

2022/2023	Hungary		Austria		Croatia		Germany	
	Service name	Calculation method	Service name	Calculation method	Service name	Calculation method	Service name	Calculation method
Basic services	Ensuring of train path	(charge+mark-up)*train km	Minimum access package	train km and gross tonne km component: (charge+mark-up)*train km (charge+mark-up)*gross tonne km	Minimum access package	freight trains: $C = [\sum (TR_i * L_i * I * C_{vlim} + (I_{el} * C_{el}))] * S$ passenger and loco trains: $C = (T + d_n) * \sum L_i * I * C_{vlim} + (I_{el} * C_{el})$ C = Minimum access package charge TR _i = weight category of train path in freight transport T = train path equivalent d _n = additional charge for the use of tilting technique L _i = line parameter I = train path length (km) C _{vlim} = basic price (passenger trains, freight trains) I _{el} = length of train path with electric traction (km) C _{el} = additional charge on trainkm price for the train path with electric traction S = coefficient for the single wagon load train	Minimum access package	Train path charge = \sum charge for minimum access package (for segments) * train path kilometres Minimum access package = $uKZ + VKA_i + wE$ (fee for segments + mark-ups +/- other) uKZ_i = direct costs of train operation per market segment VKA _i = surcharge to cover the full costs wE = possible additional elements
	Running of train (train km)	(charge+mark-up)*train km		Track access charges = train km component per market segment + gross tonne km component per market segment +/- reductions/supplements				
	Running of train (gross tonne)	(charge+mark-up)*gross weight*km		Reductions/supplements : - Traction unit factor - Supplement for congested rail infrastructure - Performance Regime (punctuality)				
	Use of catenary system	(charge+mark-up)*km						

2022/2023	Italy		Romania		Slovakia		Slovenia	
	Service name	Calculation method	Service name	Calculation method	Service name	Calculation method	Service name	Calculation method
Basic services	Minimum access package	Access Charge = A (wear and tear component) + B (markets segments' ability to pay component) $A = (\text{unit fee of weight classes} + \text{operating speed classes} + \text{overhead contact line}) * \text{km}$ $B = \text{unit fee per market segment} * \text{km}$	Minimum access package	IAC IAC = \sum IAC section IAC section = IAC tannage + IAC circulation+ IAC electrification Tonnage IAC = $Km * Ttsn [1 + (\text{Gross tonnage} - Tmin) * Ft]$ Traffic IAC = $Km * (Tc + Ttse)$ where: $Ttsn$ – charge depending on the tonnage for each category of non-electrified sections $Tmin$ – gross tonnage starting from which the tonnage factor is applied Ft – tonnage factor (correction coefficient to be applied to the gross train tonnage) Tc – traffic charge depending on the distance for each section category $Ttse$ – applied for the line sections equipped with electrification systems only for trains with electric traction	Minimum access package	$Ump = U1 + U2 + U3 + U4$ (Maximum charges of minimum access package) in 5 line categories $U1$ = Maximum charge for ensuring of train path (€/vkm) $U2$ = Maximum charge for traffic control and management (€/vkm) $U3$ = Maximum charge for infrastructure capacity (€/1000 gtkm) $U4$ = Maximum charge for use of catenary system (€/1000 gtkm)	Minimum access package	(5.2) Total access charge (U) is determined by the following formula: $U = Up + Um + Ud$ where: U – Access charge total Up – Access charge calculated under service packages P1, P2, P3 and P4 Um – Mark-ups Ud – Duties
	Border sections and connecting stations with Foreign Networks	access charge to network connecting stations (fix fee for trains) + usage charge* trainkm at border sections						$U_{P1} = C_{P1} * \sum_i (KM_i * P_{P1} * P_{Pi} * P_{Pi}) - U_s$
	Connecting Stations with the Regional Network	fix fee for usage of stations for trains, without purchasing a path						$UP1$ – Access charge for carried out train path $CP1$ – Basic fixed access charge under Package 1 /CP21= EUR 2,01 KMi – Number of train km on a homogeneous line section (i) PPI – Route coefficient on a homogeneous line section (i) Pti – Train coefficient on a homogeneous line section (i) Pli – Tractive vehicle coefficient on a homogeneous line section (i)