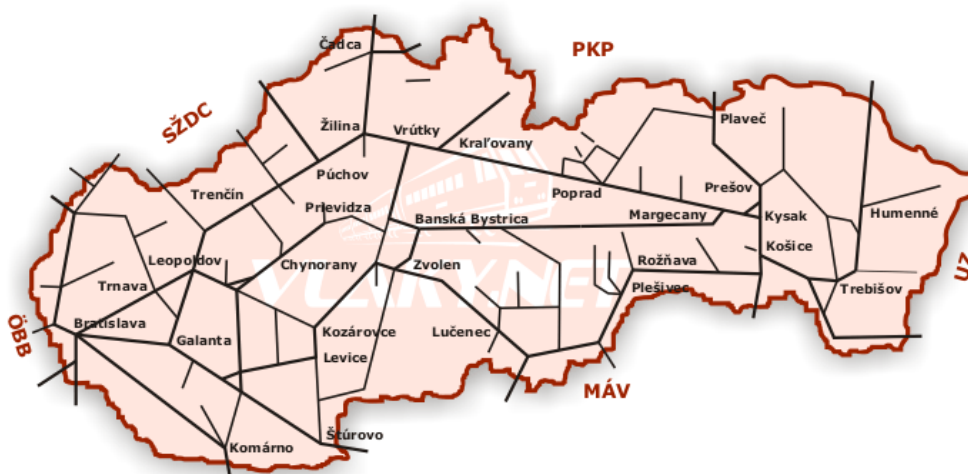


Figure 3. Map of Slovak railway public services

Source: vlaky.net

Figure 4, which shows the railway network of Hungary, aims to show the lines of the service, since the Slovakian infrastructure is also missing from this map, the fragmentation of the network is immediately apparent.

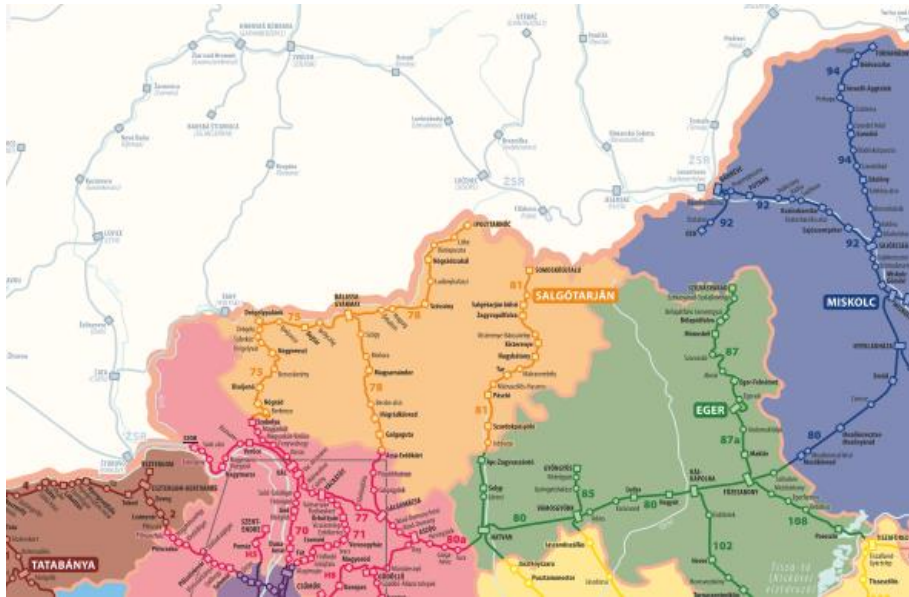


Figure 4. Hungary's railway network broken down by county – detail

source: MÁV, 2023.

With the help of the thematic interactive map dealing with European railway networks, by illustrating Figure 5, it can be seen that the basic infrastructural conditions for cross-border transport in the region are given, but the conditions for modern public services are lacking. In the border lane, the railway network is interrupted at one place, at Ipolyság, making it impossible to provide service on the (Párkány -) Ipolyság – Balassagyarmat – Losonc railway line until the deficit is restored. Looking back at Figures 1 and 2, you can see that the missing section was once part of an existing network that was dismantled in the 1960s.

In the case of the other elements of the railway network, the quality of the track does not allow the provision of modern public services.

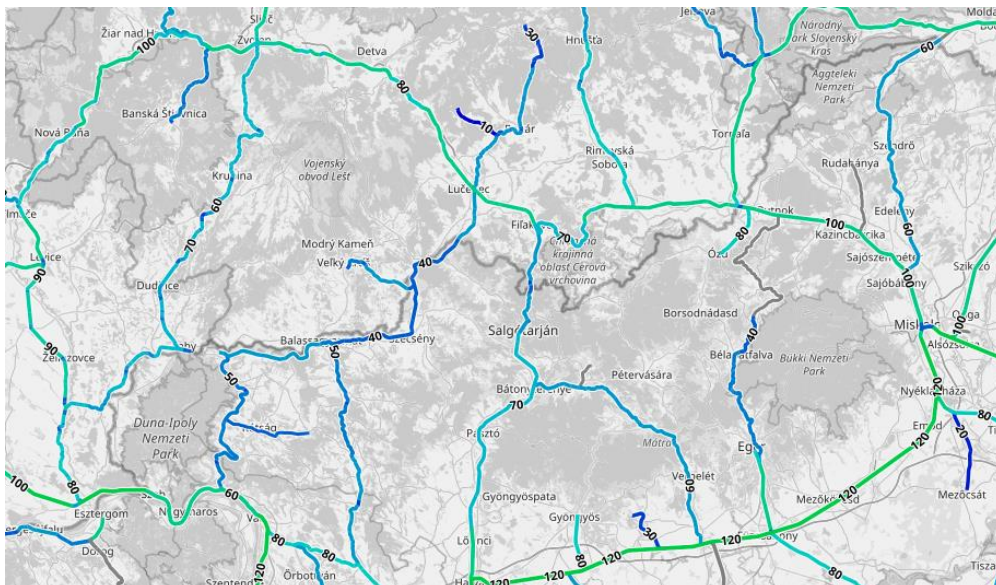


Figure 5. Possibilities of cross-border railway transport in the examined area

source: openrailwaysmap.org

During the investigation, it can be established that the settlements with different population sizes in the border area are provided with public transport services, however, the border has a dividing character in the provision of public services. One of the main reasons for this can be traced back to different national regulations, given that public services are regulated at the national level. It can be deduced from all of this that there is no organization that could fit the implementation of cross-border public transport services into its tasks and competences.

Cross-border transport is currently limited to individual modes of transport, for which data is not available – due to the termination of border controls, among other things – and can be assessed by additional data collection.

Organized labor transport is significant in cross-border transport, the examination of which can also be clarified during further research. Two methods of organized labor transport are known. In the case of one, the employer "outsources" the organization of transport to a passenger transport company, which has a license to do so. Issuing the license is an official task. Among such transport providers is MOLTEAM Kft., which participates in the cross-border transport of workers from the towns of Hidegkút, Tajti (Tachty) and Füleke (Filakovo) in Salgótarján and its surroundings, and Eurolines provides the transport of workers between Balassagyarmat and Ipolytölgyes via Ipolyság. The latter is a typical example of cross-border traffic, as the entire traffic section is within a 25 km radius of the border and crosses the border several times.

In the event that the employer solves the commuting to work using its own means, it is possible to assess organized labor transportation based on the information provided by the employers. One of the largest and most successful companies in the region is Knaus Tabbert Kft., which provides Great Russian jobs in the border area, and its self-organized flights transport about 200-250 people from Rimaszombat (Rimavská Sobota) through Balassagyarmat.

Implications and suggestions

The implementation of cross-border transport is an important tool for territorial development.

The concept of public service is defined by the European Union as a dual concept, according to which the concept applies both to the organization providing the services and to the services of general interest provided by them. It divides public services on the basis of economic and social interest, according to which transport falls within the scope of services of general economic interest, as it is a commercial service with general economic utility, where the state undertakes to finance any losses. Public services are a means of promoting territorial equalization, which suggests that they are a state task.

From the point of view of territorial development, the public transport service is important from the point of view of territorial accessibility, it is especially important in peripheral areas, such as the border area, however, in these areas, the implementation of cross-border transport is hindered due to the lack of an organization entrusted with the organization of transport.

The national regulatory framework - Act XLI of 2012 on passenger transport services. Act (hereinafter: the Passenger Transport Act) - it does include the concept of cross-border passenger transport service: "the passenger transport service in which the place of the start of the journey and the place of the destination or at least one of them is outside the territory of Hungary, but the route is partly within the territory of Hungary ". The common rules of the Passenger Transport Act include in Section 20 (5) that, on the basis of national, social or transport policy considerations, the person responsible for the provision may order cross-border passenger transport services as a public passenger transport service. The rules applicable to regional passenger transport public

services shall apply to cross-border regional passenger transport services classified as public passenger transport services, and the rules applicable to national passenger transport public service activities shall apply to national cross-border passenger transport services classified as public passenger transport services. Although the definition of the Passenger Transport Act does not include public regional passenger transport service, it can probably be equated with regional passenger transport service, according to which a domestic passenger transport service within the county border or in case of crossing the county border does not exceed 100 km and is not classified as a suburban passenger transport service. Based on all of this, it is possible in principle to create a cross-border transport system that implements regional passenger transport, but the organizational background does not support its implementation.

The public service provided by the state(s) is symbolic in the unified operation of the cross-border region. Public transport services are organized at two levels: at the municipal and national level, but there is a lack of a local or local level existing between the two, which can also be endowed with the organizational competences of cross-border transport. With public transport services accessible to all, the areas located along the border ensure freer movement and better opportunities for the population of the border regions, which not only can replace individual modes of transport, but also contribute to a better environmental condition, and the "independent" transport area helps the cross-border region development, high-quality public transport that can be used by everyone promotes the appreciation of the region and the implementation of sustainable transport development. Well-organized community public services contribute to the eradication of transport poverty.

An institution or organization capable of representing the border region as a territorial unit is necessary for the effective implementation and functionality of cross-border transport. The strengthening institution of the European territorial association provides an opportunity for this.

Summary

The demand for cross-border traffic cannot currently be demonstrated with numbers, as there is no service. The regulatory environment does not preclude the establishment of regional transport organizations, and the Union considers it a key factor in eliminating the peripheral phenomena of border areas by stimulating transport between neighboring areas of the border, so one of the basic tasks in improving the characteristics of the examined area is to ensure cross-border public services and increase population mobility for the sake of the accessibility of traffic barriers.

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