

Project SKHU/1601/1.1/031
**RailGate - Narrow gauge railways
as attractions and gates to nature**



Building Partnership



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RailGate - Narrow gauge railways
as attractions and gates to nature**

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Master plan

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1. EXECUTIVE SUMMARY

Activity no.7 in the project was suggested to elaborate a common strategic document for both beneficiaries as a development plan that should suggest how to restore, preserve and develop both HNGRs as culturally specific thematic heritage and places of interest for niche-specific railway tourism. A year's work on the Master Plan's elaboration was based on regular workshops organized every two months alternately in Miskolc and Košice and composed mostly of the partners' internal experts. Some external experts were also invited to deliver their views and opinions at workshops. A closing seminar was organized for a broader public expert forum to introduce a Master Plan (MP) and open discussion about its implementation.

The first part of the MP is analytical, in which various aspects were examined: the legislative framework for HNGRs in Hungary and Slovakia, the main available statistical data on tourism in both regions as well as visitors' data. This part also includes an overview of the existing infrastructure, services and activities, a SWOT analysis and a survey among chosen experts, which was carried out by internal experts personally. The survey brought very useful feedback on how to develop infrastructure and how to improve services, activities and cooperation. The overall findings from the analysis were discussed at workshops.

The analysis has shown that the number of visitors to both railroads is rising; people want to spend more free time in nature. Both railways have an investment deficit; they need to invest in the reconstruction of the track, locomotives, wagons and technical background. The DŽK operates its fleet on only 4 km of track and has the potential to extend the track in both directions. It needs to solve the lack of parking places at both endpoints of the track. The LÁEV also needs to invest in its railway infrastructure and fleet. Both railways have space to expand accompanying activities for visitors.

The DŽK is a civic association that organizes most of its activities on its own and does not yet use the opportunity to organize these events by external companies. The LÁEV is primarily a forest manager and is not focused on providing quality tourism services. In both countries, it would be appropriate to improve the legislative conditions for the operation of special railways.

The conceptual part includes both a "strategy of change" in the fields of infrastructure, services, cooperation, marketing and promotion, which arose as a result of discussion among partners' experts on the workshop, and suggestions on how to implement that strategy.

The strategy of change in the case of the DŽK suggests five measures (Measure 1: To improve infrastructure and locomotive and wagon park, Measure 2: To keep and extend services and activities, Measure 3: To strengthen cooperation and to build networking, Measure 4: To enhance promotion and marketing, Measure 5: To initiate a change in legislation dealing with HNGRs) and nineteen activities. The part Implementation of the Strategy suggests for the DŽK some recommendations for future management, promotion and a financial plan for the first measure dealing with infrastructure.

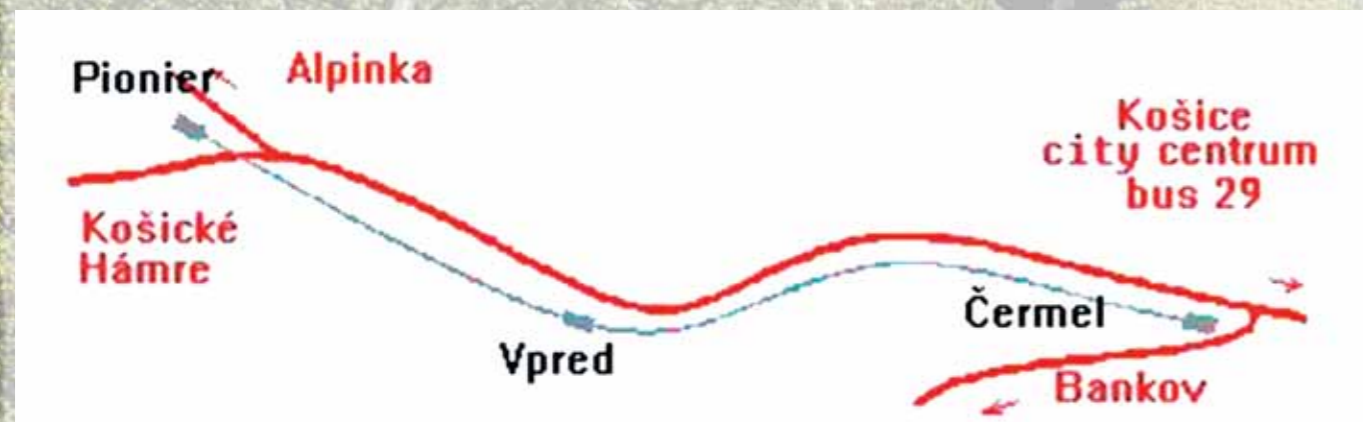
The strategy of change for the LÁEV consists of four following measures: 1: To improve infrastructure and locomotive and wagon park, Measure 2: To keep and extend services, Measure 3: To strengthen cooperation and to build networking, Measure 4: To enhance promotion and marketing

2. INTRODUCTION - HISTORY, DESCRIPTION OF EXISTING INFRASTRUCTURE, SERVICES AND ACTIVITIES, MAIN PARTNERS

Children's Railway in Košice

History

The Košice historic narrow-gauge railway (DŽK) was built in Košice between 1955 and 1956 as a Pioneer Railroad. It was the first recreational railway in Czechoslovakia. It also served to educate and motivate young railway workers. The Košice Pioneer Railway's commencement ceremony took place on 17 April 1955. The construction was realized in two phases. The first phase, from station Čermel to station Vpred, was finished on 21 August 1955. The whole track was solemnly launched into use on 1 May 1956 at 4 pm up to a station called Pionier (Alpinka). Two trains travelled daily, crossing at the Vpred station. Staff from pioneer ranks, under the supervision of older railway men, managed ten regular trains a day.



Map of the Children's Railway Košice

Source: www.detskazeleznica.sk

The railway was designed for children, tourists and for training future railway men. The 3.899 km long route has the so-called "German gauge" with a 1000 mm wheelbase. The largest slope on the track is 26%. Historical switches and rails coming from Banská Štiavnica's railway are still used in the Čermel station. The original turnouts and transport tracks at the Vpred station have been canceled, and only one track passes today. The current children's railway ends at the "Alpinka (originally Pionier)" railway station, which is now a leisure center.

The children's railroad is in fact a historical museum railroad. Not only in its nature and uniqueness, but also in the age of preserved track-side vehicles and transport equipment. Many vehicles have been destroyed over time, but many can be restored or rebuilt as a true copy. There are only a few museum railways in the neighboring countries as in Košice. Several reconstructions of the railway have been done over the years (in the mid-1970s, 1986/87, 1991-1992, 1993). In 2016 the plan was to extend a depot for two locomotives and to rebuild the station building.

The railway was operated by the State Railway Company of Czechoslovakia (ČSD), then by the Railways of the Slovak Republic (ŽSR), later the Slovak Rails in cooperation with Košice. During the 1990s the existence of the railway came into question. Pioneers ceased to participate in the railroad, and volunteers disappeared. The literal rebirth of the DŽK was the reconstruction and renewal of the steam locomotive U 36.003 - «Katka» at the instigation of Mayor Rudolf Schuster.

In 2012 an important change took place in the existence of the railway. The Citizen Civic Association Children's Railway Košice became its transport operator. They came with new ideas, approaches and efforts to change the situation of the railway. Together with the city of Košice they have doubled the number of rides, extended the season and incorporated a number of cultural, social and recreational events. Since 2013 a wagon has been in operation where there are bicycle stands for free, and from the same year there is the opportunity to buy souvenirs. Since 2015 a coffee bar and a little railway museum have been available for visitors. The association's latest plans are the gradual building of the infrastructure and the operation of public toilets. Other services of the historic Košice Children's Railway are: free parking, rides for schools and companies, team-building rides, train robbery, music-theater refreshments and other trains full of experiences, a playground for children, the DŽK's own magazine: "R-žurnál" and many others.

Infrastructure

The four kilometers long narrow-gauge railway runs in the beautiful Čermel Valley in the suburban area of Košice. Historic rail switches and rails from the Railways of Banská Štiavnica and Smolník are still used. The rail line runs between second class road no. 547 and the Čermel creek.

The main characteristics of the DŽK infrastructure are:

- rail gauge: 1000 mm
- rail length: 3.9 km
- maximum rising gradient: 26‰
- number of turnouts: 6
- number of bridges: 5
- number of culverts: 12
- the smallest curve radius: 100 m
- maximum permitted speed: 20 km/h

Engines and carriages on the stretch of the railway were brought from other narrow-gauge railways in Czechoslovakia. Until the 1960s only precious steam engines were used (U 35.104, U 35.103 and U 36.004). Later, in 1965 they were replaced by motor engines T 29.0002 (also called Janka) and T 29.0003 (Danka). Both were produced in Prague for the ČKD, originally with a gauge of 1435 mm. The year 1991 was a very special one for the Children's railway, its iconic steam engine U 36.003 (Katka) began to operate in the valley. It's the oldest working steam engine in the Central Europe region. The engine originated from 1884 at the Hagans factory in Erfurt, Germany. According to decision of the Ministry of Culture of the Slovak Republic No. MK 2174/1994 400, dated 29 September 1994, the narrow-gauge U 36.003 steam engine was registered in the Central List of Cultural Monuments of the Slovak Republic. The latest decoration of the DŽK is a steam locomotive U 29.101 called Krutwig. Its first ride took place in Košice on 3rd of April 2016.



DŽK locomotives

Source: Lubomir Lehotský

Seven railway wagons operate on the Čermel-Pionier line. All the historic carriages were built between 1866 and 1915. There are 2 wagons for employees, and 5 are public wagons, two of which are closed.

List of DŽK locomotives

	Locomotive	Operation started on DŽK in	Type:
1	Janka - TU29.0002	1965	Diesel Motor
2	Danka - TU29.0003	1965	Diesel Motor
3	Vlasta - TU29.2004	2018	Diesel Motor
4	Katka - U 36.003	1991	Steam Engine
5	Krutwig	2016	Steam Engine

List of DŽK wagons

	Wagon	Type of wagon
1	Du 840 10346/0	Service
2	Du 841 10347/0	Service
3	Ba/u 600 10342/0	Closed-passenger carriage
4	Ba/u 610 10343/0	Closed-passenger carriage
5	Ba/u 611 10341/0	Open- passenger carriage
6	Ba/u 620 10344/0	Open- passenger carriage
7	Ba/u 621 10345/0	Open- passenger carriage

Source: www.detskazeleznica.sk

Events

The next table describes the main regular events organized at the DŽK during the year.

List of regular events at the DŽK

Source: vlastné spracovanie

	Event	Description
1	Locomotive parade (Rušňoparáda)	Locomotive parade – the biggest parade for train fans in East Slovakia. The event called "Waking up Katka" today is a rare opportunity to see a large number of historical and modern railway technologies. The approximate number of visitors is: 15,000.
2	Spring waking (Jarné zobúdzanie)	First weekend rides after winter. The approximate number of visitors is: 200-300
3	City days (Dni mesta Košice na železnici)	The ceremonial start of the railway takes place on the 1st of May, which is also celebrated as the Day of the City of Košice. The approximate number of visitors is: 1200-1300.
4	Night of museums (Noc múzeí)	The DŽK has been participating in the Night of Museums and Galleries event since 2014. The approximate number of visitors is: 150.
5	Children's day (Deň detí)	On 1 June children get discounted tickets. The approximate number of visitors is: 100
6	Firemen's Saturday (Hasičská Sobota)	This is organized in cooperation with the city volunteer fire brigade and an exhibition of their activities and equipment can be seen. The approximate number of visitors is: 600
7	Railway Day (Deň železničky)	One of the most popular events among visitors. The event is organized in September. The approximate number of visitors is: 800-900.
8	Halloween Train (Tekvicová Sobota)	A very popular ride in October, when visitors can admire the colorful scenery of the Čermel' valley. The approximate number of visitors is: 800.
9	Santa Claus' Train (Vláčikom do Mikulášova)	A special decorated train on Santa Claus's day with an approximate number of visitors of: 450.

The main vision for the Children's Railway is to set up a starting station in a place that used to serve for rail transport in the past (where there was a former tramway Kiosk, today near the Restaurant Ovečka). In order to make transport and services more attractive, it is important to rebuild the Entry station and repair the railway superstructure. In addition, building a forestry or an open-air railroad museum or restoring the health area to meaningful use seem to be real visions. Specific development plans for the future are necessary to bring the place back to the spirit of an attractive retreat with the appropriate facilities for leisure-time activities (playgrounds, walking paths with seating places and others). In the distant future it will be possible to lengthen the line deeper into the Čermel' valley.

Main partners

Košice ZOO

The ZOO in Košice, which has been operating since 1979, is one of four zoological gardens in Slovakia. Its focus is largely on Eurasian fauna, which are kept in areas that approach natural conditions in terms of their size and character. The founder of the ZOO Košice contributory organization since its founding has been the City of Košice.

In 2018 the ZOO recorded more than 250,000 visitors.

The ZOO lies in the Kavečany city ward and can be reached from the Čermel' Valley through the forest using marked tourist routes or by car (25 minutes).

City Forests Košice (Mestské lesy Košice)

Since 1993 the city has been managing this forest property through its own company, Mestské lesy Košice a.s..

The role of the company is to conserve and enhance the forest lands of Košice while respecting principles of sustainable management. The creed guiding its business activity is to achieve maximum economic benefit in symbiosis with an emphasis on performing functions of general public interest.

The company maintains Košice's forest lands covering an area of 19,432 ha, which is currently the second largest piece of forest property in Central Europe.

Košice's forest property covers the easternmost part of the Slovenské Rudohorie (the Slovak Ore Mountains) and Čierna Hora (Black Mountain), at 200-1,200 m above sea level.

Alpinka resort

The Alpinka resort is situated near the final station of Košice's Children's Railway in the Čermel' Valley. It's one of the most popular recreational areas for many citizens of Košice. It's a rustic villa in the Swiss style, which perfectly fits to this beautiful environment. Citizens of Košice have been visiting this place since 1898. Originally, it was built as a climatic spa, but later it became a local tourist attraction. Today it operates as a restaurant, and mainly as a children's attraction with "Tarzania" (a climbing wall for children) and many other types of playgrounds. The resort can be reached by car or by the children's railway.

Hotel Bankov

Hotel Bankov is situated 4 km from the city center. It's an elegant and luxurious 4* hotel with a very long history going back to 1870. It offers 17 comfort rooms, 8 superior rooms and 4 deluxe rooms. There is also the opportunity to eat in the restaurant, where they offer local and international cuisine. During the summer months a big summer garden is open to visitors, where events can be organized for up to 600 people.

Alpinka Košice Golf Course

The Alpinka Košice Golf Course is the 2nd oldest golf course in Slovakia. It's a small 9-hole golf course, which also satisfies the toughest criteria and is very unique thanks to its natural surroundings in the Čermel' Valley. This is evidenced by prestigious tournaments that are regularly played at the Alpinka Košice Golf Course. It's situated 8 km (approx. 15 min.) by car from the center of Košice. It offers a restaurant and bar, too.

LÁEV Miskolc

History of the Lillafüred Forest Railway (LÁEV)

The history of the railway system dates back to the First World War. A country deprived of two-thirds of its territory lost the vast forests and mines of the Carpathians, so logging had to be increased in the remaining areas. To help this, a narrow-gauge railway was built in the valley of Szinva stream.



Historic pictures of LÁEV

Source: ÉSZAKERDŐ

The first wooden freight train started in 1920 at what is today the 14 km long Miskolc-Dorottya Street - Paper Factory - Lillafüred - Garadna main line. The 11-kilometer slope line, which now operates only to Mahóca, was built until 1947. In addition to wood, coal and dolomite were also transported to the Diósgyőr Iron Factory on the narrow-gauge railway.

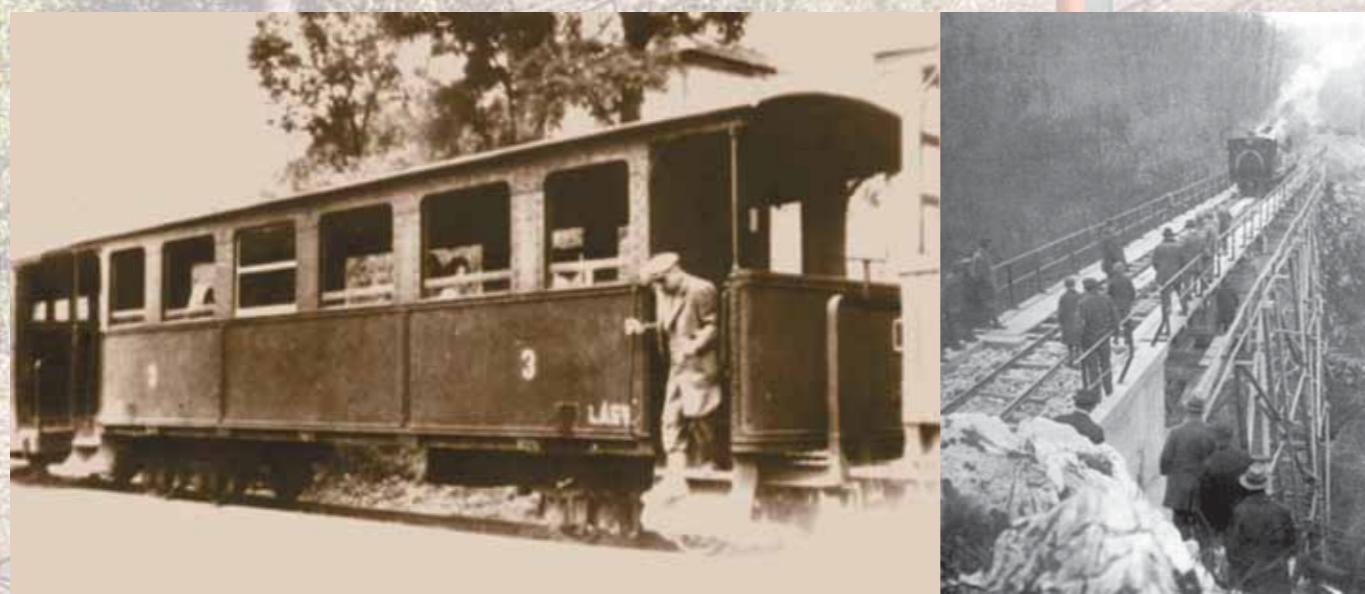
The touristic development of Lillafüred and the opening of Hotel Palace in 1930 brought a boom of personal traffic on the line. In 1929, a small railcar (DMU) assembly was acquired, which today runs on the system of Budapest Children's Railway. The busiest period in the history of the railway was the 1950s, when trains transported 300,000 passengers and 1.5 million tons of goods per year. The downturn of the railway began in the 1960s with the increase of freight traffic on road systems. The last rail cargo was delivered in 1989 – since then the only task of the railway has been to serve tourism.

The Lillafüred Forest Railway (LÁEV) is considered to be one of the most interesting narrow-gauge railway

lines of Hungary. The line starts among the residential buildings of Diósgyőr, then turns to the forest before the Paper Factory station. Before and after the Lillafüred station, the track pass through two tunnels and then continues along the hillsides near Lake Hámori and the Garadna Stream. The terrain also required the construction of several viaducts.



Source: ÉSZAKERDŐ



History of the LÁEV

Source: ÉSZAKERDŐ

The train-trailer park is made up of locomotives of Mk48 series, of which 4 conventional and 1 modernized hybrid version are operating. The trains are maintained at the Diósgyőr depot. Along with the Mk48s, two C-50 locomotives have a major role in traction, especially on the Mahóca line. An interesting fact is that the latter

are the first specimens of the type with an air brake system. In the summer of 2004, a B-26 type Diesel locomotive from the Szerencs Sugar Factory arrived at the train park from Miskolc. Almost all of the trains are of museum value; most of them come from the time of the railroad opening.



History of the LÁEV

Source: ÉSZAKERDŐ

The railway and its surroundings offer a wide range of attractions to visitors. In the vicinity of Diósgyőr station, the tourists can visit the Castle of Louis the Great. At the Paper Mill station, the Paper Mill Museum awaits visitors. Then in Lillafüred tourists can visit the cave of St. Anna and that of St. Stephen, or the Memorial House of Herman Ottó. Boating on Lake Hámori, visitors can admire the imposing building of Hotel Palace, which is a symbol of the region. The Metallurgical Museum at Felsőhámor and the Fazola-furnace in Újmassa proclaim the former glory of the region's metallurgical industry. Near to the Intermediate Garadna stop, it is worth visiting the Lillafüred Trout Farm where, among other things, the Forest Fruit Bar offers its culinary specialties. At Garadna, which is the terminal of the railway, a Forestry Collection and the Trout Study Trail are awaiting visitors, while at the end of Mahóca line tourists can visit the Study Trail of Varbó.

Infrastructure

In Miskolc, the main line starts from the urban area of Diósgyőr, then the tracks go through the Bükk forests and in the valley of the Garadna Stream until the Lillafüred holiday resort, following to the Garadna Terminal. The Mahóca line branches out at the Papírgyár station and then climbs through the Csanyik valley to the Mahóca terminal in the forests of the Eastern Bükk.

The main characteristics of the infrastructure of LÁEV are:

- rail gauge: 760 mm
- rail length:
 - Miskolc-Dorottya utca – Garadna main line: 14 km
 - Papírgyár – Mahóca side line: 11 km
- maximum rising gradient:
 - on the main line: 38‰
 - on the side line: 42‰
- number of turnouts: 37
- number of bridges: 8
- number of culverts: 46
- the smallest curve radius: 50 m
- maximum permitted speed: 20 km/h

List of locomotives

Source: ÉSZAKERDŐ

	Locomotive no.	Year operation began on LÁEV	Type
1	C02-203	2006	B-26 type diesel locomotive
2	C02-407	1963	C-50 type diesel locomotive
3	C02-408	2004	C-50 type diesel locomotive
4	D02-501	1981	M 041 type diesel locomotive
5	D02-506	1977	M 041 type diesel locomotive
6	D02-508	1961	M 041 type diesel locomotive
7	D02-510	1977	M 041 type diesel locomotive
8	Mk48 2021	2010	hybrid locomotive based on M 041 type
9	447.401	1954	KV-4 type steam locomotive – exhibited as museum heritage

List of passenger wagons

Source: ÉSZAKERDŐ

	Nr. of wagon	Operation started on LÁEV	Type of wagon
1	11	1990	Bax type closed-passenger car
2	12	1990	Bax type closed-passenger car
3	14	1990	Bax type closed-passenger car
4	15	1990	Bax type closed-passenger car
5	31	1930	historic closed-passenger car
6	32	1950	closed-passenger car
7	33	2002	closed-passenger car
8	34	2002	closed-passenger car
9	301	1925	historic open-passenger car
10	302	1925	historic open-passenger car
11	303	1925	historic open-passenger car
12	304	1925	historic open-passenger car
13	305	1978	open-passenger car
14	306	1978	open-passenger car
15	307	1979	open-passenger car
16	308	1979	open-passenger car
17	351	1928	historic open-passenger car
18	352	1928	historic open-passenger car
19	353	1928	historic open-passenger car
20	354	1928	historic open-passenger car



Two typical locomotives of LÁEV

Source: ÉSZAKERDŐ

Events

In the next table the main events are listed, organized regularly by LÁEV during the year.

Main regular events at LÁEV

Source: own elaboration

	Event	Description
1	Zúzmará Expressz Mahóca	Winter trains to the Mahócai side track, which are not visited normally by regular trains. Because of the beauty of the winter landscape and the specialty of the trip, it is a very popular program, which is also followed by forest guided tours.
2	“Love train” to Lillafüred	Romantic Valentine’s Day train for couples to Lillafüred, with a candlelight dinner at the Tókert restaurant next to Hámori lake.
3	Summer greetings trains to Mahóca (Day of the narrow-gauge railway)	Day of the narrow-gauge railway. Special trains and forest programs on the Mahóca line
4	Night of Museums	Evening trains on the main line to Lillafüred with supplementary technical history programs until late at night.
5	Vadászkürt Expressz to Andókút	Trains focusing on listening to deer rutting at the Mahóca branch line. One of the most popular programs of the year, which are accompanied by high-level performances, showcasing the true nature of hunting. The highlight of the evening is the deer rutting usually hearable from the train.
6	Autumn trains to Mahóca	Season closing excursions to Andókút on the Mahóca line, with various guided forest programs and a picnic.
7	Santa Claus trains to Lillafüred (Mikulásvonat)	The biggest narrow-gauge railway event of the year in Hungary - for three weeks with four pairs of train per day, Santa Claus trains run between Miskolc and Lillafüred. In Lillafüred, children and their parents can meet Santa Claus in an interactive fairy tale.

Main LÁEV partners

Foundation for Lillafüred Narrow Gauge Railway (Lillafüredi Kisvasútért Alapítvány)

On June 13, 2004, twelve individuals founded the Foundation for Lillafüred Narrow Gauge Railway. The purpose of the foundation is to support the Lillafüred Forest State Railway (LÁEV). In addition to helping the safe operation and development of LÁEV, it is aimed at developing environmentally friendly tourism, introducing nature and forest to all ages. With the active involvement of the Foundation in 2016, two vehicles were equi-

pped with hunting thematic content. In order to develop the railway, the foundation is active in the preparation of a number of future demonstrational projects.

Forest Railway Section of the National Forestry Association (Országos Erdészeti Egyesület Erdei Vasúti Szakosztálya)

The Forest Railway Section of the National Forestry Association, which has a history of over 150 years, is a joint forum for domestic forestry. Participants are looking for joint responses to the common challenges of forest railways, seeking joint action, including the formulation and reflection of the legal environment. It organizes professional meetings and study tours to introduce and promote all forest railways in the country.

MIDMAR Miskolc Tourism Ltd. (MIDMAR Miskolci Idegenforgalmi Marketing Nonprofit Kft.)

The local government organization is responsible for promoting the tourism of Miskolc region. It is primarily a partner of LÁEV through the Miskolc tourist discount card system, the Miskolc Pass card family. The LÁEV is part of the system of discounts: cardholders can benefit from a significant discount or, depending on the type of card, they can travel free of charge on LÁEV regular services. MIDMAR also promotes LÁEV events.

Lillafüred Trout Farm (Lillafüredi Pisztrángtelep, Hoitsy és Rieger Kft.)

The most famous trout farm of Hungary is one of the main attractions along the LÁEV line. The operator Hoitsy and Rieger Kft. has gained a number of professional awards for its outstanding activities in the field of trout breeding. The trout farm and the adjoining restaurant are well-known throughout the country, and are a frequent partner of LÁEV with organizing occasional events and special journeys.

Tókert Hotel and Restaurant, Lillafüred

Situated in the heart of Lillafüred's resort area near the Hotel Palota, this hotel and restaurant overlooks Hámori Lake. An important partner of LÁEV, especially in implementing the „Love Train” program and many other joint events. The hotel's guests are entitled to a discount on LÁEV.

National Park of Bükk (Büki Nemzeti Park)

The majority of LÁEV's line is located in the area of the National Park of Bükk. Like the whole forestry, LÁEV has also excellent relations with the staff of the National Park. In this context, several programs are organized every year: e.g. numerous different thematic programs have been organized to some of the rare visitable caves of Bükk.

Foundation for the Development of the Diósgyőr Castle Area (A Diósgyőri Vár Térségének Fejlesztéséért Közhasznú Alapítvány)

The Foundation is the organizer of the Santa Claus train events. The Foundation provides actors, organizes ticket sales, promotes the event, and seeks out sponsors.

Metallurgical Museum of the Hungarian Technical and Transport Museum (Magyar Műszaki és Közlekedési Múzeum Kohászati Múzeuma)

The Metallurgical Museum in Felsőhámor and the Massa museum at Fazola-furnace are important partners for LÁEV. They are organizing a joint event at the Night of the Museums, while in every September LÁEV transports visitors to Fazola Days organized in Újmassa.

3. VISION

The following vision of how both HNGRs will look in the long run (within 10 – 15 years) arose as a result of discussion among both partners' experts during workshops. Both HNGRs are developed as gateways to nature, to specific thematic tourist attractions and to attractive places for spending leisure time for locals and other visitors.

The DŽK is focused primarily on families with kids; it has a unique fleet of historic locomotives and wagons and appropriate technical facilities (depot) for operation. It goes through the Čermel' Valley, connects the end-point of city public transport (place Ovečka), Vpred station, the Alpinka resort and ends inside the valley, where visitors can take the cable railway going up to the “Hrešná” peak. Its annual traffic reaches 80,000 visitors, and the DŽK is the most visited HNGR in Slovakia. It offers many attractions and events throughout the year, a hop-on system (getting on and off on each station), theatrical performances for kids, different services like the rental of bicycles, scooters and skateboards etc. The level of cooperation is on a high level, as there are other subjects in the Čermel' Valley offering additional services connected with the DŽK operation. The city of Košice offers many tourist products for different kind of groups, and the DŽK is a part of that.

The strategic goal of the LÁEV is to become the most visited narrow-gauge railway in Hungary (at present, it is the third most visited), with a target number of 325,000 annual passengers. The primary target groups for the forest railway are domestic families, kindergarten and school groups, but it also aims to attract professionals and foreign visitors of the region. The primary objective is to improve the railway tracks, provide the necessary infrastructure, which is indispensable prerequisite for safe operation, and to complete the renovation of the entire vehicle fleet. After this, the goal is to develop services by additional thematic programs, the carrying out of regional tourism co-operation and an emphasis on professional specialties built on the historical stock of vehicles.



Historic photo DŽK

Source: Lubomir Lehotský

4. ANALYSIS OF THE LEGISLATIVE ENVIRONMENT

The issue of special tracks in terms of Slovak legislation

Railways and railroad transport in the Slovak Republic are regulated primarily by two laws, comprehensively processed:

- Act No. 513/2009 Coll. on Railways and on amendments and supplements to certain acts, as amended
- Act No. 514/2009 Coll. on the Transport of Tracks, as amended.

The Ministry of Transport and Construction of the Slovak Republic, the Railway Transport Section and the Railways, carry out activities in the area of tracks.

The Traffic Authority covers everything regarding railroad regulation, safety, interoperability and public technical supervision (state professional technical supervision).

Under the Railways Act, the tracks are divided into:

- railway tracks,
- urban railways (tram and trolleybuses),
- cableways,
- special tracks.

What are special tracks? Special tracks are physically separated tracks, which are not connected with the regular-gauge network of railways and are with a simplified mode of operation.

There are several special tracks in Slovakia, most of which provide museum, recreational or occasional transport. These are in particular: Čiernohronská Railway, Orava Forest Railway, Kysucka Dock Railway, Košice Children's Historic Railway, Nitra Field Railway, Trenčín Electric Railway and also railroad Tatra Electric Railway in the High Tatras, which ensures the transportation of tourists, but also public transport and serviceability.

The term "special tracks" is only typical in the Slovak Republic; for example, Czech, Hungarian and Polish legislation does not know this term, and it is a question whether it will be later abolished or otherwise assimilated by European legislation. The nature of a special track carries in itself a certain element of autonomy, but unfortunately, under imperfect and superficial legislation that doesn't really consider the status of special tracks, very little facilitates the independence and efficiency of its operation.

Special track operators would see this status quo from one side as an advantage, but imperfect legislation negates this. The operators of special tracks, including the civic association Košice Children's Railway, are most burdened by requirements of the legislation, which are almost exactly the same as for the operators of regular gauge railroads (not special), where such claims are entitled and justified.

They are in particular:

- requirements for the health and psychological capability of employees
- requirements for the capability and periodicity of inspections of specified technical equipment
- periodicity of technical and other surveys of rail vehicles and tracks itself
- insurance
- the administration of security measures
- training sessions, their scope, periodicity, financial and time requirements, knowledge of special track issues
- interoperability and issuing of licenses

In principle, there are (and in some aspects only until recently) excessive demands put on operators of special tracks, regarding the nature, performance and volume of transport. This can be illustrated, for example, by a train driver of a special track runway vehicle. Until recently, he had to meet the same demanding criteria as a train driver on a regular railroad, where the train moves at a speed of 80 -160 km/h, compared to a train driver on a special track with a maximum speed of 20 km/h, particularly in terms of health, mental capacity or education level, but also in terms of training, expertise, periodicity or financial and time requirements.

These requirements not only complicate to a considerable extent operation of special railways but in many ways also make it impossible to improve the work of the operators of special lines. Yet, it is striking that employees of road transport operators (buses) or tramway tracks (which are in their nature similar to special railway tracks) do not need to meet such demanding criteria, although the actual speed is 60 - 110 km/h and the volume of traffic is also much higher than on special tracks.

Legislative environment of Hungarian national railways

(Lecture of Gábor Chikán 18 July 2018, Andokút HU)

Past

From 1880, the XXXI, a Law on Railways of local interest: made very simple conditions for the construction of the regional network, including narrow-track railways forming part of the regional network. Industrial railways (forest railways) were not even included in it. Thus, regional railways were built and operated on a simpler basis than the national network.

The recent past

By the end of the 20th century, railway regulation became integrated, and the regulatory gap disappeared not only between the national lines, but also between the regional railways.

Uniformity – emphasizing the consistency within the national railway company (MÁV) – contributed greatly to the decline of regional railways and narrow-gauge railways. However, the specific operators of regional railroads outside of MÁV could stay preserved.

The rules can be judged on the extent to which the authorities demanded: the tacit understanding was a common, looser interpretation of certain rules.

There was a strong perception of supportive behavior of the authorities based on good relations with the then authorities of existing territorial units.

From this time we have no reliable accident data, but we can state that there was no significant security problem with small railroads.

Present

Formation

EU accession has also brought the EU *acquis communautaire*, including rules on basic railway derogations.

Hungarian legislation did not make any distinction between railway systems when it came to new regulations: in a uniform manner, it regulated equally from the funiculars to the high-speed railways.

The principles were laid down in the law¹, but the problems were actually outlined in the implementing regulations.

Current status

Almost all equipment and activities require authorization:

- construction, commissioning and dismantling
- official examination qualification
- Qualified organizations

The conditions in terms of administrative content are essentially the same as those for the national networks, but there are differences in the technical (security) regulations of the railways.

The supervisory authority has no specific railroad expertise or specialist team.

Problems

Content

Problems emerging:

- very high official fees compared to the budget of the railways;
- the required new standards cannot be met or are very expensive;
- compulsory services

¹ CLXXXIII of 2005 law on rail transport

Principles

The experts on the railways were and are practically left out of the legislative process. After a while, consultations became apparently regular, so many specialized materials were produced by railroad experts, but they were not, or only insignificantly, considered.

It was a rethinking argument that the legislators worked with highly experienced experts in the railroad, but we see it as a dangerous misconception that those who have reached the national railways understand the regional ones.

Instead of arguing based on real risks and opportunities, the returning phrase is „but safety first“.

Changes in 2010

Among the new regulations introduced, the railways uniformly dealt with the most unsuccessful license, the Railway Safety Certificate.

The legislature also acknowledged that these rules were meaningless in many respects, so in the fall of 2010, this was cancelled by an amendment to the law, and an operating license was withdrawn from the obligations of the railways.²

Reproducing the Problem

Despite the previous positive example, legal problems were repeated in the next few years, for example: with training regulations or vehicle maintenance rules.

Changes 2017-2018

Since regulatory disputes did not come to a standstill, in early 2017, a comprehensive review of the small railway regulations started, and it is still underway. At first, a separate law was to have been made, and ultimately the existing rules were given new paragraphs.

But:

- The creating organizations and persons are essentially the same as those who were not open to the understanding of small railways in the previous decade,
- Railways experts still remain excluded from the process.

The new legislation that has already been drafted has sometimes been stricter than the previous one, and the administrative content has barely changed.

Future

It's necessary for legislation to be based on knowledge of small railways and on a professional basis, probably with a team other than the existing one.

The rules need to find working solutions to the problems of small railways, security risks – which is impossible without the involvement of professionals familiar with regional railroads at the decision level.

Professional understanding and acceptance requires:

1. fewer limitations for construction, more solutions coming from real experience
2. smaller and/or other type of risks
3. simpler and/or other solutions; less or other permission requirements

² along with ski lifts and private railways

5. ANALYSIS OF THE MAIN STATISTICAL TOURISM INDICATORS

Košice region

For the purpose of this plan on Slovak side, we will examine the city of Košice with its surrounding region as the main area. This destination consists of 5 administrative districts: Košice I-IV and Košice-okolie. The Children's Railways Košice lies in the district of Košice I, but its main scope can be estimated as the whole city of Košice and its surroundings. The statistical data were collected by the Slovak Statistical Office on all levels. We chose data from last five years in order to see changes and trends over time.

Capacities and performance of accommodation facilities

Number of accommodation facilities

This section describes the basic indicator of number of accommodation facilities monitored during last five years. As can be seen, there has been no significant change in this indicator. The average number is 95.8 facilities. The drop in the last year to 91 facilities can be explained only if we also examine the number of beds in these facilities.

Number of accommodation facilities in the Košice region in total

	2013	2014	2015	2016	2017
Number of facilities	96	94	110	88	91



Source: Statistical Office SR, 2017

Number of rooms and beds in accommodation facilities

The average number of rooms was 2431 and the average number of beds was 5567 during the studied period. Comparing years 2013 and 2017, one can see that the numbers of rooms and also number of beds are slightly increasing. The exceptional year was 2015, when these indicators reached their peak.

Number of rooms and beds in accommodation facilities in the Košice region in total

	2013	2014	2015	2016	2017
Number of rooms	2 195	2 401	2 715	2 341	2 502
Number of beds	5 070	5 620	6 304	5 218	5 624



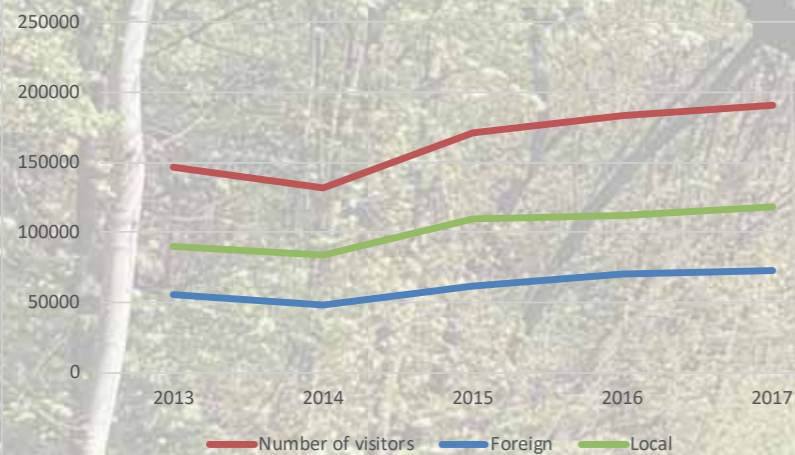
Source: Statistical Office SR, 2017

Number of visitors in accommodation facilities

The number of visitor arrivals in total to accommodation facilities in the year 2017 increased by more than 30% compared to 2013. The situation is very similar when comparing foreign and domestic visitors. Both categories increased by more than 30%. The strongest year was 2017, when the total number of visitors was 190,788, 72,876 (38.2%) of whom were foreign visitors, and 117,912 domestic visitors (61.8%).

Number of visitors in accommodation facilities in the Košice region in total

	2013	2014	2015	2016	2017
Number of visitors	145 978	132 363	170 728	183 165	190 788
Foreign	55 755	48 494	61 267	70 578	72 876
Local	90 223	83 869	109 461	112 587	117 912



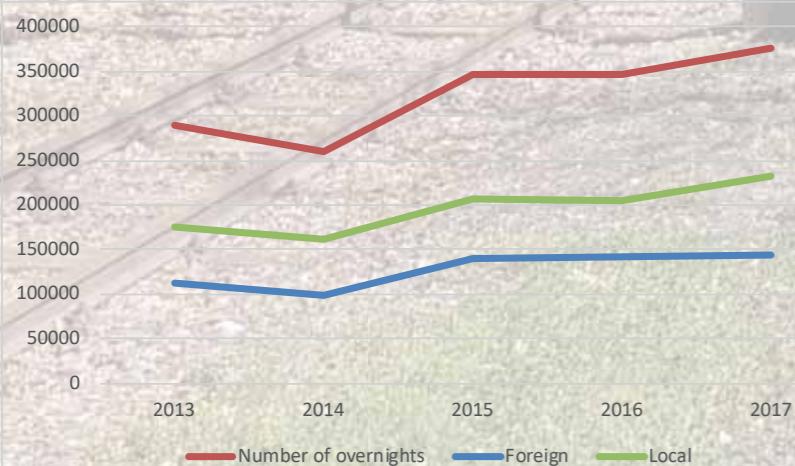
Source: Statistical Office SR, 2017

Number of overnights in accommodation facilities

The number of overnights has increased by 30% in the Košice region when comparing years 2013 to 2017. The only drop in this indicator occurred in 2014, by more than 10%, similarly as in the number of visitors' indicator.

Number of overnights in accommodation facilities in the Košice region in total

Number of overnights	2013	2014	2015	2016	2017
Total	289 311	260 005	346 181	346 282	376 282
Foreign	113 321	98 106	139 285	141 922	143 783
Local	175 990	161 899	206 896	204 360	233 082



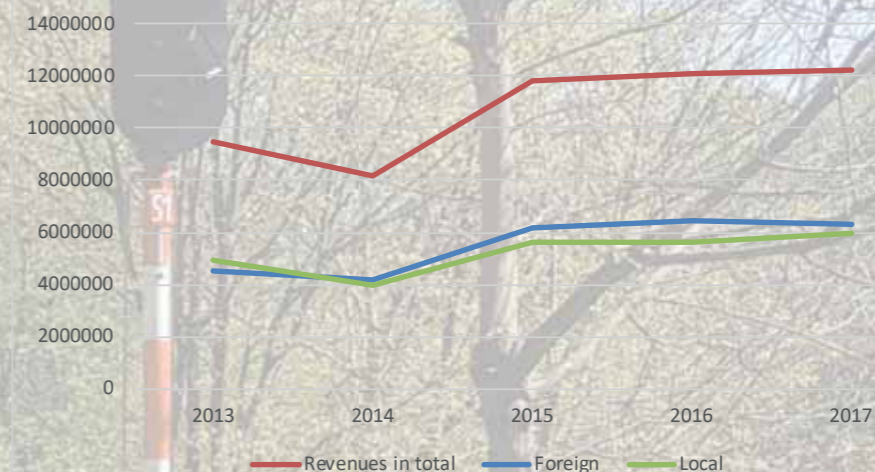
Source: Statistical Office SR, 2017

Total expenditures in accommodation facilities

As the number of visitors and their overnights has risen by 30% in the examined period (2013-2017), their expenditures have also similarly increased. The change from 2013 and 2017 was +2,772,089 which is +29.3%. The only drop occurred in 2014, as in previous indicators.

Receipts from accommodation of visitors in Košice region in total

	2013	2014	2015	2016	2017
Receipts in €	9 454 697	8 151 041	11 838 940	12 069 406	12 226 786
Foreign	4 527 201	4 184 696	6 201 655	6 475 096	6 289 509
Domestic	4 927 496	3 966 345	5 637 285	5 594 310	5 937 277



Source: Statistical Office SR, 2017

Total visitors, overnights, average stay and annual change

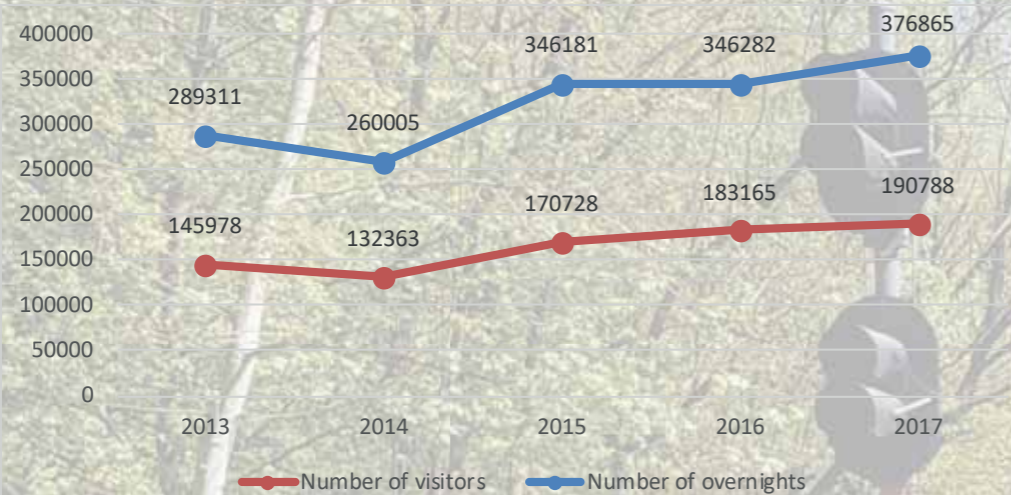
The next data presents trends in destination performance in 2013-2017. It can be seen that after 2013, when the city of Košice held the title of European capital of culture, the number of visitors dropped. But in the subsequent years the number of visitors (and overnights) increased each year; the highest increase was in 2015.

Number of visitors, overnights, average stay, annual changes

	Number of visitors	Number of overnights	Average stay	Annual change in visitors	Annual change in overnights
2013	145 978	289 311	1,98		
2014	132 363	260 005	1,96	-9.33%	-10.13%
2015	170 728	346 181	2,03	28.98%	33.14%
2016	183 165	346 282	1,89	7.28%	0.03%
2017	190 788	376 865	1,98	4.16%	8.83%

Source: own elaboration

Visitors and overnights in the Košice region in total in 2013-2017

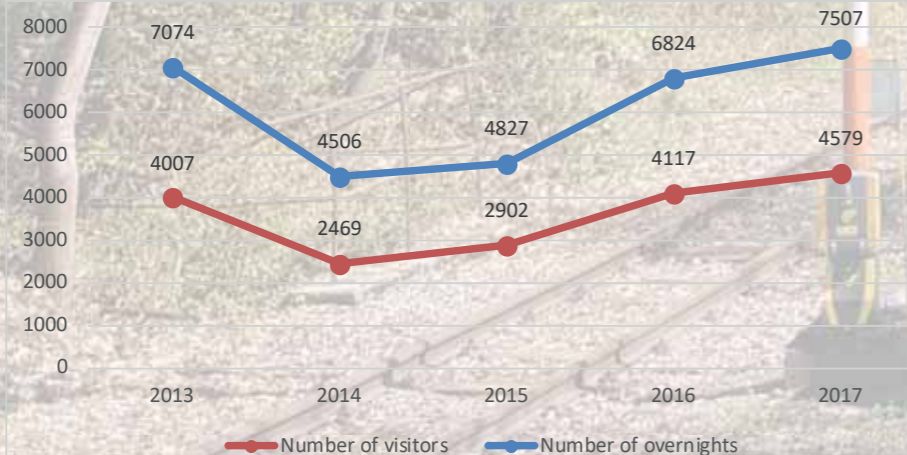


Source: Statistical Office SR, 2017

In 2013 the city of Košice held the title "European Capital of Culture", when the number of visitors from Hungary increased by 25% in comparison to the previous year (Via Carpathia study, 2016). The next year, 2014, showed a significant drop down to almost 40% in both number of visitors and number of overnights. But since 2014 the values of both indicators have increased, and the number of visitors from Hungary to the Košice region has increased by 85% comparing years 2014 and 2017, which is a good message for long-term partnership between the project partners.

Number of visitors and overnights from Hungary in the Košice region in total

	2013	2014	2015	2016	2017
Visitors	4 007	2 469	2 902	4 117	4 579
Overnights	7 074	4 506	4 827	6 824	7 507



Source: Statistical Office SR, 2017

Miskolc region

On the Hungarian side we considered the tourist indicators of Miskolc and its surroundings. There are 4 major tourist destinations in and around Miskolc: Lillafüred, Old Town, Miskolctapolca and Diósgyőr. From the LAEV Railway point of view, it is relevant to monitor the Diósgyörgy and Lillafüred tourist indicators. The source of these statistical data is the Central Statistical Office, in order to uncover trends and changes.

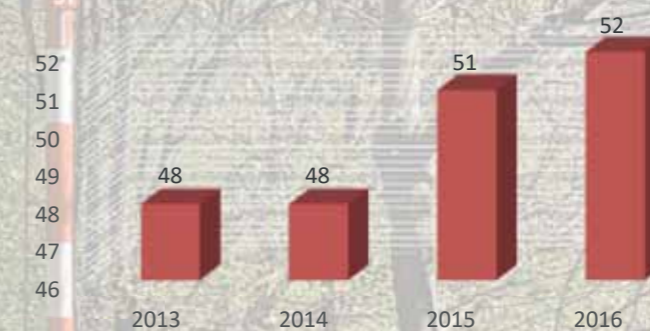
Capacities and performance of accommodation facilities

Number of accommodation facilities

In this section the basic indicator of number of accommodation facilities monitored during last four years is described. As can be seen, there has been no significant change in this indicator. The average number is 49.7 facilities.

Number of accommodation facilities in the Miskolc region in total

	2013	2014	2015	2016
Number of facilities	48	48	51	52



Source: Statistic Office Hungary

Number of rooms and beds in accommodation facilities

Comparing the data in the Košice and Miskolc regions, one can see that the number of facilities is almost two times bigger in the Košice region than in the Miskolc region, but the number of rooms and beds in both regions are very similar. This means that the facilities in Miskolc are bigger.

Number of rooms and beds in accommodation facilities in Miskolc region in total

	2013	2014	2015	2016
Počet izieb	2242	2323	2283	1998
Počet lôžok	5583	5900	5772	5489



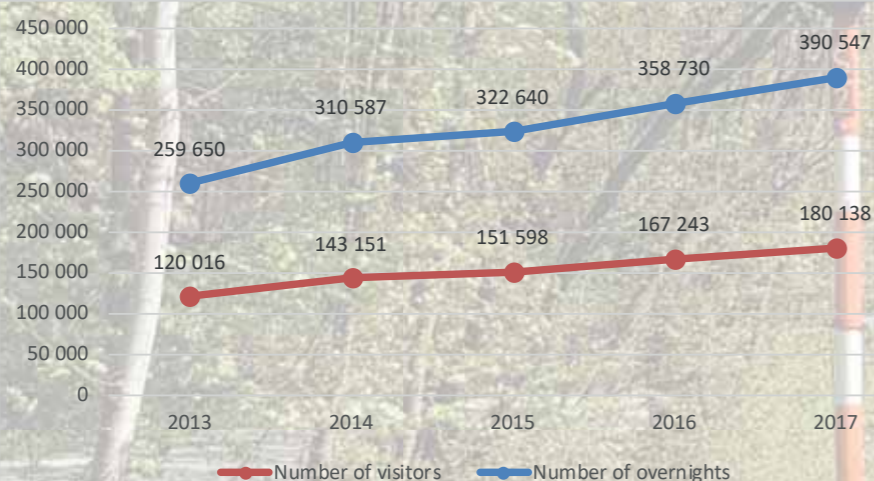
Source: Statistic Office Hungary

Number of visitors and overnights in accommodation facilities

The number of visitor arrivals to accommodation facilities in total increased gradually in the monitored years. During the last five years both indicators – number of facilities and number of overnights – increased by more than 50%. The strongest year was 2017, when the total number of visitors was 180,138 and total number of overnights was 390,547. In comparison with the Košice region the data are surprisingly similar: the total number of visitors in 2017 was 190,788 in the Košice region and 180,138 in the Miskolc region, and the total number of overnights in 2017 was 376,282 in the Košice region, while it was 390,547 in the Miskolc region.

Number of visitors and overnights in accommodation facilities in the Miskolc region in total

	2013	2014	2015	2016	2017
Number of visitors	120 016	143 151	151 598	167 243	180 138
Number of overnights	259 650	310 587	322 640	358 730	390 547



Source: Statistic Office Hungary

Total visitors, overnights, average stay and annual change

The next data presents trends in destination performance in the period 2013-2017. Both main indicators gradually increased, and the average annual change in visitors during the monitored years was 1.968.

Number of visitors, overnights, average stay, annual changes

	Number of visitors	Number of overnights	Average stay	Annual change in visitors	Annual change in overnights
2013	120016	259650	2.16		
2014	143151	310587	2.17	19,28%	19,62%
2015	151598	322640	2.13	5,90%	3,88%
2016	167243	358730	2.14	10,32%	11,19%
2017	180138	390547	2.17	7,71%	8,87%

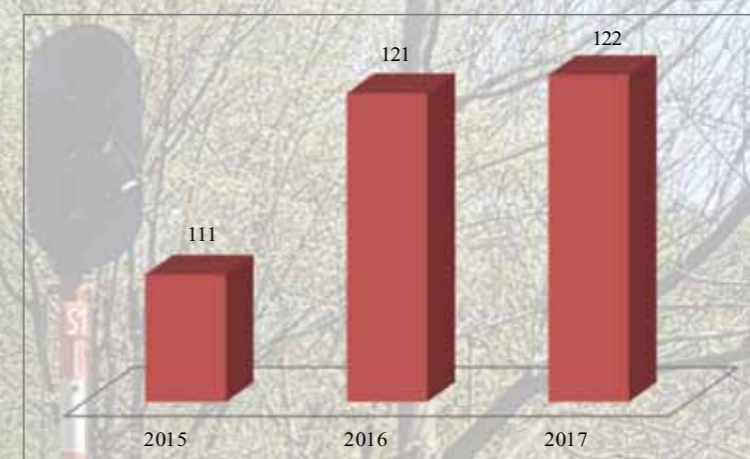
Source: own elaboration

6. ANALYSIS OF MAIN PASSENGER DATA

Children's Railway Košice

There are four types of travel tickets by type of passenger: child, student, adult and family ticket. The family ticket is for parents and their children without limitation of their number. Each ticket may be ordinary – one way or one return.

Number of days in operation



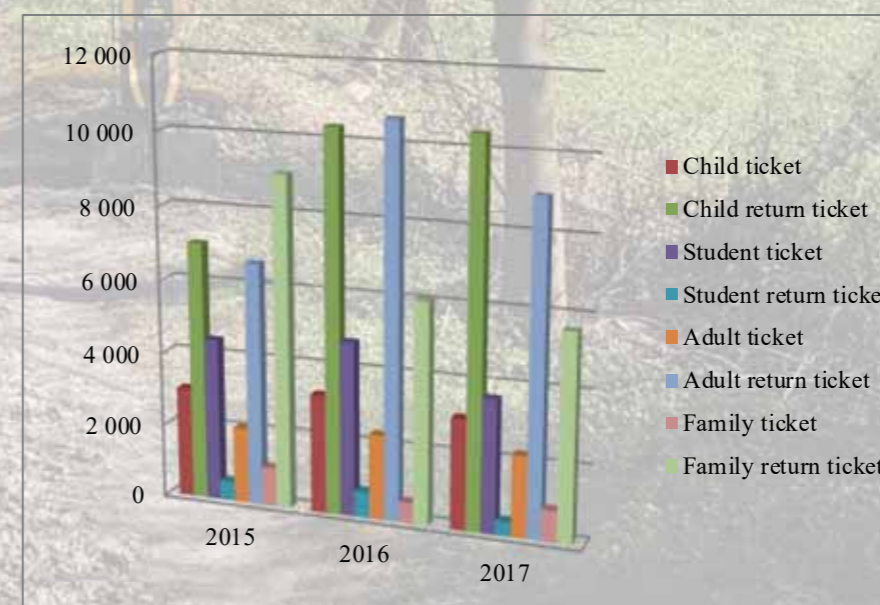
Source: own elaboration

Number of passengers transported

In 2015, 6,626 adult passengers and 7,048 children were transported. (One adult or one child is counted for one ride). In 2016, 10,654 adults and 10,358 children were transported, and in 2017 10,422 children and 8,980 adults.

Number of passengers in the DŽK in 2015 - 2017

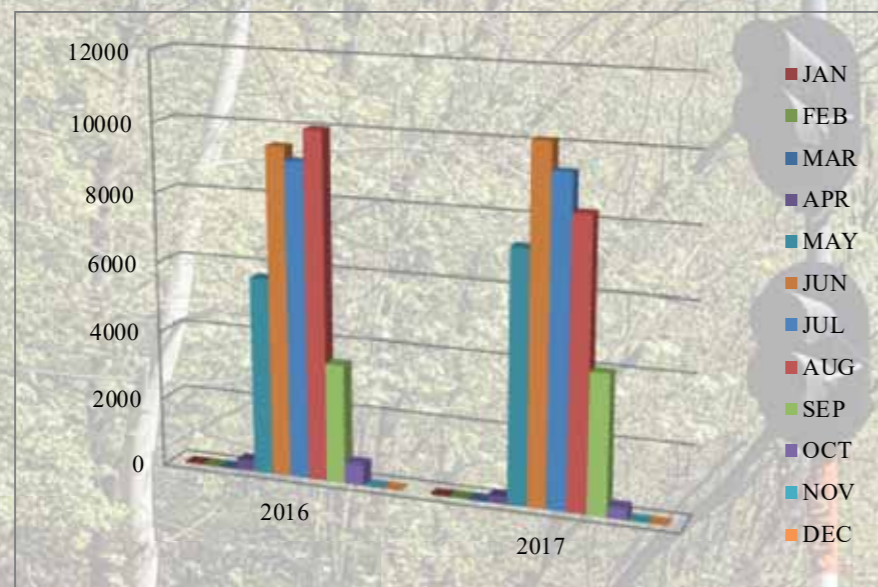
	Child ticket	Child return ticket	Student ticket	Student return ticket	Adult ticket	Adult return ticket	Family ticket	Family return ticket	Sum
2015	3 009	7 048	4 438	518	2 065	6 626	1 060	9 048	33 812
2016	3 234	10 358	4 749	718	2 322	10 654	576	6 048	38 659
2017	3 042	10 422	3 646	396	2 232	8 980	868	5 640	35 226



Source: own data

The division in time during the last two years can be seen in the next table.

Number of passengers in the DŽK by months



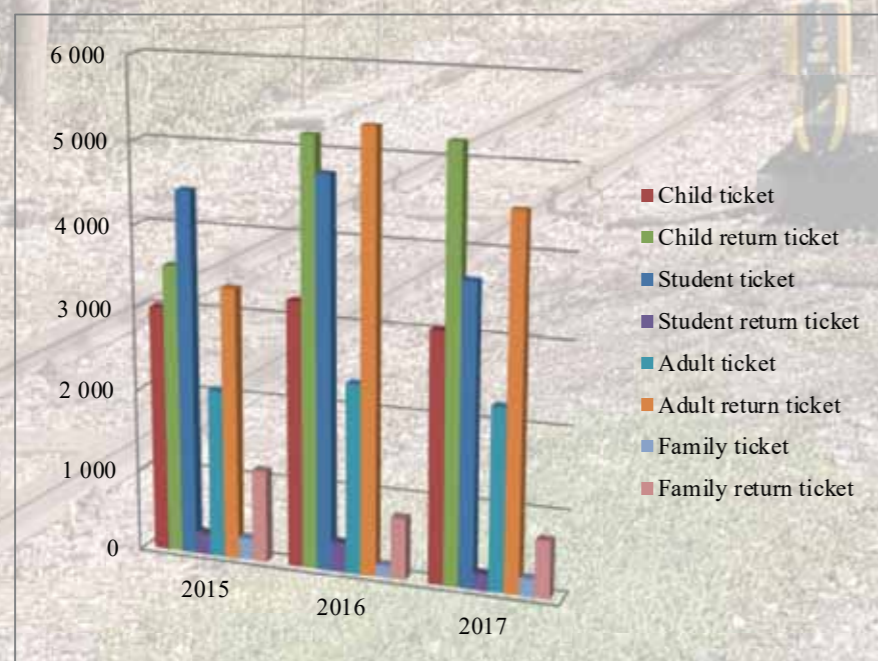
Source: own data

Number of tickets sold

In 2015, a maximum of 4,438 student tickets and 3,524 child return tickets were sold. In 2016, 5,327 return tickets for adults and 4,749 student tickets were sold. And In 2017, 5,211 child returns and 4,490 return tickets for adults were sold.

Number of ticket sales by DŽK in 2015 - 2017

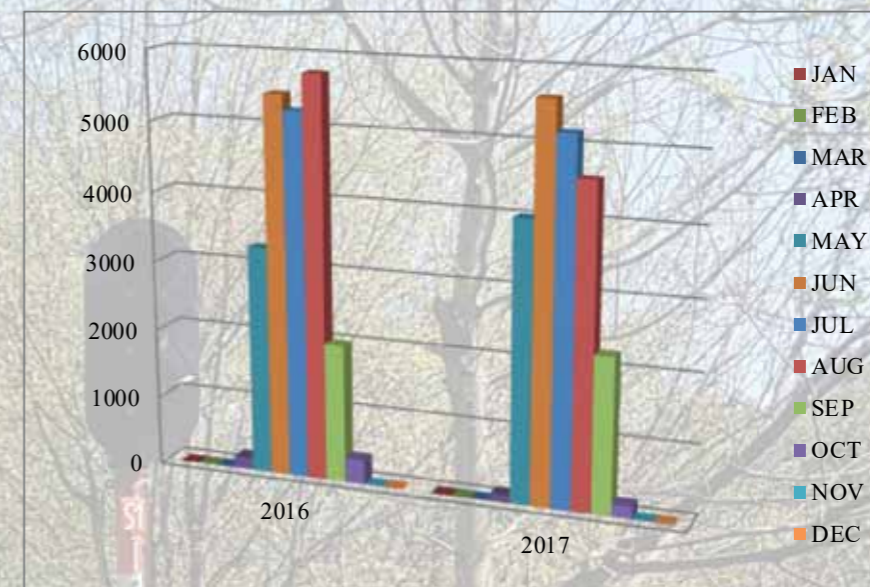
	Child ticket	Child return ticket	Student ticket	Student return ticket	Adult ticket	Adult return ticket	Family ticket	Family return ticket	Sum
2015	3 009	3 524	4 438	259	2 065	3 313	265	1 131	18 004
2016	3 234	5 179	4 749	359	2 322	5 327	144	756	22 070
2017	3 042	5 211	3 646	198	2 232	4 490	217	705	19 741



Source: own data

In the next graph one can see the number of tickets sold monitored by months in the last two years. The best months have been June, July and August.

Number of tickets sold in the DŽK by months in 2015 - 2017



Source: own data

Ticket prices

In 2012 the ticket prices had remained the same for 10 years. There were two kinds of tickets in use at that time: a one way child and a one way adult ticket. The actual prices were 50 cents for child and 1 euro for adult, both one way. The prices were introduced after Slovakia adopted the euro as the state currency, and the prices were simply converted from previous prices in Slovak crowns: 50 Slovak cents for one way reduced ticket and 1 Slovak crown for a full price one way ticket.

Clearly, the ticket prices then did not reflect the economic situation of the railway – at that time railway operation completely relied on funding from the city of Košice and the state railway company. This led to raising investment debt of the railway and a slow but steady decline and regress of the railway. After the changes, the owner's prices for the tickets continuously rose; nevertheless, this led to firmer financial stability of the railway, to investments into the rolling stock and track repairs and to the complex renovation of the railway.

Nowadays income from the ticket sales still does not cover all the necessary operational costs. These are covered by the city's yearly contribution, financial and material contributions by private sponsoring companies and through various projects.



Children's Railway Košice

Source: Ľubomír Lehotský

Price of tickets in the DŽK in 2015 – 2018

	Child ticket	Child return ticket	Student ticket	Student return ticket	Adult ticket	Adult return ticket	Family ticket	Family return ticket
2015	1	1,5	2	2,5	3	4	7	9
2016	1	1,5	2	2,5	3	4	7	10
2017	1,5	2	2,5	3	3,5	4	8	10
2018	2	2,5	3	3,5	4	4,5	10	12



Source: own data

Ticket revenues per ticket/total in €

	Child ticket	Child ticket return	Student ticket	Student ticket return	Adult ticket	Adult ticket return	Family ticket	Family ticket return	Revenues total
2015	3009	5286	8876	647,5	6195	13252	1855	10179	49 299,5
2016	3234	7768,5	9498	897,5	6966	21308	1008	7560	58 240,0
2017	4563	10422	9115	594	7812	17960	1736	7050	59 252,0

Source: own data



LÁEV Miskolc

Source: ÉSZAKERDŐ

LÁEV Miskolc

Number of passengers transported

The total number of all passengers reached 229,191 in 2016, and in 2017 it was 239,405. Thus, the increase was more than 10,000 visitors. The peak months were in both years July and August and December was also a surprisingly good month. You can see the distribution of visitors during both years in the following graph.

Number of passengers in the LÁEV in 2015 - 2017

	2015	2016	2017
January	2 095	2 140	2 595
February	2 360	1 971	2 034
March	3 810	7 320	4 914
April	10 824	8 595	14 076
May	22 844	22 805	19 493
June	23 676	25 991	29 060
July	40 306	40 633	42 114
August	47 140	47 670	44 933
September	11 832	16 928	14 943
October	14 041	8 966	12 783
November	12 146	11 974	16 771
December	31 939	34 198	35 689
Sum	223 013	229 191	239 405



Source: ÉSZAKERDŐ

Number of tickets sold

In 2015, 220,933 tickets were sold in the LÁEV railway; in 2016 it was 224,228 and in 2017 232,880. The increase was more than 5%.

Ticket sales in 2015 - 2017

	2015	2016	2017
January	1 960	2 129	2 559
February	2 296	1 966	2 005
March	3 723	7 212	4 902
April	10 763	8 258	13 801
May	22 825	22 805	19 328

7. SWOT ANALYSIS

The following table shows the main strengths, weaknesses, opportunities and threats of both HNGRs as were elaborated during common discussion at the second Master plan workshop in Košice.

June	23 223	25 961	28 592
July	40 283	40 633	41 957
August	47 089	47 417	44 796
September	11 086	16 450	14 415
October	13 990	8 795	12 322
November	12 127	10 353	14 378
December	31 568	32 249	33 825
Sum	220 933	224 228	232 880



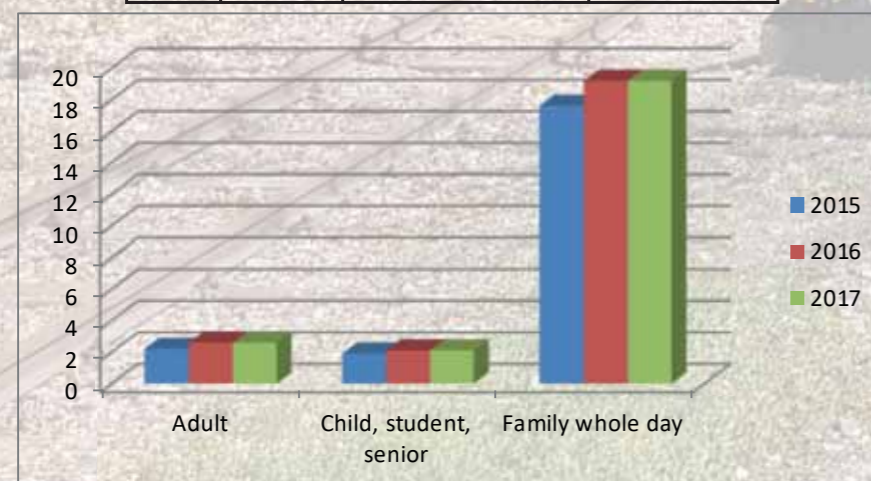
Source: ÉSZAKERDŐ

Ticket prices

The price policy of the LÁEV is simpler than that of the Košice railway. There are only three price categories of tickets: tickets for adults, tickets for children, students and seniors, who have the same price, and the third one is family ticket for the whole day. The family means two adults and a maximum of two kids. This approach is the opposite of the Košice railway, where a family ticket is intended for two adults and a minimum of two kids.

Ticket prices in the LÁEV in € in 2015 - 2018

	Adult	Child, student, senior	Family for whole day
2015	2,2	1,9	17,6
2016	2,6	2,1	19,2
2017	2,6	2,1	19,2



Source: ÉSZAKERDŐ

DŽK	LÁEV
Strengths <ul style="list-style-type: none"> Has a historic character Has regular steam operation Is focusing on kids Is localized in the recreation zone Is surrounded by natural beauty Is operated by children NGO is flexible 	Strengths <ul style="list-style-type: none"> Is historic heritage, its wagons have also historical character Is surrounded by natural beauty, presence of hills Presence of a castle, waterfall Possibility of boating Connects attractions Is the best known HNGR in Hungary ESZAKERDO is profitable Has strong financial support from the central government
Weaknesses <ul style="list-style-type: none"> Existing deficit in infrastructure investments There is not enough space to spatial development The shunt does not work There is a lack of parking Maintenance of surroundings is insufficient It has a narrow portfolio of visitors (e.g. seniors are missing) It has poor marketing 	Weaknesses <ul style="list-style-type: none"> There is a lack of parking in both Miskolc and Lillafured General poor state of infrastructure and tracks - high maintenance costs; Degraded condition of vehicle stock - high maintenance costs, many vehicles are withdrawn from use Inadequate marketing activity Low number of foreign visitors Lack of complex tourist services
Opportunities <ul style="list-style-type: none"> To improve tourism marketing To connect activities with the ZOO To attract seniors To prolong rails to the end of the Čermel Valley (chalet Diana) To build a shunt and increase the number of trains dispatched To solve the parking issue 	Opportunities <ul style="list-style-type: none"> To invest into infrastructure To solve the parking issue To improve quality of services
Threats <ul style="list-style-type: none"> Loss of financial support from the city of Košice 	Threats <ul style="list-style-type: none"> Loss of financial support from the central government

8. EVALUATION OF THE SURVEY

Children's Railway in Košice

On the Slovak side interviews were conducted with ten people, nine men and one woman. Respondents were selected from both the public and private sectors, so that we gain the most valuable answers to the questions of the questionnaire. All respondents answered the same questions:

1. How do you assess the DŽK as a gateway to nature and a leisure-time attraction for home visitors?
2. How do you evaluate the DŽK as an attraction for foreign tourism?
3. How do you perceive and evaluate its activities, what it does well and what it can do better?
4. How do you perceive and evaluate its marketing, what it does well and what it can do better?
5. What would you suggest for its development?

How do you assess the DŽK as a gateway to nature and a leisure attraction for home visitors?

Respondents assess the DŽK:

- in a positive way; the existence of the DŽK is an advantage; it is a specific phenomenon – a combination transport and attraction;
- as an educational and recreational activity for young people, which resulted in its location in a urban recreation zone of a natural character;
- as a convenient way to get out of the city walls and get to a new dimension within a short time – out of town;
- as a great opportunity to use free time for residents and visitors of Kosice, which combines an uncommon attraction with a visit to nature;
- as a natural gateway to nature at the end of Košice;
- as a unique historical attraction of our city;
- as the best option for a family with small kids to spend time together in nature;
- as an attraction for families with kids for leisure time;
- as an excellent basis for further development of this gateway;
- as the second-best attraction after ZOO;
- as the best thing for the Alpinka recreation center.

One respondent recalled its original way: "The tourist railroad for a sustainable future necessarily needs to go further than just an easily accessible car park at Alpinka. Only then, will it begin to fulfill its original role – to serve as an interesting recreational space in an extraordinary way. Of course, it is also necessary to plan and develop further tourist infrastructure in the valley. Without this, the DŽK will be judged to be a railroad that the locals will want to take only once or twice a year."

One respondent mentioned its history: "In the beginning, the priority was to train young railway workers. In the following decades, when considering the reconstruction of the railroad, the recreational purpose of the railroad has become increasingly important. Today, it is an organic part of the Čermel Valley, not only as a separate attraction, but also as a means of transport for activities in the valley."

The fact that the DŽK obtained the prestigious title of "the best inhabitant living in the city of Košice" (Košičan roka) in 2017 in the category in which legal entities were included among the nominees.

How do you evaluate the DŽK as an attraction for foreign tourism?

Respondents answered this question thus:

- "The DŽK is not an attraction for adults, only for kids; foreign visitors are a very small group of visitors; some group use the DŽK for teambuilding activities, e.g.: all Norwegians living in Slovakia, or T-System"
- "For foreign tourism, the DŽK is in a form without an attractive goal, essentially unimpressive and not at all unique; although its vehicles are really rare and partly offset the aforementioned deficiencies of the DŽK. So that some foreigners also are attracted"
- "Foreign tourists (usually students) spend more money at Alpinka and are more thankful for everything"
- "In my opinion, the biggest problem is that there's no travel agency in Košice which would provide quality management of foreign tourism (for example a 2-day package of things to do in the Košice region)"

- "The number and structure of foreign visitors is not known to me. I assume that the railway itself and its events are not the primary objective of a regular foreign tourist in Košice. His or her visit is associated with other city and regional attractions, which implies the need for joint promotion. Groups of foreign students living in Slovakia cannot be taken as a typical sample. Foreign tourism is probably the most important organized group of railway tourism. With its activities, regular organizing of successful tours by rail and the ability to organize rides according to clients' requirements at a narrow, normal and wide gap (Slovakia, Poland, Hungary and Ukraine), it has become a leader, and not only in Eastern Slovakia. If foreign clientele is to be captured in the future, it is more than desirable to continue to develop these activities (PR abroad, developing bilateral relations with foreign partners, etc.)"
- "A foreign visitor finds a railway that it is exceptional: Children Instructions – still a remnant of the socialist era and the oldest steam locomotive, coaches and contemporary technology."
- "The DŽK is also a suitable attraction for foreign tourism, since the former pioneer railways were established only in the so-called socialist world and no longer operates in the former socialist countries. For foreign visitors, it is a combination of nature, technical uniqueness and unusual service of such a railroad by children. "
- "The DŽK is very attractive for tourists; I also visit this type of attractions when I go somewhere else. It's not only interesting for tourists, but also for special groups who are looking for historic trains."
- "It would be necessary to further promote the DŽK through various travel agencies, so that foreign tourists in Kosice will also want to include a trip to Alpinka as well as its surroundings into the sightseeing tours. The Alpinka continues to have willing and grateful staff which has also improved the premises in this area. At the same time they are able to prepare a program for the guests of this area, and there is always excellent refreshments and the willingness of the staff."

How do you perceive and evaluate its activities, what it does well and what it can do better?

Most answers were positive: "it has improved significantly; there is some rivalry in the Čermel Valley; runners from the Technical University, also walkers go for walking in the fresh air; there exists a conflict between the steam produced by the locomotives versus the fresh air; this might be solved in the future by electric locomotive; the commercial potential of the DŽK is still underused".

Another respondent said that: "I am very positive about the efforts of DŽK members to maintain the railways, as well as their ability to invite volunteers and the ability to work with a number of young people who spend their free time in a particularly meaningful way and gain a lot of precious skills for life. I see the need to formulate a DŽK development plan that will lead to the goal of not only being a self-serving attraction in the sense of 'see the old train', but rather the admirable means of transport connecting the city with nature."

One respondent assessed DŽK activities as very professional: "I consider the current team running the DŽK as highly creative. Up-to-date activities and events are organized with a view to their funding with maximum professionalism and always in a friendly atmosphere that is appreciated by visitors (especially children). The timetable and dates of the events are aligned with other activities in the city, well presented. The program structure has stabilized over several years, but it is always complemented by innovative input. For further improvement, it's necessary to complete the background and prepare a development vision, which should avoid distraction."

Other positive answers: "The positive thing is that the children's railroad is to hear, to see it. The media and the public perceive it positively. It prepares a number of activities annually, and not only in Čermel (Opening of the Season, Night of Museums, Railway Day, Nuit Blanche), but also on the normal runway (by train for UNESCO) or regional significance (Locomotive Parade). Its activities are varied, which is good, but on the other hand it may suffer from a fragmentation of forces and energy in present staff in individual positions. It would certainly improve the infrastructure for visitors (there are a lack of toilets – only mobile toilets, parking places, better public transport – especially for visitors who come to Kosice by train or bus, this is rather complicated)."

"Technical support there is at a good level, the organization of events and accompanying programs. Improvement could also be promoted outside the city of Košice, engaging in tourism programs (and beyond the railways) and auxiliary services."

"The city of Košice evaluates the activities of the DŽK positively; it has many activities, and the territory is being beautified. They are also supposed to take care of locomotives and trucks. It would be appropriate to solve the restrooms at the Čermel bus stop."

"They do it very well, I visit the DŽK at least once a year, and I think it is a very good attraction for little money. I appreciate the enthusiasm of people who work on it. "

Others think that there are not enough activities, Alpinka is less attractive and year-round operation is lacking. One respondent mentioned that there is not good cooperation between the DŽK and the owner of Alpinka: "I would prefer more cooperation between Alpinka and the DŽK. For example, to share contacts who work with the DŽK and vice versa; do not let new entities into the cooperation of the DŽK and Alpinka (the DŽK

should deal with the transport only); the two should meet and work together more, and share the activities (for example the program of the policemen).”, other think that they should address more and more schools and companies (for teambuilding and other business events).

How do you perceive and evaluate its marketing, what it does well and what it can do better?

Like in the previous question, most answers were positive:

“In the area of marketing, the DŽK has made the most of it. From the railroad, which did not have a professionally processed simple leaflet, it was possible to gradually build a conceived concept. The DŽK again became the leader for the whole of Slovakia. The promotional materials were done by professional graphic designers; all the mass media are systematically used for presenting activities. Loyalty programs have been developed, and the DŽK engages in city, regional and DMO activities. The result is raising traffic and interest, as well as awards (Košičan 2017). The way of management and presentation has become a model for other organizations, which are also gradually increasing their marketing level. The basic goal has been achieved. There is a need to continue the promotion process, and the DŽK has become an established brand. The question is visual presentation. The need to get people under the skin has also brought a lot of visual smog in the form of various partial outputs. Perhaps it's time for a clear definition of the visual (Not just logos) and rules of presentation (in the railway premises, print, etc.). For example, organizing creative competitions, whose outputs would be applied for the next season as a 'creative industry', could be shifting.”

“The city of Košice evaluates the marketing positively. The DŽK works very well on the operation and is constantly developing activities for its cultivation.”

“I am satisfied with “small” marketing; the DŽK has improved its image; toilets are missing, which is important for marketing.”

“The marketing is good; the only thing I don't agree with is that the train goes back to the entry station (after it takes people to Alpínka) and stands there, instead of standing in the final station, where Alpínka is, people could take photos with the train, and enjoy it for longer time.”

“Marketing is at a good level; as I mentioned above it is an opportunity to focus on incoming tourism. New service packages could be created, and the option of online ticket purchase could be added.”

Some answers were more negative:

“Marketing makes me a bit like a bubble. The content lags behind. But this is the role of marketing, so I will not even especially evaluate it. In any case, the best marketing is when I talk and write about my experiences, the visitors myself. Are they so? The answer to this question can be a bit about the DŽK situation.”

“I can't see any marketing.”

“The children's railroad has the character of a suburban attraction, which is its advantage especially in cooperation with schools – school trips. The children's railroad could work more closely on marketing across the region and Slovakia.”

“Everybody from Košice knows about the DŽK, but I'm not sure how the marketing works in border area of the region. With more tourists there would be also some other issues to be solved, for example the capacity of the car park. I recommend strengthening the marketing.”

Some respondents had some suggestions:

“For example, to make an agreement with restaurants in the city centre for mutual promotion (to have a train in the Menu list, or if you eat in our restaurant you have a 10% discount for children railway in Čermel, etc.)”

What would you suggest for its development?

Suggestions can be divided into following categories: infrastructure, activities, services, cooperation and other.

Infrastructure:

- to prepare a study and introduce into the territorial plan the possibility of moving the boarding station closer to the city, to the area of the former tram at the Ovečka Buffet,
- to extend the DŽK in the Čermel Valley and involve other business entities in the vicinity that are here,
- to have the citizens of our city and foreign guests have the chance to discover the hidden and unidentified surroundings of this valley,
- to extend the track, because the Čermel Valley is an attractive environment and would attract even more people,
- to complete the entrance building, the Vpred shunt,

- to make a good bike trail,
- forest hotel, park, connection to the Zoo, activity circles, refreshments, shelters, stalls,
- to carry out a study of the extension or location of the vehicle background and completion of the facilities at Alpínka Station,
- vehicles renewal,
- more parking places, better accessibility for carriages, bicycles infrastructure (access stairs are in poor condition), refreshment facilities, waiting room, passenger shelter,
- to solve the connecting of pedestrian access to public transport
- to provide buildings/spaces for customers, including boarding passes

Activities:

- to offer more activities, e.g. a small theatre (like Blaškovičová organizes) in the amphitheater (Shakespeare) or to drop the train by Indians,
- to improve the portfolio activities for kids, e.g.: free rides; to create more stops three or four and introduce a “hop-in” system (climbing wall, health area); attack of the train by Indians on horseback; run down the one hill to another; an Easter egg hunt
- to build more than the Health area (Areál zdravia) in the valley – an open-air museum would be great (demonstration of rural architecture)
- country and folk bands (live music)

Services:

- to introduce vouchers, QR codes and CBC products,
- to organize sightseeing trips to the HNGRs,
- better accessibility to public transport,
- shorter intervals between trains,
- online ticket purchase, train reservations, to approve rules for visitors
- to solve transport of children's bicycles and other bicycles according to real demand
- publication of proceedings, organization of scientific seminars,
- to introduce all-year operation of the DŽK

Cooperation:

- to improve cooperation with DPMK (Public Transport City Company) – to include timetable of the DŽK into DPMK timetables;
- to improve cooperation with Alpínka and other stakeholders in the valley
- to join Jahodná, Bankov, chalet Diana and create common product
- to connect more with LÁEV Miskolc

Other:

- to maintain the meadows in railway surroundings
- large state subsidies

Some answers as a whole were very valuable, e.g.:

“The future of development in terms of the „gateway to nature“ is mainly in aligning the activities of all subjects (activities, marketing, maintenance, PR) and a common approach to complementing their structure. The goal is for the visitor to actively spend his leisure time in the valley as long as possible. Besides the completion and renewal of the existing attractions, the prospect is also deeper into the valley (forest hotel, park, connection to the zoo, activity circles, etc.), to which the railway should react by extension and completion of facilities (refreshments, shelters, stalls).

Although it seems to many that the development of the DŽK is not possible, the opposite is true. The building needs to be completed at the Čermel station and the Vpred shunt. Furthermore, it would be advisable to carry out a study of the extension or location of the vehicle background and completion of the facilities at Alpínka Station. The DŽK is a respected operator in tourism, and its activities are so targeted. However, it manages an historically very valuable inventory, which predestines it to activities in the field of railway history research. The DŽK is still completing its collection of historic vehicles. Therefore, I would like to welcome greater engagement in this area (publication of proceedings, organization of scientific seminars, vehicle renewal, sightseeing trips to the HNGRs etc.). Such activities are unlikely to increase the DŽK's attendance directly, but they can, for example, support organized rail tourism for foreign tourists.”

LÁEV Miskolc

On the Hungarian side interviews were conducted with eight people, five men and three women. Respondents were selected from both the public and private sectors, so that we gain the most valuable answers to the questionnaire questions. All respondents answered the same questions:

1. How do you assess the LÁEV as a gateway to nature and a leisure-time attraction for domestic visitors?
2. How do you evaluate the LÁEV as an attraction for foreign tourists?
3. How do you perceive and evaluate its services, what does it do well and what could it do better?
4. How do you perceive and evaluate its marketing activities, what does it do well and what could it do better?
5. What would you suggest for its development?

How do you assess the LÁEV as a gateway to nature and a leisure attraction for domestic visitors?

- The railway is not a real gateway to nature, as there is a road which runs parallel to it. Marketing should work on this idea, to make domestic visitors come to the Bükk region by train and not by car.
- It's a real gateway by offering tourists the possibility to continue their route into the Bükk forest. Their regular programs are very popular.
- It's very popular among domestic and foreign tourists too. Good thematic programs on the Mahóca side track, many attractions along the railway.
- Works fine as a real gateway to nature in every season.
- It has very good possibilities with many attractions along the tracks. One of the most known small railways in Hungary.
- It is the gate of Bükk, tourists come to the forest by train.
- It is one of the main attractions of Miskolc region in all seasons.
- It works correctly with a yearly, regular program plan

How do you evaluate the LÁEV as an attraction for foreign tourists?

- It's unique in Hungary, but it is necessary to combine its attractions with other attractions and services to become a real international attraction for foreign visitors.
- Renovation of the wagon park and the reception building with deliberate marketing would help raise the number of foreign tourists.
- Travelling on a train and forest hikes are language independent, so it's a good attraction for foreigners, too. Ukrainian TV made a film on the good practices because in Ukraine many HGNRs are closed nowadays.
- It's a special, unique experience for foreign tourists, too.
- It has a unique train and wagon park of museum value, which is interesting for foreign tourists, too.
- Combined services with other attractions, like the Lillafüred chairlifts or the culinary attractions of the trout farm. These are the specialties that attract foreign tourists, too.
- Programs for foreign tourists should focus on the museum values of the train and wagon park.

How do you perceive and evaluate its services, what does it do well and what could it do better?

Advantages:

- Dense, predictable timetable;
- Regular, monthly programs;
- Romantic Wagon Park

Possibilities:

- To combine services: sell museum tickets at the train station and vice-versa.
- To develop the ecotourism visitor center with more attractions
- To raise the platforms;

- To expand the toilets available;
- To run a pair of trains daily in the winter season, too
- To renew the timetable for the peak periods
- To combine services of the trout farm or the Fazola forge

Weaknesses:

- The number of toilets needs to be increased in Lillafüred and at other stations, too.
- Inaccessible for elderly people;
- The train station is far away from the trout farm; bus stops are closer;
- The engine shed in Majláth is a "rust cemetery", not an attractive sight. Infrastructure is poor.
- In peak times, trains are often overcrowded.

How do you perceive and evaluate its marketing activities, what does it do well and what could it do better?

- There is much to develop in this field – no activity can be seen which would reach many people at the same time.
- The homepage of the LÁEV should be modernized and its content updated. The Facebook page is correct and up-to-date. Otherwise, the marketing of the railway is poor, only the Mikulás-train program is well promoted.
- The Facebook page is cool, but the homepage is outdated. A good point is that its timetable is integrated into Miskolc's public transport system. Another good idea: a book was published with the title Kispöfögök.
- The Facebook page could handle more pictures and videos. The homepage needs to be modernized; more content is needed these days.
- It's a great marketing possibility to combine services in every season: a railway ticket with a lunch at the trout farm, special trains, tourist guides in more languages, etc.
- More interactive contact is needed with the target groups (Twitter, Instagram beside Facebook).
- Marketing is much better than it was some years ago.
- Multilingual publications, leaflets are needed. The possibility is given of joining international railway organizations, like Fedecrail.

What would you suggest for its development?

- Infrastructural developments of the train park and railway tracks (3 opinions);
- To combine services.
- To promote more programs like the Mikulás-train (like an Easter-train);
- Prolongation of the tracks up to the chairlifts of Lillafüred;
- Rethinking of the reception building at Dorottya station.
- To run a daily train in the winter season, too.
- To build a new train station at the trout farm;
- Renovation of the wagons based on the museum values (open and closed wagons);
- The steam-engine (which is now out-of-service due to maintenance problems) should be renovated. It is unique in Hungary and could be useable again!
- Involving the culinary and other local attractions and values. The market at Garadna, at the trout farm.
- Steam traction, open-shed programs;
- Cooperation with local artisans, tourism service providers.
- Cooperation with Bükki Nemzeti Park Igazgatóság – a strategic partnership.

9. FINDINGS, BARRIERS FOR DEVELOPMENT

Children's Railway in Košice

Since 2012, when the DŽK started operation of the Children's Railway in Košice, this has been continuously developing. A new coffee bar and small railway museum were opened in 2015, new steam locomotive U 29.101 called Krutwig was acquired and started operation in 2016, and within this project the RailGate entry station was reconstructed and modernized in 2018. Next year another bigger investment – reconstruction of shunt in the Vpred station – will be realized. New regular activities started in the last five years, like the Locomotive Parade, the Spring Awakening, the Night of Museums, Halloween day, the Santa Claus Train. The railway has markedly improved its attractiveness.

Analyzing basic statistical tourism data in the Košice region led to the following findings:

- The average number of accommodation facilities in the region during last five years was 95.8 facilities, and there has been no significant change in this indicator.
- The average number of rooms in accommodation facilities was 2431 and the average number of beds was 5567 within the last 5 years, and both numbers have been slightly increasing.
- The number of visitor arrivals in total to accommodation facilities within the last five years increased more than 30%.
- The expenditures of visitors have increased by almost 30% within the period 2013-2017.
- The average stay in the region was 1.97 days and has shown no significant change within the last five years.
- The number of visitors from Hungary to the region increased by more than 14% comparing 2017 to 2013, but comparing to 2016 the same indicator has increased by more than 40% (because of the increased number of visitors for the ECOC Košice 2013)
- The number of visitor overnights from Hungary to the region increased by more than 6% comparing 2017 to 2013, but comparing to 2016 the same indicator has increased by more than 66% (ECOC Košice 2013)

Analyzing the main passenger data led to the following findings:

- The number of adults being transported by the DŽK has increased by more than 35% within the last three years
- The number of children being transported by the DŽK has increased by almost 48% within the last three years
- The total number of tickets sold increased by almost 10% within the last three years
- The total amount of revenues coming from tickets sold has increased by about 20% in the last three years

Analyzing the Slovak legislative environment concerning the area of special tracks, the next finding can be stated:

- considering the nature, performance and volume, disproportionate demands are placed on special tracks, including HNGRs

LÁEV Miskolc

Analyzing basic statistical data in tourism in the Miskolc region led to the following findings:

- The average number of accommodation facilities in the region during the last five years was 49.7 facilities, and there has been no significant change in this indicator.
- The average number of rooms in accommodation facilities was 2211, and average number of beds was 5686 within the last 5 years, and there has been no significant change in this indicator.
- The number of visitor arrivals in total to accommodation facilities within the last five years increased more than 50%.
- The average stay in the region was 2.16 days and has not changed significantly within the last five years.

Analyzing main passenger data led to the following findings:

- The number of passengers being transported by the LÁEV has increased by more than 7% in the last three years
- The peak months are August, July and then December
- The total number of tickets sold increased by almost 5% in the last three years

Analyzing the Hungarian legislative environment concerning the area of special tracks, the next finding can be stated:

- The official fees placed on HNGRs are very high
- Required new standards cannot be met or are very expensive

Barriers (LÁEV):

ÉSZAKERDŐ Zrt. is basically a profit-oriented forestry business and not a tourist-service provider, so maintaining the unprofitable railway operation for tourism is a source of numerous controversies. Other barriers were identified as follows:

Difficulties in training staff:

- general labor shortage
- high health aptitude expectations
- high training costs
- time-consuming training
- complicated bureaucracy

Low level of service provider approach

- staff should behave „for the passenger“
- the passenger information system is deficient
- lack of multilingualism in passenger information and services

Maintenance difficulties: to ensure technical conditions of day-to-day operation at management level requires nearly 100% of resources, so less attention is paid to satisfy the service expectations of visitors.



Železnica LÁEV

Source: ÉSZAKERDŐ

10 STRATEGY FOR CHANGE

Children's Railway in Košice

Measure 1: To improve infrastructure and the locomotive and wagon park

Activity 1.1: Extension of rail infrastructure towards "Ovečka refreshment"

In the past the "Ovečka" area was a turning-point of the city public tram-line. At present there are still city transport busses arriving here, bringing people to the "gateway of nature" - the entrance to the Čermel Valley. The area has not been used for decades as it once was. The area in which "Ovečka" lies is ideal for creating a new entry point for the DŽK, as it is only couple hundred meters distant from the current Čermel station. This place provides a close connection with city public transport and parking places with safe passage for visitors with children, and such a solution would be much better than the present situation.

Extension of new rail lines totals about 250 meters and passing under the current road bridge. The building of other station side-lines totals about 300 m of new rails. Construction of a new station building is necessary to provide ticket sales, refreshments, information and other services (playground, rest rooms, etc.) and facilities for visitors. This extension of the rails and building of a new entry point will also provide a new space for building of technical background of the DŽK using the existing building. A small glass depot to exhibit old wagons could be part of the solution.

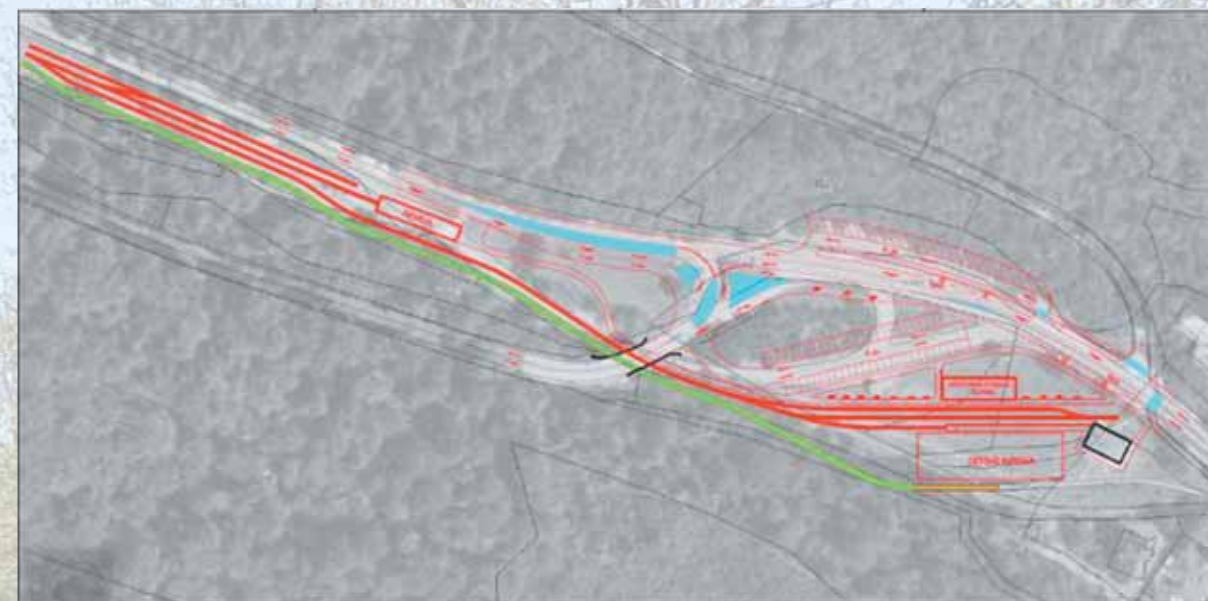
One possible solution is proposed in the next layout. Another possible idea is to extend the railway rails to the final tram station Havličkova.

Graphic layout of possible solution for the "Ovečka" area



Source: Stanislav Kontúr

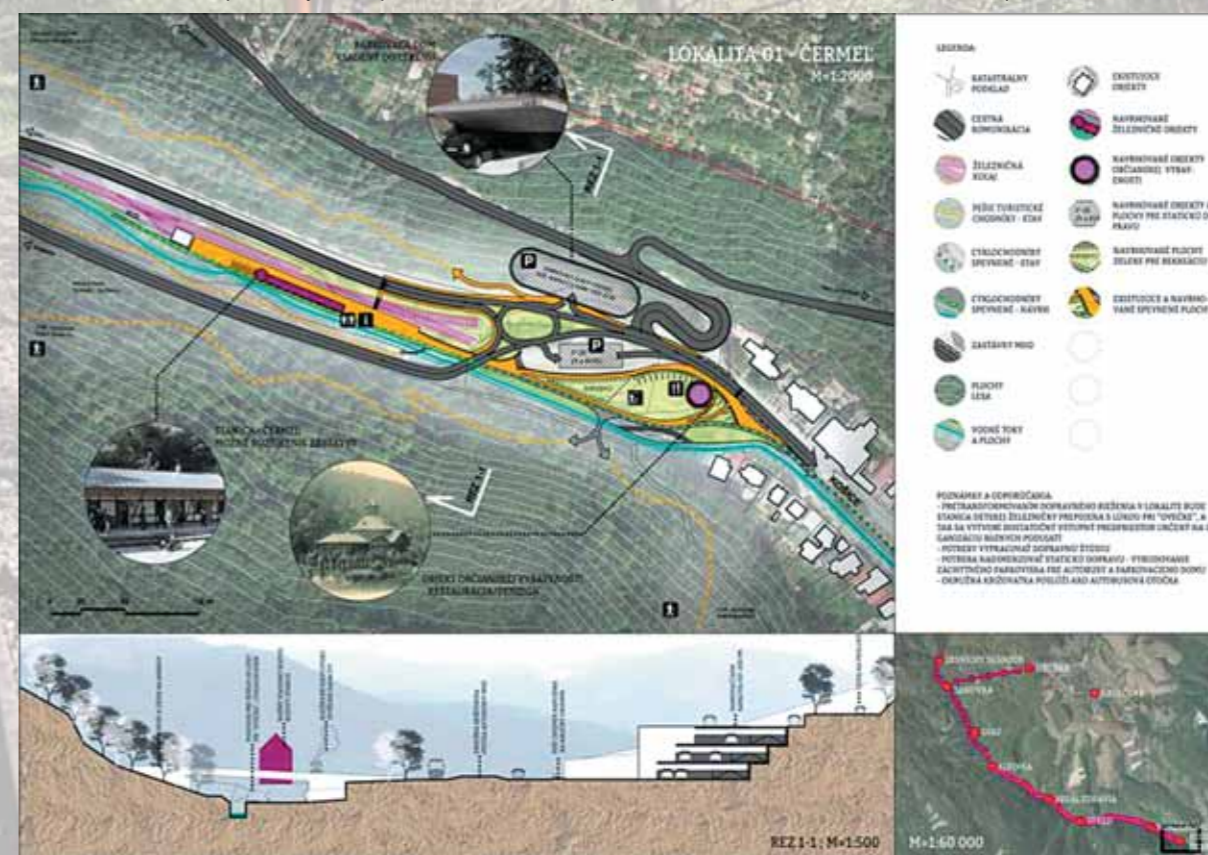
Graphic layout of possible solution of the "Ovečka" area with the road plan



Source: Jaroslav Lipták

Another possible solution of this area is the ÚHA Košice (Košice City Architect Office) proposal, which does not propose the extension of the rails to the „Ovečka“, but proposes instead the crossing adjustment by building a roundabout, redirecting the lane leading to Košice and creating a pedestrian corridor beneath the bridge linking the Ovečka space with the arrival station of the DŽK. The proposal also envisages the construction of new parking spaces for visitors to the DŽK.

Graphic layout of another solution of the "Ovečka" area with the road plan



Source: Main architecture department, City of Košice office

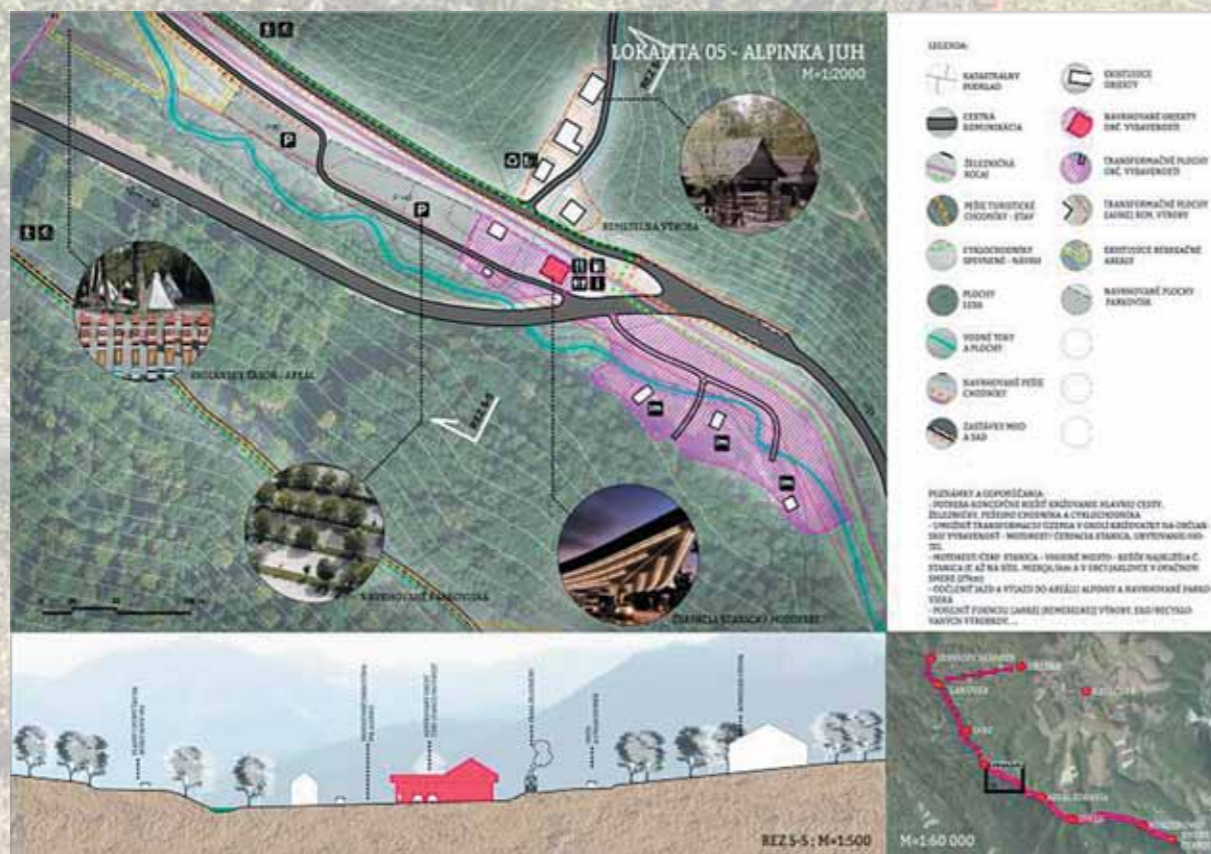
Activity 1.2: Renewing the station building, including visitor facilities at the "Alpinka" station

At present the area of the "Alpinka" station completely lacks any services and facilities for visitors, which was not the case in the past. There was once a proper station building with ticket sales, a waiting room and other facilities and services and with personnel of the Čermeľ HNGR.

In recent years the operator of the DŽK has started to create an "open air museum" at the "Alpinka" station dedicated to historical railway locomotives and wagons. Parts of old locomotives have already been exhibited, and also thanks to our Rail Gate project the historic wagon "Miskolc" was also exhibited this summer. Temporary chemical toilets were also placed in the area.

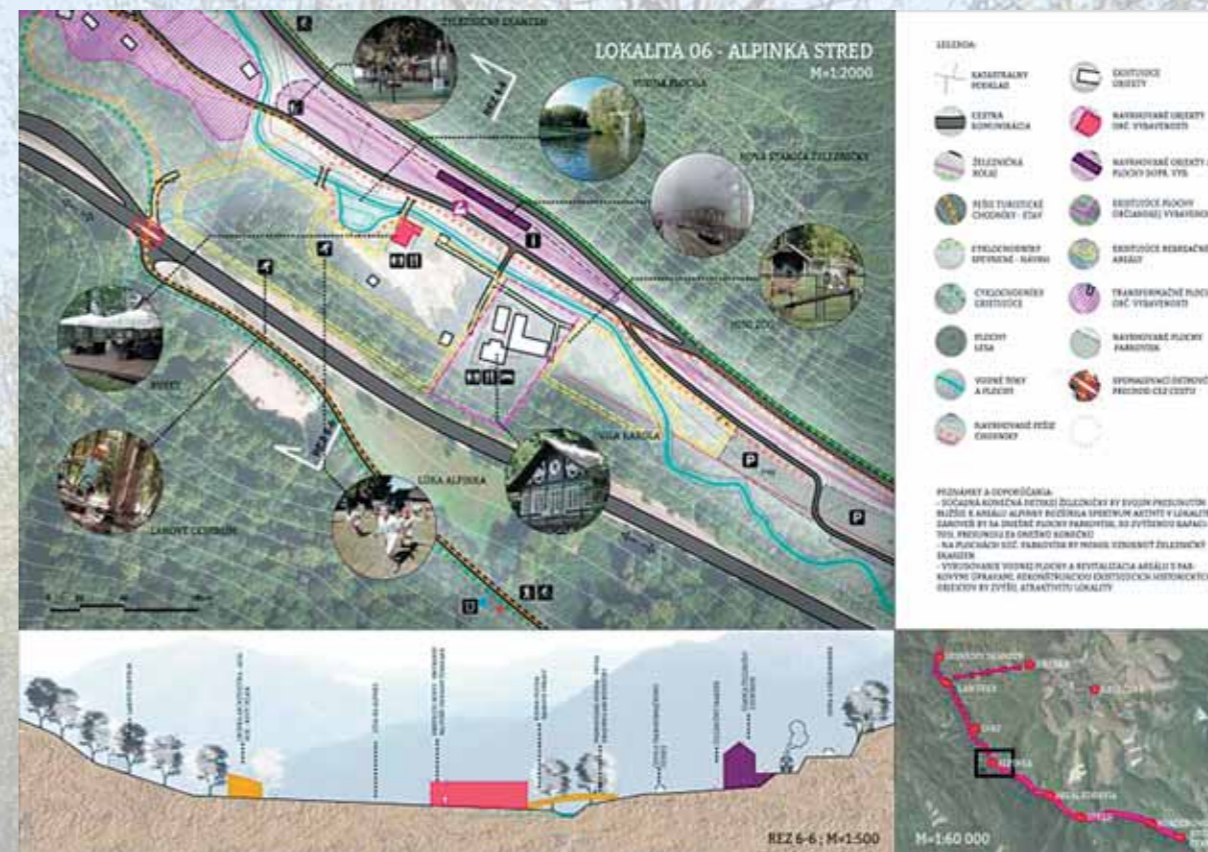
But basic services like ticket sales, a waiting room and restrooms are still missing there. The objective of this specific goal is to renew the station building and create all basic services for visitors and possibly also part of technical background (water management, facilities for draisines) of the DŽK. A complex solution counts on completing the "open-air museum", but also with constructing facilities for new services enabling use of the DŽK as a gateway to nature – to the Čermeľ Valley.

Drawing of possible solution of Alpinka South area



Source: Main architecture department, City of Košice office

Drawing of possible solution of Alpinka Center area



Source: Main architecture department, City of Košice office

Drawing of possible solution of Alpinka North area



Source: Main architecture department, City of Košice office

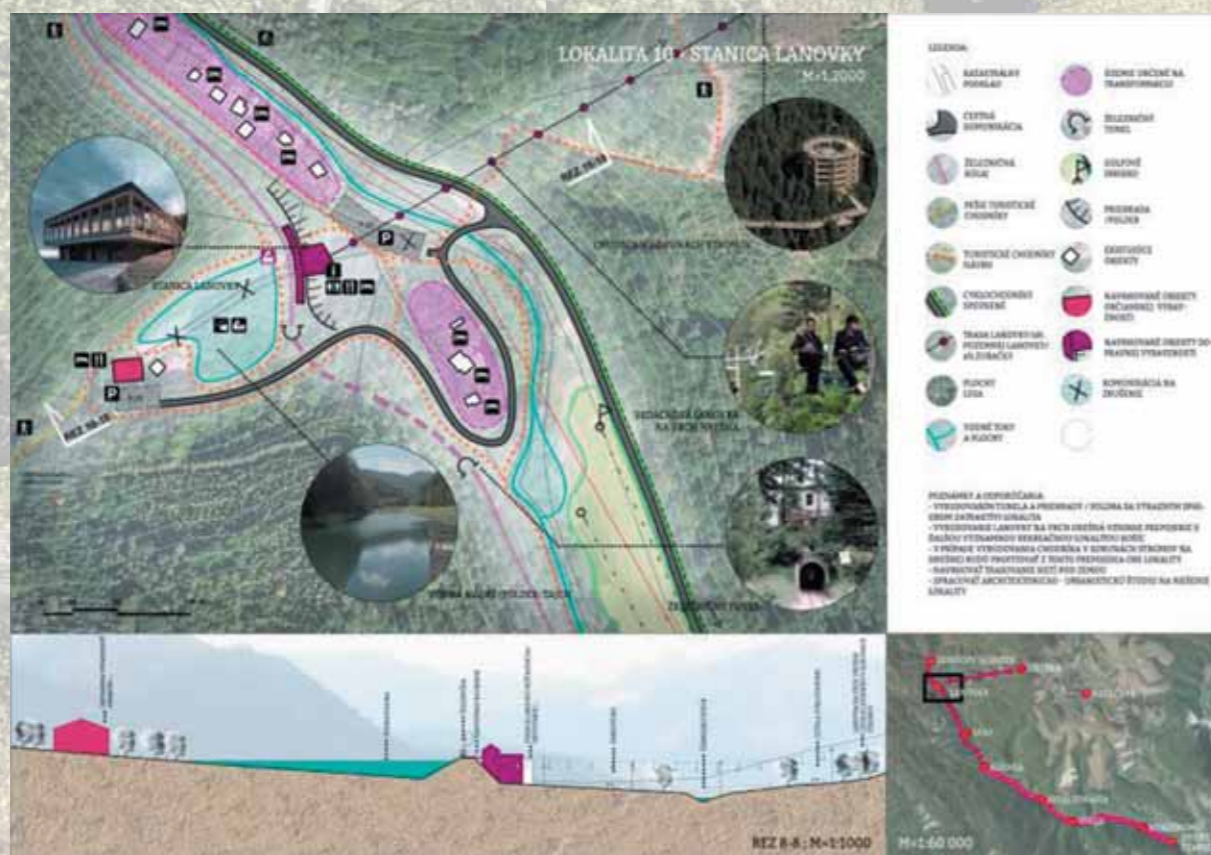
Activity 1.3: Extension of rail infrastructure to the Čermel Valley

After stepping out of the train at the "Alpinka" station a visitor nowadays has to go through the parking place having direct contact with cars moving to reach the "Alpinka" resort (playground, restaurant, Tarzania). There is no pavement for safe movement for children and adults. The present solution seems for a long time to be provisional and it might bother some people.

One option is to extend rail infrastructure into the "Alpinka" resort for transporting visitors directly to the resort. This solution brings better safety – avoiding the contact of visitors with cars. This is not only about safety, but the steam train arriving directly to the recreational resort will be a new attraction for the area.

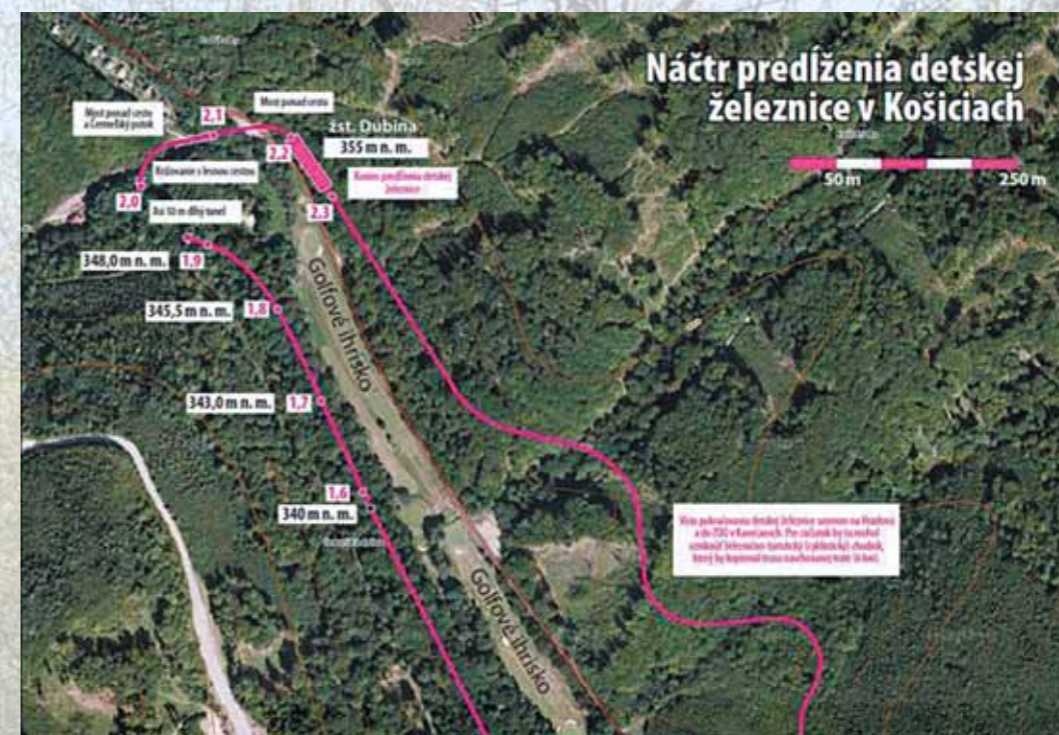
Another possible idea is to extend the rails further to the Čermel Valley in order to transport visitors alongside the golf course deeper into the Čermel Valley. The 2 km extension alternative is shown on the next graphic layout.

Graphic layout of possible extension of the rails into the valley with a cable railway



Source: Main architecture department, City of Košice office

Vision of possible connection of the DŽK with the ZOO



Source: Mr. Stanislav Kontúr

Activity 1.4: Renewing the station facilities at "Vpred" station

The objective is to build necessary premises for railway operations – a small station building for railway personnel on daily service. The building should be equipped with electric energy and a water supply and would serve mainly for railway service purposes. A small waiting room with toilets for visitors is also part of the building. The background of the track economy is also planned to be built in this station.

Drawing of possible solution of VPRED station area



Source: Main architecture department, City of Košice office

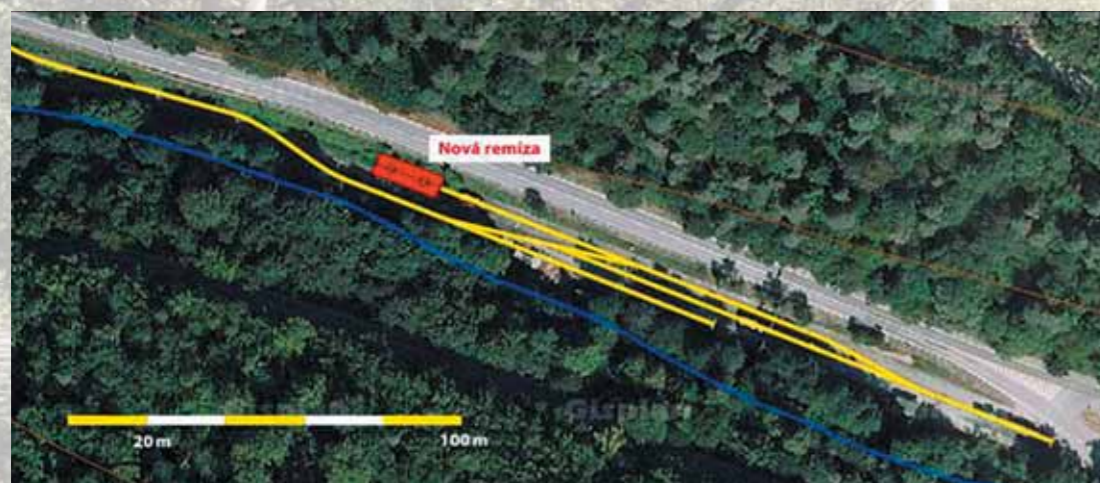
Activity 1.5: Complex reconstruction of rails with the replacement of wooden ties with concrete ties

At present the DŽK line is built on wooden ties; this is expensive for regular yearly maintenance (almost 80 percent of sleepers are past their lifespan) and also the safety of line itself is lower when comparing with lines built on concrete ties. Therefore, it is suggested to replace all wooden ties with concrete ones, which would not only increase the safety of the line but lower the line's maintenance expenses. During this complex exchange the line itself (mainly the line bedding) would also be renewed – such a complex reconstruction has not been done for decades.

Activity 1.6: Complex solution of the technical background

Technical facilities are one of the missing parts of the railway, as they were never properly built and never really existed. For example, regular maintenance of carriages and locomotives was carried out at a depot 15 kilometers distant, at the state railway companies. Also, historic carriages in the periods between seasons do not have any covered garage places. Therefore, it is suggested to build a depot for the carriages with large glass windows at the entrance to the railway, which would serve as better protection for the historic carriages and also as an attractive exhibition of the carriages. A new depot for six locomotives with a portal crane, with assembly pits, ecological solutions for water and chemical disposal would be built and would serve as place of locomotives maintenance. In addition, multifunctional depot for dressiness and machines for line maintenance is recommended.

Graphic layout of possible solution of technical background of the DŽK



Source: Mr. Stanislav Kontúr

Activity 1.7: Completion and modernization of locomotive and wagon park in terms of ecological and modern smart transport

Obtaining two new modern train sets has been suggested. These new train sets should consist of a locomotive with adequate carriages, locomotive with a hybrid drive engine, or a locomotive with another drive type according to future technical development (electric engine, electric batteries or some other). Obtaining the new train sets would secure sustainable operation of the railway, more safe and comfortable transport of passengers and would introduce a new ecological type of transport to the valley.

Activity 1.8: Complex solution of parking spaces at both the entry and final stations.

The current situation is unsatisfactory. There are not enough parking places now at either the Ovečka area or the Alpinka area. During attractive events like "Day of the DŽK", the 1st May, the Santa Claus Train and state holidays or even when there are beautiful weather conditions, the parking lot is overcrowded. At Alpinka, where there is direct contact among visitors using the children's railway and cars parking at the parking lot, the safety of visitors on such full days is reduced.

At Ovečka there is the problematic transfer from the parking lot to the entry point of the DŽK for walking and for families with a baby carriage.

The main objective is to increase the capacity of the parking places in order to allow safe parking and increase the safety of visitors. Another goal is to solve the safe transfer of visitors coming from the parking lot at the Ovečka area to the entry station and increase their safety. At Alpinka the goal is also to build new pavement alongside the existing parking lot and/or to build a new bridge over the Čermel stream for entry to the Alpinka resort before the parking area.

Measure 2: To keep and extend services and activities

Activity 2.1: Harmonization of the public transport timetable with the DŽK timetable

At present train departures are interlinked with city public bus no. 14: trains are dispatched 8 minutes after bus no. 14 arrives to the "Čermel" station. Passengers have sufficient time to transfer from the bus station to the DŽK entry station, buy tickets and board the train. But the train timetable is not a part of the DPMK public transport timetable. People do not have the opportunity to find a public connection from their home station directly to Alpinka, because the train timetable is not a part of the DPMK timetable. The objective of this measure is to change the situation and include the train timetable in the public transport DPMK timetable.

Activity 2.2.: Enabling the extension of services for visitors (e-bike rental, costume rental, refreshment services, etc.) to other public and private providers

At present the DŽK provides some small basic services, such as souvenirs, coffee and some other small refreshment sales. In order to increase attractiveness, the DŽK will open up "space" for other service providers on a contract basis. A win-win contract will allow an external provider to offer demanded services for visitors and the DŽK will have some small income from the contract. Services like bike and e-bike rental, railway costumes rental, a refreshment kiosk, souvenirs sale or other services according to a poll conducted regularly among visitors will be provided. The DŽK will be able to focus on its prime activities: to offer transport for visitors.

Activity 2.3: Support of smart solutions (vouchers, QR codes, applications, online ticket reservations)

The objective is to keep up with rapid technological progress and to offer smart solutions for visitors. The first application for visitors offering basic information about the valley for visitors on the train will be launched in the second year of this project implementation period. One function of that application will be online ticket purchase. QR codes might be part of that. The DŽK should be part of the city smart tourism solutions, like the city card for visitors, etc.

Activity 2.4: Keep or increase the portfolio of existing activities for visitors

The DŽK offers regular activities for visitors, as described in chapter 2 (Locomotive Parade, Spring Awakening, City Days, Night of Museums, Children's Day, Firemen's Saturday, Railway Day, Halloween Train, Santa Claus Train). Most activities are performed by people from the DŽK. The objective of this measure is to transfer management of all these activities to other subjects who are more specialized in organizing such events on a contractual basis. The DŽK will be offering the train and premises for public and private bodies or NGOs on a contractual basis. Thus, the portfolio of regular activities might not only be maintained but also enriched and expanded.

Measure 3: To strengthen cooperation and to build networking

Activity 3.1: Keeping financial support from the city of Košice and extending support for other public and private donors (Košice self-governing region, public entities supporting tourism development, companies, foundations, etc.)

Financial support in these years is crucial for operation of the children's railway. Without this support the DŽK would be not able to operate the railway. To keep the financial contribution from the city budget is inevitable for the coming years. The children's railway is not only a city-specific tourist attraction, but it has also regional meaning. That is why it should also be connected to the regional self-government budget. The DŽK should ask representatives of the self-governing region for a regular financial contribution for its development activities and events. Other creative fundraising is also a good way to dynamize its development and expand the group of donors.

Activity 3.2: Improvement of cooperation with a tourism operator and other stakeholders operating in the area (Alpinka resort, hotel Bankov, Golf club, the ZOO, MELEK, restaurants)

At present the DŽK has close cooperation with the owner of Alpinka resort, mainly because of its proximity. This cooperation is natural, because the majority of families coming to Alpinka by children's train go the Alpinka resort, using its playgrounds, including Tarzania – high ropes.

Cooperation with other stakeholders operating in the area is weak. Because the potential for closer cooperation exists, the objective of this measure is to look for common "products", activities, events, promotion, etc.

Cooperation of the DŽK with the ZOO might be developed through common "products", like advanced tickets for visitors who enter into both the DŽK and the ZOO, through city touristic products, or common activities. One of fanciful possibilities of a connection between the DŽK and the ZOO is shown in the next graphic layout.

Vision of possible connection of the DŽK with the ZOO



Source: Mr. Stanislav Kontúr

Today this is only a vision, and according to possible financial resources it is not realistic to implement such an investment, but in the future, who knows? Possible cooperation with hotel Bankov might include common "packages" for hotel guests and/or for DŽK's foreign visitors, oriented mostly on HNGRs, offering them accommodation in the hotel Bankov. The golf club is also a big player in the valley, but oriented on a narrow group of golfers, mainly adults not using the children's train connection to get to the golf course. But common activities of the DŽK with the golf club are not excluded. Cooperation with MELEK on a very good level already exists, MELEK is opening this year a "forest school" for children attending elementary or secondary school. The DŽK is an attraction for this group of visitors. MELEK as a city forest management company is responsible for tourist routes and conditions for leisure time spending. The DŽK as "a gateway to nature" supports one of MELEK's missions.

Activity 3.3: Development of cooperation with other Slovak and foreign narrow gauge operators

At present, cooperation with some people involved in HNGRs in Slovakia exists on the basis of personal relations. There is no institutional form of cooperation inside Slovakia. That is valid also for HNGRs abroad; cooperation is based mainly on common professional and commercial interest. The objective of this measure is initiate higher level of cooperation inside Slovakia e.g. at least on some kind of common interest agreement, later possibly on institutional basis. Cooperation with foreign HNGRs might perhaps be developed through common INTERREG projects. The DŽK is already member of FEDECRAIL, and the objective is to keep this membership and develop cooperation with other its members.

Measure 4: To enhance promotion and marketing

Activity 4.1: Continuation of promotion on FB and possibly extension to other social networks

At present HNGR's operator intensively uses the possibilities of Facebook – at its own account news, information, photos, events and invitations are regularly released. The account, after several years of intensive use, had almost 3500 followers as of October 2018 and is still continually growing. Advertised events on FB page reach up to 16.000 people. Internet social media are considered as one of the best performing type of promotion for tourist operators; therefore, it is recommended to continue with intensive use of not only Facebook, but possible to extend promotion to other Internet social media, such as Instagram, Twitter, YouTube and others. It is important to follow the changes of the Internet world and the behavior of people on the Internet. In the following years it is expected that promotion on Internet social media will remain an affordable and effective tool for advertisement.

Activity 4.2: Continuation of magazine publishing

Since 2012 the operator of the DŽK's – Children's Railway Košice, civic organization – has published its own full color magazine, the "R-žurnál". There are four issues printed yearly in 5000 copies, and they are distributed among visitors for a voluntary contribution (the contribution helps to share expenses for the graphic layout and printing of the magazine). The magazine serves as a possible way of reaching visitors and other public with new info, pictures, program, etc. The magazine has proved to be an effective tool for communicating with the public and with possible volunteers, donors, etc. It is therefore recommended to continue with this publishing activity and to further develop its content, distribution channels and designs.

Activity 4.3: Extension advertisement in RTV media

At present the HNGR operator regularly uses paid advertisement in electronic media – local radio and local televisions. The impact of this advertisement is considerable, and it is recommended that it be continued. Despite the financial burden of this method of advertising, it is also possible to find opportunities to even increase the volume of such advertisement. It can also be incorporated into local radio and TV channels in other neighboring regions, possibly even abroad.

Activity 4.4: Extension of digital information channels according to technical progress (web page, applications on all digital devices, etc.)

Technical progress brings us daily new ways of advertising, promotion, information sharing a other possibilities to reach your target groups and to raise the attractiveness of one's product. The HNGR operator at present intensively uses its own webpage – www.detskazeleznica.sk – as the means of a digital information channel. The web page is designed by professionals and is updated by the Košice children's railway civic organization members. The web page is optimized for mobile devices as well. However, the web page is missing an English version or possibly versions in other languages as well (German, Hungarian ..).

It is recommended that the web page be improved with other language translations. Modern museums, galleries and other tourist points of interest also offer their own application for mobile devices to make it easier for visitors to access information, improve their orientation etc. It is suggested that such an application be ordered for the Košice children's historic railway. The app should be in at least two languages and should provide visitors with a map of the railway and information texts and sounds that visitor would trigger at particular chosen places. The service should be free of charge. Also, it is important to follow any future developments in the field and be ready to follow arising opportunities.

Measure 5: To initiate change in legislation dealing with HNGRs

The objective of this measure is to initiate a change of Slovak legislation dealing with specific railways. This is particularly relevant for:

- Requirements for the health and psychological capability of employees
- Requirements for the capability and periodicity of inspections of specified technical facilities
- Periodicity of technical and other surveys of track-side vehicles and tracks
- Insurance
- The administration of security measures
- Training courses, their scope, periodicity, financial and time requirements, knowledge of special track issues
- Interoperability and issuing of licenses

LÁEV Miskolc

Measure 1: To improve infrastructure and locomotive and wagon park

Activity 1.1 Full renewals of track and operational infrastructure (expected by 2020)

In the framework of the renovation of the LÁEV, the aim is to completely renovate the structure of the Miskolc-Dorottya Street - Garadna main line. Following the demolition of the existing railway track, a new railway track will be built, on new crushed concrete bedrails and new concrete slats, with new railways and couplings. The drainage system, the passenger traffic areas and service facilities are to be completely renewed. At the Garadna Terminal, the aim is to build a new recreation park and playground with the purpose of improving the attractiveness of the area of the terminal.

Plan of the new rail network at Miskolc-Dorottya utca station



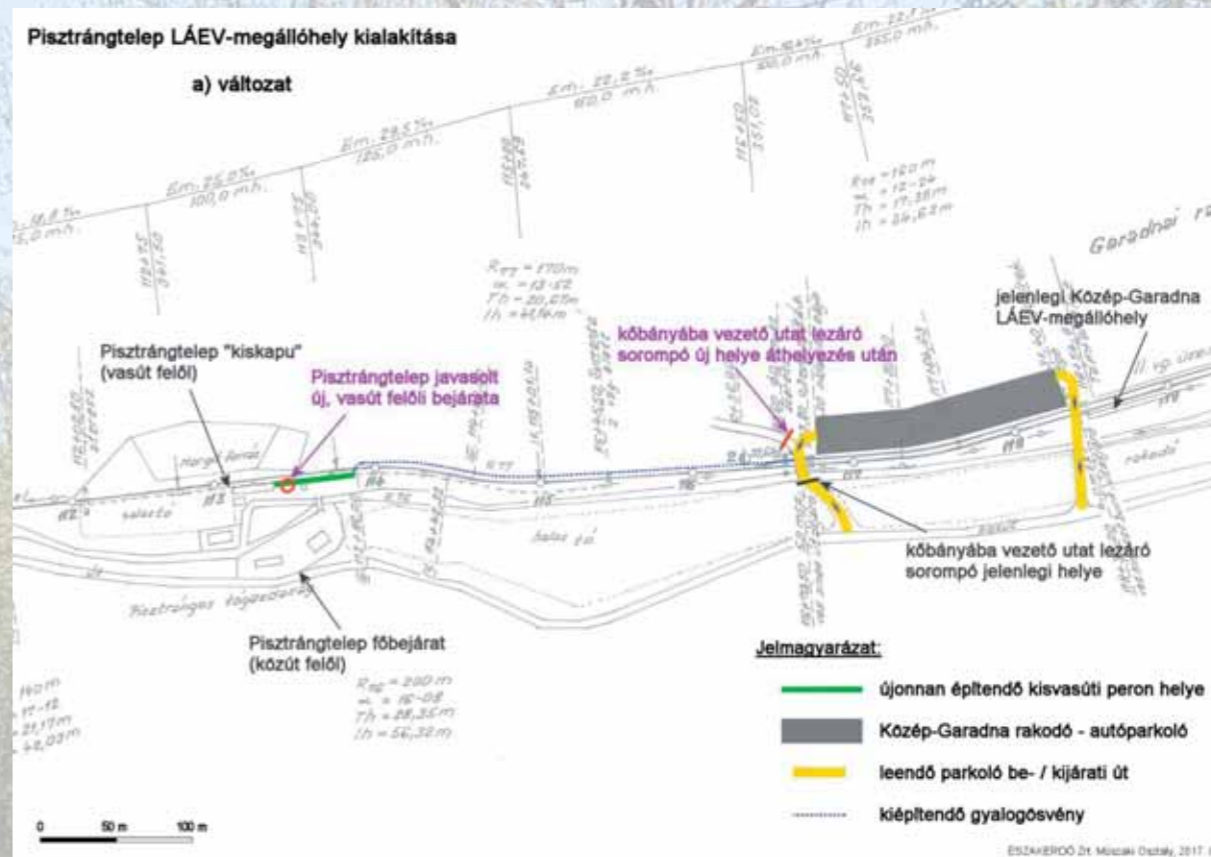
Source: ÉSZAKERDŐ

Correction of tracks at Diósgyőr



Source: ÉSZAKERDŐ

New train stop (plan) at the Trout Farm



Source: ÉSZAKERDŐ

Photo of the new train stop's location



Source: ÉSZAKERDŐ

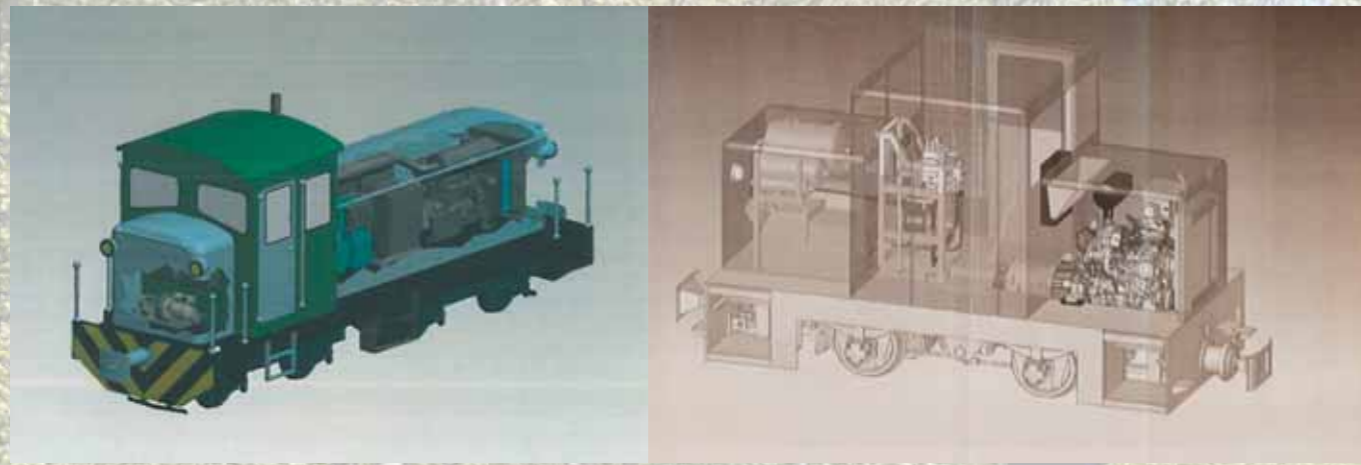
On the Mahóca side line, large-scale scattering of substrate and track replacement is planned, by re-using extracted materials from the main line. Station buildings, as well as railway office and offices are also to be renovated (locomotives and coach remises, repair shops).

Activity 1.2. Vehicle fleet renewal

(expected by 2020)

- Upgrading of two M 041 diesel locomotives - rebuilding into hybrid vehicles
- Upgrading of two C-50 locomotives
- Upgrading of two M 041 (Mk48) diesel locomotives
- Complete reconstruction of 18 existing passenger cars
- 2 new closed and 4 new open passenger cars

Design plans for a modernized hybrid locomotive and a renovated locomotive type C50



Source: ÉSZAKERDŐ

Activity 1.3. Complex solution of parking spaces on the entry station.

Current situation is unsatisfactory. During attractive events, parking places are overcrowded in the residential area around Miskolc-Dorottya utca station.

The main objective is to increase capacity of parking places in order to allow safe parking and increase safety of visitors. Other goal is to solve safe transfer of visitors coming from the city center.

Measure 2: To keep and extend services

Activity 2.1 Revision of the timetable:

The aim is to increase the supply of peak times, and adapt flexibly to passengers' requirements. Feasible without financial support, in partnership with the municipality and the traffic company of Miskolc.

Activity 2.2 Development of passenger information system:

Consistent station information boards are needed in at least three languages (Hungarian, English, German). At main stations, the presentation of surrounding touristic attractions in the languages of the region is planned (Hungarian, English, German, Slovakian, Polish, Ukrainian, Romanian).

Activity 2.3: Support of smart solutions (vouchers, QR codes, applications, online ticket reservations)

The objective is to keep up with rapid technological progress and to offer smart solutions for visitors. LÁEV web appearance should be modernized as it seems to be a barrier to attracting new visitors. Consistent web appearance is a must in at least three languages (Hungarian, English, German)

Activity 2.4: Keep or increase portfolio of existing activities for visitors

LÁEV offers regular activities for visitors as described in chapter 2, but to meet future plans, the portfolio should be enriched.

Measure 3: To strengthen cooperation and to build networking

Activity 3.1: Development of regional cooperation

The existing partnerships in the region could be set in a new framework which could be opened to Slovak partners of Kosice region too.

Activity 3.2: Development of cooperation with other Hungarian and foreign narrow-gauge operators

At present cooperation with some people being involved in HNGRs in Hungary exists on personal relations basis. There is an institutional form of cooperation in Hungary, its development could be rethought

Measure 4: To enhance promotion and marketing

Activity 4.1: Continuation of promotion on FB and possibly extension to other social networks

At present HNGR's operator intensively uses possibilities of Facebook – at own account regularly news, information, photos, events and invitations are released. Internet social media are considered as one of the best performing type of promotion for tourist operators, therefore it is recommended to continue with intensive use of not only Facebook, but possible to extend promotion on other internet social media such as Instagram, Twitter, YouTube and other. It is important to follow changes of internet world and behavior of people on internet. In following years it is expected, that promotion on internet social media will remain affordable and effective tool for advertisement.

Activity 4.2: Extension in advertisement

At present HNGR operator regularly uses paid advertisement in electronic media – local radio and local televisions. Impact of this advertisement is considerable and it is recommended to continue with such way of advertisement. Multilingual leaflets could help foreign tourists in finding all the attractions of the region.

Activity 4.3: Sales of LÁEV souvenirs, products

The annual visitor number makes it possible for LÁEV to sell souvenirs and other sales products at the terminals and stations of the railways.



Detská železnica Košice

Source: Lubomir Lehotský

11. IMPLEMENTATION OF THE STRATEGY

Management and coordination

Both beneficiaries will be accountable for coordination of the proposed measures and activities in this document. Both HNGRs should have full-time management positions in order to push implementation of the suggested measures. Their main task will be coordination of measures suggested in the strategy of change. Those managers should be responsible for referring directly to statutory heads of organizations. Direct regular contact between managers of both partners would be a considerable advantage and a condition for developing cooperation between both beneficiaries.

Promotion

This strategic document will be introduced at the final seminar organizing within this project RailGate. The objective is to open broader discussion on how to preserve, maintain and develop both HNGRs as gateways to nature. In the case of the DŽK the discussion will also be on how many resources (both public and private) would be allocated for its development and how to spread them over coming years. The discussion will run on the DŽK web pages, in specialized media dealing with such issues and also with public authorities – both city of Košice and Košice self-governing region and potential private donors.

Financial plan and financial resources

The DŽK association has a regular donor for its operation and activities – the city of Košice – and in the past it was successful at obtaining some small grants from private companies (VUB Bank, U.S.Steel ...). For the first time the DŽK has succeeded in obtaining European sources through this RailGate project to invest into its infrastructure.

There is another possible strong public donor – regional government – where the DŽK should make some efforts to try to be included in the regional public budget to obtain disposable financial support for investments or regular financial contribution for investments and/or activities on year basis.

A rough estimate of the resources needed for measure 1: To improve infrastructure and the locomotive and wagon park has been done and is presented in the table below:

Financial plan for DŽK measure 1

	Resources			
	Public	Private	EŠIF	Sum
Measure 1: To improve infrastructure and locomotive and wagon park				
<i>Specific goal 1.1: Extension of rail infrastructure towards "Ovečka refreshment"</i>	400 000			400 000
<i>Specific goal 1.2: Renewing the station building including visitors facilities at "Alpinka" station</i>	20 000	20 000	200 000	240 000
<i>Specific goal 1.3: Extension of rail infrastructure to the "Alpinka area"</i>	50 000	50 000		100 000
<i>Specific goal 1.4: Renewing the station facilities at "Vpred" station</i>	100 000			100 000
<i>Specific goal 1.5: Complex reconstruction of rails with replacement of wooden sleepers with concrete sleepers</i>	200 000		200 000	400 000
<i>Specific goal 1.6: Complex solution of technical background</i>	15 000		85 000	100 000
<i>Specific goal 1.7: Completion and modernizations of locomotive and wagon park in terms of ecological and modern smart transport</i>	50 000	50 000		100 000
<i>Specific goal 1.8: Complex solution of parking spaces on both entry and final stations.</i>	100 000	40 000		140 000
	935 000	160 000	485 000	1 580 000

Source: own data

: Financial plan for the LÁEV measures

Measures and activities	Investment costs (HUF)	Investment costs (EUR)
Measure 1: To improve infrastructure and locomotive and wagon park	3 410 000 000	10 656 250
<i>Activity 1.1 Full renewals of track and operational infrastructure (expected by 2020)</i>	2 580 000 000	8 062 500
Planning and design	100 000 000	312 500
Reconstruction of the main line	1 850 000 000	5 781 250
Reconstruction of the side line	240 000 000	750 000
Reconstruction of remises and service buildings	390 000 000	1 218 750
<i>Activity 1.2. Vehicle fleet renewal</i>	810 000 000	2 531 250
Renovation and modernization of traction vehicles	400 000 000	1 250 000
Renovation and modernization of wagons	380 000 000	1 187 500
Renovation of freight vehicles	10 000 000	31 250
<i>Activity 1.3. Complex solution of parking spaces on the entry station.</i>	20 000 000	62 500
Measure 2: To keep and extend services	10 000 000	31 250
<i>Activity 2.1 Revision of the timetable</i>	-	-
<i>Activity 2.2 Development of passenger information system:</i>	(see Activity 1.1.)	(see Activity 1.1.)
<i>Activity 2.3: Support of smart solutions</i>	10 000 000	31 250
<i>Activity 2.4: Keep or increase portfolio of existing activities for visitors</i>	-	-
Measure 3: To strengthen cooperation and to build networking	-	-
<i>Activity 3.1: Development of regional cooperation</i>	-	-
<i>Activity 3.2: Development of cooperation with other Hungarian and foreign narrow-gauge operators</i>	-	-
Measure 4: To enhance promotion and marketing	20 000 000	62 500
<i>Activity 4.1: Continuation of promotion on FB and possibly extension to other social networks</i>	5 000 000	15 625
<i>Activity 4.2: Extension in advertisement</i>	5 000 000	15 625
<i>Activity 4.3: Sales of LÁEV souvenirs, products</i>	10 000 000	31 250
TOTAL:	3 440 000 000	10 750 000

Abbreviations

CBC	Cross-Border Cooperation
ČKD	České Kolajové Dráhy (Czech Railways)
ČSD	Československé štátne dráhy (Czechoslovak Railways)
DMO	Destination Management Organization
DPMK	Dopravný podnik mesta Košice (Transport Company Košice)
DŽK	Detská železnica Košice (Children's Railway Košice)
ECOC	European Capital of Culture
ÉSZAKERDŐ	Erdőgazdasági Zártkörűen Működő Részvénytársaság (North Hungarian Forestry Company)
EŠIF	European Structural and Investment Funds (Európske Štrukturálne a Investičné Fondy)
FB	Facebook
FEDECRAIL	European Federation of Museums and Tourist Railways
HNGR	Historic Narrow-Gauge Railway
LÁEV	Lillafüredi Állami Erdel Vasút (Lillafüred State Forest Railway)
MAV	Magyar Államvasutak (Hungarian State Railways)
MELEK	MEstské LEsy Košice (City Forest Company Košice)
MP	Master Plan
NGO	Non-Governmental Organization
QR	Quick Response
RTV	Radio TV
PR	Public Relations
SWOT	Strengths, Weaknesses, Opportunities, Threats
UNESCO	United Nations Educational, Scientific and Cultural Organization
ŽSR	Železnice Slovenskej republiky (Slovak Railways)