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TTR Capacity Strategy TT2027

MÁV Zrt., GYSEV Zrt., KTI-VPE Nkft.

Version: 1.0

Date of Publishing: 12.12.2024

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0 Introduction

RailNetEurope (RNE) and Forum Train Europe (FTE) are working together with the European Rail Freight Association (ERFA) to rethink timetabling and capacity allocation procedures (TTR).

The TTR consists of different components, which include in particular improved capacity allocation planning (including track access) and the introduction of new capacity allocation procedures.

Detailed information about the project is available on the following websites:

<http://ttr.rne.eu>

<https://www.forumtraineurope.eu/services/ttr/> .

The TTR aims to better serve market needs and thereby make optimal use of existing infrastructure capacity. In passenger transport in particular, this will mean earlier availability of the final timetable, allowing passengers to buy tickets earlier and more reliably. And for the majority of freight traffic, it will mean more opportunities to submit immediate requests for train paths, providing more flexibility to better serve market needs.

The TTR process is illustrated in Figure 1.

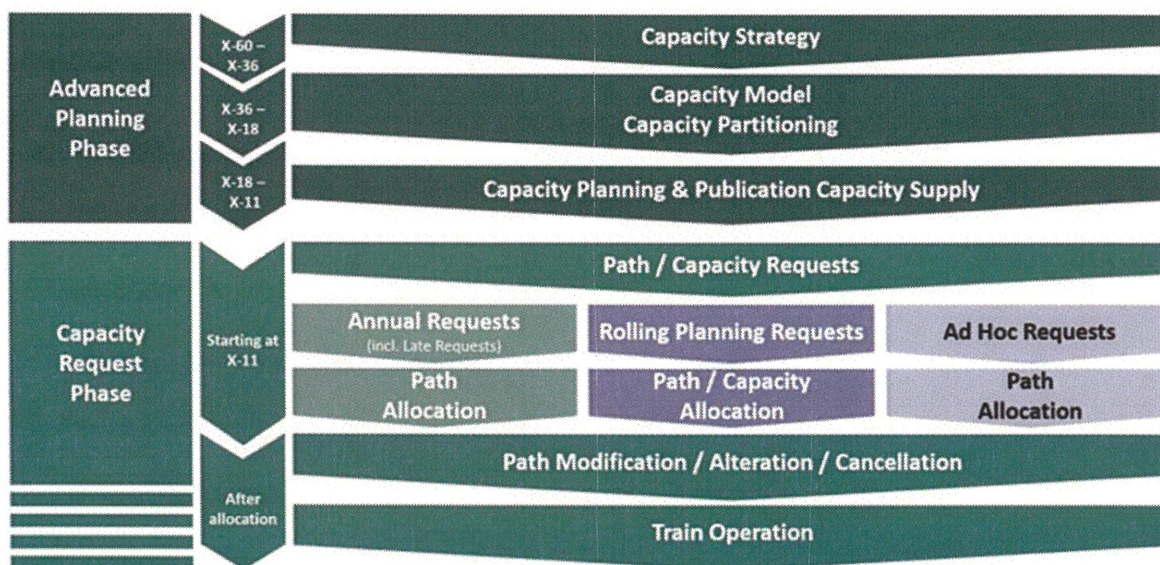


Figure 1: TTR processes

The domestic introduction of TTR is gradual and therefore there may be deviations from the processes prescribed in the handbooks. In previous discussions, these deviations have been indicated to the RNE.

0.1 Contact details

The Capacity Strategy will be published on the website of the RNE, and MÁV Group:

<https://rne.eu/capacity-management/capacity-strategies/>

<https://www.mavcsopot.hu/palyavasut/kapacitas-strategia>

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0.2 Geographical scope

MÁV and GYSEV do not intend to apply the TTR Capacity Strategy to their entire network in the TT2027 timetable period.

The lines of the networks operated by MÁV Co. and GYSEV Co. covered by the TTR Capacity Strategy are shown in Figure 2 on the Hungarian railway network. The lines covered by TTR are marked in green and yellow-green respectively and the lines not covered by TTR are marked in grey.

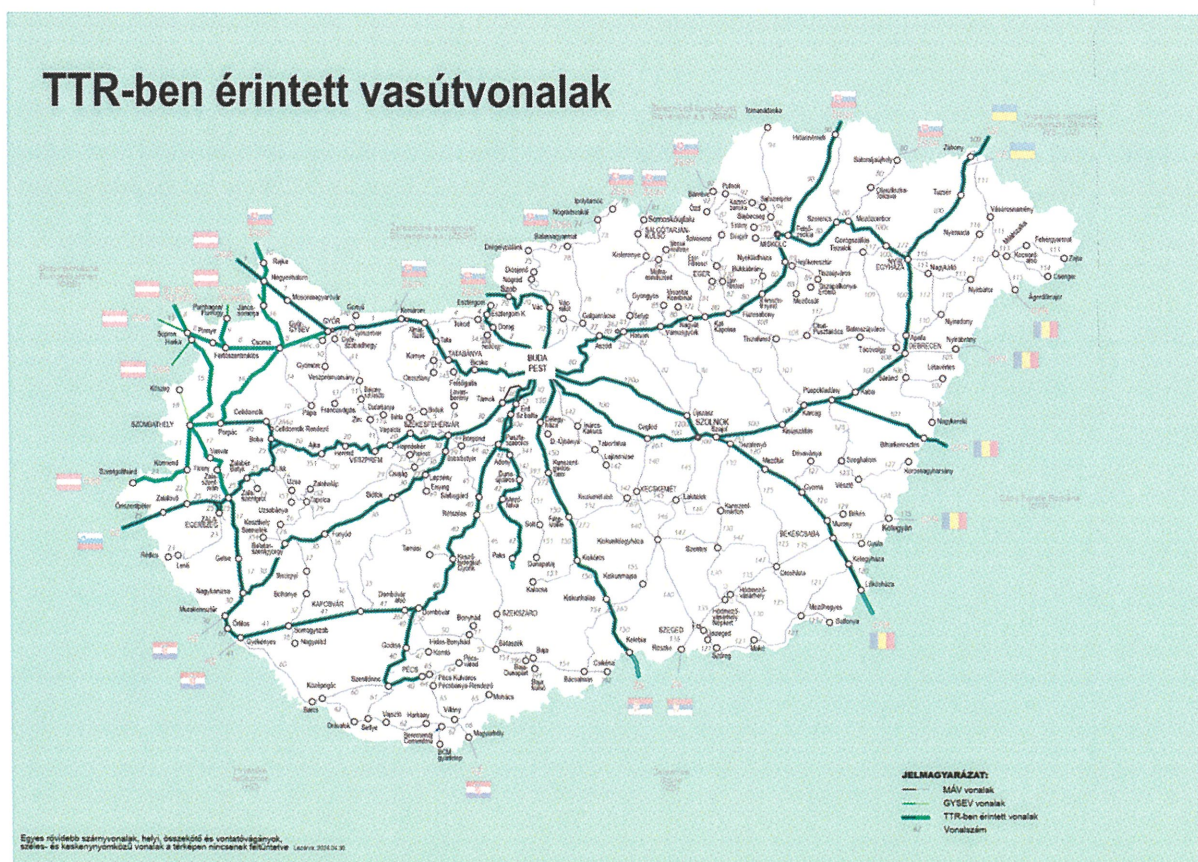


Figure 2: TTR lines on the MÁV and GYSEV networks for the TT2027 period

The railway lines involved in TTR on the MÁV network:

- Line 1 Budapest - Hegyeshalom BC.
- Line 2 Rákosrendező - Esztergom
- Line 17 Zalaszentiván - Nagykanizsa
- Line 20 Székesfehérvár - Porpác
- Line 25 Boba - Óriszentpéter BC.
- Line 30 Budapest - Murakeresztúr oh. - Gyékényes BC.
- Line 40 Budapest - Pécs
- Line 41 Dombóvár - Gyékényes BC.
- Line 42 Pusztaszabolcs - Paks
- Line 70 Budapest - Szob BC.
- Line 80 Budapest - Mezőzombor
- Line 90 Felsőzsolca - Hidasnémeti BC.
- Line 100 Budapest - Záhony BC.
- Line 100c Mezőzombor - Nyíregyháza
- Line 101 Püspökladány - Biharkeresztes BC.
- Line 120 Szajol - Lőkösháza BC.
- Line 150 Ferencváros - Kelebia BC.

The railway lines involved in TTR on the GYSEV network:

- 1d Hegyeshalom - Rajka BC.
- 8 Győr - Sopron
- 8E Sopron - Sopron BC. (Baumgarten)
- 9 Fertőszentmiklós - Fertőújlak BC. (Pamhagen)
- 524 Sopron - Sopron BC. (Loipersbach)
- 15 Sopron - Szombathely.
- 15D Harka - Harka BC. (Deutschkreutz)
- 16 Porpác - Hegyeshalom
- 17 Szombathely - Zalaszentiván
- 20 Porpác - Szombathely
- 21 Szombathely - Szentgotthárd BC.

The technical parameters for the Hungarian rail network as a whole are set out in the Network Statement (<https://vpe.kti.hu/halozati-uzletszabalyzat-husz/>).

The TTR-affected railway lines operated by MÁV Co. and GYSEV Co. are connected to the neighbouring railway Infrastructure Managers via the following border crossings:

Neighbouring IM	MÁV		GYSEV
ÖBB	Hegyeshalom BC.		Sopron BC. (Baumgarten), Sopron BC. (Loipersbach), Harka BC. Szentgotthárd BC. Fertőújlak BC.
SŽ	Óriszentpéter BC.		
HŽ	Murakeresztúr BC.	Gyékényes BC.	
ŽSR	Szob BC.	Hidasnémeti BC.	Rajka BC.
CFR	Biharkeresztes BC.	Lőkösháza BC.	

ŽS	Kelebia BC.		
GYSEV	Győr	Zalaszentiván	
GYSEV	Hegyeshalom	Porpác	

0.3 List of affected Infrastructure Managers:

Infrastructure Managers involved in TTR for the Hungarian rail network:

- MÁV Zrt.
- GYSEV Zrt.
- ÖBB
- SŽ
- HŽ
- ŽSR
- CFR
- ŽS

0.4 List of Terminal Operators affected

There is no terminal operator involved in TTR on the Hungarian rail network.

1 Expected capacity of infrastructure in the TT2027 period

In this chapter we describe the impacts, investments and changes that will positively or negatively affect for the available capacity in the TT2027 period.

1.1 Additional available capacity

The investments underway in February 2024 (X-36), which are expected to increase capacity (speed increases, capacity increases, storage capacity increases) by the start of the TT2027 Timetable year, are shown in the table below:

Route	Description	Impact	Estimated quantification of the impact	Project approved by IM management	Secured funding
Békéscsaba - Lőkösháza oh.	double-track	increase in line and station capacity	N/A	Yes	Yes
Soroksár - Kelebia oh.	complete line and station upgrades	increase in line and station capacity	N/A	Yes	Yes
Ferencváros - Kelenföld	Construction of a third track	Line capacity increase	N/A	Yes	Yes
Zalaszentiván	station rebuilding	Station capacity increase	N/A	yes	yes

1.2 Reduced available capacity

Compared to the situation in December 2023 (X-36), no interventions related to maintenance works, renovations, track closures, which permanently reduce capacity, are planned on either the MÁV or GYSEV network until the beginning of the TT2027 timetable year.

2 Temporary Capacity Restrictions

The Infrastructure Manager shall be entitled to carry out maintenance, reconstruction and improvement work (hereinafter referred to as "TCR") on the open access railway network operated by it, and to reserve capacity and use the railway network for this purpose.

The Infrastructure Manager shall plan its maintenance, reconstruction and improvement works in such a way as to minimise the loss of revenue during the period of such works and the impact on train traffic.

2.1 Principles applied and to be followed for TCR planning at MÁV Co. and GYSEV Co.

Possibly only one capacity request (TCR or any other disruption) can be planned between two stations on the open line or for a through track on a station request per defined section at a time on the core network lines so that trains providing an upgraded service (e.g. IC, RJ), upgraded speed and RoLa trains can be affected only once on their whole route by disruption due to a TCR, a release or switching off of the interlocking. A multi-station TCR may be planned on the basis of pre-approved technology if capacity or asset utilisation justifies it.

The seasonal nature of traffic on each line, international obligations and the specificity of holiday traffic must also be taken into account when drawing up plans involving capacity requests for the infrastructure manager. Capacity restrictions affecting international passenger train services shall be notified to neighbouring infrastructure managers by the infrastructure manager through its designated organisation.

The technological time requirements for works requiring capacity from the IM shall be considered as baseline data for planning purposes. The capacity requests of the infrastructure manager may be established on the basis of the indicative time requirements.

The various external circumstances and technological constraints determine the time period and the disruption or lack of disruption to the train paths in order to carry out the work. Some works can only be carried out in daylight due to safety and technical constraints, others can be carried out at night, and others can only be carried out at night with extra cost and extra time on the tracks.

A maximum of 19 days of continuous IM capacity per track may be authorised for the reconstruction of the main through or passing tracks of stations, which may be increased only in technically justified cases, subject to the authorisation of the Central TCR Committee.

2.1.1 Categorisation of TCRs to minimise the severity and duration of the impact

The aim of coordination of TCRs is to optimise the planned TCRs, and the overall objective is to maintain the flow of traffic! This can only be achieved if the rail infrastructure is always available in the preferably approximately the same quality and quantity to handle the traffic that the customers needs. To plan traffic for the end users beside the restrictions relevant timetables are needed that reflect these market needs as far as possible.

Annex VII of Directive 2012/34/EC has defined the basic elements to be taken into account to enable the implementation of a common TCR process across Europe.

	Consecutive days	Impact on traffic (estimation of traffic cancelled, re-routed, or replaced by other modes of transport)	1 st publication deadline according to Annex VII
Major impact TCR	more than 30 consecutive days	more than 50% of the estimated traffic volume on a railway line per day	X-24
High impact TCR	more than 7 consecutive days	more than 30% of the estimated traffic volume on a railway line per day	
Medium impact TCR	7 consecutive days or less	more than 50% of the estimated traffic volume on a railway line per day	X-12
Minor impact TCR	unspecified	more than 10% of the estimated traffic volume on a railway line per day	X-4
Less than minor impact TCR	unspecified	maximum 10% of the estimated traffic volume on a railway line per day	IMs are recommended to comply with the Path Alteration requirements: <ul style="list-style-type: none"> • Passenger: T-4 • Freight: T-1

Figure 3 - Categorization of TCRs according to Annex VII of Regulation 2012/34 EC

TCRs are coordinated and consulted through the TCR tool. Work that may disrupt an allocated train path should be planned in a grouped, concentrated way. Work that can be done in parallel shall be done simultaneously.

The following should be taken into account when designing and authorising through services:

- A TCR with interrupted transport for trains providing a higher level of service can only be planned for justified reasons.

From 0:00 on 15 November to 23:59 on 15 March, TCR with interrupted transport can only be planned in particularly justified cases.

- Within the whole route of a passenger train, only one continuous line section can be planned to have a TCR with interrupted transport capacity request (excluding additional capacity restrictions due to an emergency case).

2.1.2 Description of the connecting areas where no simultaneous TCRs are planned due to capacity constraints.

Non planable capacity request disturbing a continuously allocated path on a main line or a through track at a time on the following lines and line sections:

- Pusztaszabolcs - Dombóvár - Gyékényes, Gyékényes - Murakeresztúr and Szabadbattyán - Lepsény - Siófok - Fonyód - Balatonszentgyörgy - Nagykanizsa - Murakeresztúr;
- Kőbánya-Kispest - Cegléd - Szolnok and Rákos - Újszász - Szolnok;
- Kőbánya-Kispest - Cegléd - Kecskemét - Kiskunfélegyháza, Kiskunfélegyháza - Kiskunhalas and Kőbánya-Kispest - Kunszentmiklós-Tass - Kelebia lines;
- Kőbánya felső - Mezőzombor - Sóstóhegy and Kőbánya-Kispest - Cegléd - Szolnok - Nyíregyháza - Sóstóhegy lines;
- On the Kelenföld - Pusztaszabolcs, Pusztaszabolcs - Börgönd - Székesfehérvár and Kelenföld - Tárnok - Székesfehérvár lines.
- Csorna - Sopron, Sopron - Szombathely, Szombathely - (Porpác -) Csorna line section.
- Békéscsaba - Lókösháza - Curtici line section, Püspökladány - Biharkeresztes BC. line.

During the summer timetable period, and preferably pre- and post-season expiry dates no TCR for train path can be planned:

- Kelenföld - Tárnok - Székesfehérvár line;
- Székesfehérvár - Tapolca, Tapolca - Keszthely - Balatonszentgyörgy line;
- On the Székesfehérvár - Szabadbattyán - Lepsény - Siófok - Fonyód - Balatonszentgyörgy - Nagykanizsa line.

The exception to the above is the IM capacity request for operational safety.

During periods of permanent TCRs, work on the line with other IM capacity request cannot normally be planned.

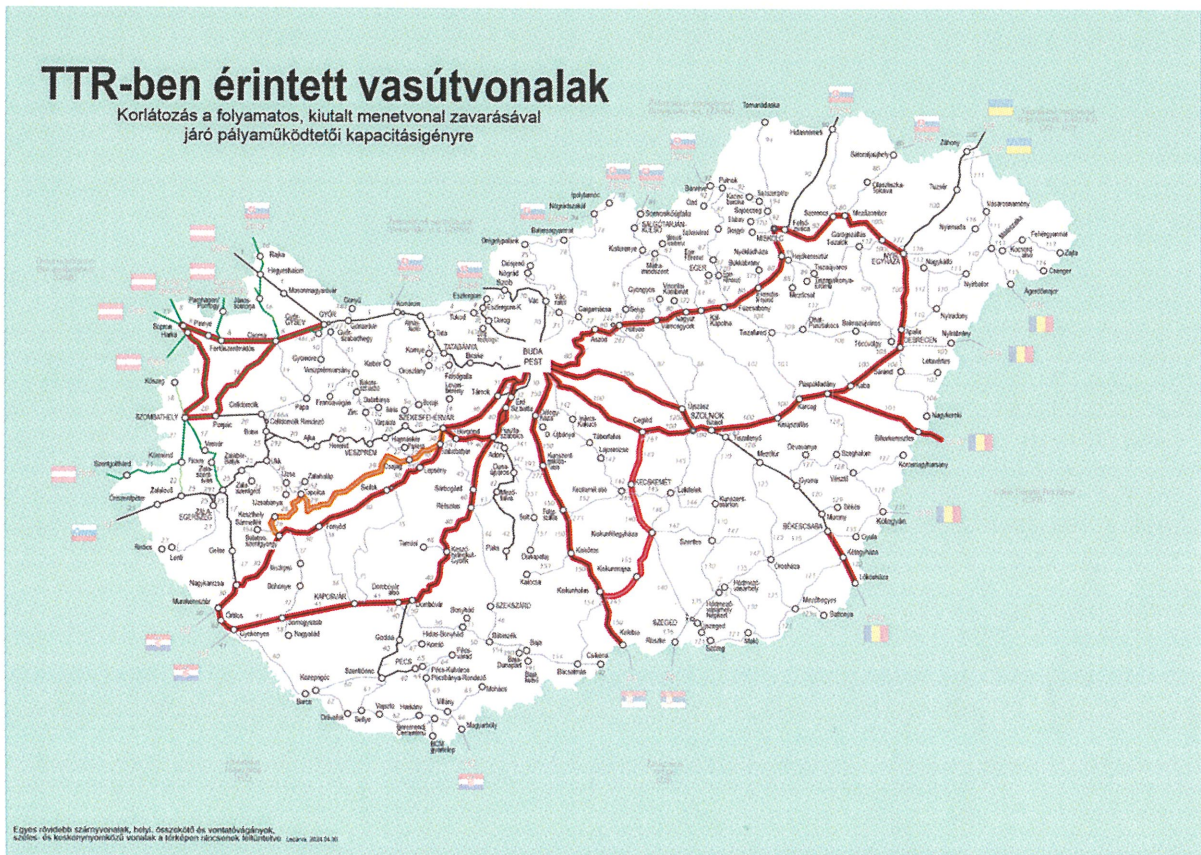


Figure 4: Lines where no simultaneous planning of TCRs with allocated path disturbance is possible (in red for all year, in orange for summer only)

Exceptions to the above may only be made on the basis of an individual decision of the Central TCR Committee.

TCRs with disruption of train paths can be carry out with the permission of the Head of GYSEV's Railway Infrastructure Business Unit

- Simultaneously on the Csorna - Sopron, Sopron - Szombathely, Szombathely - (Porpác -) Csorna line sections,
- which requires transfer to a bus more than 1 point along the whole path of a passenger train,
- from the annual timetable change date until 2 January,
- on public holidays with several days,
- within 3 months of the end of the TCRs with transfer at the affected stations or between stations.

2.1.3 Description of the periods when TCRs are carried out, if their nature allows (nights, weekends).

During periods of no-TCR the unavoidable planned safety TCRs can usually be carried out at night or during daylight hours when they do not cause delays to trains.

Where a continuous TCR has been accepted on a line and at the same time a planned safety TCR is needed, it shall be planned and authorised on the most convenient days for traffic and primarily during night time.

On the following line sections, the capacity requirements of the infrastructure manager can generally only be planned at night or on weekends:

Serial number	Name of line segment	Line number in the TT
1.	Budapest-Keleti - Kőbánya felső	80a, 120a
2.	Kőbánya felső - Rákos fenti track	80a, 120a
3.	Budapest-Keleti - Ferencváros	1, 1a-c
4.	Ferencváros - Kelenföld	1, 1a-c
5.	Budapest-Déli - Kelenföld	1, 30a, 40a
6.	Kelenföld - Komárom	1
7.	Rákosrendező - Esztergom	2
8.	Balatonszentgyörgy - Keszthely - Tapolca (cannot be planned in the summer timetable period)	26
9.	Szabadbattyán - Balatonfüred - Tapolca (cannot be planned in the summer timetable period)	29
10.	Kelenföld - Érd alsó - Székesfehérvár	30a
11.	Székesfehérvár - Szabadbattyán - Balatonszentgyörgy (cannot be planned in the summer timetable period)	30
12.	Kelenföld - Érd - Pusztaszabolcs	40a
13.	Pusztaszabolcs - Szentlőrinc - Pécs	40
14.	Budapest-Nyugati - Vác - Szob	70
15.	Rákospalota-Újpest - Vácrátót - Vác	71
16.	Rákos - Hatvan	80a
17.	Mezőzombor - Nyíregyháza	100c
18.	Budapest-Nyugati - Cegléd - Szolnok	100a
19.	Rákos - Újszász - Szolnok	120a
20.	Szolnok - Szajol	100, 120, 130
21.	Cegléd - Városföld	140
22.	Kiskunfélegyháza - Szeged-Rendező	140

2.1.4 Description of the periods when regular TCR windows are planned

Unplanned TCRs for line and station through main tracks:

- From annual timetable change date to 2 January until 23:59;
- Within 2 days before the annual timetable change on lines where international passenger trains are operated;

- On several consecutive public holidays;
- On national core lines, normally between 14:00 and 20:00 on the last working day of the week and the day before public holidays.

2.1.5 A description of how the TCR distribution process will look, how coordination and consultation will be ensured

MÁV Co. distinguishes between the following types of capacity requests:

Type of TCRs	Deadline for submitting capacity requests for infrastructure managers to the Regional Directorate for Infrastructure	Deadline for submission of IM Capacity Requests for the Directorate for IM Coordination to TCR and Coordination	Deadline for submitting a request for capacity to KTI-VPE Nltd.
NS. Annex 2.5.1.	7 months before the deadline for submitting an application to KTI-VPE Nltd.	5 months before the deadline for submitting an application to KTI-VPE Nltd.	90 days before the publication of the Network Statement for the second scheduling year following the year in question
Annual	5 months before the deadline for submitting an application to KTI-VPE Nltd.	3 months before the deadline for submitting an application to KTI-VPE Nltd.	By the first working day of the second week of April preceding the calendar year, but no later than the end of the tenth week preceding the finalisation of the annual operating timetable
Mid-year request involving disruption of allocated path(s)	150 days before the first day of capacity request for IMs	120 days before the first day of capacity request for IMs	100 days before the first day of capacity request for IMs
Mid-year request without disturbance of allocated path(s)	120 days before the first day of capacity request for IMs	90 days before the first day of the IM capacity request	45 days before the first day of capacity requests for IMs
Exceptionally	16 days before the first day of capacity request for an IM	14 days prior to the first day of the IM's capacity request	Immediately
Predictable operational safety capacity restriction	2 - 3 days before the first day of the IM's capacity request, depending on working days	1 - 3 days before the first day of capacity request for the IM, depending on working days	Immediately

Type of TCRs	Deadline for submitting capacity requests for infrastructure managers to the Regional Directorate for Infrastructure	Deadline for submission of IM Capacity Requests for the Directorate for IM Coordination to TCR and Coordination	Deadline for submitting a request for capacity to KTI-VPE Nltd.
Unplannable operational safety capacity restriction	-	-	Immediately (Network Manager)

Type of IM capacity request(IP00, IP21)	Deadline for the Regional infrastructure manager capacity requests compilation	Deadline for submission of IM Capacity Requests for the Directorate for IM Coordination to TCR and Coordination	Annual Central TCR Committee negotiation time
Coordinated IM capacity requests (3 years)	20 April of the 3rd year preceding the year of submission to KTI-VPE Nltd.	20 May of the 3rd year preceding the year of submission of the request to KTI-VPE Nltd.	June of the 3rd year preceding the year of submission of the request to KTI-VPE Nltd. (on the basis of a separate notification)

GYSEV Co. distinguishes between the following types of capacity requests:

Type of restriction required for construction, maintenance and servicing works:	Deadline for submission to GYSEV Zrt:	Deadline for submission to KTI-VPE Nltd.:
Corridor infrastructure capacity needs	30-19 months before the change of timetable	before a change of timetable 30-18months
Network statement infrastructure capacity needs	19 months before the change of timetable	18 months before the change of timetable
Annual infrastructure capacity needs	11th month preceding the scheduling year	the second Monday in April preceding the scheduling year
Non-annual infrastructure capacity needs with train path allocation	minimum 120 days	at least 60 days before the day of the slaughtering period
Non-annual infrastructure capacity requirements for train-to-passenger services	minimum 55 days	minimum 30 days
Exclusion between trains running on out-of-sequence infrastructure capacity needs	minimum 20 days	minimum 7 days
Operational safety infrastructure capacity needs	immediately	immediately

Type of restriction required for construction, maintenance and servicing works:	Deadline for submission to GYSEV Zrt:	Deadline for submission to KTI-VPE Nltd.:
Need for infrastructure capacity to deal with a disruption	immediately	immediately
Emergency	immediately	immediately

2.1.6 A description of the escalation process(es) (national, bilateral, trilateral) currently in place in case of disagreement between the relevant stakeholders

In case of an infrastructure capacity request cannot be met or a request is rejected because of a conflict with another capacity request, taking into account the assessment rules laid down in the legislation, a coordination procedure shall be carried out. The rules and procedures for the coordination procedure are laid down in the NS.

2.2 Foreseeable High and Medium impact capacity constraints

When preparing the Capacity Strategy for the 2026/2027 Timetable year, no capacity limitation is planned by MÁV and GYSEV Co. as Infrastructure Manager and the external contractor.

3 Traffic planning principles

3.1 Traffic planning principles

The staff involved in the management of train movements shall regulate train movements, taking into account the priorities, length and speed of trains, in such a way that regular services can be maintained and restored as soon as possible in the event of deviation from the normal operating situation (accident, technical cause, etc.).

When determining the priority of trains in different categories, the train in the higher category is always considered more important: category 1 is the highest priority train and category 4 the lowest.

The protected VIP's special train, the emergency train, the emergency engine and the fire brigade engine to the fire must be given priority over all other trains.

Within a category, the order of importance is the same as the order of the list. Any other order of priority shall be determined by the competent traffic controller, unless the contracting railway undertaking so decides, taking into account the current traffic situation.

In the Base Category column of the table below, it is indicated which Base Category the given Train Type belongs to, as known in the ECMT tool application that generates the Capacity Model.

Basic categories of passenger trains:

- high-speed trains
- long distance trains
- regional express trains
- regional trains.

Basic categories of freight trains:

- Blocktrain
- Wagonload train
- Combined train.

Category	Train types According to Annex 4.5-2 of the Network Statement		Basic category*
	Abbreviation	Full name	
1.	RJ	Railjet	long distance train, high speed train
	EC	EuroCity	long distance train, high speed train
	EN	EuroNight	long distance train, high speed train
	ICR	InterCityRapid	long-distance train
	IC	InterCity	long-distance train
	IP	InterPici	regional express train

2.	NGy	International high-speed train	long-distance train
	Gy	Domestic express train	long-distance train
	S	Sebes train	regional express train
	SZ	Passenger train	regional train
3.	Nko	International corridor freight train	closed train path
	RoLa	RoLa train	blocktrain
	TEC	TEC train (international combined freight train)	blocktrain
	e.g.	International freight train	blocktrain
4.	Sv	Train	regional train
	M	Train	regional train
	Gt	Domestic express train	blocktrain
	T	Freight trains	blocktrain
	Kt	Interchange service train	combined train
	Ki	Train serving the dedicated private network	combined train

*Category of train known in the Capacity Model.

3.2 Traffic flows

3.2.1 Developing capacity calculation guidelines for lines included in the TTR Guidelines for the network of MÁV Zrt. as PHM:

Line number	Section	Relevance	Description of the passenger train timetable structure
1	Bp.-Keleti - Ferencváros	The line is part of the RFC network and is a suburban, national and international passenger route in Budapest and an important international freight route.	The line has significant suburban and long-distance traffic. InterCity trains run hourly between Budapest-Keleti and Győr (with stops in Sopron and Szombathely beyond the line), forming a "spider" in Győr at 00. From Budapest-Déli and Hegyeshalom, passenger trains connect to this junction every hour, and from Sopron every two hours. During rush hours, there are express trains in all three directions in the morning and afternoon. Railjet, EC and EN trains running every hour between Budapest and Vienna, as well as IR trains every two hours from Győr to Kaposvár and passenger trains every two hours from Győr to Celldömök. The hourly frequency in Vienna technically gives two or two consecutive train paths, one is the public service described above, which runs every hour, and the other is currently only available for private trains (open access) running at certain hours. In the suburbs of Budapest, passenger trains between Budapest-South and Győr will be accelerated every half hour within Tatabánya to Budapest-South and Oroszlány.
	Ferencváros - Kelenföld		
	Kelenföld - Tatabánya		
	Tatabánya - Komárom		
	Komárom - Győr		
	Győr - Hegyeshalom		
2	Hegyeshalom - Hegyeshalom BC.	Busy Budapest suburban line.	The line serves only suburban traffic, with passenger trains running every half hour between Budapest-Nyugati and Esztergom, with a zone border at Pilisvörösvár. On the line between Pilisvörösvár and Rákos, passenger trains run every half hour with a transfer to/from Esztergom.
	Rákosrendező - Piliscsaba Piliscsaba - Esztergom		
17	Zalaszentiván - Nagykanizsa	The line is part of the RFC network and is an important international freight route.	InterRegio trains run on the line every two hours between Szombathely - Nagykanizsa - Pécs. 1 pair of passenger trains runs between 4 and 7 in the morning and between 14 and 17 in the afternoon (Zalaegerszeg -) Zalaszentiván - Nagykanizsa.

20	Székesfehérvár - Porpác	The line is part of the RFC network, a national passenger route and an important international freight route.	The line is dominated by long-distance traffic. IC trains run every two hours between Budapest-Déli - Szombathely and Budapest-Déli - Zalaegerszeg. The two IC services on the Budapest - Kerta line have an hourly frequency. Between Szombathely and Celldömölk, the two-hourly express train frequency is reduced to an hourly frequency of two-hourly passenger trains. On working days during peak hours, peak period trains run between Budapest and Veszprém.
25	Boba - Bajánsenye BC.	The line is part of the RFC network and is an important international freight route.	IC trains will run every two hours between Budapest-Déli and Zalaegerszeg, connecting in Zalaszentiván with IR trains running every two hours between Szombathely and Pécs. The other two-hourly passenger trains run between Celldömölk and Zalaegerszeg. On the section of the line between Celldömölk and Zalaegerszeg. (- Órihodos), passenger trains run every two hours, and a pair of international IC trains continue to run between Budapest - Ljubljana.
30	Bp.-Déli - Kelenföld	The line is a secondary element of the RFC network, a suburban and national passenger route to Budapest and an important international freight route.	The line is used for suburban and long-distance traffic. The basic long-distance timetable is hourly between Budapest-Déli and Balatonszentgyörgy, and every two hours between Budapest-Déli and Keszthely/Nagykanizsa. In Siófok and Balatonszentgyörgy there are hourly spiders. Passenger trains run every two hours between Székesfehérvár and Siófok. The Győr - Kaposvár IR trains connect to the Balatonszentgyörgy spider every two hours. Between Budapest-Déli and Székesfehérvár, the hourly frequency of IC trains on line 20 compresses the frequency of long-distance trains to almost half an hour. Suburban zoned trains run every hour between Budapest-Déli - Székesfehérvár, which are condensed to 30 minutes by the fast passenger train between Kőbánya-Kispest - Székesfehérvár. Between the Déli station and Szabadbattyán, the frequency of long-distance trains is condensed by fast trains serving the North Balaton region every two hours throughout the year. In the summer season, the basic rhythm is further intensified by relief trains and diagonal trains from the eastern part of the country. On weekdays, the zoned trains are condensed by suburban passenger trains for half an hour to Martonvásár.
	Kelenföld - Székesfehérvár		
	Székesfehérvár - Murakeresztúr		

40	Kelenföld - Pusztaszabolcs	The line is part of the RFC network, a suburban and national passenger route in Budapest and an important international freight route.	The line serves both suburban and long-distance traffic. Suburban passenger trains run hourly between Budapest-Déli and Dunaújváros, supplemented by an hourly passenger train service between Budapest-Déli and Százhalombatta. Long-distance IC trains run every two hours between Budapest-Keleti and Pécs. These are joined at Sárbogárd by IR trains between Székesfehérvár and Baja. Between Pusztaszabolcs - Dombóvár stations, passenger trains will run every two hours, joining the Dunaújváros passenger trains at Pusztaszabolcs station. Passenger trains also run every two hours from Dombóvár to Pécs.
	Pusztaszabolcs - Dombóvár		
	Dombóvár - Pécs		
41	Dombóvár - Gyékényes oh.	The line is part of the RFC network and is an important international freight route.	Passenger trains run basically every two hours on the line, supplemented by off-peak IC trains and passenger trains.
42	Pusztaszabolcs - Dunaújváros - Paks	An important alternative route to the South Transdanubian region, Dunaújváros is a freight transport route as a heavy industry centre.	Between Budapest-Déli - Dunaújváros there are basically one-hour passenger trains during the day, with the exception of two trains. There are irregular passenger trains between Dunaújváros and Simontornya.
70	Budapest-Nyugati - Vác - Szob BC.	The line is part of the RFC network, Budapest suburban and international passenger route, important international freight route.	The line is dominated by suburban traffic. The daytime basic timetable is a zonal traffic system with a Vác zone border. In the inner zone, trains run every half hour, with passenger trains stopping everywhere. Beyond the zone border, passenger trains run hourly (with morning and afternoon peak period services). EC (and EN) trains crossing the Slovakian border run every two hours.
80	Bp.-Keleti - Rákosszentimre	The line is part of the RFC network, a suburban and national passenger route in Budapest and an important international freight route.	The line also has significant suburban and long-distance traffic. Long-distance trains run (almost) every half hour on the suburban section. From Budapest-Keleti, IC trains run hourly to Miskolc (and beyond to Kassa, Sátoraljaújhely, and via Nyíregyháza and Debrecen to Budapest). There are also hourly IR trains to Eger and Gyöngyös. Passenger trains run every two hours between Vámosgyörk and Füzesabony. Passenger trains run hourly between Füzesabony and Miskolc.
	Rákosszentimre - Hatvan		
	Hatvan - Miskolc-Tiszai - Mezőzombor		

90	Felsőzsolca - Hidasnémeti BC.	The line is part of the RFC network and is an important international freight route.	The line is characterised by domestic and international regional traffic. The basic frequency of the line is the international IC train Budapest-Keleti - Hidasnémeti oh. (- Kassa), which runs every two hours. The IC trains are complemented by passenger trains running at two-hourly intervals.
100	Bp.-Nyugati - Kőbánya-Kispest	The line is part of the RFC network, a suburban and national passenger route in Budapest and an important international freight route.	The line carries significant suburban, long-distance and regional traffic. In the suburbs there are 2+2 long-distance and suburban services every half hour. In the suburbs, a zonal system with Monor zone limits operates every hour, condensed to half an hour between Budapest and Monor. Long-distance services are provided by IC trains every half hour, alternating between Budapest-Nyugati - Szeged/Nyíregyháza. The remaining long-distance lines are occasionally used by the Balaton diagonal and peak-time condensed trains. Peak-hour passenger trains run every half hour on weekdays between Cegléd and Szolnok. Every second IC run as a circular IC via Nyíregyháza, Miskolc to Budapest. Passenger trains run hourly between Nyíregyháza and Záhony. Some of the IC trains between Nyíregyháza and Záhony are direct coaches to Munkács.
	Kőbánya-Kispest - Szolnok		
	Szolnok - Szajol		
	Szajol - Nyíregyháza		
	Nyíregyháza - Záhony BC.		
100c	Felsőzsolca - Nyíregyháza	The line is part of the RFC network and is an important international freight route.	Passenger trains connecting Nyíregyháza and Miskolc stations run every hour, as well as circular IC trains every two hours between Budapest-Keleti - Miskolc - Debrecen - Budapest-Nyugati.
101	Püspökladány - Biharkezes BC.	The line is a secondary element of the RFC network, an international freight route.	The line has an hourly passenger train schedule. Some passenger trains run to Episcopia Bihar station.
120	Rákos - Szolnok	The line is part of the RFC network, a suburban and national passenger route in Budapest and an important international freight route.	The line is dominated by suburban traffic, which are served on a zonal basis, at an hourly rate and with a Sülysáp zone limit. Trains serving the inner zone run every half hour. The line is served by Budapest-Keleti - Békéscsaba/Curtici IC trains every hour. Passenger trains run occasionally between Szolnok and Mezőtúr, with one or two pairs of trains running as far as Békéscsaba.
	Szajol - Békéscsaba		
	Békéscsaba - Lőkősháza BC.		

150	<p>Ferencváros - Soroksár</p> <p>Soroksár - Kunszentmiklós- Tass</p> <p>Kunszentmiklós-Tass - Kelebia BC.</p>	<p>The line is part of the RFC network and is a suburban and international freight route to Budapest.</p>	<p>Infrastructure improvements are underway on the line until 31 December 2025. The Ministry of Transport has not provided passenger transport needs for the new infrastructure yet.</p>
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Guidelines for GYSEV as a IM network:

Line number:	Section	Relevance	Description of the passenger train timetable structure
1d	Rajka BC - Rajka	The line is part of the RFC network and is an important international freight route.	The line is part of the passenger transport between Bratislava and Hegyeshalom. It serves as a feeder for trains via Bratislava to Vienna and via Hegyeshalom to Budapest. There are 11 passenger trains per direction between 5 and 22 hrs on weekdays and 9 on weekends, mostly in the morning at 1-hour intervals and 2-hour intervals during the rest of the day.
	Rajka - Hegyeshalom	The line is part of the RFC network, a national passenger route and an important international freight route.	
8	Győr - Csorna	The line is part of the RFC network, a national passenger route and an important international freight route.	The line is served by IC and passenger trains. Both train types run mostly at 1-hour intervals in both directions. IC trains depart from and arrive at Csorna station to and from Sopron at one hour and Szombathely at the other hour.
	Csorna - Sopron		
8E	Sopron - Sopron BC. (Baumgarten)	The line is part of the Deutschkreutz - Ebnfurt - Wien line, an international passenger and freight route	IC trains run at 2-hour intervals, passenger trains at 1-hour intervals during peak times and 2-hour intervals outside peak times. Off-peak passenger trains run on the line at hourly intervals. Outbound traffic run at 15-45 minute intervals during the morning rush hour. Inbound traffic in the afternoon (from 16:00) at half-hourly intervals.
9	Fertőszentmiklós - Fertőújlak BC.	The line is part of the Fertőszentmiklós - Bad Neusiedl am See (Vienna) line, international passenger route	Passenger trains on the line run at 2-hourly intervals during peak times on weekdays and all day on weekends.
524	Sopron - Sopron BC. (Loipersbach)	The line is part of the Deutschkreutz - Wiener Neustadt line, an international passenger route	Off-peak passenger trains run on the line at hourly intervals. Outbound traffic run at 20-40 minute intervals during the morning rush hour. Inbound traffic in the afternoon (from 13:00) at half-hour intervals.

15D	Harka - Harka BC.	The line is part of the Deutschkreutz - Wiener Neustadt (Wien) line, an international passenger and freight route	Off-peak passenger trains run on the line at hourly intervals. Outbound traffic run at 15-45 minute intervals during the morning rush hour. Inbound traffic in the afternoon (from 16:00) at half-hour intervals.
15	Sopron - Harka	The line is part of the RFC network and is an important element of the Sopron-Szombathely passenger transport.	The line is served by the direct trains Sopron-Szombathely (hourly, sometimes half-hourly), Deutschkreutz - Vienna Hbf. (hourly) and Deutschkreutz - Wiener Neustadt (morning peak to Vienna, afternoon peak to Deutschkreutz).
	Harka - Szombathely		On line 15, passenger trains run on an hourly timetable, with a half-hourly timetable during the afternoon peak.
16	Hegyeshalom - Csorna	The line is part of the RFC network, a national passenger route and an important international freight route.	Passenger trains on the line run mostly at 2-hourly intervals, with one train cancelled in the morning.
	Csorna - Porpác		On the southern section of Line 16, IC trains run at 2-hour intervals with stops at Répcelak, while passenger trains run at non-stop intervals of 2-4 hours.
17	Szombathely - Zalaszentiván	The line is part of the RFC network and is an important international freight route.	On the GYSEV section of line 17 there are long-distance (2 hours) and regional (2 hours, 2 half-hourly) passenger trains Szombathely-Pécs and Szombathely - Zalaszentiván - (Zalaegerszeg)
20	Porpác - Szombathely	The line is part of the RFC network, a national passenger route and an important international freight route.	The line section is part of line 20, on which mostly 2-hourly Szombathely - Budapest South IC trains and Szombathely - Celldömölk regional passenger trains run.
21	Szombathely - Szentgotthárd BC.	The line is part of the Sopron oh. Szombathely - Szentgotthárd oh. Burgenland to connect the provinces of Styria.	On Line 21, 1 NIC Ljubljana - Budapest East and 1 NIC Graz - Budapest East as passenger trains, the other passenger trains run on a 1-hourly and half-hourly schedule during peak periods. From Austria, most of the services are on an hourly schedule, except in the morning.

3.2.2 The expected traffic capacity demand at network level

The expected capacity demand is presented in map form in Figure 5. The projected capacity demand is based on the experience of the TT2023, TT2024 periods and the projected data for the expected TT2027 period. Given the timing of the TCR planning, the map does not take into account the impact of the planned TCRs.



Figure 5: Projected capacity needs in map form

The following categorisation has been applied to the map:

- Green: all requests can be met
- Yellow: changes in needs can be expected, with or without changes
- Orange: High demand expected: rejection of possible claims
- Blue dashed line: section of the Budapest - Kelebia line under reconstruction.

3.2.3 Expected traffic flows at border crossings

As a result of the harmonisation of the Infrastructure Managers, the daily conceptual flows at the relevant border points on both sides of the border points are shown in the following table:

Transition (PM-PM)	Passenger train		Freight train (direct train)
	Long distance	Regional	
ÖBB - MÁV - Hegyeshalom BC. (Nickelsdorf)	36	28	48
ÖBB - GYSEV - Sopron BC. (Baumgarten)	0	48	8
ÖBB - GYSEV - Sopron BC. (Loipersbach)	0	52	0
ÖBB - GYSEV - Harka BC. (Deutschkreutz)	0	58	4
ÖBB - GYSEV - Szentgotthárd BC. (Jennersdorf)	4	26	2
ÖBB - GYSEV - Fertőújlak BC. (Pamhagen)	0	12	0

SŽ - MÁV - Óriszentpéter BC.	2	4	12
HŽ - MÁV - Murakeresztúr BC.	0	0	2
HŽ - MÁV - Gyékényes BC.	4	0	18
ŽSR - MÁV - Szob BC.	18	0	8
ŽSR - MÁV - Hidasnémeti BC.	14	0	12
ŽSR - GYSEV Rajka BC. (Rusovce)	0	22	16
CFR - MÁV - Biharkeresztés BC.	0	10	8
CFR - MÁV - Lőkösháza BC.	18	0	28
ŽS - MÁV Kelebia BC.*	-	-	-

*Under construction, estimated turnover not known

4 Publication, validity, coming into effect

Date of publication of this Capacity Strategy: 12.12.2024

This strategy is valid for the 2026/2027 timetable year.

5 Stakeholder involvement in the consultation of the document

It will be presented to the railway companies concerned at an FTE forum and a customer relations forum organised by MÁV.

Budapest, 2024.

