



# 2018

## ANNUAL REPORT

# TARTALOMJEGYZÉK

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# FOREWORD FROM THE CEO

Looking back, it is difficult to describe a year with a single word. The challenges, which emerge even during the year make the life of any company diverse, especially if it is a large enterprise like BKV. However, in this particular instance, one word feels accurate: stability. Namely, our Company celebrated its fiftieth birthday in 2018. BKV has been a crucial actor in the life of the Capital since 1968, it has been providing an essential public service for 50 years, under changing circumstances, in a changing manner, but with an ever-increasing level of standard.

I believe that we commemorated the anniversary in a dignified manner, through a series of events spanning the entire year. We affixed more than 2000 of our vehicles with the logo prepared for the celebratory year, we addressed the wider audience through series of open houses, museum exhibitions, and we organized a professional conference as well, just to name a few events.

Naturally, in addition to the celebrations, work had also been performed continuously, in the usual order – we could say that with the stability that is characteristic for us.

The largest investment, which determined our entire year, namely the renovation of metro line 3, had started back in November 2017, and due to the replacements, the reconstruction of the metro constituted a substantial task for the bus section, as well. During the closing of the Northern line, we were proud that the switchover took place smoothly. Looking back, we can declare that the replacement went in order all through 2018.

Unfortunately, the slowly elaborating strategy for the purchase of the new vehicles was adversely affected by the bankruptcy of Ikarus Egyedi Kft., however, 10 Modulo M168D type new articulated buses were still added to the vehicle fleet of our Company.

The modernisation programme of the Tátra and Ganz KCsV 7 trams launched previously

continued as scheduled in 2018 as well. The opening of the renewed Budafok Tram Depot in May was an important and spectacular step of the constantly necessary reconstruction of the infrastructure. Similar to the stations of the M3 line, the tram depot was not only technically renewed, but it was given a new, modern exterior as well.

It is definitely worth to mention our continuously ongoing energy investments. Owing to the window and door replacements and heating and lighting modernisations carried out at facilities and stations, the savings originating from more efficient energy consumption is increasing constantly. Owing to the solar collector system installed on the roof of the Akácfa Street headquarters, the BKV became “greener”. Owing to our efforts, we were awarded again the title of Energy-conscious Enterprise this year.

With regard to finances it is worth mentioning that – similarly to the previous year – in 2018 we had to calculate with losses when drafting the business plan due to the shortage of funds in the capital. However, the loss in the amount of 9.3 bil. HUF indicated in the 2018 annual account of BKV Zrt. was less by nearly 6 bil. HUF than the planned amount. In addition to the higher than expected revenues this is attributable primarily to that BKV Zrt. managed the funds provided to it efficiently, and it achieved significant savings compared to the planned figures with respect to both financial and staff-related costs.

In summation, it can be established that even during the celebratory year, we were able to fulfil our most important duty – namely, ensuring continuous and smooth public transport in Budapest – reliably and worthy of a 50-year-old enterprise. For this we owe gratitude to all the employees of BKV! On my own behalf and in the name of the passengers as well, I thank them for the stability of BKV, and I wish our Company another 50 years of even more success!



  
**Tibor Bolla**  
CEO

# PUBLIC SERVICE CONTRACT

The Company performs the scheduled public passenger transport services based on the Public Service Contract concluded on 28th April 2012 and amended multiple times since then by BKV Zrt. and BKK Zrt.

In the framework of the Public Service Contract, BKK Zrt. orders the scheduled transport services specified per sections, with specifying the quality and quantity requirements as well as the detailed rules related with the public service, including the rules of providing consideration for the costs of the public service.

The Parties amended the Public Service Contract most recently in July 2017. This was necessary due to – among others – the separation of the HÉV (Helyiérdekű Vasút; suburban railway) branch from BKV Zrt., the Annual Agreement concluded as a result of the switchover from the scheduled annual period to calendar year period, due to the amendment of the contractual terms and conditions applicable to reporting and settlement of accounts, as well as the Budapest-Capital Municipality and Government decisions affecting the Budapest environs and suburban transportation and related to the provision thereof.

The client expectations related to the year concerned and the related financing criteria are included in the Annual Agreement, which constitutes a part of the Public Service Contract. The provision of service of the appropriate level is encouraged by the quality requirements specified by BKK Zrt. and the application of motivational/sanctioning instruments related thereto. These include the Bonus/Malus penalties applicable in the SLA system (SLA = Service Level Agreement, quality level measurements system, and service level agreement), as well as the penalties which may be imposed on specific legal grounds and in case of non-compliant performance.

Based on the 2018 evaluation of the line cancellation indicator – which is part of the SLA system and is used to measure line performance – it can be established that overall, the Company over-achieved the client expectations, while in respect of the traffic safety (accident) indicator – which also belongs to the evaluation system – a less favourable performance occurred compared to the expectations. Based on the joint evaluation of the two indicators, the Company – mainly due to the accident indicator – had Malus payment obligations.

In 2018, the sum of penalties acknowledged or recognized by BKV Zrt. increased by 40%



compared to the same period of the previous year. This growth could be attributed – on the one hand – to the extraordinarily favourable development of the data of the reference period (base effect) and – on the other hand – to the continuous tightening of client expectations. In 2018, inspections on new legal grounds were introduced, furthermore, the already existing legal grounds were extended with new compliance criteria, which jointly contributed to the significant increase of the penalties.

The Company fulfilled its reporting obligation

in accordance with the Public Service Contract. Through the preparation of the monthly, quarterly and annual public service reports, and the quarterly and annual Service Reports, as well as by answering the regular Client questions, BKV Zrt. accounted for the provision of the public service ordered and the economic aspect thereof.



## Quality management system

The first-year supervisory authority audit of the quality management system compliant with standard No. MSZ EN ISO 9001:2015 took place in order in March, therefore the certificate continues to be valid:

- for the investment processes;
- for training processes;
- for the public passenger transport carried out with buses and trolley buses, as well as for the related traffic and technical processes, including the maintenance, repair and parts renovation activities as well, in addition to the periodical roadworthiness testing activity of the testing stations.

In order to comply with the requirements of Minister of National Development Decree No. 24/2016 – which regulates the workshops, which perform the maintenance, repair and periodical testing of railway vehicles – and in the framework of extraordinary audit, in July 2018 the quality management system compliant with standard No. MSZ EN ISO 9001:2015 was extended to the “activities of workshops which perform the maintenance, repair and periodical testing of railway vehicles”.



## Environmental management system

At the Vehicle Depot of the M2 Traction Service of BKV Zrt., the environmental management system compliant with the ISO 14001 standard has been in operation since 2011.

The ISO 14001 standard changed in September 2015. The certified enterprises were given a deadline until 15th September 2018 to apply the requirements of the new standard, which took place at BKV Zrt. during the spring of 2018. The audit to be performed by external independent accredited entity was conducted successfully in June.



## Energy management system

In 2016, BKV Zrt. introduced the energy management system compliant with standard No. MSZ EN ISO 50001:2012 with respect to its entire activity and its sites specified in the charter document. The second-year supervisory authority audit of the standard was finished successfully in November 2018. Therefore, the certificate for the energy management system of the Company continues to be valid.



# INVESTMENTS, DEVELOPMENTS

## Track renovations:

- Tram line 1 on the Hungária Avenue section, in the surroundings of the Hős Street station, repair of the fastening in the Vg48 bonded superstructure, replacement of the rail ties, refurbishment of the paving of the level crossing, as well as the replacement of the connecting ballast stone rail track were realized between 7th and 15th July.
- On the section between Oktogon – József Street of Grand Boulevard (Nagykörút), the track system with reinforced concrete plate foundation, resilient support and continuous track bed (RAFS) was replaced by a more modern tram track – with grouted rail superstructure – in the length of 3 282 track meters. During the 78-day track closure which started on 16th June and lasted until 2nd September, the reconstruction of the RAFS track system was carried out with keeping the reinforced concrete plates. In the framework of the project, in addition to the track building, the recirculation of electric power, the water drainage, traffic control for temporary conditions, as well as multiple smaller measures necessary for maintenance were realized.
- In the framework of the modernisation and track renovation of tram lines 24/28/37 on Orczy Square (Salgótarjáni Road – Fiumei Road intersection), the route of line 37 will change to route along Népszínház Street – Fiumei Road – Salgótarjáni Road. The former route (Népszínház Street – Dobozi Street – Magdolna Street – Salgótarjáni Road) will remain as a service route in order to ensure the connection to Baross Vehicle Depot, as well as the connection of the turning track of the Baross Vehicle Depot as side track on tram line 24/28 will be realized as well. In the framework of the project 16 group railroad switches with rubber cover will be built in, as well as 2 group railroad switches without rubber cover bedding. In addition, the switch heating will be replaced at 15 group railroad switches, and 11 group junctions will be replaced, 51 overhead cable supporting columns will be replaced with reinstallation, 2184 m of work cables will be installed, and 1810 m of tram tracks will be renovated. The 1st phase of the railway took place between 14th October and 15th December. In 2018, ~ 70% of the construction works was completed.
- During the replacement of the curved tracks along Bartók Béla Road – Vasút Street, the Gantry-RAFS superstructures were replaced by covered RAFS finish, for the length of 204 track meters. The construction was realized between 9th and 29th April. Before the entry into service, the contractor performed descaling track surface grinding in both directions, on the entire reconstructed section and the tracks related to the reconstruction.
- The reconstruction work of the ladder track in the backyard of the Száva Tram Depot commenced according to the contract concluded with regard thereto and based on the order issued on 13th December 2017. In 2017 and the first months of 2018, the contractor performed manufacturing, preparatory and overhead cable column raising works. The worksite was handed over on 3rd April. The on-site works at the tram depot were completed in mid-August, and on 27th September the technical handover procedure was finished. In course of the construction, the majority of the ladder tracks in the backyard had been reconstructed in accordance with the building permit issued by the authority. 10 group railroad switches, 1 group junction and nearly 330 meters of tracks had been reconstructed together with the overhead cable network, in course of which 60 overhead cable supporting columns had been replaced.
- Our Company carried out the renovation of the platform lighting of the Nagyhíd station, it was completed on 18th October. Along tram line 61, in its Occupancy permit issued for the line the National Transport Authority required that space lighting compliant with the standard is ensured.
- Renovation of the Vécsey converter. Related to the renovation tender of tram li-

nes 1 and 3, we renovated 12 converters, as well as two new converters – “Vágóhíd” and “Lágymányos” were put into operation. In addition, a second 10 kV input unit was completed, too, for which the public utility development fee had been paid.

- Along tram line 69, at the Zsóka Street terminal, after the manually operated entrance switch which had switch heating had been demolished, we constructed an electronically controllable entrance switch in order to increase railway safety. The control - which was built in for the purpose of operating the switch, and which is controlled by electric power sensor and operated by the driver – is operated using the 600 V toeing network. The protection against derailing is ensured by track circuits. After the electronic railroad switch had been installed, on the 2nd March the technical handover was completed and the temporary entry into service took place. The National Transport Authority issued the occupancy permit for the conclusion of the project.

### Tasks related to the M3 reconstruction

In addition to the costs ensured for the investments planned in the framework of the M3 Grand Project, other necessary tasks related to the M3 reconstruction represent a significant value, which tasks BKV Zrt. realizes in the framework of its own investment due to the limited nature of the costs provided for the Grand Project.

In the framework of these additional tasks, the following were realized:

- The renovation and alteration of the automatic train control system (hereinafter referred to as AVR) boxes at Népliget and Nagyvárad Square Stations
- Renovation of the AVR station boxes
- Supply of AVR carpets
- AVR programme carpet installation
- Relocation of the dispatcher devices at Szabó Ervin Square of M2 (according to the C04 contract concluded in the framework of the M3 reconstruction, room handover for the establishment of the new M3 dispatcher centre)

# INVESTMENTS, DEVELOPMENTS

## Extension of the EDI-protected workplace to metro line M2

The 10 kV and 0.8 kV protection equipment of metro line M2 provide opportunity to – with the help of the interface – back up or modify the parameters, event logs and release curves stored therein. Currently, this is ensured only directly at the station concerned, therefore

in case of any malfunction, the necessary information can be accessed with significant time commitment. The place of installation: the stations of metro line M2, the Fehér Road vehicle depot, the dispatcher centre on Szabó Ervin Square. Through the realization of the investment, the interface extension of the protective equipment of metro line M2, as well as the partial modification of the com-

munication network which ensures the accesses, and through the direction to the protected workplace, the time required for collecting and analysing the data necessary to eliminate malfunctions has decrease significantly, allowing for faster intervention.

# INVESTMENTS, DEVELOPMENTS

## Investments concerning other infrastructure:

### Planning and preparation of projects

Using the funds provided for the planning and preparation of the plans and documentations necessary for projects to be launched later, the following were completed:

- Planning of the heating reconstruction of the Zách Street trolley bus garage
- In the Kertész Street converter the supporting structure review of the building for the purpose of installing electronic appliances
- The planning of elevated platform and track at the Zuhatag Lane station

### The planning tasks started in 2018:

- Planning of the reconstruction of the M1 track (partial performance in 2018)
- Planning of the partial renovation, alteration and drive modernization of the 3011 type river boats (partial performance in 2018)
- The review of the plans made for the reconstruction of the Bosnyák Square track network
- Planning the temporary trolley bus turning at Bank Street
- In Angyalföld and Baross Vehicle Depots, planning the alteration and installation of high level working platforms for protection against fall-downs during roof inspection (partial performance in 2018)

### Purchase of machinery, technological devices

We are constantly providing for the replacement of the machines and technological devices necessary for the operation, maintenance and repair of the vehicles and the infrastructure. Using the funds provided for the purchase of the most essential machines and devices inevitable for the operation the following tasks were completed:

- Purchase and installation of 6-column lifting device (trolley Bus, Cinkota, Kelenföld Division)
- Renovation of automated ventilation systems (Kelenföld Division)
- Engine-rotated rotating crane with columns, with radio remote control, concrete foundation (Trolley Bus Division)
- Purchase of electronic forklift and supplementary elements (4 pics.)
- Development of inspection tram, the purchase, installation and putting into operation



tion of the measure system suitable for measuring the overhead cable

- Reconstruction of the compressed air networks, with the replacement of the compressors (Cinkota Division)

### Interim investments necessary for operation

Using the funds provided for maintaining the technical condition of the buildings, structures and technological devices necessary for the operation, maintenance and repair of vehicles, as well as for the purchase of other devices, the following investments and purchases were realized during the year:

- Modernisation of the power supply system of the Széplóna Tram Depot.
- Manufacturing and installation of experimental railroad switch (Könyves Kálmán Avenue)
- In order to develop its product portfolio, VJSZ Kft. had a prototype switch planned. Our Company provides opportunity for the testing of the device in live traffic along tram line 1. In course of the investment, the manufacturing and installation of 1 group Ph 50/25 switch, 1 group Ph junction and 3 pairs of Ph59R2 - Vg48 temporary tracks had been realized, according to the plan approved by the operator. The installation was carried out during the 28-day track closure, which started on 7th July 2018, as a result of which the speed of the vehicles moving in a straight line can be increased.
- Tram training simulator extension (hardware and software). The vehicle training simulator which was developed for the T5C5-type trams was amended by the si-

mulation of line 14 (Lehel Square - Káposztásmegyer - Megyeri Road) and line 12 (Rákospalota – Újpest Railway Station – Rákospalota, Kossuth Street). The simulator developed allows for the demonstration and practice of driving technique processes to be executed in extraordinary traffic situations which are difficult to create or cannot be created at all in a real setting or during training with training vehicles.

- Purchase of sheet bending machine (South Pest)
- Purchase of battery-powered lift (South Pest)

### Renovations of buildings and structures

The investments realized using the funds provided for the renovation of buildings and structures:

- Insulation of the track manager's office of Zugló Tram Depot and the entrance columns of the small hall
- Elimination of the standard inadequacies at the M2 Fehér Road vehicle depot (bogies paint-sprayer, main component repair paint workshop, internal room, storage room, PFT paint storage, paint workshop, dust filter chamber), fit-out of the external storage
- Establishment of a new entrance gate and entry system at Kőér Street Vehicle Depot, planning and construction works
- Heating reconstruction, heat technology modernisation of at Széplóna Vehicle Depot.



# INVESTMENTS, DEVELOPMENTS

## *Vehicle purchase, renovation and modernisation*

### **Purchase of new articulated buses**

Until the performance deadline (11th April 2018) of the sales contract concluded for the purchase of 30 Modulo M186D-type new articulated buses, and until the expiry of the additional 90-day period following the deadline and specified in the contract (11th July 2018), our Company received 10 vehicles in total. Through putting the 10 busses into operation, the circulation of high-floor vehicles was terminated at the Kelenföld Division (and simultaneously therewith in the South Buda region).

### **The purchase and homologation of used buses**

BKV Zrt. bought 8 articulated, Mercedes-Benz O530 Citaro-type used buses partially homologized. Our Company received the vehicles with paintwork matching the colour of the fleet, with blue handrails, furnished with the regular seat upholstery and closed driver's cabin, on 18th July, on the site of the Óbuda Division. The vehicles are equipped with camera system, passenger information system and automated fire extinguishing system, and the doors function properly. In the framework of the partial homologation, the installation of the opening windows, the display of the administrative, passenger information and operative signs, as well as the application of the surface protection were carried out by VJSZ Kft. Through the entry into service of the buses, Óbuda Division is able to take over output from other services, this way decreasing their increased workload. In the framework of public procurement, our Company decided to buy 12 puller articulated buses. Due to the puller structure (the engine of the bus is located in the front vehicle body), the manoeuvring ability of the buses allows for movement in narrower spaces, therefore these buses can be used better in case of – for example – tram replacements. The fulfilment of the sales contract for the Van Hool-type low-floor, used diesel puller articulated buses was completed, our partner delivered all 12 vehicles. The homologation of the buses has started with execution by VJSZ Kft., which includes the repair of the pivot frame of the vehicles, in addition to aesthetical measures and the fit-out according to client requirements. Through the entry into service of the vehicles, some obsolete, outdated buses can be withdrawn from the traffic at the South Pest Division, as well as the number of vehicles in

reserve can be increased, in which case more time can be designated to the daily maintenance. The completion of the homologation of the vehicles will be drawn out into 2019.

Still in 2017 our Company purchased 5 solo and 4 articulated, partially homologized Mercedes-Benz O530 Citaro-type used buses. The vehicles purchased were received. Our Company received the vehicles with paintwork matching the colour of the fleet, with blue handrails, furnished with the regular seat upholstery and closed driver's cabin. After the handover VJSZ Kft. built in the automated engine compartment fire extinguisher system, the on-board camera and passenger information system, as well as the opening windows. VJSZ Kft. established uniform door operation, placed the administrative, passenger information and operative signs, as well as applied the surface protection. Through the entry into service of the vehicles, the level of standard of the service provided to the North Buda and North Pest regions could be maintained, since the majority of the buses with higher comfort level was used for the replacement of metro line M3. The homologation of the buses was completed before the 31st March deadline, the handover took place.

### **Hybrid operation**

VJSZ Kft. completed the general homologation, all items, which are applicable to all vehicles uniformly, for all the 40 units of Volvo 7700-7900 diesel-electronic hybrid solo buses, which were bought in 2017. Afterwards, the buses were transferred to the official brand representative in Hungary, where the so-called zero revision and the administrative entry into service was carried out one-by-one. The works related to the homologation of the 40 buses were completed between January and October in case of 39 vehicles, the technical handover of the buses was completed, and 28 of these vehicles were added to the fleet until September. In case of 11 buses, certain functions can be created only and exclusively with the software-related participation of the manufacturer. However, our Company has no direct contractual relationship with the manufacturer, therefore the software-related works are performed with the intermediation of the brand representative, and thus we have no influence on the time interval of such works.

Through the entry into service of hybrid vehicles, significant fossil fuel consumption can

be saved, the environmental effect of which is substantial as well. Owing to the partially electronic drive, the noise pollution of the hybrid buses is also lower than that of the diesel vehicles.

28 vehicles were put into service until the end of the year.

### **Tram purchase**

In 2017, 1 TW6100 tram damaged in an accident was purchased and brought home, which is planned to be renovated as an experimental vehicle.

Also at the end of 2017, our Company purchased 4 undamaged TW6100 tram trains and 2 TW6100 tram trains which were damaged in an accident, but are still operational from the company Üstra seated in Hannover. The transport of the vehicles to Hungary started in the last days of the year. After homologation, the undamaged vehicles entered into service, while the two damaged vehicles will be used for the purpose of replacing spare parts.

### **Tram modernisation**

The Tátra modernisation programme launched in 2014 continued, which meant the drive modernisation – together with refurbishment of the whole vehicle – of another 36 T5C5 vehicles. As part of the works, the passenger areas of the vehicles were renewed, and the door operation system was altered as well (individual door opening). Thereby the number of refurbished trams increased to 140. The objective of the investment is to complete the drive modernisation of the entire 240-piece fleet until 1st May 2020 within the scope of the effective contract. Thereby the vehicle fleet will become energy-efficient and comfortable.

In the framework of another programme launched previously, the modernisation of the Ganz KcsV-7 trams continued. During the year, the refurbishment of 2 vehicles was completed and works commenced on 2 other vehicles.

As the optional call of the framework agreement concluded in 2014, during the year the refurbishment of 7 TW6000 trams was completed, and refurbishment works commenced on two other vehicles.

### **Heritage vehicle**

VJSZ Kft. finished the renovation of one "Bengali" tram, which started at the end of 2017.

# INVESTMENTS, DEVELOPMENTS

## *Priority Projects*

The 2018 tasks of the Priority Projects Office were concentrated primarily on the improvement of energy-efficiency and thereby on the decrease of energy costs in tram depots (Zugló, Baross, Száva, Szépilona), in bus garages (South Pest, Cinkota, Trolley Bus) and in the Akácfa Street Head Offices. The replacement

of boilers, heat emitters and chimneys, the installation of solar panels, as well as lighting modernisation projects were realized. Significant energy savings can be achieved through these investments, the return period is typically 8 to 10 years.

Over the year, the indemnification process

continued with the settlement of accounts of the subsidy received from the Force Majeure Fund for the restoration works after the 2015 Budapest storm damages.

The Office is also responsible for the equal opportunity tasks of the Company.





# BUS AND TROLLEY BUS OPERATION

## Metro replacement

The reconstruction of the Northern section of metro line M3, i.e. Lehel Square – Újpest Centre, was ongoing throughout 2018, which simultaneously required one of the largest bus replacement programmes in the history of the city. The bus replacement was provided between Lehel Square and Újpest on weekdays during the day, and on the entire line between Kőbánya-Kispest and Újpest at nights and on weekends. On working days 62 buses and, more than 80 buses on weekends served the metro replacement lines, with assigning 129 and 167 drivers – respectively – to duty. For the entire duration of the replacement, only low-floor, air-conditioned vehicles served the line. The frequency of the replacement buses was 45 seconds on average during the peak periods. Their route was prioritized against to other transport participants through the assigned bus lanes on almost the entire route and through the traffic lights' control.



## The development of the vehicle fleet

- During the preparations for the metro replacement, the vehicle fleet number decreased from 1002 to 998 over the year.
- Owing to the developments, the ratio of the low-floor buses increased from 78.3% to 83.7%.
- The average age of the vehicles decreased slightly – from 13.65 years to 13.57 years - in case of buses due to the purchases. Regarding trolley buses, no new vehicles were purchased in 2017.
- Simultaneously with the renewal of the vehicle fleet, as a side effect, the number of buses equipped with air-conditioning devices increases from 735 to 793, the ratio from 73.6% to 79.5%.

### Vehicle acquisitions

- In 2018, the Bus and Trolley Bus Management Directorate (hereinafter referred to by its Hungarian abbreviation: ATÜI) expanded its low-floor bus vehicle fleet compliant with the expectations of today and the passengers with newly purchased, used, low-floor solo and articulated buses. The buses purchased in used condition

underwent homologation in accordance with the valid Hungarian administrative regulations and the public transport authority's requirements related to image and level of technical equipment. After the homologation tasks had been completed, the buses were added to the fleet.

- In January, at the South Pest Division 2 units of Van Hool New A330, diesel drive, low-floor solo buses - which were purchased used and then homologized – entered into service, in addition to the 1 bus of the same type, which was purchased, homologized and entered into service in 2017.
- Starting from February, 28 VOLVO 7700H (27 pcs.) and 7900H (1 pc.) type low-floor, solo, hybrid drive buses - which were purchased used – were added to the fleet and entered into service under the management of the Cinkota Division. Furthermore, with 2 additional homologized low-floor buses, the number of items of the Volvo 7000A type, articulated bus fleet of the division increased to 31.
- In April, the low-floor, articulated bus vehicle fleet of the Kelenföld Division was

expanded by 6, and then in the next month by 2, and then in July with an additional 2 new Modulo M168 D type, diesel drive buses; of the 10 vehicles, the assembly of 1 bus was carried out at the Kelenföld Division in PKD-like concept.

- The Mercedes-Benz O530 Citaro type bus fleet of the Óbuda Division was also complemented by 5 units of solo and 4+8 units of articulated, used, but still modern low-floor vehicles with air-conditioned passenger compartments.
- 1 Renault Master type minivan was added to the minivan fleet, which are very useful in the Óbuda region.

### Vehicle rentals

- In 2014 ATÜI put into service of 15 VOLVO-ALFABUS Cívís 12 type modern, low-floor solo buses, in cooperation with INTER TAN-KER Kft. Óbuda Division uses the buses for PT service providing drivers and also stores them. At the same time, the owner is responsible for altering the vehicles according to the image requirements specified by the Client, as well as



# BUS AND TROLLEY BUS OPERATION



Kft. for a fixed-term. The bus is operated and maintained by Óbuda Division. The operating experiences are favourable in case of both types of rental vehicles.

## Refurbishment of vehicles

- In 2018, ATÜI continued its condition preserving programme of its vehicle fleet by carrying out frame refurbishments, frame repairs as necessary, as well as aesthetical maintenance concerning the Volvo 7700A type buses. 16 units Volvo 7700A type, low-floor articulated buses underwent aesthetical refurbishment at external partners, in the course of which the external part and the passenger compartment were both renewed (e.g. re-upholstering the seats, renovation of decorative elements, re-polishing the handrail system). Within their own scopes of competence, the divisions carried out the aesthetical maintenance of an additional 3 units of Volvo 7700A type articulated buses. The renovation of the engines of these types is being performed continuously, too, which we will have to continue in the future even more intensively, due to the wear and tear caused by the high mileage. Until the end of the year, 74 vehicles in total underwent aesthetical maintenance.
- As a result of the wear occurred during the metro replacement tasks performed by our company, the replacement of the pulling devices of the Van Hool New AG300 type low-floor articulated buses – purchased earlier as used vehicles – became necessary. The replacement was carried out in 15 buses during the year. In case of the majority of the repaired buses, repeated repairs became necessary subsequently.
- Refurbishment of trolley buses concerned primarily vehicles type MAN NGE 152 low-floor articulated trolley buses. The frame repair of 4 vehicles was completed.
- The aesthetical repair and the replacement of the worn-out batteries of the Ganz-Solaris Trollino 12A type trolley buses – which were purchased in 2006 – continued. Pursuant to contract No. T-261/15., 2 vehicles underwent refurbishment. The renewal of the remaining 12 units will continue at a faster pace in 2019.

for ensuring continuous maintenance and availability. According to the above conditions, in cooperation of INTER TANKER Kft. again, we entered 54 Mercedes-Benz Conecto G type articulate vehicles into service.

- Our company put 22 units of Modulo M108D type solo buses into service in cooperation with MABI-Busz Kft., also in the framework of maintaining availability.

- In the framework of vehicle rental, our directorate currently operates 7 units of Mercedes-Benz Citaro G (according to the contract with reference number T-16/17) type and 5 units of MAN Lion's City GL (according to the contract with reference number T-472/1) type articulated buses.
- Since November, ATÜI has been renting a low-floor Mercedes-Benz 515 Sprinter type minibus from Truck-Trailer and Parts

# BUS AND TROLLEY BUS OPERATION

## *Operation related measures – the liquidation of IEAG and its consequences*

On 26th August 2015, our Company concluded a contract for the availability of 20 service-ready buses with MABI-BUS Kft., the legal predecessor of Ikarus Egyedi Kft. The partner intended to fulfil this obligation by entering 22 Modulo M108d buses into service. In the availability concept, the maintenance and management tasks of the vehicles are fulfilled by the Contractor, while our Company provides the fuel, window cleaning liquid, the AdBlue and the driver necessary for the service of the bus.

In course of the fulfilment, the availability indicators of Ikarus Egyedi Kft. did not reach the level undertaken (the availability indicator of the same type of buses operated by Kelenföld Division and maintained by our Company is significantly higher). Increasingly serious technical problems arose with the fleet operated by Ikarus Egyedi Kft., due to the nature thereof unambiguously imply the fundamental inadequacies of the maintenance, as well as the inadequate support by the manufacturer.

The malfunction of the brakes shall be highlighted from among the unsolved technical problems emerged in connection with the fleet. From among the vehicles younger than 3 years, several are unfit for service due to brake malfunctions. In October 2018, the competent authority seized one vehicle due to an accident causing personal injury and arising from brake malfunction. The condition of the brakes endangering personal and property safety is completely unacceptable to our company.

Taking into consideration the compulsory liquidation of Ikarus Egyedi Kft. and the recent problem our Company is convinced that the partner will not be able to operate the vehicles during the 8 + 2-year contractual term. At the same time, in the current situation of transportation in the Capital and considering the current state of the vehicle fleet of BKV Zrt., the operation of the Modulo M108d buses kept available by Ikarus Egyedi Kft. would be necessary in order to be able to provide the appropriate number and quality of buses.

Our Company is examining the legal, economic and technical options for operating the low-floor, modern buses in question, among



the vehicles entered into service by BKV Zrt. Considering the situation occurred, the objective of our Company is to terminate the contract – taking into account the existing legal options – and to acquire the ownership and right to operate the vehicles which are owned by the financing bank. Decision on the future of the 22 vehicles is expected to be made in 2019.

### **Staff**

From the aspect of the metro replacement and the fulfilment of the bus replacement tasks of the tram track closures planned typically for the summer season, ensuring the driver staff meant the limited resource and it determined the volume of the maximum planable outputs. Recently, there has been high demand both nationally and internationally for qualified heavy vehicle drivers who also have practice. The driver job has unambiguously become a skill shortage; the hiring, training and keeping the necessary headcount requires constant efforts.

As a result of the active advertising campaign of the Company we managed to stop the decrease of the driver staff numbers, moreover, an increasing trend was noticeable with respect to the number of drivers, the students

and the trainees as well.

The Company used numerous new methods, recruitment tools and channels it had never used before, the results of the joint application of which are clearly visible. In addition to maintaining our driver staff numbers on the same level, the qualitative and quantitative increase of the maintenance staff is given special emphasis as well.

In order to keep our drivers, we took numerous measures to improve the working conditions. These include – among others – increasing the rest period, making the driver's cabins of the vehicles closed, air-conditioning the driver's cabins, the renovation and aesthetical repair of the rest areas at the terminals, as well as the provision of accommodation in workers' hostel free of charge.

Another measure in order to keep and motivate the drivers was the introduction of the "Driver of the Month" campaign, and at the end of the year the "Driver of the Year" will be selected from the monthly recipients.



# BUS AND TROLLEY BUS OPERATION

## *Successful participation in the European Bus Driver Championship*

The European Bus Driver Championship (Bus-EM) organized for the first time ever was hosted by Berlin between 21st and 22nd September 2018. The team of our Company entered the competition as well, in order to test their knowledge and expertise on an international level. At the event, in total 21 European teams, the best female and male drivers of 21 cities of 16 countries fought against the buoys and

the stopwatch on the racecourse containing eight challenges in total. Speed estimating, slalom, reversing, and precise stopping were among the competition events, which had to be carried out with three different types of buses: with a double-decker, three-axle MAN, an electronic Solaris and a Mercedes Citaro. Owing to their painstaking preparation, BKV Zrt. team members and drivers Gabriella Flá-

mis (Óbuda Division) and János Haibach (Cinkota Division) completed the tasks successfully with excellent driving. Having overcome the skills obstacles, our colleagues could get off their vehicles proudly, since they got 6th place in the all-around event, while in the individual ranking János Haibach could step on the 3rd place of the podium from behind the wheel.



## *Participation in the “BKV celebrates 50 years” series of events*

The open houses held on the premises of Kelenföld and Óbuda Divisions attracted a large number of visitors with a wide range of programmes. As the finale of the jubilee year, we had the chance to participate in a spectacular vehicle parade. The passengers of the herita-

ge trams and buses enjoyed a nostalgic time travel. The heritage convoy started off from the section between Rudas Spa and Szent Gellért Square, and proceeded along Bartók Béla Road to the Kelenföld Bus Garage, respectively, to the Kelenföld Tram Depot. The

buses involved in the parade included such old legends as the MÁVAG TR5, or the Ikarus 180 with its harmonica doors, or the refurbished Ikarus 60, which debuted at the event. There was also opportunity to take photos of the heritage vehicles lined up in the facilities.



# RAILWAY OPERATION

In 2018, the Railway Operation Directorate operated the metro, MFAV (Millennium Underground Railway), tram and cog-wheel railway public transport of Budapest. According to the Public Service Contract, in the interest of continuous and safe service provision, the Railway Operation Directorate carried out the maintenance and repair of the vehicles and the items of infrastructure insuring the operation, and, if it was necessary, it contributed on the operator level to the preparation of investments projects concerning public transport, too. In addition to the contractual obligations, according to "Act CLXXXIII of 2005 on Railway Transport", as well as the National Railway Policies and other laws, in the railway sectors (at the Railway Operation Directorate), in course of the use of railway buildings and vehicles, the licence holder shall ensure – among others – the establishment and uninterrupted

enforcement of proper rules of operation, the establishment of the conditions of safety of life, property and operation, the maintenance of the railway buildings and vehicles, keeping them in a condition fit for secure operation, and ensuring their technical supervision. In addition to the complete fulfilment of their regular operational tasks, the railway operation special services carried out numerous tasks – of high importance – through the realization of which they facilitated compliance with the changing environmental effects of public transport, the realization of the developments in progress and the preparation of the developments planned.

The main duty of the Railway Safety Office (in Hungarian: Vasútbiztonsági Iroda; hereinafter referred to by its Hungarian abbreviation: VBI) is fulfilling the independent railway safety or-

ganizations tasks of BKV Zrt. In the framework of this, the VBI supervises the professional activity of the sectoral railway safety groups, the issuance of policies related to railway safety, and conducts the Operator's inspections ordered by the Transport Safety Organization of the Ministry for Innovation and Technology. The VBI maintains contact with the authorities concerned and it fulfils the necessary data provisions. In 2018, the VBI conducted 23 inspections, as a result of which it made 15 safety recommendations to the leaders of the organizational units competent or concerned. The VBI participated in the implementation of the railway renovation projects, and it issues the independent railway safety organizational declarations of BKV Zrt. as railway company.

## Operational performance

- The BKK-focused (active) useful place-kilometre performance of the metro branch was 3 823 069 thousand place km, which represents a 21.7% decrease compared to the 2017 performance. The performance decrease occurred mainly on metro line M3, as a result of the reconstruction of the Northern section which started then. The operative place-kilometre plan was performed to 99.8%.
- The number of metro service disruptions due to the fault of BKV Zrt. – for technical reasons, or due to shortage of staff – decreased by 40% compared to 2017, therefore in respect of the service disruption indicator which is part of the SLA system, the metro branch was put in the +0.5% Bonus category in 2018.
- On an annual basis, the performance increased by approx. 2.5% compared

to the previous year, which is an almost 20% increase compared to 2015.

### The most important changes concerning the traffic management:

- During the renovation of the Northern section of metro line M3, the provision of extra staff on tram lines 12 and 14 (during the entire year).
- Tasks related to the Budafok Tram Depot: the service vehicle release started on 12th May 2018 (with 20 Tátra vehicles and 2 short CAF vehicles), the tram depot has been working at maximum capacity since 2018.
- Due to the tram track reconstruction works carried out on tram lines 4 and 6, temporary traffic rules were in affect between 16th June and 2nd September 2018.
- The track closure affected the route of tram line 1 and also the related rides to

the tram depots were reorganized between 7th July and 31st August.

- Due to the track construction works along Fehérvári Road and Etele Road, temporary traffic rules were introduced on the crossing lines (17, 41, 47) between 26th May and 8th July 2018.
- Due to the track closure on Fiumei Road, traffic restrictions were introduced and the vehicle release was suspended from the Baross Tram Depot between 14th October and 22nd December 2018.
- Due to reconstruction works Száva Tram Depot was closed between 16th and 21st June 2018, thus the vehicle release had to be ensured from other tram depots.
- Temporary traffic rules were introduced related to the renovation works carried out along the route of tram line 50 between 24th May and 26th June 2018.
- Organization of the single-track traffic on

# RAILWAY OPERATION

tram line 41 from 12th February 2018.

- The introduction of the temporary traffic rules on the route of the cog-wheel railway, between 19th February and 7th April, and between 15th October and 30th November.

## Staff numbers, training

- The year-end final number of full-time tram drivers was 935. Due to the changes in the performance and the staff numbers, as well as the measures taken, the average overtime work of tram drivers in the last year and the number of vacation days carried over to the next year decreased compared to the previous year.
- In order to ensure the traffic performance

ordered, we continued the increased-pace tram driver trainings, on which we trained 74 drivers and 6 vehicle technical workers in total last year. Furthermore, we continued the railway transport safety-related trainings of the tram and cogwheel-railway drivers, the vehicle technical workers and the infrastructure employees.

- The vehicle type and line trainings (CAF, Combino, T5C5K, etc.) related to various projects and to the expansion of the low-floor service were ongoing throughout the year.

## Special service, heritage

- Over the year, with the heritage trams we provided in excess of 815 hours of perfor-

mance in total (typically on weekends), for 60-70 hours per month on average.

- In total 60 special service orders were fulfilled with trams, for which we ensured the necessary staff, with the performance of 201 working hours.

In order to improve the emergency vehicle technical support service, a new, large support truck ("large support") entered into service. Through increasing the efficiency of the vehicle maintenance works, we were able to decrease the quantity of line failures for technical reasons, through which the standard of the services provided by the tram branch improved further, so much that even the passengers noticed it.

## The development of the railway vehicle fleet

### Tram

- The number of vehicles was increased by 4 used and homologized TW6100 trams. The vehicle fleet was made up of 592 trams and 14 (7 engines and 7 tow-cars) cog-railway trains. The average age of the tramway vehicles was 34.8 years, which figure – despite the positive changes – still exceeded the planned lifespan by 4.8 years.
- The low-floor vehicles (Combino and CAF) made up 15% of the vehicle fleet, at the same time, these types were responsible for 40% of the sectoral useful place kilometre performance. It was new compared to the previous period, that on weekends we ensured low-floor service on line 1 with Siemens Combino trams, in addition to the CAF URBOS 3/9 vehicles.
- In recent years, the ratio of air-conditioned vehicles has improved significantly, which ratio is 14.36% in case of trams and 40.67% in case of metro vehicles.

### Vehicle refurbishments

The effects of the transport performance demands, as well as the great repairs carried out as scheduled over the recent years demanded strict requirements in the field of vehicle repair in 2018 as well. Due to the shortage of funds – on the investment side – and in the interest of safe operation, instead of the technically justified comprehensive repair – taking into consideration the cost-efficiency aspects of the duration of the expected further operation – we carried out less vehicle repairs which were based on condition assessment and which were limited in terms of technical content.

- We continued the comprehensive repair and modernisation of the Tátra trams. With the 36 additional vehicles, the ratio of the modernised T5C5K type trams increased to 228 (71% of the Tátra vehicle fleet).
- The drive modernisation and comprehensive repair of the 4 KCSV7 type trams had been finished.

- The refurbishment of the 9 TW6000 type trams, which is designated to increase the lifespan of the tram.
- We continued the 10-year comprehensive repair of the Combino trams, as well as we started the 12-year comprehensive repair cycle.

### Inspection tram

The department started the fit-out of a moving inspection vehicle in 2016. The purpose of the inspection tram is to measure the technical condition indicators objectively, the precise and dynamic assessment of the technical condition of the track- and overhead cable networks, as well as allowing the maintenance and renovations works to be planned more precisely. In 2018, the inspection system installed on the inspection tram was supplemented by new devices, which are suitable for the diagnostics of the overhead cable network. As a result of the expansion, during the autumn inspection series

# RAILWAY OPERATION

the overhead cable geometry, the forces impacting the current collectors could be measured, and with the help of the thermal camera installed (under operational circumstances), the hot spots as well. The data provided by the vehicle dynamics measurement system are suitable for supporting that the railroad block needs and the investment works are justified, as well as these data are suitable for demonstrating the changes of the position and status of the tracks after the reconstruction. According to our plans, the information provided by the inspection system will help the planning and scheduling of investment works in the future, thereby contributing to the reduction of the costs of the operation.

## Metro

- On M2 metro line 22 (5-car) ALSTOM metro trains are in service.
- On M4 metro line, passenger transport is carried out by 15 (4-car) ALSTOM metro trains.
- On M3 metro line– as result of the refurbishment combined with drive modernisation – 37 modernised Russian metro trains originating from the 81 family (6-car trains)

are in service. After the vehicle modernisation, 3 EV-type trains remained in the fleet, which may subsequently fulfil heritage services

- On M1 Millennium Underground Railway (MILLFAV) 23 custom-made articulated vehicles are running on the line. The vehicles have already exceeded their planned lifespan significantly, their current average age is 44.69 years.
- The average age of the metro passenger transport vehicles is 3.35 years

## The most important technical content of the refurbishment combined with modernisation of the M3 vehicles:

- The installation of new, energy-efficient drive system, which is suitable for recuperation.
- Fit-out of modern vehicle exterior and passenger compartment, new information system, ventilation with ventilators, as well as installing camera surveillance and video recording system in the passenger com-

partment.

- Construction of spaces designated to ensure the safe travelling of persons with reduced mobility.
- High level of fire protection, building automatic fire alarm and fire extinguisher system in the appliance box, construction of escape doors on the front wall of the front cars.
- The last service of the old “blue metro” was on 4th April. The renewal process of the vehicle fleet of metro line M3 was finished by the planned deadline, 12.06.2018, the modernised vehicles were delivered until the deadline specified in the contract.

Overall, it can be stated that the project established for the refurbishment of the vehicle fleet of metro line M3 was successful. The modernised metro cars comply with the requirements of today, and through their modernisation not only half a million passengers per day can travel more comfortably but also the working conditions of the drivers and the reliability of the service improved significantly.





# RAILWAY OPERATION

## *The development and achievements of the railway infrastructure assets*

### **The key elements of the assets:**

- The track system with the total length of 475.2 km.
- The power supply ensuring the service of the vehicles is helped by 85 converters.
- The vehicles receive the electric power through the 652.2 thousand km-long overhead cable network and a 1115.5 thousand km-long traction-cable network.
- The number of further elements (signalling devices, line lighting devices, mechanical engineering appliances, escalators, ventilation systems, etc.) in total amounts to several hundred thousand pieces.

### **The most important refurbishments and developments concerning the network:**

- Renewal of a 115-year-old supporting wall in Hűvösvölgy.
- Reconstruction of the Zsókavár Street terminal.
- Reconstruction of another section of the tram track system on the Grand Boulevard (between Oktogon and József Street).
- Extension of tram line 1 continued. As a result of the project, the line reaches Kelenföld Railway Station at Etele Square. The objective of the project, on the one hand, is to connect Etele Square transport node with Kelenföld District, on the other hand, with South Pest efficiently. This way it makes people arriving from the agglomeration can reach these city parts faster, and also the residents of this neighbourhood have fast access to the metro and tram lines heading the city centre.

### **Some of the key maintenance works completed during the year:**

- Repair works of the Soroksári Road tram bridge.
- Repair of the 0.4 kV distributor at the Vörösvári Road terminal.
- Load test of the Pongrácz Road tram bridge.
- Track repair works in the Bánkút Street curve, in Kolozsvár Street and Mester Street.
- On multiple locations, sporadic large-panel track replacements, repair of railroad switch setting devices, repair of automation of the railroad switch heating, repair

and corrosion protection of the overhead cable supporting columns, the expansion of the camera system at the terminal, repair of the control and distribution boxes, maintenance of the grass-covered tracks, noise and vibration tests.

- Track repair works to decrease the traffic and operation safety risks on the Cogwheel-railway line in the course of which we replaced the rack-bars, as well as we completed the replacement of the track rails and the switches, and the regulation of the track on another section.

### **Renovation of the terminal buildings**

Recently, the buildings of Bécsi Road, Farkasrét (cemetery), Móricz Zsigmond Avenue., Új Köztemető (cemetery), Budafok Városház Square, Rákospalota MÁV site, Etele Square, Lehel Square, Káposztásmegyer, Kamaraerdő, Széchenyi Hill terminals underwent larger repairs.

The renovation works included the following elements:

- complete sanitary unit renovation,
- sewer inspection, repair,
- repair and replacements of doors and windows,
- electrical inspection,
- repair and replacement of the lighting,
- heating modernisation,
- internal paintworks,
- external plasterwork repair, painting.

### **Budafok Tram Depot**

In connection with the purchase of the new CAF trams, modernisation of the Budafok Tram Depot became necessary in order to ensure the modern technology of repairing the vehicles for the highest possible daily release into traffic. The reconstruction of the tram depot started in May 2016, and the technical handover processes finished at the end of 2017, while the occupancy commenced on 20th April, and the first day of service was 12th May. Currently, the tram depot is operated at maximum storage capacity, the service need is 5 CAF9, 14 CAF5 and 17 2-car Tátra trams.



# RAILWAY OPERATION

## The development of the metro infrastructure



### Metro line M1

The developments realized:

- At Mexikói Street Station, the renovation of the flooring, the walls and the ceiling, the replacement of the tiling thereof
- New training room in the office building on Mexikói Street
- Track replacement between the stations Vörösmarty Square and Bajcsy-Zsilinszky Street
- Renewed tunnel lighting, with modern 54W lamps,

### Metro line M2

#### Investments, developments, modernisations

- Construction of protected work station on metro line M2, for the remote monitoring system of the Metro Energy Dispatcher
- Part of warehouse M280 and the bogie repair hall got new, modern LED technology lamps
- Replacement of the switch power units operating on the line and the vehicle depot began as scheduled.
- On metro line M2, the establishment and development of a new data transmission IP main network was realized, with system monitoring and remote management support.
- Kossuth Square station was closed again between 28th July and 3rd September. During this period the floor cover was renewed, and instead of the roll-up gates, 6 new automatically operated sliding gate were built aligned with the plane of the building.

Through the installation of the new compact devices, the 10 kV ELMŰ (Electricity Works) receiver room was renewed, as well.

#### Larger maintenance works

- Establishment of a control box and optical network in the tram depot of Fehér Road Vehicle Depot.
- Replacement of the batch of batteries beyond their useful life in the tram depot.
- In order to ensure high level of availability, the installation of a second batch of batteries at Batthyány Square Metro Station. Engine power units of a more modern system were put on the entire line.
- Maintenance of higher level of 6 escalator with high lifting height and 2 escalators with low lifting height along metro line M2.

### Metro line M3

- The complete infrastructure reconstruction of metro line M3.
- Renovation was carried out on the Northern line (between Újpest Centre and Lehel Square), in the middle and Southern sections, typically insulation repair works were carried out during the shutdown.
- In the Northern section, the renovation of the interlocking device, and the external demolition and rebuilding of the AVR in connection with the incidental works of the track construction had been started.

#### Investments, developments, modernisations

- Complete lamp replacement in warehouse

M270

- The lighting reconstruction of the public utility tunnel at Kőér Street was realized

#### Larger maintenance works

- The fire protection maintenance of 14 escalators (6 with high, 8 with low lifting heights)

### Metro line M4

- Various environmentally friendly measures.
- Preparatory works began related to the covering of the framework tunnel passing by the depot. The warranty period concerning the vast majority of the devices of the line expired. The proper maintenance of the engineering systems will be ensured by the internal maintenance staff, as well as undertakings which hold the appropriate administrative authorizations.
- In order to maintain continuous operation, several technical changes were executed on the escalators in cooperation with the manufacturer.

#### Track welding in own competence

- The exceptionally intensive use of the tracks is an operational particularity.
- The short following interval, the small radius of curves, the repeating force of the automated operation occurring on the very same spots, as well as the cyclical dynamic loads generated by the vehicles cause a variety of track damages.
- Due to the transport safety and economic effects, the prevention of track defects and the elimination of the already occurred defects as effectively as possible are among the priority tasks of infrastructure operators.
- On 1st May, our facility fulfilling the track welding tasks was opened successfully, thus in addition to track grinding, this is the second large activity which our Company carries out in its own competence instead of a market service provider enjoying monopoly.
- The success of the initial period proved the operator's expectations. In addition to cost savings, a further incidental advantage is that the availability of the necessary resources decreases our dependency on external partners, and the unforeseeable malfunctions can be managed in a more organized way and faster.

# RAILWAY OPERATION

## Track grinding in own competence

- In 2015, we acquired a vehicle suitable for carrying out the track grinding and for use both on road and railway; since then we have been carrying out track grinding activity with this vehicle.
- In 2018, grinding of 73 744 track meters in total was completed.



## Other activities and achievements

### Investment Support Project

- The development of the Investment Monitoring System (in Hungarian: Beruházás Monitoring Rendszer [BERTA]) project was started, which is intended to present the Investment procedure process of BKV, from the commencement of the procedures and until the conclusion of the processes.
- The objective of the online programme for the management and control of the investments is to apply a more transparent and faster system, with the help of which the investment needs can be monitored. The system is expected to be launched completely in 2019.

### Trainings

- The dual training continued within the Tram Operation Directorate; the goal of the training is to train workers who suit our own needs and have practice already. Simultaneously with their higher education studies, the contracted students participate in a practical training in the railway operation department, therefore such students may be employed as fully-fledged employees immediately after they had finished their studies. Currently we are employing students from two universities, the University of Dunaújváros and the Óbuda University. At the end of the year a dual training agreement was drafted with the Széchenyi István University in Győr as well, as a result of which the employment opportunity of students expands further, both in terms of headcount and professions. Currently, in total 11 university students are involved in the programme, with

the future qualification of electric engineer, mechanical engineer and engineer-information technology specialist.

- During the year we developed and introduced the Instructor Mentoring System (in Hungarian: Instruktori Mentori Rendszer; hereinafter referred to by its Hungarian abbreviation: IMOR), which elevates the preparedness of the station dispatcher – driver staff of metro line M4 to a higher level. The customized training programmes were completed owing to which in the second half-year the theoretical and practical training in the metro depot started on a daily basis. With the help of the IMOR system, the vehicle driving skills can be improved significantly, as well as traffic safety and the efficiency of the interventions during operation can be increased while decreasing the duration of the traffic interruption.
- Since there is no training for professionals as interlocking device technicians neither in state-owned nor any other training institutes we carried out a 3-week professional course organized by Metro Interlocking Device Operation. In the framework of the course, managers and engineers of the Interlocking Device Operation held trainings in the topics of general railway and interlocking devices, traditional relay devices, repair, maintenance (the devices of metro lines M1 and M3), as well as regarding the technical fields of maintenance of electronic interlocking devices (the devices of metro lines M2 and M4).

### Virtual Power Plant Programme

- BKV Zrt. has been contributing to the realization of the objectives set by the Virtual Power Plant Programme, i.e. to contribute to the “building” of the virtual power plant by as much savings as possible.
- In the Excellence Tender launched by VEP, we were awarded with the title of “Energy-conscious Company” in 2018.

### The “BKV celebrates 50 years” series of events

- The National Championships for Public Transportation Drivers was an event of exceptional and worthy level of standard in the jubilee year of the BKV. All transport companies of the country were represented in the competition. Our drivers achieved outstanding results in the competition!
- As part of the “BKV celebrates 50 years” series of event, at the open house held in the Fehér Road Metro Depot on 5th May we welcomed visitors with an exhibition and versatile programmes. Following preliminary registration, the visitors arriving to the exhibition could travel to the venue of the event with the metro train on the shuttle tracks between the third platform of the Őrs vezér Square Metro Station and track No. XII of the vehicle depot.
- With the active participation of our employees, two key vehicle depot open houses (Budafok and Hungária Depots), and the tram parade organized as the closing event of the BKV50 contributed to the promotion of tram transport.



# HUMAN RESOURCES DEPARTMENT

## Human resources strategy

In Budapest and in the Budapest urban agglomeration the unemployment data stand permanently around 3%. In 2018, our Company had to hold its ground in a labour market where the competition for workforce was even stronger than the national competition. In order to keep, obtain and motivate the workforce, with the help of the financial sacrifice originating from the cooperation of the Owner and the Government we were able to carry out an additional 12% wage increase in 2018, after the 15% wage increase in 2017. In addition to the increase of the base wages, this also enabled the implementation of the 2017 – 2020 Human Resources Strategy, which contains further important human resources policy objectives.

### The key achievements:

- The Wage Scale System was introduced, as part of which the wage catch-up of employees with low wages has started.
- The student wages and fringe benefits increased, and we also developed financial incentives rewarding extra performances further.
- We continuously developed our labour market image, through the publication of new leaflets, stickers and banners and by making Facebook, Instagram and Google contents and recruitment short films.
- We renewed our recruitment portal, the [karrier.bkv.hu](http://karrier.bkv.hu) site, where we inform the

interested people with our job offers constantly.

- We expanded the internal recommendation (reward-based) system of the corporate recruitment to jobs functions which cannot be filled even after longer recruitment.
- We increased our presence at the job fairs organized by the districts of the Budapest-Capital Government Office.
- We established a work committee for the improvement of employment conditions, in order to improve the technical and comfort conditions of staff rooms, terminals and staff waiting areas.

Owing to the competitive remuneration, the number of employees leaving the Company decreased. As a result of this and the intensive recruitment campaign, the number of employees of the Company increased by more than 400. Owing to our successful efforts, we continue to be able to maintain the commitment and the motivation of our employees, thereby facilitating the quality and safe provision of the community transport service.

### Further important activities and achievements of the human resources department:

- Amendment No. 5 of the Collective Agreement and – as a result of the change in the rules applicable to retirement – the

agreement on the Jubilee acknowledgment were concluded.

- With the participation of the specific traffic departments of our Company and BKK Zrt. (Budapest Transport Centre), a work committee was formed to improve the employment conditions (hereinafter referred to as Work Committee), which examined the schedule, work schedule and working conditions in the departments from November 2018. The work of the Work Committee is continuous in 2019 as well.
- Based on the Collective Agreement, our Company provided financial aid to the employees and the pensioners of the Company on equitable grounds (giving birth, long illness, hospital stay, funeral), in the amount of 19.8 million HUF per annum.
- During the off-season period, Balatonfenyves Training and Leisure Centre served as venue for training events, while in the summer period it was used for the vacationing of the employees of the Company. It shall be noted that our Company supported the vacationing of those in social need and with large families. As the grand prize of the Family Day event held on the occasion of the 50-year jubilee of the BKKV, a one-week vacation in Balatonfenyves could be won.
- The occupancy of the Workers' Hostels operated under the management of BKKV Panoráma Kft. increased significantly due to the supported housing conditions and the increasing number of employees.
- The occupancy of the Galyatető Vacation House increased as well, our employees like this small holiday resort very much, which – owing to its proximity to nature – provides very pleasant memories for those who vacation there.
- The "Day Care Home for the Elderly" provides a care location for the care of and club-like activities for nearly 6,200 BKKV pensioners.
- During the year 8 persons were given employer's loans, the sum allocated amounted to 19 million HUF in total. 25 employees used the discounted early repayment opportunity arising from the change in the legislation.



# HUMAN RESOURCES DEPARTMENT

## Educational activity

### Trainings organized by external partners

The external training are organized by education institutions, training companies and event organizers outside of the Company. We enrol our employees in the trainings announced based on preliminary application.

Number of participants in trainings organized by external partners:

- courses providing professional qualification (OKJ) **417 persons**,
- further training for practitioners of a certain occupation **1 person**,
- professional conferences **521 persons**,
- trainings designated for target-oriented preparation **415 persons**,
- management and new management training **17 persons**,
- special trainer workshop - training **10 persons**
- secondary formal education trainings: school-leaving examination prep training,
- technician training, specialised adult education (OKJ courses) **6 persons**,
- higher-education formal education trainings **49 persons**,
- specialised further training (postgraduate courses) **4 persons**,
- foreign language courses **30 persons**,

### Trainings organized internally

In case of trainings organized internally, BKV Zrt, organizes and fulfils the education tasks within its own scope of competence.

Our Company operates a driving school, and as railway training body, it has administrative registration. The trainings are conducted in accordance with the training programmes approved by the authority and are concluded with an official exam.

We organize the other trainings in accordance with the corporate Training and Exams Code.

Participants:

- Special driving courses in category D for new hires **357 persons**
- Trolley bus driver category **92 persons**
- Special training for obtaining Motor Vehicle Driver Certificate **613 persons**
- Qualifying exam for bus and trolley bus drivers **1166 persons**
- Specialised railway administrative exam **6958 persons**



157 drivers who do not work in compliance with the corporate requirements, or who are more sensitive to accidents participated in the corrective training for the adjustment of traffic behaviour.

599 persons were trained in SAP or other information technology courses (ForTe, office applications).

We conducted the basic training titled "The quality management system of BKV Zrt. basic course of the physical work employees of the Bus and Trolley Bus Management Directorate (ATÜI)". In the framework of the training, in total 663 persons participated in 28 courses. The practical training of the adult vocational training "Motor Vehicle Mechatronic Technician" (1st semester) was launched for the first time with 15 participants.

In order to increase management skills and efficiency, the one-day series of lectures organized under the title "Leadership Development Workshop for Middle-level Management" was attended by the exerciser of employer's rights and other middle-level management employees of the Company, on 4 occasions, 186 persons in total.

One new textbook was prepared for the internally organized trainings, and we distributed 4660 textbooks in the framework of the course trainings.

### Library

The stock of the libraries in operation at the Headquarters and in Kőér Street amounts to 47,000 books in total, including 32,000 volumes of classic literature and 15,000 volumes of specialised literature.

The number of registered readers: 930 persons.

### Vocational training – training workshops

- The renovation of the South Pest training workshop was completed, where we can receive vocational school students – as well as our adult students who joined the dual education - in a modern environment.
- In our 4 active training workshops and in the different repair workshops of our Company we received 564 students and summer interns in total.

Having joined the higher education dual education, our Company concluded dual partnership contracts with 3 universities, in the framework of which we accepted 11 university students for internships. The students complete their practice period with the mentoring of the Railway Operation Directorate.

# THE FINANCIAL MANAGEMENT OF BKV ZRT. IN 2018

In 2018 BKV Zrt. achieved 146 791 million HUF of operating income (net sales revenues, other income), as well as it realized 697 million HUF of own performance capitalized, which in total exceed the 2017 income by 9 378 million HUF.

- As of 1st May 2012, BKV Zrt. has pursued its activity in the framework of the Public Service Contract concluded with BKK Zrt.
- BKV Zrt. provides public transport services as the internal service provider of BKK Zrt., for which services BKV Zrt. is entitled to compensation up to its justified costs not covered by the revenues.
- BKV Zrt. has no other direct public service-related revenues.
- The contract valid between BKK Zrt. and BKV Zrt. specifies the compensation methodology which constitutes the basis of the monthly service fee payable, as well as the contract includes the traffic performance ordered, the terms and conditions of performance, the planning and reporting requirements, the bonus/malus system, and the items subject to penalty.
- The revenue of contractual and other services exceeds the figure of the previous year by 72 million HUF.
- The growth originates from the 39 million HUF surplus of the special services and the 33 million HUF surplus of the Funicular and the Chairlift. In case of the special services, the increase may be explained by the increasing revenue of the HÉV replacement and the contractual services. In case of the Funicular and the Chairlift, the continuous favourable weather, as well as the promotion carried out in the framework of the programme titled "Night of the Chairlifts" – which lasted until the end of July – also contributed to the revenue growth.
- The revenue of other activities ended up below the base by 142 million HUF.
- The Company shows in this line – among others – the fees earned from the loaning and leasing of tangible assets, the rental fee of the corporate residential properties and workers' hostel, the rental fee of the advertisement surfaces, as well as the revenue of intermediated services.
- The fees earned from the loaning and leasing of tangible assets showed 72 million HUF of extra revenue compared to the base figure, however, the rental fee of the

advertisement surfaces did not reach the base figure, in connection with the metro reconstruction.

- For human resource management considerations and in order to ease the shortage of labour, the Company provides free accommodation in workers' hostel to employees of high-demand professions. For this reason and arising from the change in the management model of the workers' hostel, no rental fee revenue was earned from this activity in the current year, this revenue amounted to nearly 30 million HUF in 2017.
- In the sale of stocks and goods, the surplus was 181 million HUF compared to the base figure, which was caused mainly the revenue from the resold energy appearing in this line (this used to be claimed among the revenues of intermediated services).
- Overall, the sum of other revenues remained below the base figure by 2 715 million HUF in total.
- The reason behind the significant difference compared to the base figure that during the same period of 2017, the carry back of deferred income related to the transfer without reimbursement related to the M4 investment was included with the value of more than 2.5 billion HUF, which no longer appeared in 2018.
- Compared of the base figure, a decrease of more than 100 million HUF occurred in the use of the provision. The 274 million HUF of surplus revenue earned from the sale of tangible assets appeared as surplus, furthermore, growth was caused by that considering the effective assets and liability insurance policy, our Company was entitled to a refund of fees. In addition, nearly 32 million HUF was also received for an already impaired claim.
- The operating expenses increased by 10 959 million HUF compared to the previous year. With respect to the sums of the material and staff expenses which represented more than 80% of the operating expenses, we achieved savings of nearly 3.5 billion HUF compared to the planned budget.
- The material cost increased by 282 million HUF compared to the base figure.
- Although there was a decrease in case of

the materials used, and the electric power and other energy, all these combined were still unable to counterbalance the excess of 1 725 million HUF arising from the substantial price increase of the diesel costs.

- The use of the services used slightly exceeded the planned budget and it exceeded the base figure by 2 432 million HUF. In 2018 the Company spent in total 2 341 million HUF on the "Rental fee of vehicles" claimed among the services used, which constituted an extra expense of nearly 526 million HUF compared to the reference period. From June 2016, BKV Zrt. entered buses into services in several stages, in a new form, in the framework of availability concept. The increase of 2018 is the continued effect of the availability fee of the additional 30 buses which entered into service in mid-2017, in order to fulfil the metro replacement tasks without interruption.
- 8 637 million HUF was used for the repair of tangible assets, which exceeds the value of the reference period by 553 million HUF. The increase was caused primarily by the vehicle repair activity of the tram branch and the repair tasks of the metro infrastructure. During the accounting period, with respect to the public sanitation and cleaning costs, an extra cost in the amount of nearly 567 million HUF was realized at the Company compared to the reference period. According to BKV Zrt.'s contract for cleaning services, the changes in the minimum wage shall also be taken into account in course of the annual review of the contractor's fees. This is the reason behind the unit price which became higher than before; this simultaneously caused the increase of the costs occurred. In addition, the cleaning costs were increased by the extra cleaning of the newly purchased vehicles which were entered into service.
- In respect of the property security activity, an extra cost of 287 million HUF occurred compared to the reference period, which results from that the minimum hourly fee applicable in course of the activity is specified by law, according to which the hourly fee of manpower property security increased by 10% as of 1st April 2018. In addition to the change in the hourly fee, the increase of the secured premises – opening of the Budafok Tram Depot – also contributed to



# THE FINANCIAL MANAGEMENT OF BKV ZRT. IN 2018

the increase of these costs in excess of the base figure.

- Overall, the staff costs exceeded the base figure by 13.3%. The average rate of the 2018 corporate wage increase opportunity was 12%, of which 5% was designated for base wage increase and 7% for wage catch-up – primarily in case of high-demand jobs. The wage increase was different in each specific area, depending on the needs and specialities of the department, concentrating primarily on the vehicle driver headcount. The labour market position of the Company improved through the wage

increase, the competitive salary helps in achieving the employment policy objectives.

- The decrease of the other expenses compared to the reference period is caused by the one-time expense of 2 566 million HUF included in the base figure and consisting of the transfer to the Municipality without reimbursement and related to the M4 investment; this expense did not emerge in 2018. In addition, there is an increase in the paid amount of damages and fines, in establishing provisions, aids provided, as well as in the claimed impairment loss of receivables.

The income from operations of the Company was 1 460 million HUF of losses in 2018.

The balance of financial transactions closed positively with the value of 33 million HUF, thanks to the income from interest and gains on exchange rates.

The profit before tax of the BKV Zrt. was 1427 million HUF of losses in 2018, which means an improvement by 13 646 million HUF compared to the planned budget, primarily as a result of the underfinancing established and the savings of 2018.

## Information Technology

The supervisory authority audits of the ISO 20000 information technology service management system and the ISO 27001 information security management system took place between 26th and 28th September. The audit was completed successfully. With respect to the services and operation of the Information Technology department, our company has had ISO 20000 certification since 2014 and ISO 27001 certification since 2017.

The developments realized with the participation of the Information Technology department:

- WEB2 – ForTe: the driver portal delivered at the beginning of 2018 was renewed, extended and made more modern according to the needs and feedbacks of the specific departments. The scope of the drivers involved in the system was completed with the employees of the metro department.
- The drivers may view their service schedule on a new surface, electronically, and the drivers may submit reports via the system, and they can also access the policy and orderly books. The result of the development is the vehicle search function, with the help of which the last known position of any given vehicle may be viewed on a map based on the line number/license plate number.
- SAP archive: the new document archiving system allows the attachments of electronic documents to SAP master data and to certain types of receipts, as well as the secure retention of electronic documents – thereby simultaneously providing background for the storing of the documents of

electronic billing.

- The system relieves the SAO online database from storing the rarely used documents, ensures authorization-based access to documents, is able to manage the retention period, as well as provides significantly faster access than before.
- Conductor system: the development and functionality extension of the ticket validating system designated for managing IT-related reports was completed based on user feedback. In course of the developments we created the task distribution function, and the cost appropriation became filterable, as well as the costs per systems/organizations and ticket statuses became queryable.
- Fringe benefits system: based on the legislative changes, the design of the fringe benefit element options and the records of the fringe benefit subaccounts related to the SZÉP card were completed. Upon the request of the human resources departments, the transfer of the subaccount data from the SAP is automatic, which on the one hand, minimizes the possibility of errors by eliminating the manual entry, and on the other hand, the claim management became faster as well. Simultaneously, we also prepared the system for managing the changes which may occur in the coming years.
- In course of IdM development/version change – as a novelty – the authorization review function was built in, the verification per system between the records and the actual situation. As a result of the de-

velopment, the approval process became stricter, thereby excluding the possibility of the approving and the requesting person being the same. If any repair made in the certification process, then the entire certification process would have to be started again, in order to realize complete control. Another result of the development was that the information technology systems are able to acquire and retrieve data from the IDM, thereby further steps had been made towards the centralization of user data.

- Through the implementation of the NTCA Online Invoicing, BKV Zrt. became bound by law to ensure online data provision related to invoicing. The online invoicing data provision function of the SAP SD module was created based on the needs of the accounting department, as well as the related infrastructural settings were completed.
- Through the expansion of the knowledge sharing, under the name of the Moodle system, an internal e-learning portal was established, where the users may access the electronic curricula. The source of the digital curricula available may be internal – colleagues assigned to train – or external – for example, the training material on the use of the spreadsheet management software – as well. The scope of the available materials is expanding constantly. Through the use of the system, not only the cost-efficiency (decrease of training/printing costs) but the speed of information access increases as well.

# CORPORATE RELATIONS

## BKV celebrates 50 years

- The foundation of the communication in 2018 was the 50-year jubilee; we connected all our activities to messages related to the 50-year operation as much as possible. The biggest events of the year were also parts of the 50-year jubilee celebratory series of events.
- At the UITP Marketing and product development committee meeting of the UITP, we regularly presented reports on the status of the 50-year jubilee series of events. Owing to our international communication, the representatives of 20 countries were provided with an overview of the celebratory event of the company. On occasion of the celebratory year, our Company received greetings from 16 transport companies of 14 countries.
- One of the lectures at the SmartMetro World Congress held in Paris was also about the 50-year anniversary. Moreover, the jubilee exhibition of the museum was presented in CNN's report about the Millennium Underground.



## Visual appearance

- The display of the BKV 50 logo -which was approved at the beginning of the year – on the image materials (website, Salamon, advertisements, etc.) and on the vehicles (approx. 1000 buses, 140 trolley buses, 600 trams, 400 metro trains) has contributed greatly to achieving the memorial effect.
- Our merchandise (T-shirts, mugs, etc.) prepared with the 50th image and our gold-plated and Zamak 50th memorial medallions got a positive reception.
- Our publication published for the opening event presents the emblematic vehicles of the last half century.

## "It is worth counting on us!" campaign

Our banner campaign launched in February showed how big the Company is and what

the 50-year history means through interesting and extraordinary figures attributable to BKV. For example, the banners quantified the quantity of passengers who use BKV, the length of the tracks maintained by BKV, the number of our vehicles, and the number of working hours per week. At the Deák Square and Blaha Lujza Square metro stations, in Blaha Lujza Square and around Wesselényi Street, our banners appeared in the tram stops, and in the trains of metro lines M2 and M4. In addition, in the daily publication "Lokál", 33 half page advertisements were published in connection with the 50-year anniversary.

## Social media sites

- At the beginning of the year, the Facebook page of the Company was launched. The page is updated daily.
- Our goal is to build a community; in addition to the employees, we welcome the transport fans, as well as anybody who uses the public transport of Budapest.
- The number of visitors of the page is increasing constantly.
- Our post regularly include invitations, the introduction of vehicles representing the 50 years of our Company, introduction and schedule of our heritage rides, posts reporting on the renovation of M3, etc.

- Our official Instagram page was launched in autumn; there we publish nice pictures and compilations raising awareness to our events.
- We gained more than 1200 followers on Instagram within a couple of weeks.
- Both of our social media pages are integral parts of the recruitment campaign.

## Museum activity

On 22nd February, in the framework of a press conference, Tibor Bolla – the CEO of BKV – opened the 50-year jubilee exhibition in the museum in Deák Square, where we also placed a time capsule behind a closed display case. The time capsule contains the achievements and most characteristic data of 2018, as well as the composition and signature of the management. The exhibition showed the history of 50 years through – among others – old objects, passenger information materials, destination signs and uniforms. The success of the exhibition shows in the visitor numbers: it was visited by 25 thousand people over the year.

The theme of our transport history competition – which was organized for the eighth time by the museum and with the participation of more than 100 teams – was related to the 50-year anniversary of BKV as well.



# CORPORATE RELATIONS

At the national museum event “May Day Celebration of Museums”- which attracts ten thousand visitors – we made the 50-year history of BKV the focal point of the exhibition. Through the material and activities of our on-site exhibition, the participants of the programme organized in the Hungarian National Museum had the chance to get an insight into the most important events of the past decades.

## Events related to the 50th anniversary

We opened the jubilee year on 19th February 2019, on the 50th day of the 50th year. At the venue created by joining 3 shops, mayor István Tarlós – the patron of the series of events – made a celebratory speech.

We opened the tunnel of metro line M2 and the ‘Object F4’ – commonly known as the “Rákosi bunker” – twice.

Our Company has been a participant of the weekend event of the Mobility Week – the Car-Free Day – since its launch. The 50-year jubilee and the recruitment were the focal points even during our on-site promotion on Andrásy Avenue.

On 9th June, in the framework of a Family Day, we celebrated the birthday of our Company together with nearly 6000 of our employees. The event was opened by CEO Tibor Bolla, and then he gave the certificates of merits and the medallions to 50 of our colleagues who performed exceptional work.

The campaign titled “Book Tram” (in Hungarian: Könyvillamos) intended to raise awareness to the close relationship between reading and transport, to turning the travelling time into quality time. On the vehicle which travels on lines 47 and 49 and which promoted the Festive Book Week, passengers had the chance to travel with authors and poets in the afternoon on Saturday and Sunday.

On 8th September, the passengers had the chance to listen to live music and meet the total of sixteen performers in both cars of the “Melody Tram” (in Hungarian: Dallamos Villamos) heritage tram on tram line 4.

Between 17th and 20th September, in cooperation with Klasszik Rádió, we organized very successful classic chamber orchestra “Metro Concerts” at the stations of metro line M4.

One of the exciting events of the jubilee year, the BKV relay running race, took place in the presence of 5000 participants, in the City

Park (Városliget) on 22nd September, in the framework of the District VII Running and Walking Day. The distance of the 50-year-old BKV was the year of the foundation, three times 1968 meters. After completing this distance, the best racers received BKV medals and valuable prizes.

The entire heritage fleet of BKV – both buses and trams – participated in the heritage vehicle parade held on 25th November.

On 29th November, the concert of the French horn quartet of the Óbuda Danubia Orchestra launched the Tram of Lights (in Hungarian: Fényvillamos). As the highlight of the Budapest pre-Christmas period, the UV tram decorated with LED twinkle lights transported passengers for the tenth time in 2018.

## Open houses

- The open houses were outstanding events of the 50-year jubilee year; nearly 22 thousand people participated:
- The series of events started with the Óbuda open house on 14th April. The vehicles of the Budapest public service companies, the classic car collecting associations and the classic airport vehicle fleet were on show.
- The open house of the Fehér Road metro depot was a special event on 5th May, since we had never organized an open house in any metro facility. We transported the visitors to the venue by special service metro. In the framework of the program visitors could see – among others – the refurbished Metrovagonmash 81.2K train.
- We organized the BKV kids’ day jointly with the Kelenföld tram open house on 12th May. In the framework of the BKV kids’ day, we organized arts & crafts programmes for the children.
- We held an open house in the newly opened Budafok Tram Depot on 7th September. In celebrating the fifth anniversary of the Tourism Division of BKV, we prepared a special exhibition of heritage vehicles, we exhibited our heritage buses, trolley buses and trams at one place.
- We organized the open house of the Kelenföld Bus Garage on 29th September. and then the series of events was closed by the open house held in the Hungária Tram Depot in 2018.

## Professional events

- The National Championships for Public Transportation Drivers was held between 1st and 2nd June 2018, where our company was represented by multiple BKV duos. In the tram category, the 1st and the 2nd places were won by BKV teams, such as the 1st and the 3rd places in the trolley bus category, as well as the 2nd and the 3rd places in the bus category.
- Together with the Urban Transportation Section of the Transportation Science Association, we organized the conference titled “50-year anniversary of BKV – XVIII The current issues of urban transportation (The past, present and future of urban transportation), which was held on 16th and 17th October in Balatonfenyves, in the Training and Leisure Centre of BKV Zrt.
- On 22nd November we held the book release event of Tibor Legát’s “Közlekedik a főváros” (“The transportation of the capital”, second, amended edition) in the Underground Railway Museum at Deák Square.

## Recruitment

Owing to the recruitment activity of BKV concerning several of its areas, this year more than 400 new employees joined our Company.

- Through the nearly 100 different creatives which appeared on Facebook over the year, we were able to achieve 85 thousand clicks.
- In the framework of two “print” campaigns, we addressed the possible employees on vehicle ads and banners.
- On the press day organized jointly with the Administrative Department for Career Aptitude Testing of the Ministry for Innovation and Technology, we presented the bus driver training process to the audience. We put special emphasis on the lesser-known process of the career aptitude test. During the 4-hour press day journalists had the chance to test drive and could also take a trial test at the Career Aptitude Test Department.



## Cable railways

BKV Zrt. manages two cable railways which are operated primarily for tourism service and not in the public service:

- In autumn we launched the week-end test runs of Budapest Sightseeing Line on special service buses for a one-month period. This service provides free connection between the two lines, for passengers who have both funicular and chairlift tickets.
- The test period proved that the new service is profitable, and the live operation will start in the spring of 2019.

### Buda Castle Funicular

- With respect to the Buda Castle Funicular, our Company concluded a cooperation agreement for the sale of the tickets with companies which operate the hop-on hop-off sightseeing buses, and with Clark Picnic Kft., which generate little presale turnover in the sale of the tickets (total sales amounts to 15,544 pcs.).
- The Funicular – which operates as part of the World Heritage – are still sought after for the purpose of commercial and other promotional filming, which increases the revenues of the Funicular even further (5.6 mHUF).
- No ticket price increase has occurred for years, for which reason the number of not only the foreign but Hungarian passengers increased as well.
- In the interest of better passenger service, the gates which had until now been used only as services gates were opened to the public as well, which ensures that the passengers travelling with presale tickets can enter faster.
- In order to improve the sense of comfort of the employees, on heatwave days – similarly to the Zugliget Chairlift – we operate cooling gates at the bottom station of the Buda Castle Funicular as well. Passengers like to use it to cool off, too.

The competition has increased significantly since 2015, when the first examples of electric minivans appeared: by now 5 companies operate this kind of vehicles. Despite this, we maintained both the passenger number and the revenue.

### Zugliget Chairlift

- At the Zugliget Chairlift, we have been selling the tickets with ticket vending machines since the autumn of 2015; these vending machines print the tickets on thermal paper.
- In the interest of faster passenger exchange, passengers are assisted by a staff of students in easier ticket purchase on weekends and holidays.
- The information technology background system applied provides accurate passenger traffic data and it also contributes to the future realization of electronic ticket sale.
- In order to make the passenger service more comfortable, the thermal paper-based ticket printer which was installed in the cafeteria of the valley station in 2017 has provided great help in relieving the vending machines and in case of their breakdown. The service counter of the fixed installed photo machines – which were launched during the year – was placed on the same location, as well as in a well-separated area at the hill station.
- This supplementary service has become popular as well, 20% of the passengers buy the photos themselves or their photos on other carriers.

Adults who hold “U” certificates and MÁV/VOLÁN employees and their relatives are still allowed to travel with discount (children fare). According to the agreement concluded with Budapesti Fesztivál és Turisztikai Központ Nonprofit Kft. (BFTK) – the issuer of the BudapestCard – the acceptance of the Budapest Card started as of 1st June. The card holders bought several thousand tickets during the second half of the year. BFTK reimburses us for 80% of the price of the tickets.

### Our key figures:

#### Buda Castle Funicular:

Revenue (net): 901.7 mHUF,  
(2017.: 898,3 mHUF)  
Number of tickets: 830.2 th. pcs.  
(2017.: 821.2 th. pcs.)  
Profit before tax: 681.9 mHUF  
(2017.: 692.6 mHUF)

#### Zugliget Chairlift:

Revenue (net): 225.2 mHUF,  
(2017.: 195.5 mHUF)  
Number of tickets: 263.1 th. pcs.  
(2017.: 230.9 th. pcs.)  
Profit before tax: 62.2 mHUF  
(2017.: 43.2 mHUF)

### Danube cruiser boat service

- The renovation of the docks on Jászai Mari Square and at the Grand Hotel on Margaret Island was completed. The 26-metre long bridges and the new supporting poles help the ships dock even in case of lower water levels.
- The preparations for the plans for the complete renovation of the ships have been started.
- The revenue from the lease of the naval tangible assets (premises, workshops, tools, ships and docks) amounted to 40.2 m HUF (39.3 m HUF in 2017).

### Special and heritage services

- We carried out the test run of the above mentioned Budapest Sightseeing Line with the involvement of the IK-630 “cabriolet” bus and special service Volvo buses. The operation of the Sightseeing Line last autumn showed that a targeted, strong promotion combined with ticket discounts can make the line successful.
- Our objective is to operate our existing services with even higher occupancy, to have the economic indicators improve even further, as well as allowing the special service buses to get more performance. Based on the test run experiences, improving the quality of the final services will be a priority task for the next period as well.
- Taking into consideration the experience of previous year, the heritage vehicles were operated according to an annual plan, to the great satisfaction of the passengers.

# BALANCE

## BALANCE SHEET "A" Assets

(M HUF)

Seq. No.	Description of item	31.12.2017	31.12.2018
<b>A.</b>	<b>Fixed assets</b>	<b>625 755</b>	<b>653 236</b>
<b>I.</b>	<b>Intangible assets</b>	<b>220</b>	<b>122</b>
1.	Valuable rights	220	98
2.	Intellectual property	0	24
<b>II.</b>	<b>Tangible assets</b>	<b>624 131</b>	<b>651 727</b>
1.	Land and buildings and related valuable rights	345 220	340 038
2.	Plants, machineries, vehicles	228 965	246 636
3.	Other equipment, tools, fixtures and fittings, vehicles	2 091	1 994
4.	Investments, renovations	10 947	37 025
5.	Advances on investments	36 908	26 034
<b>III.</b>	<b>Financial investments</b>	<b>1 404</b>	<b>1 387</b>
1.	Long-term participations in affiliated companies	1 267	1 267
2.	Other long-term participation	19	19
3.	Other long-term loans	118	101
<b>B.</b>	<b>Current assets</b>	<b>26 816</b>	<b>28 086</b>
<b>I.</b>	<b>Stocks</b>	<b>9 376</b>	<b>9 506</b>
1.	Raw materials and consumables	9 153	9 197
2.	Work in progress and semi-finished products	34	22
3.	Goods	189	287
<b>II.</b>	<b>Receivables</b>	<b>4 672</b>	<b>4 718</b>
1.	Trade debtors	330	480
2.	Receivables from affiliated companies	313	290
3.	Receivables from other companies linked by virtue of substantial participating interests	13	2
4.	Receivables from other companies linked by virtue of other participating interests	0	1
5.	Other receivables	4 016	3 945
<b>III.</b>	<b>Securities</b>	<b>3 000</b>	<b>2 001</b>
1.	Debt securities held for trading	3 000	2 001
<b>IV.</b>	<b>Liquid assets</b>	<b>9 768</b>	<b>11 861</b>
1.	Cash in hand, checks	84	93
2.	Bank deposits	9 684	11 768
<b>C.</b>	<b>Accrued and deferred assets</b>	<b>9 548</b>	<b>13 882</b>
1.	Accrued income	9 250	13 742
2.	Deferred costs, expenses	298	140
	<b>TOTAL ASSETS</b>	<b>662 119</b>	<b>695 204</b>

**BALANCE SHEET "A" Liabilities***(M HUF)*

Seq. No.	Description of item	31.12.2017	31.12.2018
<b>D.</b>	<b>Equity capital</b>	<b>212 519</b>	<b>243 944</b>
<b>I.</b>	<b>Subscribed capital</b>	<b>116 000</b>	<b>116 000</b>
	including: ownership shares repurchased at face value	0	0
<b>II.</b>	<b>Subscribed capital unpaid (-)</b>	<b>0</b>	<b>0</b>
<b>III.</b>	<b>Capital reserve</b>	<b>47 077</b>	<b>79 856</b>
<b>IV.</b>	<b>Retained earnings</b>	<b>49 332</b>	<b>49 442</b>
<b>V.</b>	<b>Tied-up reserve</b>	<b>0</b>	<b>73</b>
<b>VI.</b>	<b>Revaluation reserve</b>	<b>0</b>	<b>0</b>
<b>VII.</b>	<b>Profit after tax</b>	<b>110</b>	<b>-1 427</b>
<b>E.</b>	<b>Provisions</b>	<b>1 829</b>	<b>1 819</b>
<b>1.</b>	Provisions for forward liabilities	1 829	1 819
<b>F.</b>	<b>Liabilities</b>	<b>89 234</b>	<b>94 986</b>
<b>I.</b>	<b>Subordinated liabilities</b>	<b>0</b>	<b>0</b>
<b>II.</b>	<b>Long-term liabilities</b>	<b>0</b>	<b>0</b>
<b>III.</b>	<b>Short-term liabilities</b>	<b>89 234</b>	<b>94 986</b>
<b>1.</b>	Trade creditors	41 707	47 897
<b>2.</b>	Short-term liabilities to affiliated companies	1 668	1 710
<b>3.</b>	Short-term liabilities to other companies linked by virtue of participating interests	429	432
<b>4.</b>	Other short-term liabilities	45 430	44 947
<b>G.</b>	<b>Accrued and deferred liabilities</b>	<b>358 537</b>	<b>354 455</b>
<b>1.</b>	Deferred income	447	954
<b>2.</b>	Deferred costs, expenses	1 319	1 318
<b>3.</b>	Accrued income	356 771	352 183
	<b>TOTAL LIABILITIES</b>	<b>662 119</b>	<b>695 204</b>



# BALANCE

## Profit and loss report (with function of expense method)

(M HUF)

Seq. No.	Description of item	31.12.2017	31.12.2018
1.	Net domestic sales	120 272	132 997
2.	Net export sales	781	467
I.	<b>Net sales revenues</b>	<b>121 053</b>	<b>133 464</b>
3.	Variation in stocks of finished goods and in work in progress	-4	-12
4.	Work performed by the undertaking for its own purposes and capitalized	1 019	709
II.	<b>Capitalised works performed by the undertaking</b>	<b>1 015</b>	<b>697</b>
III.	<b>Other revenues</b>	<b>16 042</b>	<b>13 327</b>
	including: impairment loss reversed	13	53
5.	Material costs	25 957	26 239
6.	Value of services used	23 270	25 702
7.	Value of other services	906	1 077
8.	Purchase value of the goods sold	358	470
9.	Value of resold (mediated) services	1 995	1 796
IV.	<b>Material expenses</b>	<b>52 486</b>	<b>55 284</b>
10.	Wages and salaries	43 346	49 725
11.	Other staff payments	3 297	4 080
12.	Contributions on wages and salaries	10 452	10 901
V.	<b>Staff costs</b>	<b>57 095</b>	<b>64 706</b>
VI.	<b>Depreciation</b>	<b>24 879</b>	<b>27 750</b>
VII.	<b>Other operating charges</b>	<b>3 529</b>	<b>1 208</b>
	including: impairment loss	59	86
A	<b>INCOME FROM OPERATIONS</b>	<b>121</b>	<b>-1 460</b>
13.	Dividends and profit-sharing (received or due)	12	12
	<b>including: from affiliated companies</b>	<b>0</b>	<b>0</b>
14.	Other interest and similar income (received or due)	20	9
	including: from affiliated companies	1	1
15.	Other income from financial transactions	18	160
VIII.	<b>Income from financial transactions</b>	<b>50</b>	<b>181</b>
16.	Interest payable and similar charges	1	0
	<b>including: to affiliated companies</b>	<b>0</b>	<b>0</b>
17.	Impairment losses of shares, securities, long-term loans given and bank deposits	-3	0
18.	Other expenses on financial transactions	63	148
IX.	<b>Expenses on financial transactions</b>	<b>61</b>	<b>148</b>
B.	<b>PROFIT OR LOSS FROM FINANCIAL TRANSACTIONS</b>	<b>-11</b>	<b>33</b>
C.	<b>PROFIT BEFORE TAX</b>	<b>110</b>	<b>-1 427</b>
X.	<b>Tax payable</b>	<b>0</b>	<b>0</b>
D.	<b>PROFIT AFTER TAX</b>	<b>110</b>	<b>-1 427</b>

