

## **New business models on the deregulated coach market in Central Europe**

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*In many Central European countries, passenger transport markets have gone through a liberalization process, new business models and new brands have emerged, such as Flixbus, RegioJet, and Leo Express. Others have been less successful and have disappeared, such as Polskibus, Berlin Linien Bus and Megabus. Their story and the lessons learnt show that liberalized coach markets tend to return to oligopoly or monopoly, as in the case of Flixbus, which works on the deregulated coach market just like competent authorities do on regulated markets, however, without governmental control policy and use of public funds. Hungary is on the verge of deciding on liberalization as the public service contracts of incumbent bus operators expire at the end of 2019. This paper provides a general overview of the Hungarian coach system, (as there is hardly any reliable English language source on this topic), and tries to answer the question: could a commercial coach service – as a new business model – be viable in Hungary?*

*Keywords: long distance coach market, Flixbus CEE, liberalization, competition policy, public service obligation*

### **1. Introduction**

Liberalization of the coach market has happened in most European countries, however, in Hungary it is yet to come. The public service contracts of the incumbent Hungarian coach operators will expire by the end of 2019, which could be a perfect moment for a certain degree of deregulation. Considering the characteristics of the Hungarian bus (and railway) market, is liberalization a real option?

This paper first briefly discusses the main definitions, then recalls the evolution of liberalization through the experience of a selection of countries. Special attention is paid to the Visegrád (V4) countries, and the recently opened coach markets of Germany and France. The last section introduces the Hungarian passenger transport system, and tries to answer the research question: Could a commercial coach service – as a new business model – be economically viable in Hungary?

Some of those who fear coach liberalization worry about its projected negative effects on railways. However, the European experience has confirmed that coach liberalization does not harm the railways, as the coach boom did not continue indefinitely, but rather stabilized after a while at a certain sustainable level and went through a kind of consolidation.

## 2. Legal framework

The philosophy behind regulation is to provide free and fair competition in the market of public transportation services, which also includes the separation of commercial and public services, especially in terms of financing. In Hungary commercial passenger services are almost non-existent, and therefore unknown, due to the present structure of a regularized market system based only on public service obligation (PSO). This peculiarity has necessitated the development of an understanding between PSO and commercial services.

Regulation (EC) No 1370/2007 explains the division between PSO and commercial (non-PSO) services as follows: “many inland passenger transport services which are required in the general economic interest cannot be operated on a commercial basis. The competent authorities of the Member States must be able to act to ensure that such services are provided.” Among the relevant mechanisms to ensure that public passenger transport services are provided, the most important is “the grant of financial compensation to public service operators”.

The term ‘Public service obligation’ means “a requirement defined or determined by a competent authority in order to ensure public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward” (Regulation (EC) No 1370/2007, Article 2, Definitions, e) paragraph).

This definition contains another important legal term, ‘competent authority’, which means “any public authority or group of public authorities of a Member State or Member States which has the power to intervene in public passenger transport in a given geographical area or any body vested with such authority” (Directive, Article 2, Definitions, b) paragraph). In the case of PSO, the competent authority has the right to plan timetables, choose operators (on competitive tendering, public procurement), and has the right to distribute the financial resources among the operators to cover their costs which are not covered by their income. Therefore, under PSO, entry to the market is regulated, while competition among operators is not on the market, but for the market and for the financial compensation. Conversely, in the case of commercial services, competition is on the market, in particular for ticket revenue from passengers.

In this paper, the term PSO is used for services that are subsidized and regulated by a competent authority, while the term ‘commercial’ is used for services on the deregulated, liberalized markets. This paper contains a description of the evolution of the commercial coach services through the examples of some relevant European countries. These services are generally deregulated, the market is liberalized, and there is no intervention of any competent authority. However, during the research a second research question arose: whether these liberalized markets tend to return to a status where one or several operators or brands start to behave just like competent authorities do in the PSO context.

Liberalization is considered complementary with deregulation. “The concept of ‘deregulating’ transport industries is examined to identify the elements and outcomes of the process by drawing examples of the principal modes (bus and coach, rail, air) in various countries. Experience in the British case is used as a starting point. A distinction is drawn between ‘deregulation’ (which may apply both to publicly and privately-owned operations), and ‘privatization’ (the transfer of assets and/or operations to the private sector. It is important to distinguish impacts of deregulation from those of other factors which will also affect the performance (such as trends in ridership) of the industries concerned, in drawing conclusions about its role. (White–Sturt 2009).

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### **3. Why long-distance services tend to be commercial?**

Provision of passenger transport services used to be a good business until private car use became dominant and ridership began to shrink. Railway companies had started to suffer from losses at the beginning of the second half of the 20<sup>th</sup> century, while bus operators reached that level a few decades later. Nowadays most regional services - especially in rural areas where ridership is very low - require subsidy, or financial compensation. Suburban services in Europe have high, or even growing ridership, but when these are operated in fare alliances, the allocation of income is not transparent, and if the buses are stuck in traffic congestion, the cost of operation is high. Long-distance services, however, are generally capable of covering operating costs from revenue.

There are some reasons for this. Unlike regional buses, which run 40–60 thousand kilometers a year, a long-distance coach runs 200–400 thousand kilometers, and therefore depreciation and all other costs divided by this distance is significantly lower. Similarly, personnel costs are also lower, because a coach driver may drive 2–3 times further during his or her shift than regional bus drivers.

On the income side, regional and suburban tariffs are “a few” Euros for a ride, as there is not much chance to attract passengers with pricing techniques. However, in case of long-distance trips, passengers are easier to push into off-peak times by demand-responsive pricing.

## **4. Milestones of coach liberalization in Europe**

Many European countries have undergone the deregulation process, each of them has unique solutions. The focus of this paper is on Central-Eastern European (CEE) countries; however, it is worth scanning through the main Western-European milestones leading to the almost Europe-wide liberalization process. The chronology of liberalization can be easily summarized as there was a well-planned first wave in the 80s-90s, followed by various solutions in CEE countries, and a second big Western wave originating from Germany in the 2010s, and finally the remaining states. This paper follows this structure.

### *4.1. United Kingdom*

The pioneering role of bus liberalization was played by the Thatcher government in Great Britain in the 1980s. In the coach market, the incumbent National Express (NE) had to face some emerging operators, especially on the London-Oxford route, but NE remained the main player, and most challengers threw in the towel (van de Velde 2009). There were serious “bus wars” on regional routes, but after a while the situation has consolidated.

Among the challengers of NE there was one exception, Megabus, which was launched in 2003, and still has a significant market share (White–Robbins 2012). Megabus as a brand belongs to the Stagecoach group, one of the Big 5 transportation operators (the other 4 being National Express, Go Ahead, Arriva, and First). These companies are active not only at the bus and coach business, but also in the railway sector, and not only in the field of commercial services, but they operate services under PSO. Their business models contain both bidding for franchises and also real on-the-market-competition.

### *4.2. Scandinavia*

Following Britain, the two main Scandinavian countries (Sweden and Norway) decided to liberalize their coach market. In Sweden the then incumbent Swebus had been a subsidiary of SJ (the Swedish state railways), serving routes where rail service was inadequate. It was privatized in 1996 and sold to Stagecoach. After the 1999 deregulation of the Swedish coach market, the new owner of Swebus became Concordia Bus, and in May 2018 the company was sold to Flixbus and the brand Swebus started to disappear. Swebus had around 50% market share in 2014. There are other brands and operators (e.g. Bus4You), their network is also Stockholm-centered, operating more or less in parallel with rail lines and each other. The competition forced both coach and railway operators to improve their services, and it resulted in growing patronage for public transport. Over the last two decades, the passenger kilometer figure for coach and rail has grown more than that of the private cars, and it represents the success of liberalization (Alexandersson 2014).

The evolution of the Norwegian coach market has provided some points of similarity to CEE countries. The process is described in detail by Aarhaug–Fearnley (2016): “Apart from its major cities, Norway is a country that is hard to serve by high capacity public transport, like rail. However, scheduled coach services were for a long time strictly regulated in order to protect the railways. Before 1998, it was the responsibility of coach companies to prove that they were not in competition with the railways, in order to obtain licenses to operate– similar to the requirements in Germany (Walter et al. 2011). In the 1980s, most express coach routes were extended local routes, and local bus companies operated most of them. Operators with area licenses in neighboring counties cooperated and joined their licenses in order to operate through services. Such cooperation was a de-facto requirement for establishing express coach routes (Leiren–Fearnley 2008). This regulation was first lifted in limited areas in 1999, when consideration of passenger benefit became important. Then, in 2003, entry regulation was abolished all together for county border crossing services, as is the official term (Leiren et al. 2007)”.

*Figures 1 and 2* The route map of Nor-Way Bussekspress and Nettbus Express



Source: nor-way.no, visitnorway.com. (2019)

The express coach market carried 5.3 million passengers offering 34 million bus kilometers in 2010. For comparison, the total Norwegian scheduled bus market (including express coach services) has 314 million passengers and 249 million bus kilometers. (Aarhaug–Fearnley 2016).

The former Norwegian transport policy considered the express coaches to be a competitor for subsidized rail (which was seen as a natural monopoly), and there was a fear that deregulating the coach market would reduce rail ridership. This fear proved false, in spite of a rapid growth in the coach industry, “railways experienced steady growth after the express coach deregulation” (Aarhaug–Fearnley 2016).

The main lesson learnt in Norway is that coach liberalization did not harm railway patronage, rather it motivated railways to improve their service level and productivity.

The main bus brands in Norway are Nettbus Ekspress and Norway Bussekspress (see Figure 1 and 2). The former is a marketing umbrella for various operators, owned by the Norwegian State Railways (NSB). The brand Bus4You, which is known in Sweden, too, belongs to Nettbus. Norway is another umbrella company, partly owned by Nettbus. Small and medium enterprises (SMEs) in Norway may enter the coach market under these umbrella brand names as operators.

## **5. Experience of the Visegrád countries**

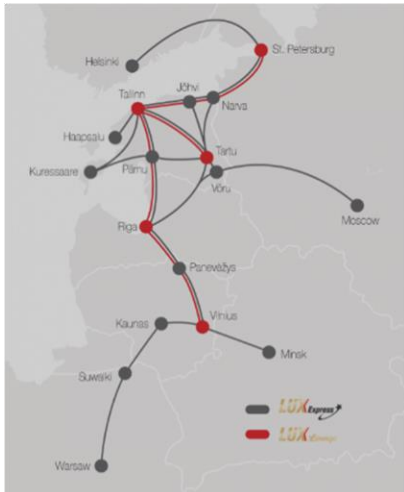
After the changes in 1990, many former Eastern Block countries had to face difficulties in organizing and financing public transport services. Most of them found unique solutions, but generally the long-distance coach market became more or less liberalized, and kept their ridership, while the regional services suffered from decreasing ridership and growing costs.

In the Visegrád countries the initial situation was very similar in 1990. Each country had their bus and coach company groups, PKS in Poland, CSAD in Czech Republic, and VOLÁN in Hungary. The group of companies were divided according to administrative boundaries, by voivodships in Poland and by counties in the other two, however, some mergers and break-ups occurred. In Poland there were some 200 hundred PKS companies, while in Hungary 19 to 29 VOLÁN companies.

### *5.1. Poland*

Poland is a pioneer in trying various business models for operating bus and coach services. Steps toward liberalization were taken in the early 90s. The PKS companies had gone through various reform processes, including simplification of company profiles, mergers, and privatization, and by the end some of them had gone bankrupt, while some are still suffering and only a few may be considered safe and sound. Poland was active in trying various business models for railway operation. “It was as late as in 2007 that a first private carrier appeared on the market, with today's Arriva RP providing services on behalf of Kujawsko-Pomorskie voivodship. Simultaneously, local and regional governments became, not only organizers of rail transport, but also owners of carriers” (Taylor–Ciechański 2018)

Figures 3, 4 and 5 A route map Polskibus, LUX Express, and PKS Express



Source: polskibus.pl (2015) and luxexpress.eu (2019) and autokar24.pl (2019)



The first challenge PKS had to face right after deregulation was the emergence of small private enterprises operating minibuses on regional and suburban lines, just a few minutes ahead of the PKS service. “A great threat here is the unfair competition engaged in as certain private carriers pick up passengers just prior to the due time of arrival of a PKS bus” (Taylor–Ciechański 2018)

On the coach market, first the National Express group launched a local brand called Polski Express, but this company eventually gave up competing with PKS, especially when PKS launched their own coach brand (PKS Express, see Figure 5). Many years later, in 2011, the Stagecoach group discovered Poland as an appropriate field to enter the market and launched the Polskibus brand, which survived for 7 years, right until the strong expansion of Flixbus.

“Despite the observed increase in competition, the bulk of scheduled passenger carriage continues to be done by PKS companies. Unfortunately, the future of these PKS companies is not very bright, partly because strategy accepted is concerned with survival, rather than development” (Taylor–Ciechański 2018)

Besides (the former) Polskibus (Figure 3), there are other commercial bus operators in Poland, such as LUX Express, Simple Express (Figure 4), etc., these companies being based in the Baltic states.

Poland has a wide range of experience in regulating liberalized markets, and there are many lessons learnt here. “Unfair competition appeared between private carriers and the PKS companies, ensuring bankruptcy of some of the latter, and hence also the transport-related exclusion of many areas, including even areas of relevance to tourism. In many cases, it is also possible to observe a sort of aversion on the part of local or regional authorities to support for public transport in their areas, or even for its limitation. This is an attitude quite the opposite of the one observed in the neighboring Czech Republic, for example” (Taylor–Ciechański 2018)

## *5.2. The Czech Republic and Slovakia*

After the division of the country, CSAD remained the main bus and coach operator for the Czech part, and SAD was established for Slovakia. Some SAD companies were privatized, and now belong to Arriva. There are more than 200 Public Service Contracts in the Czech Republic for bus and coach services under PSO.

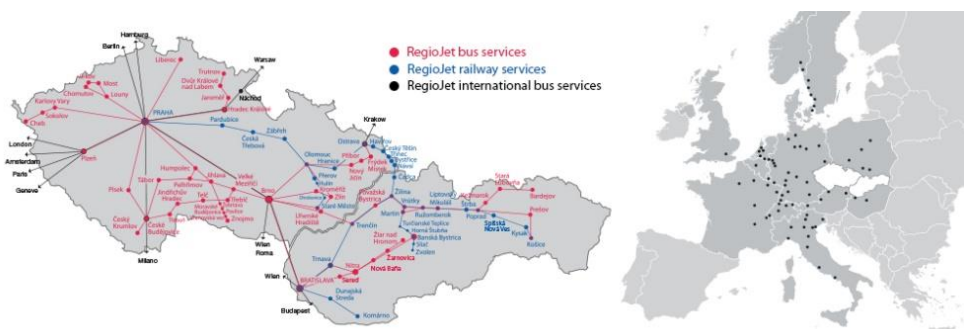
There is a private company which dominates the commercial coach market in both countries. It was initially called Student Agency<sup>1</sup>, but since 2015 its name has been RegioJet (Figure 6). The big yellow buses run mainly on domestic routes in the Czech Republic, and as the liberalization process went through, also in Slovakia, but they also operate many international lines. The buses provide luxury onboard services and free drinks offered by an attendant.

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<sup>1</sup> The company was founded and is still mainly owned by Radim Jančura. Their first money-maker business activity transporting young Czech citizens (mainly students, hence the name) to Great Britain for babysitting and au pair jobs. Later they opened other scheduled international routes, for example from Prague to Budapest via Brno and Bratislava.

The company is involved not only in the commercial coach operation, but also in commercial (open access) rail services within the Czech Republic and to Slovakia and Austria. Besides this, RegioJet operates rail services under PSO. The company won the contract for the Bratislava-Komarno line in 2013, and further rural lines in the Czech Republic from 2019. RegioJet is not just a brand-name or an umbrella, but a real vehicle operator, owning many buses and rail cars. RegioJet organizes its coach and railway timetable so that it feeds its own rail services by coaches and decreases parallel coach services on those routes it starts to serve by rail. Basically, RegioJet acts like a competent authority on the commercial long-distance market, therefore it has a very special business model.

Figure 6 The route map of RegioJet coach (red) and rail (blue) services



Source: regiojet.cz (2016)

LEO Express is another private Czech company which operates based on a very similar business model that of RegioJet. The main difference is historical: LEO Express was initiated as a commercial (open access) passenger railway operator, between Prague and Ostrava, right after the opening of the Czech domestic railway market in 2011. Later its network was extended by connecting feeder coach and bus services. Moreover, the company operates feeder minibuses and airport shuttle services, partly to feed its trains (Figure 7). Therefore, LEO Express also functions as a long-distance transport organizer competent authority (should) do.

LEO Express is the train operating company which took over Locomore's German domestic open access train services. Locomore's business model was supposed to be a special kind of community funding, but it failed, and now it operates under the brand name Flixtrain, in strong cooperation with Flixbus (green line on the western side of Figure 7). LEO Express also cooperates with the Austrian open access railway operator, Westbahn, (just like RegioJet does, it is the green line in Austria). LEO Express operated coach services under its own brand name between Krakow and Budapest for a few months in winter 2017, but currently LEO Express is represented in Hungary only as a partner of Eurolines on the Budapest–Prague route. LEO Express is a perfect example of a pioneering company which tries various business models especially in the field of cooperation.

Figure 7 The route map of LEO Express coach, bus and rail services



Source: leoexpress.com (2018)

## 6. The latest wave of liberalization

The recent changes in the Western-European domestic and international coach markets significantly redrew the transportation map of Europe. The deregulation process started in Germany in 2013, followed by France, Italy, Austria, and Switzerland. These countries used to be known for protecting their railways from competition, but recently the situation has completely changed.

### 6.1. Germany

Long-distance coach services in Germany used to be very limited. From 1934 to 2012 the law on public transport (Personenbeförderungsgesetz) basically prohibited the operation of passenger coach services, with the intention to protect the railways from competition. There were two main exceptions: some services from West-Berlin to West Germany (operated by Berlin Linien Bus), and the Romantische Strasse line connecting major tourist attractions.

From 2013, Germany raised the barriers and liberalized coach services, with very few remaining constraints (no trips are allowed for short distances (less than 50 km), or for less than one hour if there is proper rail service.)

Many new companies launched their services, and by 2016 the coach market has reached its zenith at some 20 million carried passengers a year. Even 2 of the big 5 British transport companies entered the market: National Express under the brand City to City, and Stagecoach as Megabus. Other competitors worth mentioning are ADAC Postbus, ALDI Reisen, DeinBus, and last, but not least, MeinFernbus and Flixbus.

The then incumbent domestic operator, Berlin Linien Bus, and international operators under the Eurolines umbrella had found themselves among many challengers. In January 2015 MeinFernbus and Flixbus merged, keeping the name of Flixbus and the green-and-orange color scheme of MeinFernbus, and they together gained a dominant role in the German coach market. By the end of 2016 almost all other competitors either ceased operation, or merged into Flixbus, which reached a market share higher than 90%.

Flixbus started a very fast and aggressive international expansion, and these days their green coaches serve almost all European countries. In 2017 the company opened routes in the USA, too. Flixbus is not just opening new services, but also integrates existing ones. Many former Eurolines/UEROLINES partners have joined Flixbus, which offers a different business model.

The main point of the Flixbus business model is sharing risks between operators (or as Flixbus calls them: bus partners) and the brand owner. Flixbus does not operate buses or coaches itself. Flixbus behaves like a transport organizer competent authority, selecting bus partners for services it plans, and does all the marketing, sales, customer service activities, the role of bus partners being only to operate the buses (Dunmore 2016). This is actually very similar to the business model of National Express, or the Norwegian Nettbus and Nor-Way.

Flixbus has eaten up not only the main German domestic operators, but also Polskibus, Swebus, and the whole Eurolines Romania operator group. There are rumors that RegioJet is also on their menu.

## 6.2. France

Having observed developments in Germany, from August 2015 the French government also decided to liberalize the domestic coach market. Flixbus is in fierce competition in France with Ouibus (Figure 8), which was founded and owned (under the name iDBus) by the French state railways, SNCF. In July 2016 the company bought Starshipper (which was the alliance of French bus operating SMEs), hence the competition on French domestic routes remained only between Flixbus and Ouibus, (and some other, smaller brands, under the Eurolines umbrella). However, in November 2018 Ouibus was purchased by BlaBlaCar, which is the main carsharing platform in Western Europe with a French background. In exchange for the deal, SNCF has some shares in BlaBlaCar. In March 2019 BlaBlaCar announced that it will attack Flixbus on the German domestic market, too. Time will show whether Flixbus may be beaten in its home playground.

Figure 8 The destinations served by Ouibus



Source: ouibus.com (2019)

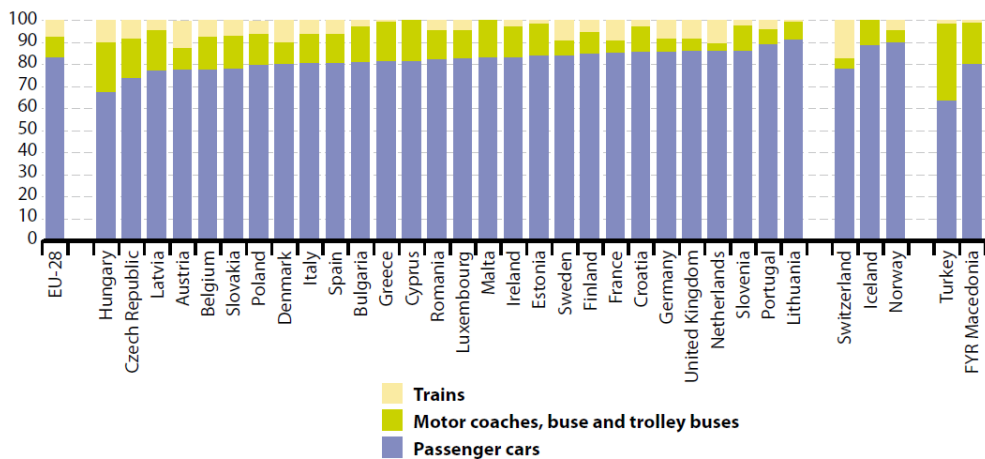
The entry of BlaBlaCar to the coach market represents a very new business model. For a carsharing company to enter the coach market, means that there has been a shift in the classic competition theory. The battle is not between rail and coach (and air), and not even between public transport and private car use, but rather between the classic transport services and the new transport modes based on the new buzzwords of digitalization, sharing economy, and the 4<sup>th</sup> industrial revolution.

## 7. Hungary – waiting for liberalization

Describing the Hungarian liberalized coach sector does not require much effort and space, as this is basically non-existent. All scheduled coach services are under PSO, there not being any commercial coach service in Hungary. However, in the near future, significant changes may occur in this field, this is why the case of Hungary is discussed in detail. One of the aims of this paper is to provide a general but detailed enough overview of the Hungarian coach system, because there is hardly any reliable English language source on this topic. To understand the special characteristics of Hungarian transport policy, this chapter also takes a look also towards the Hungarian railway sector.

According to Eurostat (2015), Hungary has the best modal split in the European Union (Figure 9). Based on the data of passenger-kilometer, the share of cars is around 80 per cent in the EU, while in Hungary it is around 67 per cent. In Hungary people tend to use public transport much more than the EU average, and also higher than the average of the 10 countries that joined the EU in 2004.

Figure 9 Modal split in EU countries



(<sup>1</sup>) Estimated or provisional data for most Member States (too numerous to be listed).

Source: Eurostat (2019) [https://ec.europa.eu/eurostat/statistics-explained/images/5/57/Modal\\_split\\_of\\_passenger\\_transport\\_by\\_country\\_2013.jpg](https://ec.europa.eu/eurostat/statistics-explained/images/5/57/Modal_split_of_passenger_transport_by_country_2013.jpg)

However, if one takes a look at the state of infrastructure, the vehicles and the ticketing, the public transport system does not seem like one of the best in Europe. Buses are 14 years old on average, infrastructure is worn out, except for the recently built and renovated highways and railways. Trains are often late and not considered tidy (EU 2018).

### 7.1. Legal framework

The Hungarian law on passenger services was enacted in 2012 and categorizes the domestic services as local, suburban, regional and national. Local (urban) transport services (within the city limits) are authorized and financed by each local government, however, all others are run by the Ministry for Innovation and Technology (ITM). This strict division between the urban and interurban authorities might disappear in the near future.

There are hardly any private or commercial, open access operators in Hungary for bus and rail. Almost all transport services are provided under PSO, i.e. operators receive cost-compensation for those expenses which are not covered by income from passengers.

In the railway sector the public service contracts will expire in 2023, however, in the case of bus and coach operators the contracts expire at the end of 2019, currently the tendering process is ongoing. There are around 110 local (urban) PSO contracts, which have various expiry dates.

### *7.2. The significance of railways in transport policy*

The current Hungarian government continuously emphasizes the significance of public - and especially railway - transport. The new law on passenger transport services (which came to effect in 2012) provides priority for railway operations, “as much as possible”. This unclear statement makes a perfect basis for justifying any railway project. The share of railways in the current infrastructure development programs is also very high. Railways are considered not as an economical issue but as a social one. In 2014, less than 20% of the cost of passenger railway operation was covered by passengers, Hungary is last on this list in the EU (European Commission 2016).

Railways are important for policy makers not only for domestic reasons, the development of international services is also an issue. There are millions of ethnic Hungarians living on the other side of the country borders, and the provision of adequate international public transport services for them is essential. The international railway services are integrated into the domestic timetable and fare system, and until the border station these operate under PSO., i.e. financed by taxpayer money. This policy is somehow contradictory to current EU regulations.

### *7.3. Market players*

There are 3 main train operating companies. The biggest is MÁV-START, the passenger transport subsidiary of Hungarian State Railways (MÁV), carrying 137 million passengers a year, receiving an annual cost-compensation of HUF 144 billion (EUR 500 million, 0.4% of GDP, 3.2 EUR/passenger, 6 EUR/passenger-kilometer). There is another state-owned railway company, the „Győr-Sopron-Ebenfurthi Vasút” (GYSEV, or Raaberbahn), which is a Hungarian-Austrian joint venture, operating 8 lines in western Hungary, carrying 10 million passengers. Another subsidiary of MÁV, MÁV-HÉV operates 4 independent suburban railway lines in the Budapest area. These lines were taken over from the Budapest Transport Company (BKV) in November 2016. One of these lines is within the city limits of Budapest. There are some 20 narrow gauge forest railway lines with passenger services; however, these mainly serve as tourist attractions, so these are not operating as a PSO. There is currently no private passenger railway operator.

Regional buses and coaches had been operated for decades by 24 state owned „VOLÁN” companies, generally one (or two or three) company in each county. By January 2015 these companies were merged into 7 regional bus operators (called KKs), in preparation for the public tendering of services. The plan to further merging the companies into one big bus operator was announced in March 2019.

National, regional and suburban buses carry around 450 million passengers per annum and receive a cost-compensation of around HUF 65 billion (EUR 208 million, 0.4 EUR/passenger). This amount is increasing year by year; however, until 2006 these companies were able to operate profitably. VOLÁN companies also operate the urban buses in some 70 towns, carrying another few hundred million passengers. (Another 40 towns order local services from either small private operators or from their own bus company.)

The biggest VOLÁN company is the Budapest based VOLÁNBUSZ, which operates suburban and regional buses around Budapest, and also many nationwide highway coaches. VOLÁNBUSZ is the main international coach operator and had been the Hungarian partner for Eurolines for decades, however, by 2019 most of its international lines were operating under the brand Flixbus. There are also 4 small private bus operators with public service contracts, 2 of them operating highway coaches (once a day from Budapest to Nyíregyháza and to Zalaegerszeg), the other two operating 1-2 regional lines under PSO.

Some of the VOLÁN companies have tendered out the operation of some services to private firms (subcontractors). The maximum share of subcontracted services is limited to 49% in their contracts; VOLÁNBUSZ had been the closest to this threshold. By 2019 the share of subcontractors has been decreased to a just few per cent after a change in the government policy.

Between June 2014 and November 2016 VOLÁNBUSZ operated 150 (blue) buses in the Budapest suburban area as a subcontractor of the Centre for Budapest Transport (BKK, the competent transport authority for Budapest). In 2016 this contract was transferred into a PSO as ordered by the Ministry (then NFM, now ITM).

Entry into the bus and coach market is very limited. Liberalization of the market is yet to come, but it has low priority, mainly for the purpose of protecting railways from competition, just like in Norway in the late 90s. However, a certain number of lines, especially those considered to be parallel with subsidized railway services may be liberalized, or, at least, financial compensation would be withdrawn. Recently small and medium sized enterprises (SMEs) may enter the market as subcontractors. From 2020, they may have a chance to win national or regional tenders, if any are announced.

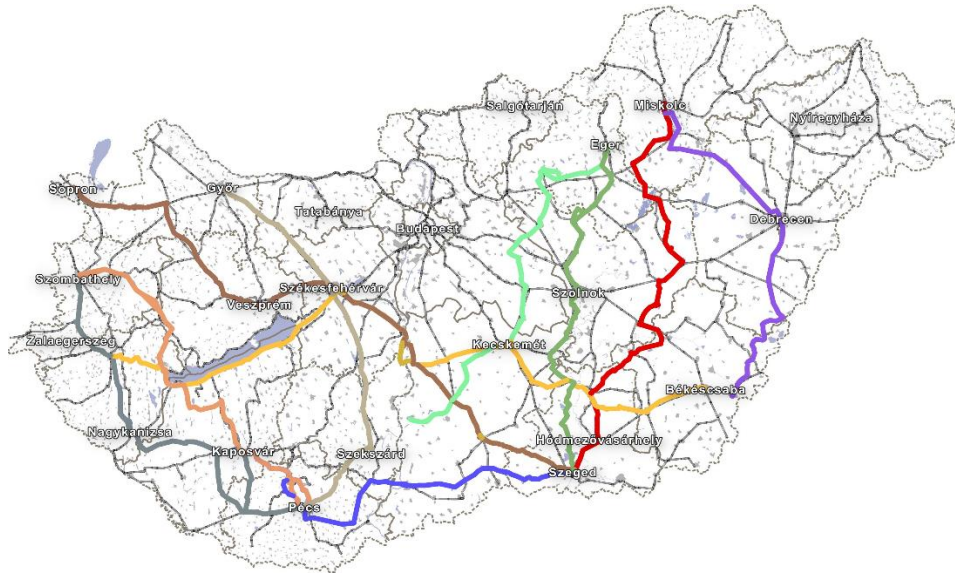
#### *7.4. Coverage, accessibility*

The Hungarian public transport network is extended to all but 4 villages, 3145 settlements are served by regular bus services (while 5 others only have rail). The timetable provides enough services for the vast majority of village residents to commute to the nearby town to school, to work in typical work shifts or for shopping.

The frequency of the timetable on the main lines is usually attractive, and on some suburban and interurban lines buses operate frequently and periodically, based on the periodic, clock-face schedule, or as it is known, the “*taktfahrplan-concept*”. However, in remote rural areas villages are served only few times a day, while in some counties there are plenty of small villages where there is no bus service on Sundays, or even on Saturdays.

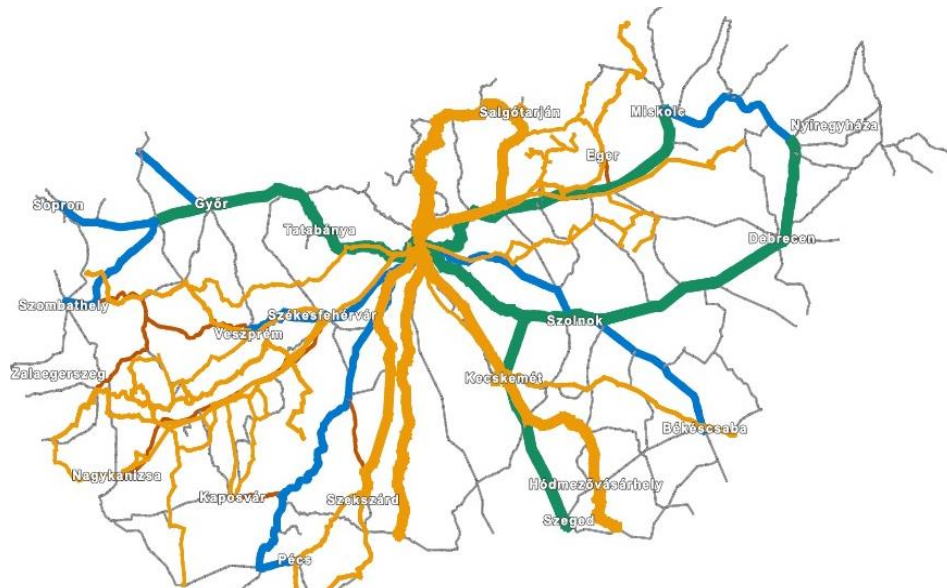


Figure 10 Diagonal long-distance (over 200 km) bus routes in Hungary. Not parallel with railways.



Source: KTI Institute for Transport Sciences

Figure 11 The long-distance Budapest-originated rail (green, blue, red) and coach (yellow) routes in Hungary. Hardly any seems to be parallel. The wideness of the lines represent significance



Source: KTI Institute for Transport Sciences

The coach network is also very extensive. Major towns and cities are directly connected with each other, even if they are some hundred kilometers away from each other. These diagonal coach routes are 150-300 kilometers long, and generally connect communities which are not served well by rail. (Figure 10). Generally, very few passengers travel all the way on these routes, as travel times are long, and coaches stop in each village on route. That is why most long-distance services carry significant number of short-distance passengers. These services are integrated into regional service structures, and serve needs which cannot be met by rail services. These routes cannot be considered as real long-distance routes rather “interconnected regional” (“láncolt helyközi”) services, and therefore could hardly be deregulated.

The capital Budapest may be accessed from all bigger towns, either by rail or coach, or both (in very few cases, with reason). One of the main aims of the current Hungarian public transport policy is to dedicate only one mode of transport for a certain route as a public service, and in most cases it should be rail, as it is believed to be the most efficient solution.

#### *7.5. Urban and other public transportation services*

There are around 110 towns and cities with local urban bus networks. Most of them are operated by VOLÁN companies, and – especially in small towns – by private firms, under various circumstances. However, in 8 cities (Budapest, Miskolc, Debrecen, Szeged, Pécs, Kaposvár, from 2018 in Tatabánya, and from 2019 in Veszprém) the local buses (or even trams and trolleybuses) are operated by the internal operator company of the local government. Each city has different financial and operating models. Tariff alliances are non-existent; however, there are some tickets or passes, which combine the regional and local trips, or are valid for both operators in a city (e.g. in Szeged, urban passes are valid on buses operated by DAKK (formerly TISZA VOLÁN), and trams and trolleybuses operated by SZKT). In the Budapest area the suburban commuter passes may also be combined with the Budapest Pass (which covers the whole area of Budapest) since 2007, and hence passengers enjoy some discounts comparing to those travelling around smaller towns.

Some ferry services also operate under PSO on the rivers Danube and Tisza, but the share of waterborne services is very low. On Lake Balaton there are ferry and ship services, the latter only during the summer season, for tourism. There is no domestic air service.

#### *7.6. Fare system*

Fares in Hungary are distance based and slightly regressive. Fares used to have a small annual hike; however, there has not been any fare hike since 2010. In 2007 the rail and bus tariff level were unified in 2 steps, which meant a more than 30% increase in the rail tariff, and some 5% for buses and coaches. The relatively small surcharge which is applicable on InterCity trains (since 1991) was introduced on most highway buses in 2012. A minor surcharge for rapid trains – which was previously abolished in 1991 – was reintroduced in 2013. The same year a 15, then in 2014 a further 10 (altogether 25) percent discount was introduced on 30 rural lines with low traffic volume.

The railway company MÁV-START used to apply discounted tickets on lines parallel with highway buses, but it was almost completely abolished in 2013, and fares were set to be equal on trains and buses. Pre-purchased seat reservation on trains costs HUF 180 (EUR 0.6), however, for peak days (Friday and Sunday afternoons) and on the day of purchase it costs HUF 300 (EUR 0.9).

Passengers pay only a very low percentage of the cost of operating the railway. The rest is paid either by the employer (in the case of commuter passes), or by the fare adjustment (SZMT) by the government (in case of the socio-political discounts), and the remaining part is covered by public service compensation. Commuter monthly pass holders are entitled to 86% compensation from their employer by law; however, some employers are reluctant to do so. Students (and many other groups like the handicapped or those with lower income) enjoy a 50% discount on the basic fare. The remaining 50% used to be covered as a social expenditure, however, nowadays it appears partly in the form of public service compensation. Pensioners may travel with 90% discounts (i.e. pay only 10% of the ticket price), and passengers over 65 (and under 6) years old may travel free, including EU citizens, however the surcharges must be paid.

#### *7.7. Integrated Periodic Timetable (ITF)*

The integrated and supply-oriented periodic timetable, also known as the ‘taktfahrplan concept’ (or Integrierter Taktfahrplan, ITF) is a special method of transportation network and timetable planning, which is based on the belief that increasing frequency and providing good connections (repeated every hour) is the key to attracting passengers. The Swiss transport system is fully based on this concept, and many other countries utilize this method. The philosophy behind the theory is that the income from new passengers would exceed the cost increase arising from the extended supply of trains (and buses).

ITF-based timetable was first introduced in 2004 on the Budapest-Vác-Szob suburban railway line and its sidings. In 2006 the taktfahrplan concept was extended onto most main railway lines in Eastern Hungary, then in the South East, and finally by 2009 on the Transdanubian (western) main lines. In 2009 the whole bus system in the western suburb of Budapest was adjusted to the new railway system, also based on the taktfahrplan concept. On the suburban railway lines around Budapest the increased frequency and the introduction of rapid train services attracted many new passengers, however, on non-Budapest lines the taktfahrplan has not been such a success story.

When promoting the idea of ITF, the main purpose was increasing ridership and income. In the last 30 years the number of train services from Budapest to the bigger towns have been doubled or tripled (with very few exceptions), based on the taktfahrplan concept. These extra services helped to improve the accessibility of rail services and contributed to stabilizing passenger numbers; however, the average distance of a rail trip has been decreasing sharply. Hence, implementing ITF could not turn back the process of losing long-distance rail passengers, however, it could attract passengers mainly on suburban routes.

### *7.8. Railway closures, reopening, and the 2012 passenger service supply reform*

Hungary has a vast railway network; however, many lines were closed in the 70s. In 2007 and 2009, passenger railway operations were suspended on another 14 and 25 lines, 662 and 826 kilometers, respectively (before 2007 the route length was 7700 km). The new government elected in 2010 decided to reopen 11 lines (356 km), but later in 2012 the number of train services on most of these lines was cut to 2 per day per direction. Also, in April 2012, most or all highway bus services from Budapest to the following cities were cancelled: Győr, Sopron, Szombathely, Szeged, Miskolc and Nyíregyháza. These lines were considered to be parallel with rail services. On 15, April 2012, altogether 450 train and coach services were deleted from the timetable. The future of PSO highway coaches is unclear. There is a wide spread opinion that long-distance coach services which may be considered more or less parallel with good quality railway services should be cancelled. The less drastic view is that these should be transformed from PSO to commercial services.

Here is the point where the international and the Hungarian parts of this paper come together, and the following question arises:

### *7.9. Could a commercial coach service - as a new business model - survive in Hungary?*

Taking into consideration the characteristics of the Hungarian passenger service market, the outlook is not rosy. First of all, there is some over-supply in the market of long-distance trains, the typical ridership of an InterCity train is around 50-60 passengers. This is a very low number for a train but would perfectly fill a coach. Would these passengers choose a coach instead of a train? Maybe if an hourly PSO train were replaced partly by a commercial coach, let us say, every second hour. By this solution, PSO compensation could also be dropped, however, it would contradict railway-oriented government policy.

Second, operators of PSO services are entitled to receive fare adjustment<sup>2</sup> for each passenger travelling with a socio-political discount. How would this be handled in the case of a commercial operator? In the Czech Republic commercial coach and open access rail operators receive a fare subsidy. If in Hungary a commercial operator had to cover its costs only from ticket income, it could hardly survive, especially because students travelling on 90% discounted monthly passes would not use the services. However, if a commercial operator were entitled to receive fare adjustment, there would have to be very strict control and a transparent ticketing system.

Third, if there were competition between PSO and commercial services, the PSO operators would have the chance to respond to the challenge, e.g. by decreasing their fares, or improving frequency, quality of cars, etc. As the financial losses of PSO operators have to be compensated by law, there is not much risk for them. For

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<sup>2</sup> "szociálpolitikai menetdíjtámogatás", or SZMT is a 50, 90 or 100% fare adjustment, which is paid by the Ministry of Finance based on the volume of discounted tickets sold to students, pensioners, the disabled, etc. It amounts to around HUF 90 billion per year.

commercial operators, entering a price war is riskier, and in the end, both of them may lose income, however, passengers could benefit.

Entering such a market is rather risky, especially if there is competition with state owned and state financed companies. However, there are good opportunities to test the market. Allowing cabotage, i.e. domestic travel on international coach services, may help understand market forces and the behavior of the players and passengers without risking state funds.

In conclusion, one may say that the attractiveness of the Hungarian public transport system is based on its good geographic and time-coverage and its relative cheapness for users. The implementation of the periodic timetable (taktfahrplan) offers a frequency which is greater than necessary. The wide range of discounts allows very cheap (or even free) rides for a significant number of residents. Commuter passes may be considered an extra perk from the employer, and with frequent suburban services – even on weekends – these passes offer great mobility to their holders. Such a service level makes living without cars possible for many citizens, and even families do not feel the need for a second car. Entering this fully PSO market on a commercial basis is therefore at least risky.

## **8. Conclusion**

In most European countries long distance coach services are now liberalized and commercial, and hardly any PSO remains. After deregulation, these markets started to grow for a while, but soon reached a new equilibrium. Various kinds of new business models emerged, which use modern technology for sales, customer services, and data analysis, and there is a wide range of cooperation between the new entrants to the market.

Coach liberalization did not have a negative effect on railway ridership, rather motivated train operating companies to improve their services.

Operators and brand names must be distinguished. Some brands on the commercial markets do not even operate vehicles, they behave like a competent transport authority, selecting operators for the planned services. Other brands also behave like mobility managers, when they harmonize their timetable so that their buses and trains connect with each other.

In Hungary coach liberalization is yet to happen. There are fears that a liberalized coach market would harm the income of railways, but this has not been the case in countries where liberalization went through. Hungarian railways have the worst cost coverage ratio in the EU, meaning there is not much income to lose. On the other hand, there is probably not enough passenger income to launch a commercial coach service either, especially because many passengers are entitled to travel on subsidized fares on services under PSO. The rising car sharing solutions seem to be a more dangerous challenge for railways than coach liberalization. In France and in Germany, a brand-new business model is emerging: a car sharing company that operates, or at least, organizes coaches. Time will show whether this model is the future of commercial public transport.

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