



## COMMUNICATION FROM THE COMMISSION

### Interpretative guidelines concerning the setting up of charges for the use of railway infrastructure

(C/2025/2606)

#### 1. INTRODUCTION

##### 1.1. Policy context

The European Green Deal and the Sustainable and Smart Mobility Strategy <sup>(1)</sup> put rail transport at the heart of efforts to decarbonise the EU's transport system. According to the Strategy's milestones, rail freight is due to double and high-speed rail transport is due to triple by 2050 compared with 2015.

The Commission's action plan to boost long-distance cross-border passenger rail usage <sup>(2)</sup> sets out concrete measures to be taken to achieve those ambitious goals and make cross-border rail transport a much more attractive travel option over long distances in the EU. Providing the necessary infrastructure capacity for this growth is a challenge that will require investment, full and timely implementation of the revised TEN-T Regulation <sup>(3)</sup>, and the best possible use of the existing network.

The EU is committed to developing coherent, efficient, multimodal and high-quality transport infrastructure across the EU. The fixed infrastructure costs of rail are high compared with other transport modes <sup>(4)</sup> and adequate funding is key to ensuring the necessary levels of safety, reliability, capacity provision and interoperability of the railway network.

##### 1.2. Track access charges: role and legal references

Track access charges (TACs) are the fees that railway undertakings (RUs) must pay for the use of railway infrastructure. They are a significant source of revenue for rail infrastructure managers (IMs) and are, together with direct State contributions, a key element of network funding.

TACs are also a tool for steering RUs' demand for specific types of capacity. They are a significant component of RUs' operational costs, so affect the price of rail services for end users and thus impact the conditions under which RUs compete among themselves and with other modes of transport. The level of TACs affects RUs' decision whether or not to offer transport services and high TACs can be a market access barrier for new entrants <sup>(5)</sup>.

TACs are regulated by Directive 2012/34/EU (the Directive) <sup>(6)</sup> and Commission Implementing Regulation (EU) 2015/909 (the Implementing Regulation) <sup>(7)</sup>.

<sup>(1)</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions of 9 December 2020, *Sustainable and Smart Mobility Strategy – putting European transport on track for the future*, COM(2020) 789 final.

<sup>(2)</sup> Communication from the Commission to the European Parliament and the Council of 14 December 2021, *Action plan to boost long-distance and cross-border passenger rail*, COM(2021) 810 final.

<sup>(3)</sup> Regulation (EU) 2024/1679 of the European Parliament and of the Council of 13 June 2024 on Union guidelines for the development of the trans-European transport network (OJ L, 2024/1679, 28.6.2024, ELI: <http://data.europa.eu/eli/reg/2024/1679/oj>).

<sup>(4)</sup> Executive summary, p. 5, European Commission: Directorate-General for Mobility and Transport, Essen, H., Andrew, E., Sutter, D., Wijngaarden, L. et al., *Sustainable transport infrastructure charging and internalisation of transport externalities – Main findings*, Publications Office, 2019, <https://data.europa.eu/doi/10.2832/004905>.

<sup>(5)</sup> Low TACs have been an important element in the successful opening of the Italian high-speed market (Source: European Commission: Directorate-General for Mobility and Transport, *Long-distance cross-border passenger rail services – Final report*, Publications Office of the European Union, 2021, <https://data.europa.eu/doi/10.2832/019365>).

<sup>(6)</sup> Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area (OJ L 343, 14.12.2012, p. 32), as amended by Directive (EU) 2016/2370 of the European Parliament and of the Council of 14 December 2016 (OJ L 352, 23.12.2016, p. 1). The consolidated version is available here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02012L0034-20190101>.

<sup>(7)</sup> Commission Implementing Regulation (EU) 2015/909 of 12 June 2015 on the modalities for the calculation of the cost that is directly incurred as a result of operating the train service (OJ L 148, 13.6.2015, p. 17).

The Directive establishes the principles for the levying of charges. Article 31(1) requires RUs to pay charges for the use of railway infrastructure. Article 31(3) specifies that charges for the minimum access package <sup>(8)</sup> to railway infrastructure (and to infrastructure that connects service facilities) must be set at 'the cost that is directly incurred as a result of operating the train service'. Article 31(5) allows the modification of these charges to take account of the environmental effects of the train operation. Article 31(4) adds that these charges may include additional components to reflect the scarcity of capacity at times of congestion.

Article 32 of the Directive further specifies that, as an exception to this rule, mark-ups can be added in order to fully recover the costs incurred by the infrastructure manager. However, adding mark-ups is subject to several conditions.

TACs may therefore have three main components:

- the mandatory charges recovering IMs' direct cost of train operation (marginal cost);
- optional mark-ups;
- optional components such as scarcity (congestion <sup>(9)</sup>) charges and environmental coefficients.

The present guidelines focus on mark-ups and other optional charges. The Implementing Regulation addresses charges for the recovery of direct costs and the method to be used to determine them.

### 1.3. Purpose of these guidelines

These guidelines are intended to clarify and help national authorities and IMs to apply the Directive and do not create any new legal obligations. Only the Court of Justice of the European Union (CJEU) is competent to authoritatively interpret EU law.

In the Sustainable and Smart Mobility Strategy, the Commission indicated its intention to 'assess whether current rules on track access charges offer the right incentives to boost competitive markets and the attractiveness of rail'. The Commission also included guidelines on TACs among the initiatives of the action plan to boost long-distance and cross-border passenger rail, in view of the impact of TACs on the viability of those services.

The Commission is aware of the differing approaches of IMs to setting mark-ups and to determining the market segments in which they are applied. The present guidelines are meant to provide clarity on existing legal obligations, as well as examples of best practices and developments observed in different EU railway markets.

These guidelines are not meant to address every single provision on TACs in EU law. They will focus on those aspects that are, in the Commission's experience, the main causes of uncertain application or divergent practices.

## 2. CURRENT SITUATION

As explained in Section 3, the setting of mark-ups is a complex exercise that pursues two main goals – optimal use of capacity and cost recovery – while having to accommodate several legal and budgetary constraints.

IMs have taken different approaches. The factor that has probably most influenced their choices is the amount of funding that they receive from the State. In accordance with EU law, Member States must ensure that IMs' accounts are balanced over a period of five years <sup>(10)</sup>. In practice, there is great variation in the level of funding that Member States provide to

<sup>(8)</sup> Annex II to the Directive describes the minimum access package as comprising: (a) handling of requests for railway infrastructure capacity; (b) the right to utilise capacity which is granted; (c) use of the railway infrastructure, including track points and junctions; (d) train control (including signalling, regulation, dispatching and the communication and provision of information on train movement); (e) use of electrical supply equipment for traction current (where available); (f) all other information required to implement or operate the service for which capacity has been granted.

<sup>(9)</sup> The two terms 'scarcity charge' and 'congestion charge' are interchangeable.

<sup>(10)</sup> Article 8(4) of the Directive specifies that 'Member States shall ensure that, under normal business conditions and over a reasonable period which shall not exceed a period of five years, the profit and loss account of an infrastructure manager shall at least balance income from infrastructure charges, surpluses from other commercial activities, non-refundable incomes from private sources and State funding, on the one hand, including advance payments from the State, where appropriate, and infrastructure expenditure, on the other hand'.

IMs <sup>(1)</sup> and, accordingly, in the extent to which IMs must rely on mark-ups as a complementary source of income.

Figure 1

**Number and shares of main funding sources in total funding (2019 data). ‘TAC for minimum access package’ includes both charges for direct costs and mark-ups**

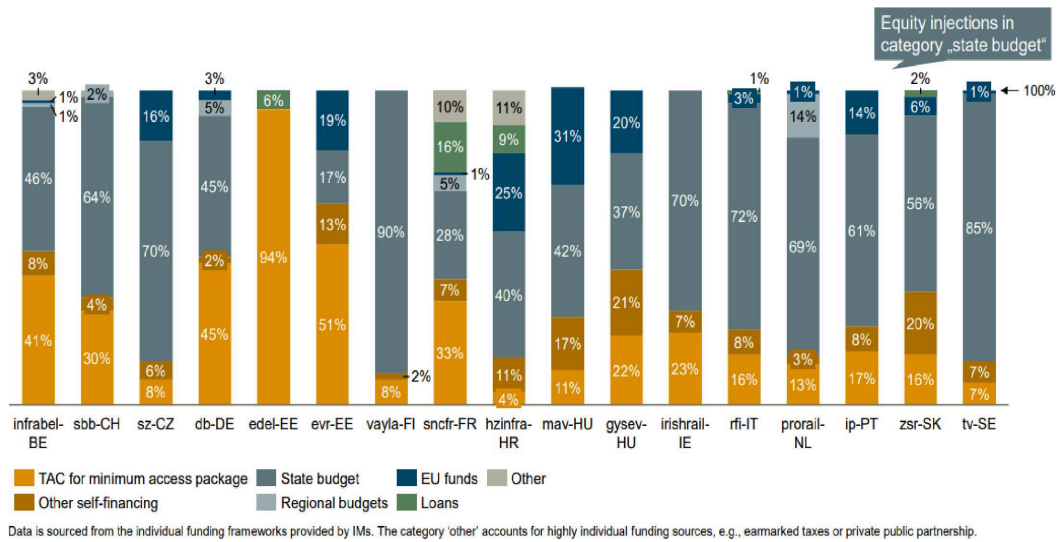
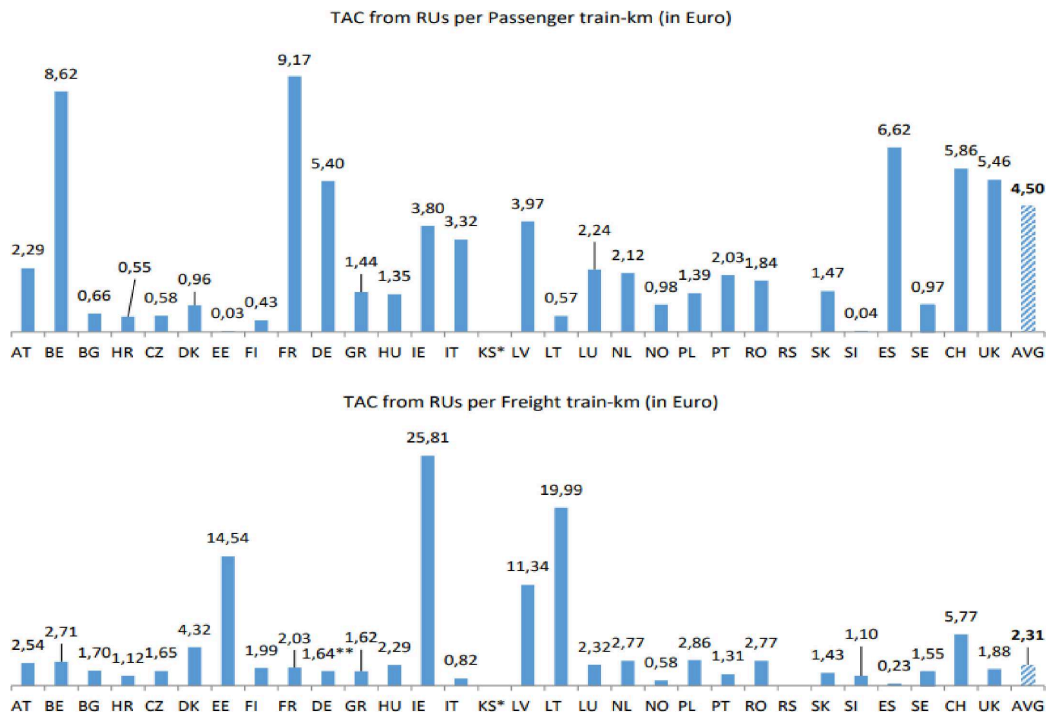


Figure 2

IMs’ revenues from RUs per train/km, for passenger and freight services respectively (source: IRG, ninth market monitoring report), the figure for Germany for the freight segment excludes the portion of TACs which is covered by state funding (including state funding, the level of TACs collected is 2.91 Euro per train-km)



<sup>(1)</sup> Source: PRIME Deep Dive on ‘Charging and State Funding of European Infrastructure Managers’, May 2022.

Another important element is the state and characteristics of the infrastructure. For example, a modern network equipped with the European Rail Traffic Management System (ERTMS) may not only have lower maintenance costs but also have a higher density of traffic with shorter headway between trains. This makes it possible for IMs to spread fixed costs over a larger number of users and to reap greater benefits from economies of scale.

The amount of State funding to infrastructure and the infrastructure's state and performance therefore have an impact on how much emphasis IMs place on each of the two goals of optimal use of capacity and cost recovery. Section 4 will examine how this is compatible with the Directive <sup>(12)</sup>.

Choices of IMs also differ considerably with respect to the definition of market segments for the purpose of applying mark-ups. Some IMs identify many market segments, while other IMs opt for a minimal breakdown <sup>(13)</sup>.

IMs do not use a uniform methodology to determine the amount of the mark-ups. Section 4 examines this more specifically.

### 3. LEGAL FRAMEWORK

The articles of the Directive that are most relevant to charges are Article 26 (Effective use of infrastructure capacity), Article 29 (Establishing, determining and collecting charges), Article 30 (Infrastructure cost and accounts), Article 31 (Principles of charging) and Article 32 (Exceptions to charging principles).

#### 3.1. Effective use of infrastructure capacity

Article 26 opens the section of the Directive that sets out the general principles for the levying of charges and capacity allocation. It states that: 'Member States shall ensure that charging and capacity-allocation schemes for railway infrastructure follow the principles set down in this Directive and thus allow the infrastructure manager to market and make optimum effective use of the available infrastructure capacity.'

Optimum effective use of capacity is therefore intended to be the guiding principle of infrastructure charges <sup>(14)</sup> and should take precedence over other aspects (e.g. full cost recovery), which are considered as exceptions. The concept of 'optimum effective use of capacity' is examined further in point 4.2.

Indeed, while the Directive mandates the charging of marginal costs in Article 31(3), the use of 'may' in Article 32(1) makes it clear that the levying of mark-ups with a view to full cost recovery is optional rather than obligatory and – being an exception to charging principles <sup>(15)</sup> – is subject to several conditions <sup>(16)</sup>. Those conditions are examined in point 3.6.

<sup>(12)</sup> Compliance of public funding with Union State aid rules is not addressed in these guidelines but in the 2008 Railway Guidelines or, given that they are currently being revised, their successor. Communication from the Commission, *Community guidelines on State aid for railway undertakings* (OJ C 184, 22.7.2008, p. 13). As such, nothing in the Guidelines concerning the setting up of charges for the use of railway infrastructure should be interpreted as prejudicing the Commission's assessment of compliance with State aid framework.

<sup>(13)</sup> A detailed breakdown is present in Germany, France and Italy, where the main market segments are divided into subsegments according to different criteria (e.g. the origin/destination, time of the day and speed of service). Fewer market segments are identified in the Netherlands and Sweden.

<sup>(14)</sup> Optimum effective use of infrastructure is also the main goal of the business plans that infrastructure managers are obliged to develop under Article 8 of the Directive: '...the infrastructure manager shall adopt a business plan including investment and financial programmes. The plan shall be designed to ensure optimal and efficient use, provision and development of the infrastructure while ensuring financial balance and providing means for these objectives to be achieved ...'.

<sup>(15)</sup> The title of Article 32 of the Directive is 'Exceptions to charging principles'.

<sup>(16)</sup> The Directive's Article 26 requirement that charges must allow the IM to 'market and make optimum effective use of the available infrastructure capacity' is most relevant for the optional components of the charging scheme that, contrary to the mandatory component (direct costs), can be modulated appropriately by the IM.

Even in the case mentioned by Article 8(4) of the Directive<sup>(17)</sup>, full cost recovery achieved exclusively via charges and without State funding to the IM should not prevent rail transport from being competitive vis-à-vis the other modes. This precondition should not be overlooked.

Member States can authorise IMs to levy mark-ups to contribute to full cost recovery. However, the Directive imposes strict conditions on the use of mark-ups in order to respect the prevailing objectives of optimising the use of railway infrastructure and preserving the competitiveness of railway transport.

### 3.2. Responsibility for charging

Article 29 of the Directive makes it clear that 'Member States shall establish a charging framework while respecting the management independence laid down in Article 4. Subject to that condition, Member States shall also establish specific charging rules or delegate such powers to the infrastructure manager'.

It is therefore up to Member States to decide on whether mark-ups may be charged. However, the responsibility for identifying market segments, determining the amount of charges and collecting those charges is attributed to the IMs – as confirmed by several decisions of the CJEU<sup>(18)</sup>. IMs must therefore be given a degree of flexibility<sup>(19)</sup> in setting the level of charges. For example, the CJEU found that the setting by a Member State of the maximum charge for the use of railway infrastructure interfered with the independence of the infrastructure manager<sup>(20)</sup>.

This also confirms the nature of charges as a tool for effective management of the infrastructure<sup>(21)</sup> – as opposed to merely balancing the accounts of the IMs, which is the Member States' general responsibility according to Article 8 of the Directive.

Member States can also introduce a procedure for either an *ex ante* or *ex post* approval for concrete mark-ups by a regulatory body. In any case, the regulatory body should exercise its power of oversight and require changes in the charging schemes whenever necessary to remedy situations of incompatibility with the Directive. However, the regulatory bodies' powers of amendment must be confined to ensuring that the rules and objectives of the Directive are achieved, because the IM's independence in determining the amount of the charges has been recognised by the CJEU also in respect of regulatory bodies<sup>(22)</sup>.

Predefined constraints that deprive IMs of flexibility in determining the amount and distribution of the charges (e.g. caps on TACs for specific market segments) are inconsistent with the IMs' management independence established by the Directive.

<sup>(17)</sup> 'Without prejudice to the possible long-term aim of user cover of infrastructure costs for all modes of transport on the basis of fair, non-discriminatory competition between the various modes, where rail transport is able to compete with other modes of transport, within the charging framework of Articles 31 and 32, a Member State may require the infrastructure manager to balance its accounts without State funding.'

<sup>(18)</sup> Judgment of 28 February 2013, *European Commission v Kingdom of Spain*, C-483/10, EU:C:2013:114 (hereafter referred to as '*European Commission v Kingdom of Spain*'); and judgment of 28 February 2013, *European Commission v Federal Republic of Germany*, C-556/10, EU:C:2013:116 (hereafter referred to as '*European Commission v Federal Republic of Germany*'). See also judgment of 11 July 2013, *European Commission v Czech Republic*, C-545/10, EU:C:2013:509 (hereafter referred to as '*European Commission v Czech Republic*'); judgment of 3 October 2013, *European Commission v Italian Republic*, C-369/11, EU:C:2013:636 (hereafter referred to as '*European Commission v Italian Republic*'); and judgment of 9 November 2017, *CTL Logistics GmbH v DB Netz AG*, C-489/15, EU:C:2017:834.

<sup>(19)</sup> See *European Commission v Kingdom of Spain*, paragraph 49: 'It follows from the foregoing considerations that, in order to ensure that the objective of management independence of the infrastructure manager is attained, the latter must, within the charging framework established by the Member States, be given a degree of flexibility in determining the amount of charges so as to enable it to use that flexibility as a management tool'. See also *European Commission v Italian Republic*, paragraph 43.

<sup>(20)</sup> See *European Commission v Czech Republic*, paragraph 36.

<sup>(21)</sup> See *European Commission v Federal Republic of Germany*, paragraph 82; *European Commission v Czech Republic*, paragraph 35; and *European Commission v Italian Republic*, paragraph 43.

<sup>(22)</sup> Judgment of 9 September 2021, *LatRailNet and Latvijas dzelzceļš v Valsts dzelzceļa administrācija*, C 144/20, EU:C:2021:717 (hereafter referred to as '*LatRailNet and Latvijas dzelzceļš v Valsts dzelzceļa administrācija*'), paragraphs 43–47. See also Opinion of Advocate General Čápeta of 7 November 2024, *ÖBB-Infrastruktur AG, WESTbahn Management GmbH*, C-538/23, paragraph 86.

### 3.3. Basic requirements: uniform principles and non-discrimination

Articles 29(2) and 29(3) set out some basic requirements that IMs must take into account when they establish their charging scheme.

Article 29(2) specifies that ‘Except where specific arrangements are made under Article 32(3), infrastructure managers shall ensure that the charging scheme in use is based on the same principles over the whole of their network.’ This does not mean that IMs cannot, when defining mark-ups and market subsegments, take into consideration network criteria, such as the various performance aspects (maximum speed, number of tracks, etc.) and the different geographical context of the network (e.g. metropolitan nodes). Indeed, those aspects may have an impact on the type and quality of the transport services and related demand, and, therefore, on the market’s ability to bear those charges. A differentiation of TACs by network criteria, in relation to the same origin/destination, can also have the positive side effect of promoting the use of alternative, less exploited, lines, although the use of congestion charges or discounts (see Section 5) may provide a better alternative to address this specific objective <sup>(23)</sup>.

Article 29(3) establishes a non-discrimination criterion whereby: ‘Infrastructure managers shall ensure that the application of the charging scheme results in equivalent and non-discriminatory charges for different railway undertakings that perform services of an equivalent nature in a similar part of the market and that the charges actually applied comply with the rules laid down in the network statement.’ This is particularly relevant in the case of two RUs that are active in the same railway segment but use different rolling stock. In this case, charges to the two RUs should be proportional to their use of infrastructure and should not be differentiated by type of rolling stock <sup>(24)</sup> if the service provided is of an equivalent nature. In particular, the Commission considers that RUs that use trains with higher capacity should not be penalised for their ability to carry more passengers or freight relative to the same use of the infrastructure (see also point 3.6.4).

The non-discrimination requirement with respect to charges is reinforced by Article 32(5) of the Directive, which states that: ‘To prevent discrimination, Member States shall ensure that any given infrastructure manager’s average and marginal charges for equivalent use of its infrastructure are comparable and that comparable services in the same market segment are subject to the same charges.’

Comparable services should pay the same mark-ups for equivalent use of the infrastructure.

The charging of RUs that perform equivalent services in the same market segment should not be differentiated according to the type of equipment or rolling stock (except for any possible difference in the direct costs that they cause).

### 3.4. Long-term goal of reducing access charges

Article 30(1) of the Directive requires that IMs ‘...be given incentives to reduce the costs of providing infrastructure and the level of access charges’. When this is read in conjunction with recital 71 <sup>(25)</sup>, it is clear that the legislator intended to promote an incentive-based approach to IM funding that encourages cost efficiency and the lowering of TACs.

<sup>(23)</sup> This concept is especially valid for freight trains, which may be able – in the absence of constraints related to the electrification of the lines, the maximum length of the train, the axle load or the loading gauge – to use other itineraries that connect the starting and final freight terminals.

<sup>(24)</sup> Except for the difference in direct costs implied by the use of different rolling stock.

<sup>(25)</sup> ‘Railway infrastructure is a natural monopoly and it is therefore necessary to provide infrastructure managers with incentives to reduce costs and to manage their infrastructure efficiently.’

The incentives referred to in Article 30(1) can be implemented through the contractual agreement between the Member State and the IM<sup>(26)</sup>, through regulatory measures, or through a combination of the two. With reference to regulatory measures, it is the opinion of the Commission that Member States could – when establishing the charging framework – require that mark-ups are only charged when certain key performance indicators of the infrastructure are met, or that significant differences in the infrastructure’s performance are reflected in the charging scheme. This is also in line with the considerations in point 3.3 on network criteria. However, such requirements in the charging framework should not undermine the IM’s independence and are without prejudice to regulatory body’s powers to review the charges as referred to in Article 56 of the Directive.

In addition, the mark-up contribution to ‘full cost recovery’ should be understood as referring to the cost that an efficient infrastructure manager would have to bear in order to provide infrastructure services of a given quality, net of other contributions such as State or regional funding.

The Directive has a clear policy goal of boosting the use of the rail network by decreasing charges. Incentives should be provided to the IMs to this effect.

### 3.5. Scarcity charges and environmental differentiation

As already indicated, Article 31(3) of the Directive provides the general rule on charging costs that are directly incurred as a result of operating the train service. In addition, article 31(4) and (5) respectively allow IMs to ‘include a charge which reflects the scarcity of capacity of the identifiable section of the infrastructure during periods of congestion’ and modify charges ‘to take account of the cost of environmental effects caused by the operation of the train.’<sup>(27)</sup>

It is important to note that scarcity charges are addressed separately from mark-ups in the Directive. This clearly reflects the legislator’s intention to address with distinct tools the separate problems of network congestion and cost recovery. This is relevant both from the perspective of determining the level of charges – proportional to the extent of congestion for scarcity charges and to the market segment’s ability to pay for mark-ups – and from the perspective of the circumstances that limit their application. Further considerations on scarcity charges are provided in point 5.1 below.

In addition, the Directive allows IMs to modify the direct cost charges to compensate for the environmental effects caused by the train operation and thus incentivise the use of equipment and practices with superior environmental performance. The modifications should be proportional to the environmental effects and non-discriminatory.

### 3.6. The setting of mark-ups

Article 32 of the Directive allows exceptions to the general charging rule in Article 31(3) on covering costs directly incurred as a result of operating the train service, by introducing the concept of mark-ups. In particular, paragraph 1 of Article 32(1) specifies that:

‘In order to obtain full recovery of the costs incurred by the infrastructure manager a Member State may, if the market can bear this, levy mark-ups on the basis of efficient, transparent and non-discriminatory principles, while guaranteeing optimal competitiveness of rail market segments. The charging system shall respect the productivity increases achieved by railway undertakings.’

Article 32(1) identifies the total costs incurred by the IM as the maximum amount that the IM can collect through charges<sup>(28)</sup>. In practice, mark-ups can fill the gap between the (mandatory) recovery of direct cost and the total cost of infrastructure, net of subsidies received by the State. That is because State subsidies already recover (part of) the costs for which the mark-ups may be charged. More generally, this condition implies that mark-ups may not be used to generate profits for the IM<sup>(29)</sup>. Under that Article also other conditions apply.

<sup>(26)</sup> See Article 30(2) of the Directive.

<sup>(27)</sup> In economic terms, this allows adding the external components of congestion and environmental costs to the direct costs, or, in other words, to charge as direct cost the social marginal cost of train operation.

<sup>(28)</sup> See *European Commission v Federal Republic of Germany*, paragraph 85.

<sup>(29)</sup> See Opinion of Advocate General Căpeta of 7 November 2024, *ÖBB-Infrastruktur AG, WESTbahn Management GmbH*, C-538/23, paragraphs 55-56 and 115-119.

Paragraph 2 of Article 32(1) adds that:

‘The level of charges shall not, however, exclude the use of infrastructure by market segments which can pay at least the cost that is directly incurred as a result of operating the railway service, plus a rate of return which the market can bear.’

The remaining paragraphs of Article 32(1) clarify that IMs must evaluate the relevance of mark-ups for specific market segments and for at least three of them (freight services, passenger services within the framework of a public service contract, and other passenger services). It also clarifies that ‘infrastructure managers may further distinguish market segments according to commodity or passengers transported.’

### 3.6.1. *‘If the market can bear this’*

The first of the conditions in Article 32(1) is that mark-ups can only be applied ‘if the market can bear this’. This means that mark-ups should not be so high that they exclude efficient market participants in any given market segment from the use of infrastructure. The reference to ‘the market’ should be interpreted with respect to the market segment<sup>(30)</sup> to which the mark-up applies rather than to specific RUs. Moreover, the market’s ability to bear the mark-up should be tested with regard to an efficient RU<sup>(31)</sup> that is representative of the operators in that particular market segment. That is because the inability of a specific and inefficient RU to afford the mark-up is not necessarily an indication that the market segment cannot bear the charge.

This provision should be read in conjunction with the condition of non-exclusion from the use of infrastructure explained in recital 70<sup>(32)</sup> and set out in the second paragraph of Article 32(1). This means that the mark-ups may never act as a barrier to service provision. If there is spare capacity on a line and if RUs from a specific market segment are interested in using that capacity but are only able to pay the marginal cost of the infrastructure use, then the IM may not impose a mark-up that would make it unprofitable for an efficient RU to operate in that market. In that case, IMs may levy charges that correspond to a rate of return in addition to direct costs – but only if the market can bear it (a market study must confirm that this is the case)<sup>(33)</sup>.

Available capacity<sup>(34)</sup> can only be denied to an operator willing to pay the direct cost of the use of infrastructure if that capacity has been requested for an alternative use<sup>(35)</sup>. The IM may not impose a mark-up that would make it unprofitable for an efficient RU to operate in that market segment.

### 3.6.2. *Efficient, transparent and non-discriminatory principles*

The second condition in Article 32(1) is that mark-ups should be levied ‘on the basis of efficient, transparent and non-discriminatory principles’.

<sup>(30)</sup> See point 4.1 on market segmentation.

<sup>(31)</sup> An efficient RU should be intended to be a typical RU that is well run and adequately provided with equipment and means to perform its activity. Such a RU should be able to pay the mark-up and still make a reasonable profit on the provision of its transport services.

<sup>(32)</sup> ‘The overall level of cost recovery through infrastructure charges affects the necessary level of government contribution. Member States may require different levels of overall cost recovery. However, any infrastructure charging scheme should allow traffic which can at least pay for the additional cost which it imposes to use the rail network.’

<sup>(33)</sup> See *European Commission v Federal Republic of Germany*, paragraph 87.

<sup>(34)</sup> That is capacity that can be made available without compromising the reliability of the network.

<sup>(35)</sup> This is without prejudice to the exception in case the proposed service would compromise the economic equilibrium of a public service contract. See Article 11(1) of the Directive.

The efficiency requirement can be interpreted as requiring that cost recovery is achieved in a way that is consistent with economic efficiency principles. In other words, if two charging strategies would achieve the same amount of cost recovery, the one that has lower costs for the system should be preferred. This should also be seen from a dynamic perspective with respect to incentives that charging schemes offer to both IMs and RUs. Preference should be given to charging schemes that encourage RUs' market entry or the offering of additional services and that promote a higher degree of competition in the rail service market. Charging schemes should also encourage rail operators to make efficient economic choices<sup>(36)</sup>. Furthermore, charging schemes should also encourage IMs to improve their efficiency and lower TACs – as is clearly apparent from Article 30 and recitals 36<sup>(37)</sup>, 43<sup>(38)</sup> and 50<sup>(39)</sup> of the Directive. This is in line with the considerations developed in point 3.4.

Mark-ups should be charged based on transparent principles. Transparency is required not only on the level of mark-ups but, importantly, also on the principles underlying their determination. IMs should always make a clear distinction in their network statements between the different components of the charges<sup>(40)</sup>. They should also be transparent regarding the principles and methodology that they have applied for defining them.

The non-discrimination requirement not only covers the standard interpretation of equal treatment for RUs in equal conditions, but should also include non-discrimination between market segments. This means that, while mark-ups should be adjusted to the market segments' different ability to bear the charge, they should not be overly penalising or favourable for specific types of rail services. Indeed, recital 42 of the Directive notes that: 'The charging and capacity-allocation schemes should permit equal and non-discriminatory access for all RUs and should attempt, as far as possible, to meet the needs of all users and traffic types in a fair and non-discriminatory manner. Such schemes should allow fair competition in the provision of railway services.'

The setting of mark-ups must respect the principles of efficiency, transparency and non-discrimination. Efficiency should also be assessed with respect to incentives that charging schemes offer to both IMs and RUs.

### 3.6.3. *Guaranteeing optimal competitiveness of rail market segments*

The third condition in Article 32(1) is that mark-ups should be levied while 'guaranteeing optimal competitiveness of rail market segments'.

The CJEU has clarified<sup>(41)</sup> that the concept of 'competitiveness' referred to in Article 32(1) of the Directive must be distinguished from the concept of 'competition'. According to the CJEU, 'the concept of competitiveness relates not to competition between RUs but to the competitiveness of the rail sector, considered in relation to other modes of transport.'

<sup>(36)</sup> See recital 44 of the Directive: 'Railway undertakings should receive clear and consistent economic signals from capacity-allocation schemes and from charging schemes which lead them to make rational decisions.'

<sup>(37)</sup> 'Infrastructure managers should be given incentives, such as bonuses for managing directors, to reduce the level of access charges and the costs of providing infrastructure.'

<sup>(38)</sup> 'Within the framework set out by Member States, charging and capacity-allocation schemes should encourage railway infrastructure managers to optimise use of their infrastructure.'

<sup>(39)</sup> 'It is desirable for railway undertakings and the infrastructure manager to be provided with incentives to minimise disruption and improve performance of the network.'

<sup>(40)</sup> See Opinion of Advocate General Ćapeta of 7 November 2024, *ÖBB-Infrastruktur AG, WESTbahn Management GmbH*, C-538/23, paragraphs 95-98.

<sup>(41)</sup> See *LatRailNet and Latvijas dzelzceļš v Valsts dzelzceļa administrācija*, paragraph 59.

To improve competitiveness, Member States may put in place a time-limited compensation scheme for the use of railway infrastructure for the demonstrably unpaid environmental, accident and infrastructure costs of competing transport modes in so far as these costs exceed the equivalent costs of rail<sup>(42)</sup>. This possibility is mostly used to subsidise rail freight by lowering TACs (including below the level of direct cost), but Member States can also use this provision to support other rail market segments that are in competition with less sustainable modes (e.g. night train services serving as alternatives to flights)<sup>(43)</sup>.

Mark-ups should not be set at a level that would prevent rail from competing effectively with other modes of transport.

#### 3.6.4. Respecting productivity increases

The last sentence in paragraph 1 of Article 32(1) stipulates that: 'The charging system shall respect the productivity increases achieved by railway undertakings.' This provision is intended to avoid a situation where more efficient RUs are charged higher mark-ups simply because they are more profitable, as this would discourage rail operators from seeking to improve their productivity.

RUs' productivity gains are to be incentivised, because they benefit the final user and may also boost efficient use of the network (as in the case of higher capacity trains).

Mark-ups that are differentiated according to the number of seats offered for equivalent services might not only violate the general non-discrimination condition (as discussed in point 3.3) but also be contrary to the 'productivity' requirement of paragraph 1 of Article 32(1).

## 4. MARK-UPS AND METHODOLOGIES FOR THEIR DEFINITION

### 4.1. Market segmentation

Paragraph 3 of Article 32(1) of the Directive states that: 'Before approving the levy of such mark-ups, Member States shall ensure that the infrastructure managers evaluate their relevance for specific market segments.'

Therefore, as indicated in point 3.6.1, the market's ability to bear the mark-up – also referred to as 'ability to pay' – should be assessed with respect to specific market segments.

The varying ability to pay of different rail market segments can be used to cover a larger share of the full cost of infrastructure, while avoiding a situation where RUs that can pay the direct costs are prevented from using available capacity. Differentiating mark-ups by market segments increases the amount of revenues that can be collected without restricting the use of rail infrastructure and the provision of different rail services<sup>(44)</sup>.

Assessing the ability with respect to the market segment and not to individual operators, is consistent with the non-discrimination requirement of Article 29(3) (see also point 3.3) that equivalent charges should apply to 'services of an equivalent nature in a similar part of the market'.

<sup>(42)</sup> See Article 34 of the Directive.

<sup>(43)</sup> The average climate cost for trains is 0,05 euro cent per passenger-kilometre – compared with 2,2 euro cent for airplanes, 0,5 euro cent for coaches and 1,2 euro cent for cars. Source: European Commission, Handbook on the external costs of transport, 2019, Table 69, Handbook on the external costs of transport - Publications Office of the EU.

<sup>(44)</sup> A profit-maximising strategy based on a single mark-up that would leave capacity underused would not only be inefficient from an economic point of view but would also be contrary to EU law. Indeed, the Directive requires the definition of at least three market segments, but possibly more. See paragraph 3 of Article 32(1).

Recital 41 of the Directive gives further indications on the definition of market segments: 'when levying mark-ups, distinct market segments should be defined by the infrastructure manager where the costs of providing the transport services, their market prices or their requirements for service quality differ considerably'. Paragraph 4 of Article 32(1) adds that: 'Infrastructure managers may further distinguish market segments according to commodity or passengers transported'.

The driving principle for the definition of market segments is therefore one of substitutability: services that are close substitutes from the point of view of the final customers <sup>(45)</sup> – namely in terms of price, quality, or type of use – belong to the same market segment. The cost of providing the transport service can also be taken into account. This element should not be considered with reference to an individual operator, but rather with reference to the cost of an average efficient operator providing that particular service. In other words, an inefficient operator that suffers higher costs for providing a service cannot constitute 'a segment' and possibly be charged a lower mark-up. However, a particular type of service that is generally characterised by specific costs (e.g. a night train or single wagonload freight train <sup>(46)</sup> services) can qualify as a separate market segment.

IMs should at least identify market segments for freight services, passenger services under public service contract and other passenger services <sup>(47)</sup>. It is clear, however, that this is a bare minimum and that (several) additional segments should be introduced, depending on the services provided in any given network. In fact, the third paragraph of Article 32(1) of the Directive states that: 'Member States shall ensure that the infrastructure managers evaluate (the mark-ups) relevance for specific market segments, considering at least the pairs listed in point 1 of Annex VI to the Directive and retaining the relevant ones' (emphasis added) <sup>(48)</sup>.

IMs should assess whether services that are classified differently according to any of the pairs listed in Annex VI of the Directive should or should not be included in the same market segment, without prejudice to the principle announced in recital 41 of the Directive. Assessing market segments on the basis of the characteristics listed in point 1 of Annex VI to the Directive is an obligation and not a mere possibility.

There are many additional characteristics that are not mentioned in the pairs listed in Annex VI but can also serve as a basis for identifying market segments without infringing the non-discrimination condition of Article 29(3) of the Directive. An example is the time of day or day of the week of the service, when these can be clearly associated with different categories of final customers. Another element is the ad hoc category of a train, because trains that are arranged using residual capacity are arguably different from those that are planned as part of the annual or multiannual allocation process. A market segment for ad hoc trains, with low or no mark-ups, could incentivise the use of residual capacity that would otherwise remain unused and could increase the attractiveness of rail for some freight commodities <sup>(49)</sup>.

In practice, IMs have taken very different approaches with varying degrees of market segmentation. There is a trade-off between (i) the benefits of simplicity of a charging scheme with few market segments; and (ii) the benefits of accuracy and fairness in more elaborate schemes. Where mark-ups are applied, it is important for market segmentation to be sufficiently granular to ensure that RUs are not charged beyond their ability to bear them. Indeed, broad market segments definitions may overlook important differences in the many factors that have a relevant impact on RUs' ability to pay (size of the connected regions, characteristics of demand and target customers, travel time, frequency of services, type of line, competition with other modes of transports, cost structure of the service, etc.).

<sup>(45)</sup> Passengers and freight forwarders.

<sup>(46)</sup> Single wagonload freight services are operated by trains that do not keep the same composition from origin to destination but do bundle individual wagons from different consignors that are collected and delivered at different locations.

<sup>(47)</sup> See paragraph 3 of Article 32(1): 'Before approving the levy of such mark-ups, Member States shall ensure that the infrastructure managers evaluate their relevance for specific market segments, considering at least the pairs listed in point 1 of Annex VI and retaining the relevant ones. The list of market segments defined by infrastructure managers shall contain at least the three following segments: freight services, passenger services within the framework of a public service contract and other passenger services.'

<sup>(48)</sup> Point 1 of Annex VI to the Directive indicates that: 'The pairs to be considered by IMs when they define a list of market segments with a view to introducing mark-ups in the charging system according to Article 32(1) include at least the following: (a) passenger versus freight services; (b) trains carrying dangerous goods versus other freight trains; (c) domestic versus international services; (d) combined transport versus direct trains; (e) urban or regional versus interurban passenger services; (f) block trains versus single wagonload trains; (g) regular versus occasional train services.'

<sup>(49)</sup> For example, seasonal transport and cereals.

Experience on the ground seems to confirm a tendency for greater customisation of services to better target the different needs of the final demand<sup>(50)</sup>. IMs may accompany this trend with the introduction of further segmentation criteria and definition of new subsegments under the umbrella of the classic market segments that are also referred to in the Directive.

#### 4.2. Assessing the ability to pay

Evaluating the relevance of mark-ups for market segments involves establishing the market segments' ability to pay. IMs use different methods to do this. The most common approach is to estimate the elasticity of demand of a given segment and to use it to determine the level of mark-ups (the Ramsey-Boiteux method)<sup>(51)</sup>. Other IMs (i) perform a market profitability analysis based on several criteria; (ii) merge the two methods; or (iii) use other approaches (e.g. the use of two-part tariffs for the mark-ups<sup>(52)</sup>).

Assessing the pros and cons of each method is beyond the scope of the present guidelines. It is nevertheless important to emphasise that the correct calibration of mark-ups is crucial in order to avoid market distortions and ensure efficient allocation of capacity.

The challenges in achieving this task are linked to several factors. Rail infrastructure capacity is not an end product and TACs are only one of the cost components for RUs. Estimating the elasticity of market segments is a demanding exercise in itself. It requires complex econometric analyses based on comprehensive input from RUs that operate similar services. It also requires data from competing modes of transport that can be considered as a substitute to rail services. Moreover, elasticity of demand usually varies in accordance with price/quantity levels. Most importantly, elasticity of demand does not convey information on the profitability of RUs and their ability to cover costs for any given mark-up<sup>(53)</sup>. Operators can consider relevant data to be sensitive, so it may be difficult for IMs to obtain them.

For all these reasons, theoretical considerations and empirical analyses should be accompanied by a market test. Experience in markets where competition has already been in place for several years shows the importance of having a well-defined and structured consultation phase before approving charging principles. IMs and all the existing and potential applicants can share data, information and plans during the consultation phase, under the supervision of the regulatory bodies.

In practice, there is a risk that IMs do not assess the level of mark-up which a given market segment can bear, but rather consider the amount of funding received from the State and maximise revenues from charges to cover their funding gap<sup>(54)</sup>. However, this places more emphasis on revenue collection, whereas (as discussed in point 3.1) the main goal when determining mark-ups should be to ensure 'optimum effective use of the available infrastructure capacity'. This is not an operational concept, but the recitals of the Directive help clarify the policy objectives of the legislator: reduce the level of access charges (recital 36); reduce the cost of transport to society (recital 38); achieve (including via charging schemes) an optimal balance of different transport modes on a sustainable basis (recital 40); meet the needs of all users and traffic types and allow fair competition in the provision of railway services (recital 42); provide RUs with clear and consistent signals that lead them to rational decisions (recital 44); set charges that take external costs into account (recital 68); and allow traffic which can at least pay for the additional cost which it imposes to use the rail network (recital 70).

All these aspects point to the need to create the conditions for the largest possible use of the network, catering for the needs of different types of users and allowing railway services to compete effectively with less sustainable modes of transport.

<sup>(50)</sup> For example, in the open-access high-speed market between two stations there could be both faster non-stop services and lower-speed services with intermediate stops (e.g. Milan-Rome and Madrid-Barcelona).

<sup>(51)</sup> Ramsey-Boiteux pricing sets the price mark-up over marginal cost so that it is inversely proportional to the price elasticity of demand. Economic theory shows that – under certain conditions – this allows a monopoly to recover fixed costs while maximising social welfare.

<sup>(52)</sup> Two-part tariffs involve a fixed component (which is equal for all operators in the segment) and a variable component (which is proportional to, for example, the amount of used capacity).

<sup>(53)</sup> For a more detailed analysis of this issue, see the Irg-Rail paper, *The overview of the application of market segments and mark-ups in consideration of Directive 2012/34/EU*, 2021.

<sup>(54)</sup> See, for example, CERRE, *Track access charges: reconciling conflicting objectives' Project Report*, May 2018.

In this context, the possibility of market entry should be considered and encouraged. In the absence of competition from other modes, a single rail operator in a given market segment is likely to have a higher ability to pay than several RUs competing with each other. However, if the application of a high mark-up is sustainable only for a monopolistic operator, it can be a barrier to entry into the market. In those circumstances, lowering mark-ups can favour market entry and bring about the benefits of competition for the end user.

The determination of mark-ups should involve a market test phase, during which applicants are consulted and the expected volume of path requests (based on preliminary indications on the intended mark-ups) is gauged.

The mark-up should be set at a level that maximises use of the network and promotes a wide offer of different railway services.

IMs should always consider the effect of mark-ups on market structure and strive to promote market entry.

### 4.3. Special cases

#### 4.3.1. *International passenger services, night trains and single wagonload freight trains*

The classification of international passenger services<sup>(55)</sup>, night trains and single wagonload freight trains into market segments and the application of respective mark-ups are aspects of particular interest because they potentially involve different approaches to the same rail services by IMs in neighbouring Member States.

These trains may have a very different operational model and cost structure from other rail services (e.g. due to technical interoperability challenges, higher staff costs and, in the case of night trains, less frequent usability of the rolling stock) and may face stronger competition from other modes, resulting in a lower ability to bear mark-ups.

In the absence of a specific market segment, these trains often fall into a broader segment that includes other services and risk being charged beyond their ability to pay. To date, only a few IMs have identified a specific market segment for international passenger services. This is at odds with the requirement of the Directive to consider the characterisation of domestic versus international services – which is specifically listed in Annex VI – and to retain it in the definition of market segments.

There are probably different reasons for this choice. Some IMs are reluctant to apply different charges to international trains, because they fear this may distort competition with domestic trains operating on a shorter section of the same link<sup>(56)</sup>. From the passenger's perspective, it makes little difference whether the train continues across the border or not, and the services are substitutable. However, as mentioned above, the international train may have higher costs linked to the operation across different networks<sup>(57)</sup> and it may compete with other modes on longer distances: both circumstances would call for lower charges. On balance, consideration should be given to the extent of substitutability between the two services, while ensuring that equivalent charges should apply to services of an equivalent nature.

<sup>(55)</sup> Article 3(5) of the Directive defines 'international passenger service' as 'a passenger service where the train crosses at least one border of a Member State and where the principal purpose of the service is to carry passengers between stations located in different Member States; the train may be joined and/or split, and the different sections may have different origins and destinations, provided that all carriages cross at least one border'.

<sup>(56)</sup> For example, some of the trains serving the Frankfurt-Cologne route continue on to Belgium, while others terminate in Germany. The services are quite similar for passengers wanting to travel from Frankfurt to Cologne. However, the operating costs for the cross-border train may be significantly higher and this may justify a different treatment in charging.

<sup>(57)</sup> These higher costs concern (i) higher equipment costs for the on-board signalling system and the traction current system; and (ii) higher human resources costs for train crew (due to the need to change drivers and sometimes also other staff at the border).

International services are also very diverse, including high-speed services, regional services, long-distance daytime services and night trains <sup>(58)</sup>. Creating a single market segment for them is therefore unlikely to be sufficient <sup>(59)</sup>. However, with cross-border services making up only about 7 % of overall passenger traffic <sup>(60)</sup>, very detailed market segmentation can seem burdensome to IMs. This is unfortunate, because more specific charging arrangements would support the development of these services. For example, conventional long-distance cross-border services usually feature a high demand-elasticity; and a reduction of mark-ups could, if passed on to passengers as a reduction in ticket prices, make them much more attractive to potential customers.

Identifying international passenger subsegments and applying targeted charging schemes to them, can promote the growth of cross-border passenger services and especially those that establish new connections. Lower mark-ups can also increase train frequency, improve service quality and possibly increase the IMs' revenues. Cross-border passenger services are crucial in offering a sustainable form of long-distance travel and in connecting people, cities and regions across the EU.

It therefore makes sense to incentivise their development through a careful setting of TACs. For example, IMs could consider low mark-ups for long-distance cross-border passenger trains with a certain travel duration (degressive TACs). Mark-ups could be further reduced for each additional hour or kilometre driven, resulting in a degressive charging scheme that would apply cross-border. Lower or no mark-ups for night trains and single wagonload freight trains would reflect the fact that the quality of the capacity given to night trains is often lower (as is the ability to pay of providers of these types of services).

IMs should cooperate on developing common segments across Member States for cross-border traffic, in line with the provisions of Article 37 of the Directive. The joint definition of a market segment does not necessarily entail the harmonisation of charging levels for this type of service. The calculation of direct costs and the definition of mark-ups depend on national network and market characteristics. Nonetheless, common definitions of market segments for international services can facilitate the comparability and predictability of TAC components for RUs.

It is important to recall that, according to paragraph 5 of Article 32(1) of the Directive, 'Market segments in which railway undertakings are not currently operating but may provide services during the period of validity of the charging system shall also be defined. The infrastructure manager shall not include a mark-up in the charging system for those market segments.' The provision of this paragraph combined with the prescription to avoid mark-ups for segments that cannot bear them confirms the legislators' intention that the Directive should promote lower charges for segments in which there are clear barriers to offering additional services or to entering and staying in the market.

It should be assessed whether or not international passenger services should be included in a specific market segment with potential subsegmentation according to criteria such as the type of service (high-speed, conventional, the time of day and the origin/destination).

Particular consideration should be given to the inclusion of night trains and single wagonload trains in specific market segments which, if unable to bear mark-ups, should only pay direct costs.

#### 4.3.2. Passenger services within the framework of a public service contract

Paragraph 3 of Article 32(1) explicitly requires the identification of a market segment for passenger services within the framework of a public service contract (PSO services) <sup>(61)</sup>. These are characterised by the supply of public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward <sup>(62)</sup>. In other words, RUs would not find it profitable to supply the same services under market conditions.

<sup>(58)</sup> Similarly, cross-border freight trains can be intermodal trains, block trains, single wagonload, etc. Each product has a different business model and is differently affected by mark-ups.

<sup>(59)</sup> An international passenger train running on a high-speed line with a journey time of up to 4 hours and an international service with a journey time of between 6 and 8 hours are likely to have different levels of substitutability with other modes of transport, different levels and proportions of fixed and variable costs, and different characteristics of demand depending on the connected areas.

<sup>(60)</sup> In 2019, cross-border passenger trains were responsible for only 7 % of the total passenger-kilometres in the EU. On the freight side, a much larger share of traffic was cross-border, representing 53 % of total tonne-kilometres. Source: eighth monitoring report on the development of the rail market under Article 15(4) of Directive 2012/34/EU of the European Parliament and of the Council (RMMS).

<sup>(61)</sup> See footnote 47.

<sup>(62)</sup> See Section 2.2.3 of the Commission Notice of 26 June 2023 on interpretative guidelines concerning Regulation (EC) No 1370/2007 on public passenger transport services by rail and by road (OJ C 222, 26.6.2023, p. 1).

This means that PSO services do not follow the usual market logic, and it might not be appropriate to apply concepts like elasticity of demand. Nevertheless, PSO services typically represent a significant share of all rail services and network capacity use <sup>(63)</sup> and it is legitimate to seek their contribution to network cost recovery via payment of a mark-up. A low level of mark-ups for PSO services may have the effect of shifting a high proportion of the burden of network funding onto open-access services, thereby compromising their economic viability and ability to compete with other modes <sup>(64)</sup>.

To avoid excessive imbalances in the charging of PSO and open-access services, one could refer to the average revenues obtained from TACs on comparable lines and geographical areas from open-access services and seek a comparable average contribution from PSO services that would be at least proportional to their use of the network. Similarly, hybrid trains that provide both commercial and PSO services should pay at least the same mark-up as a competing full open-access service.

Such an approach would produce a more balanced contribution from the different market segments to infrastructure financing. It would also maintain a link between PSO mark-ups and market developments. Avoiding excessive imbalances is particularly important if profitable lines are included in a PSO contract because lower charges for PSO services may result in the crowding-out of open-access services.

In any case, IMs should retain (including in the case of mark-ups for PSO services) a degree of flexibility when determining the amount of charges as referred to in point 3.2 above.

PSO services should contribute equitably to the recovery of infrastructure costs. TACs for PSO services should be set at a level which does not result in a disproportionate burden being placed on other market segments or in the crowding-out of open-access services. The IM can define methodologies and criteria to define different submarket segments for PSO services.

## 5. OTHER CHARGES

### 5.1. Scarcity charges

Article 31(4) of the Directive makes it clear that infrastructure charges ‘may include a charge which reflects the scarcity of capacity of the identifiable section of the infrastructure during periods of congestion’.

Scarcity charges can only be levied on infrastructure that has been declared congested in line with Article 47 of the Directive. According to Article 51(3) of the Directive, they must cease to apply in cases where the IM does not produce a capacity-enhancement plan or does not make progress with the actions identified in it.

The Directive addresses congestion charges separately from mark-ups. It thus clearly assigns different roles to these two instruments. Mark-ups can help in recovering the full cost of infrastructure but should not hinder or block the use of available lines. However, if infrastructure is congested and a choice between competing uses must be made, congestion charges could be an effective way to provide correct pricing signals to the system and allocate capacity efficiently.

Examples from Member States show that scarcity charges can be designed in a variety of different ways. When operators in the same market segment are competing for the same capacity, the use of scarce and valuable train paths can be auctioned.

Congestion charges can also be modulated in a way that promotes the effective use of capacity both on the line and in the stations. For example, lower congestion charges could apply to double-composition trains <sup>(65)</sup>.

<sup>(63)</sup> In 2019, PSO services represented 90 % or more of all passenger rail services in 15 Member States in terms of passenger-kilometres. They represented 50 % or more of all passenger rail services in 22 Member States. Source: the eighth monitoring report on the development of the rail market under Article 15(4) of Directive 2012/34/EU of the European Parliament and of the Council (RMMS).

<sup>(64)</sup> High-speed rail pays significantly more than 100 % of its social marginal costs. Source: Sustainable Transport Infrastructure Charging and Internalisation of Transport Externalities, Executive summary, p. 11.

<sup>(65)</sup> Joined trains which can reach two different final destinations from one origin. This practice is already used in different countries, even for international trains.

Congestion often concerns specific network bottlenecks (these are often stations in major cities). In such cases, congestion charges that discourage the use of terminus stations by long-distance transit trains that do not start or end their journey in those stations can help in optimising the use of the main rail hubs.

Another option is to use congestion charges to mitigate the disparity of operating speeds by penalising slower trains running on lines that are designed for higher speeds <sup>(66)</sup>.

Congestion charges can be designed in a variety of ways and are a valuable tool to promote efficient use of networks.

## 5.2. Reservation charges

Reservation charges are a tool to promote an efficient process of capacity allocation. The purpose of reservation charges is to discourage applicants from 'hoarding' capacity (i.e. from placing capacity requests for potential use, but without an already established need). This typically results in excess capacity being cancelled at a later stage <sup>(67)</sup>.

Such practices can result in unnecessary transaction costs for IMs (e.g. costs that result from the solution of conflicts which ultimately do not materialise and that impose negative externalities on other applicants). In the worst case, capacity can be entirely wasted if applicants cancel allocated capacity at a point in time when other applicants can no longer use it.

If properly designed, reservation charges can be an incentive to request capacity in a manner that optimises the efficiency of the allocation process and the use of available infrastructure capacity.

Reservation charges should be used in conjunction with capacity-allocation processes to better align capacity requests with actual needs and to reduce cancellation costs for the system.

## 5.3. Discounts

According to Article 33(3) of the Directive, 'Infrastructure managers may introduce schemes available to all users of the infrastructure, for specified traffic flows, granting time-limited discounts to encourage the development of new rail services, or discounts encouraging the use of considerably underutilised lines.'

The market already offers several examples of discounts. These include differentiated TACs for specific international market segments, newcomer bonuses and promotional charges <sup>(68)</sup>. These must be non-discriminatory and justified, and *de jure* and *de facto* available.

Discounts can be seen as 'an investment', because they increase the number of market participants that can share the financial burden of contributing to infrastructure funding. Discounts are often temporary rather than permanent because the new services are expected to become more profitable after the first few years.

Indeed, an infrastructure manager could conceivably recover the immediate loss caused by the discounts in the following period of validity of the charging scheme. The initial discount would generate an increase in the volume of trains in a specific market segment. Then, once all players have a stable and remunerated business, the infrastructure manager could increase the level of the mark-up in line with these operators' increased ability to pay.

<sup>(66)</sup> For example, scarcity charges could be applied when trains with a maximum speed of only 160 km/h run on congested lines with a maximum speed of 250 km/h.

<sup>(67)</sup> In more severe cases, such practices could even be used as part of an anti-competitive strategy to prevent (potential) competitors from being allocated capacity.

<sup>(68)</sup> Concrete examples of discounts can be found in the German, French and Italian charging systems.

This approach is especially suitable in cases where specific improvements of the rail infrastructure are planned for cross-border connections. Examples include the construction of a new section of line that reduces travel time or an upgrade of the technology of the cross-border section (or border station) that reduces the dwell time. The infrastructure manager could propose discounts for cross-border market segments before the infrastructure upgrade, boosting the volume of trains and covering the temporary losses generated by the discount with a higher mark-up once the upgrade has been completed.

Discounts can be particularly useful in promoting new or enhanced services.

## 6. FUNDING FROM MEMBER STATES AND CONTRACTUAL AGREEMENTS

As discussed in section 2, Article 8(4) of the Directive requires the Member State to fill the funding gap in order to ensure that the accounts are in balance over a reasonable period of no longer than five years. The option of requiring the IM to balance its accounts without State funding is only available if rail transport can compete with other modes of transport (see also point 3.1) and 'within the charging framework of Articles 31 and 32' that set out precise conditions.

A revenue target for access charges imposed on the IM by the Member State would not be compatible with the Directive because that would alter the nature and purpose of the mark-ups and limit the IM's management independence. Similarly, if funding from the Member State is insufficient, there is a risk of contravening the logic established by the Directive and forcing the IM to use mark-ups to fill the resource gap – instead of pursuing the policy goals stated in Article 26 of the Directive.

Funding of IMs by the Member States has such strong and direct implications – not only for the state of infrastructure but also for its accessibility – that Member States should carefully assess how to make the best use of scarce resources in order to achieve their railway policy goals (taking into consideration the benefits of infrastructure funding over other types of subsidies and interventions).

Not only the amount but also the timing and predictability of State funding are important issues. Without certainty and predictability of funding, it is very difficult for IMs to plan their charging policy and infrastructure works. Such uncertainty has negative knock-on consequences for RUs, which rely on a stable charging framework and a dependable network for their business plans.

Article 30(2) of the Directive deals with this matter by requiring Member States to 'ensure that a contractual agreement [...] is concluded between the competent authority and the infrastructure manager covering a period of not less than five years'. Annex V of the Directive further specifies the elements to be included in the contractual agreement. These include the structure of payments or funds allocated to the infrastructure service as well as user-oriented performance targets (in the form of indicators and quality criteria).

Contractual agreements are therefore crucial not only in helping IMs to lower access charges, but also in guaranteeing an appropriate quality level of infrastructure services. IMs must pursue their cost-efficiency objectives while also respecting the quality criteria of the contractual agreement – with which their business plan must be aligned <sup>(69)</sup>.

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<sup>(69)</sup> See Articles 8(3) and 30(6) of the Directive.