**UPDATED REVIEW OF CHARGING PRACTICES   
FOR THE MINIMUM ACCESS PACKAGE IN EUROPE**

Version 4: 24 November 2017

(First version: October 2012)

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| --- |
| **Introductory remarks**  *This updated review on charging practices for the minimum access package covers the following countries, members of IRG-Rail:* ***Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Luxemburg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.***  *The IRG-Rail charging working group intends to review this document when appropriate as further information becomes available from other members or other regulatory bodies. In addition the working group would like to underline that this document is an* ***interpretation of the common charging principles as they stand rather than stating what the charging principles ‘should’ consist of****. In other words, the document only provides a description on the charging systems designed by national infrastructure managers.* |

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# *General objectives of the document*

Directive 2012/34/EU, setting out the charging principles for the minimum access package, has now been implemented by all Member States. However, in some countries, charging schemes are still evolving as a consequence of the Directive’s transposition.

The 2012/34/EU Directive is the legal basis for establishing the principles governing rail charging systems in Europe. The Recast requires Member States to establish charging frameworks that meet the management independence initially laid down in Directive 91/440/EC, and sets out in particular the principles of accounting, legal organisation and decision making separation between railway companies and the State, and between infrastructure managers (IMs) and railway undertakings. A regulatory body, legally distinct and independent from any other public and private entity and independent from the IM, is responsible to guarantee fairness and transparency.

This framework is crucial for a successful functioning of the European railway market. As a result, Member States are now moving towards more transparent capacity allocation and charging systems.

In particular, the charging system can provide several desirable outcomes. It obviously provides a mechanism for the IM to recover costs. However it can also be used to incentivise the optimal use and provision of the infrastructure. For example, charges based on cost provide signals to operators and funders to only use the infrastructure where the benefits of use exceed this cost. Furthermore, it can incentivise railway undertakings to find ways to reduce the costs they place on the network by, for example, investing in less damaging trains.

The purpose of this document is to present an overview of the charging approaches for the minimum access package in the Member States which are part of the IRG-Rail charging working group.

IRG-Rail intends to expand this overview report and has invited other IRG-Rail members and European rail regulatory bodies to participate and submit information on their charging systems when available. **The overview published in October 2012 has been updated four times. The second version provided an addendum (section 3) that explained the regulatory bodies’ general roles in charging issues. This third version includes descriptions on the role of regulatory bodies in respect of investments (section 3.4) and gives an overview on the impact of public compensation on charges (section 3.4). The fourth version includes new countries and adds tables summarizing the main information included in section 3.** The IRG-Rail charging working group will update the report as necessary.

The review of charging systems should allow the IRG-Rail charging working group to:

1. Obtain a common understanding of charging principles in rail in Europe;
2. Explore a common framework for the review of charging principles given by Directive 2012/34/EU, as amended;
3. Refine and/or expand activities considered in the working programme of the working group.

# *Charging characteristics: review of charging principles in IRG-Rail Member States*

According to Directive 2012/34/EU, Annex II-1, the charges specified in the network statements should cover the items included in the minimum access package which are:

* Handling of requests for infrastructure capacity;
* Right to utilise capacity which is granted;
* Use of running track points and junctions;
* Train control including signalling regulation, dispatching and the communication and provision of information;
* Use of electrical supply equipment for traction current, where available;
* All other information required to implement or operate the service for which capacity has been granted.

The main charging principles laid down in Directive 2012/34/EU provide that:

* Charges for the use of rail infrastructure must be paid to the IM and be used to fund its activities (article 31(1) of Directive 2012/34/EU);
* In the definition of charges, direct costs should be identified. In fact, Article 31(3) of the Directive 2012/34/EU states that “*Without prejudice to paragraph 4 or 5 of this Article or to Article 32, the charges for the minimum access package and for access to infrastructure connecting service facilities shall be set at the* *cost that is directly incurred as a result of operating the train service”*. This principle applies to the minimum access package (the methodology for the calculation of the cost that is directly incurred is given by the European Commission Regulation 2015/909 of June 2015. In November 2016, IRG-Rail issued a document presenting engineering and econometric methodologies which may be used to calculate direct costs[[1]](#footnote-1));
* There are exceptions to these charging principles :
  + In order to obtain full recovery of costs, IMs are allowed to levy a mark-up if the market can bear it and provided that market segments have been defined (article 32(1) of Directive 2012/34/EU). Under this exception, the level of charges must not exclude the use of infrastructure by market segments which can pay at least the cost that is directly incurred as a result of operating a railway service, plus a rate of return that the market can bear;
  + Additionally, for specific future investment projects, or specific investment projects that have been completed after 1988, the IM may set or continue to set higher charges on the basis of the long-term costs of such projects if they increase efficiency or cost-effectiveness or both and could not otherwise be or have been undertaken (Article 32(3) of Directive 2012/34/EU).
* Charges can also be levied to reflect scarcity of capacity of an identifiable segment of the infrastructure during periods of congestion (Article 31(4) of Directive 2012/34/EU) or take account of environmental effects (Article 31(5) of Directive 2012/34/EU);
* Infrastructure charging schemes must also encourage railway undertakings and the IM to minimise disruption and improve the performance of the railway network through a performance scheme (Article 35 of directive 2012/34/EU).

The table below (compiled by the working group) provides an overview of the application of charges for the minimum access package of IRG-Rail members. The table is based on the assessment of charging practices in countries detailed in the Annexes[[2]](#footnote-2). It does not represent the full regulatory framework of each country as a regulatory framework may allow different solutions/options that the IM does not necessarily adopt. It provides information on the following charging characteristics:

* **Charge(s) reflecting direct costs according to article 31(3) of Directive 2012/34/EU** : “[w]*ithout prejudice to paragraph 4 or 5 of this Article or to Article 32, the charges for the minimum access package and for access to infrastructure connecting service facilities shall be set at the cost that is directly incurred as a result of operating the train service*”;
* **Mark-ups and market segmentation according to article 32(1) of Directive 2012/34/EU** : “[i]*n 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”*;
* **Annual prices:** the table indicates whether charges are set every year or not ;
* **Charge(s) under article 32(3) of Directive 2012/34/EU (long term costs):** “[f]*or specific future investment projects, or specific investment projects that have been completed after 1988, the infrastructure manager may set or continue to set higher charges on the basis of the long-term costs of such projects if they increase efficiency or cost-effectiveness or both and could not otherwise be or have been undertaken. Such a charging arrangement may also incorporate agreements on the sharing of the risk associated with new investments”;*
* **Discounts under article 33(3) of Directive 2012/34/EU :** “[i]*nfrastructure 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”;*
* **Charges for the impact of public service operation contract under article 12 of directive 2012/34/EU:** “*[m]ember States may, under the conditions laid down in this Article, authorise the authority responsible for rail passenger transport to impose a levy on railway undertakings providing passenger services for the operation of routes which fall within the jurisdiction of that authority and which are operated between two stations in that Member State”*;
* **Incentives under articles 30.1 of Directive 2012/34/EU: “***[i]nfrastructure managers shall, with due regard to safety and to maintaining and improving the quality of the infrastructure service, be given incentives to reduce the costs of providing infrastructure and the level of access charges”.*

|  | **Charge(s) reflecting direct costs  (article 31.3 of directive 2012/34/EU)** | **Charge(s) under article 32.3 of directive 2012/34/EU (long term costs)** | **Annual**  **prices?** | **Market segments? (article 32.1 of directive 2012/34/EU)** | **Mark-ups “*if the market can bear this”* (article 32.1 of directive 2012/34/EU)** | **Discounts (article 33.3 of directive 2012/34/EU)** | **Charges for the impact of PSO contracts (article 12 of directive 2012/34/EU)** | **Incentives under article 30.1 of directive 2012/34/EU** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Austria** | **** | **** | **** | **** | **[[3]](#footnote-3)** | n/a | n/a | n/a |
| **Belgium[[4]](#footnote-4)** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Bulgaria** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Croatia** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Denmark** | **** | (****)**[[5]](#footnote-5)** | **** | **** | **** | **** | **** | **** |
| **Estonia** | **[[6]](#footnote-6)** | **** | **** | **** | **** | **** | **** | **** |
| **Finland** | **** | **** | **** | **** | **** | **** | **** | **** |
| **France** | **** | **[[7]](#footnote-7)** | **** | **** | **** | **** | **** | **[[8]](#footnote-8)** |
| **Germany** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Greece** | **[[9]](#footnote-9)** | **** | **** | **** | **** | **** | **** | **** |
| **Hungary** | **** | **** | **** | **** | **** | **** | **** | n/a |
| **Italy** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Latvia** | **** | **** | **[[10]](#footnote-10)** | **** | **[[11]](#footnote-11)** | **** | **** | **[[12]](#footnote-12)** |
| **Luxemburg** | **** | **** | **** | **** | **** | n/a | n/a | n/a |
| **Netherlands** | **** | **** | **** | **** | **[[13]](#footnote-13)** | **** | **** | **** |
| **Norway** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Poland** | **** | **** | **** | **[[14]](#footnote-14)** | **[[15]](#footnote-15)** | **** | **** | **** |
| **Portugal** | **[[16]](#footnote-16)** | **** | ****[[17]](#footnote-17) | **** | **** | **** | **** | **** |
| **Romania** | **[[18]](#footnote-18)** | **[[19]](#footnote-19)** | **** | **[[20]](#footnote-20)** | **[[21]](#footnote-21)** | ******[[22]](#footnote-22)** | **[[23]](#footnote-23)** | **[[24]](#footnote-24)** |
| **Slovakia** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Slovenia** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Spain[[25]](#footnote-25)** | **** | **** | **** | **** | **** | n/a | n/a | n/a |
| **Sweden** | **** | **** | **** | **[[26]](#footnote-26)** | **[[27]](#footnote-27)** | **[[28]](#footnote-28)** | **** | **** |
| **Switzerland** | **** | **** | **** | **** | **** | **** | **** | **** |
| **UK** | **** | **[[29]](#footnote-29)** | **[[30]](#footnote-30)** | **** | **** | **** | **** | **** |

Findings of this charging review show that:

* In most countries, the charging models are based (at least partly) on the principle of **marginal cost pricing**. This reflects the fact that some of the governments support IMs through a subsidy, while others require the IM to recover some of its costs through the charging framework in the form of mark-ups. The methods by which direct or marginal costs are estimated and the charges’ design vary between countries. In Italy, a new system has been implemented following the new regulatory framework issued by the Italian regulatory body (ART) in November 2015, coherent with the principles set in the Recast. Under the new system, access charges are made of different components: direct costs, mark-ups and other components (incentives for ETCS, surcharges for scarcity, environmental effects, etc.). Direct costs are estimated on the basis of three factors: train overall mass, path traffic speed and contact wire (on the basis of type of the rolling stock)[[31]](#footnote-31). The new system will be applied from January 2018[[32]](#footnote-32);
* Most countries have a **multi-part charging structure**;
* There is a trend to take into account external effects. **Sweden**, for instance, incorporates an emission charge levied on combustion engine-driven vehicles into its charging regime. Similar approaches are considered in other countries such as **Switzerland** and **Germany**, the latter having introduced a noise differentiated charge for freight trains in June 2013. In 2015 about 16 per cent of railway undertakings of the rail freight segment used low-noise trains. However, only 5 per cent of total train-path km were travelled by those low-noise trains.

In contrast to these areas where a broad commonality of approaches exists, there are several important differences in the approach when regulating IMs in IRG-Rail Member States. These include:

* **Mark-ups** and **market segmentation** are not applied in all countries and, when applied, they appear to differ across countries[[33]](#footnote-33);
* There are also key differences in the **periodicity of access charges reviews**. In the UK or in Hungary, charges are reviewed every five years, whereas in most other countries, for example in France and Poland, this is done on an annual basis. In Italy and Germany, while the regulatory period lasts 5 years, access charges are updated every year (adjusting, as an example, for inflation and traffic forecasts). In Italy, a review at mid-term (spring 2018) is foreseen.

Depending on the number of IMs in each country, **charging practices may also differ within an individual IRG-Rail Member State**. Our analysis has only focused on general trends for the main line network within each Member State and does not address charging systems of local passenger or freight networks or separate high speed lines.

In addition to the access charge reflecting direct costs incurred for the use of the network targeted by Article 31(3) of Directive 2012/34/EU, most national charging systems consider other charges. In order to avoid confusion, common understandings of these additional charges are detailed below:

* **Congestion and scarcity charges[[34]](#footnote-34)**

The issue of scarcity and congestion is addressed in Article 31(4) of Directive 2012/34/EU. It states that “*the infrastructure charge may include a charge which reflects the scarcity of capacity of the identifiable section of the infrastructure during periods of congestion.”*

A table setting out whether national IMs include scarcity charges within their pricing schemes is included below.

* **Environmental charges**

Directive 2012/34/EU states, under Article 31(5), that "*[t]he infrastructure charge may be modified to take account of the cost of the environmental effects caused by the operation of the train.*" It also stresses that"*[s]uch a modification shall be differentiated according to the magnitude of the effect caused.*"

Some countries have decided to put more emphasis on environmental externalities and promote clean transport modes like rail. Germany uses an integrated system of bonus and malus for freight traffic: a malus for all not retrofitted wagons running on the network and a bonus for those wagons using retrofitted brake blocks. In Italy, following the Decision 96/2015, the IM is allowed to include in the access charges a component that boosts the reduction of noise effects[[35]](#footnote-35).

Environmental charges are used to create a level-playing field across all modes based on impacts on the environment. IRG-Rail considers that all modes should be charged in a way that prevents one mode from being at a disadvantage compared to others.

* **Performance:**

Directive 2012/34/EU states, under Article 35(1), that “[i]*nfrastructure charging schemes shall encourage railway undertakings and the infrastructure manager to minimise disruption and improve the performance of the railway network through a performance scheme. This scheme may include penalties for actions which disrupt the operation of the network, compensation for undertakings which suffer from disruption and bonuses that reward better-than-planned performance”*.

Performance schemes are introduced in almost all European countries. The schemes vary in their design. Mostly delay minutes are targeted within the configuration of the schemes.

* **Reservation charge :**

Directive 2012/34/EU states, under Article 36 that “[i]*nfrastructure managers may levy an appropriate charge for capacity that is allocated but not used. That non-usage charge shall provide incentives for efficient use of capacity. The levy of such a charge on applicants that were allocated a train path shall be mandatory in the event of their regular failure to use allocated paths or part of them. For the imposition of this charge, the infrastructure managers shall publish in their network statement the criteria to determine such failure to use. The regulatory body referred to in Article 55 shall control such criteria in accordance with Article 56. Payments for this charge shall be made by either the applicant or the railway undertaking appointed in accordance with Article 41(1). The infrastructure manager shall always be able to inform any interested party of the infrastructure capacity which has already been allocated to user railway undertakings”.*

In some countries this charge is introduced as a cancellation charge that applies when one or several train running days on a train path or part of a train path are withdrawn by the ordering railway undertaking.

A summary of how these various charges are applied in IRG-Rail members is given in the table below.

| **Country** | **Congestion / Scarcity** | **Performance** | **Environmental** | **Reservation or Cancellation charge** |
| --- | --- | --- | --- | --- |
| **Austria** | **** | **** | **** | **[[36]](#footnote-36)** |
| **Belgium** | **** | **[[37]](#footnote-37)** | **** | **** |
| **Bulgaria** | **** | **** | **** | **** |
| **Croatia** | **** | **** | **** | **[[38]](#footnote-38)** |
| **Denmark** | **** | **** | **** | **** |
| **Estonia** | **** | **** | **** | **** |
| **Finland** | **** | **** | **** | **** |
| **France** | **** | **** | **** | **[[39]](#footnote-39)** |
| **Germany** | **** | **** | **[[40]](#footnote-40)** | **[[41]](#footnote-41)** |
| **Greece** | **** | **** | **** | **** |
| **Hungary** | **** | **** | **** | **** |
| **Italy** | **** | **** | **** | **** |
| **Latvia** | **** | **** | **** | **** |
| **Luxemburg** | **** | **** | **** | **[[42]](#footnote-42)** |
| **Netherlands** | **** | **[[43]](#footnote-43)** | **[[44]](#footnote-44)** | **[[45]](#footnote-45)** |
| **Norway** | **** | **** | **** | **** |
| **Poland** | **[[46]](#footnote-46)** | **[[47]](#footnote-47)** | **[[48]](#footnote-48)** | **** |
| **Portugal[[49]](#footnote-49)** | **** | **** | **** | **** |
| **Romania** | **[[50]](#footnote-50)** | **[[51]](#footnote-51)** | **** | **[[52]](#footnote-52)** |
| **Slovakia** | **** | **** | **** | **** |
| **Slovenia** | **** | **** | **** | **[[53]](#footnote-53)** |
| **Spain[[54]](#footnote-54)** | **** | **** | **** | **** |
| **Sweden** | **** | **[[55]](#footnote-55)** | **** | **** |
| **Country** | **Congestion / Scarcity** | **Performance** | **Environmental** | **Reservation or Cancellation charge** |
| **Switzerland** | **** | **** | **** | **** |
| **UK** | **** | **** | **** | ******[[56]](#footnote-56)** |

The review of charging approaches highlights that Member States apply different pricing components to address additional charging possibilities. This may be a consequence of different political preferences, structural differences, different traffic patterns as well as different approaches to regulating the broader transportation sector. It is worth noting that the environmental charge is only applied in few countries (*e.g. Denmark,* Germany, Italy, Poland, Switzerland and Sweden).

The table below provides information on the main charging units used by Member States. It highlights that the train.km is the most commonly used charging unit (few Members States currently use the tonne.km).

| **Country** | **Main charging units** |
| --- | --- |
| **Austria** | Train.km and gross-tonne.km |
| **Belgium** | Train.km |
| **Bulgaria** | Train.km and gross-tonne.km |
| **Croatia** | Train.km |
| **Denmark** | Train.km and DKK/train |
| **Estonia** | Train.km and gross-tonne.km |
| **Finland** | Gross-tonne.km |
| **France** | Path.km, train.km and €/year |
| **Germany** | Train.km |
| **Greece** | Train.km |
| **Hungary** | Train.km and number of paths |
| **Italy** | Train.km |
| **Latvia** | Train.km |
| **Luxemburg** | Path.km |
| **Netherlands** | Train.km |
| **Norway** | Gross-tonne.km |
| **Poland** | Train.km |
| **Portugal** | Train.km |
| **Romania** | Train.km, gross-tonne.km |
| **Slovakia** | Train.km and gross tonne.km |
| **Slovenia** | Train.km |
| **Spain** | Path.km, seats.train.km and train.km |
| **Sweden** | Gross tonne.km and train.km |
| **Switzerland** | CHF/year, train.km, gross tonne.km, powered axle.km, % of traffic revenues |
| **UK** | Thousand gross tonne vehicle.mile,  vehicle.mile, train.mile and billing period |

# *Roles of regulatory bodies in charging issues*

This section approaches the role of regulatory bodies in the context of charging review in the different Member States. Most regulatory bodies are involved in the review of access charging. However, their roles and degree of involvement appear to diverge significantly from one country to another. In some countries like Italy, the regulatory body can impose specific criteria and principles that must be followed by the IM in the determination of the access charges. The “prescriptions” may include costing and pricing rules as well as specific economic values (as for example in the application of the CAPM/WACC formula).

In this context, the IRG-Rail Charging working group has produced a questionnaire to map the roles of regulatory body in respect of charging. The questionnaire aims at establishing what the general approaches to charging in various Member States are and exploring in further details some aspects of charging issues.

The following paragraphs present a summary of the main results of the questionnaire, organized by section, *i.e.* (1) general regulatory issues, (2) charging review, (3) charging principles and cost model, (4) investment and subsidies, (5) earnings and cost of capital, (6) efficiency, (7) market segments, (8) performance regime / performance scheme, (9) traffic forecasts and (10) complaints. A table synthetizing the main information is included in subsections 1 to 5.

* 1. **General regulatory issues**
* *Scope of regulatory bodies’ mission*

Although most railway regulatory bodies (*e.g.* the Danish, Norwegian, Finnish, Polish and Swiss regulatory bodies) are only responsible for the regulation of the railway market, some members have a wider spectrum of responsibilities in the transport sector. For example, the Belgium regulatory body also regulates Brussels Airport Operations. In Italy, the *Autorità di Regolazione dei Trasporti* (ART), beside railways, is also in charge of airports, highways, local public transport (buses, trains, metro, maritime and, under some respects, taxi) and ports. The Slovakian Transport Authority is also responsible for air and water transports. The Swedish Transport Agency is the regulatory body for rail, roads, maritime routes, and the whole aviation sector. The French regulatory body is in charge of the rail, road and coach sector regulation, while the UK regulator has a monitoring function for roads too. The Portuguese Regulator (AMT) is in charge for land transport and roadway infraestructure, railway regulation, regarding infrastructure managers and rail transport operators, commercial ports and maritime and waterway transport.

A few regulatory bodies are also responsible for the regulation of other network industries such as telecommunications and postal services as in Slovenia, the Netherlands or Germany. For the latter, the energy sector (electricity and gas) and energy grid expansion are also part of the regulatory body’s competencies. The Spanish and the Romanian regulatory bodies are also in charge of more general competition-related issues.

Within the railway sector, IRG-Rail members can also be responsible for issues other than economic regulation such as licensing in Greece, passenger complaints in Austria, Slovenia, Portugal and Italy[[57]](#footnote-57) or safety as in Slovakia. Both in the UK and Poland, the regulatory body is responsible for economic rail market regulation, licensing, safety regulation and passenger rights. In the UK, the regulator also acts as the competition authority for rail related matters. The Swedish Transport Agency is also the National Safety Agency (NSA) in charge of licensing and safety regulation. In Hungary, the regulatory body is also in charge for licensing and passenger rights, and operates within the Hungarian Transport Authority that is responsible for rail safety regulation and road, shipping and aviation issues as well.

* *Regulation regime for charges foreseen by national law*

In most countries, the regulatory regime for charges intended by national law is based on a direct cost regime. Most IM of the IRG-Rail members have a multi-part charging structure. However, the approach to mark-ups on direct costs differs among IRG-rail countries. In fact, mark-ups are not applied in many countries and, when implemented, they appear to diverge across countries. This is also related to the choices as to public investment in the railway network that vary across countries (see Section 3.4 for a more thorough analysis on the impact of public compensation on charges).

Depending on the number of IMs in each country, charging practices may also differ within an individual IRG-Rail Member State.

* *Overview table for general regulatory issues*

|  | **Additional duties regarding railways** | | | **Competition Authority** | **Additional duties in different sectors** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Railway safety** | **Railway licensing** | **Railway passenger rights** | **Roads** | **Aviation** | **Maritime** | **Electricity** | **Gas** | **Telecommunications** | **Postal services** |
| **Austria** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Belgium** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Bulgaria** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Croatia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Denmark** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Estonia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Finland** | ****[[58]](#footnote-58) | **** | **** | **** | ****[[59]](#footnote-59) | **** | **** | **** | **** | **** | **** |
| **France** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Germany** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Greece** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Hungary** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Italy** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Latvia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Netherlands** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Norway** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Poland** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Portugal** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Romania** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Slovakia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Slovenia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Spain** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Sweden** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **United-Kingdom** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

* 1. **Charging review**
* *Review of charging principles and the level of charges*

All regulatory bodies are required to review charging principles and/or the level of charges[[60]](#footnote-60). In some cases such as Finland, Denmark, Switzerland and Sweden, the regulatory body has to date performed a summary review or no review at all for the main IM’s access charges. In Italy, as said before, a new system was implemented in July 2016 following the new regulation issued by ART in November 2015.

Other IRG-Rail members, namely Spain and Romania review charges predominantly when dealing with complaints related to the level of charges, or when supervising negotiations.

Croatia, Greece, Finland, Hungary, Norway[[61]](#footnote-61), Switzerland and Sweden do not have the power of *ex ante* control of charging principles.

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In Portugal, the Regulatory Body (AMT) reviews the methodology of charges calculation once, and according to the bylaws, AMT has to homologate the tariffs considered concerning the use of railway infrastructure in the Network Statement. Regarding the cost assessment, AMT evaluates all the costs that are being included in the tariffs, analysing the costing model and all the costs (direct and indirect) to understand the suitability of these costs with the Regulation (EU) 2015/909.

Only the French, the UK, the Polish, the Portuguese and the German regulators approve the charges. In France, Portugal and Poland, all rail IM charges are approved every year, prior to their entry into force. In the UK the regulatory body approves the charges every five years. In Germany a five year regulatory period applies, while access charges are approved each year on the basis of an ex ante regulation, adjusting, as an example, for inflation and productivity growth. In Austria, Finland, Slovakia and Norway[[62]](#footnote-62), the Transport Ministry is also involved in the approval of charges. Italy verifies access charges before they are applied. Access charges must be verified by the regulatory body (ART), in order to assess if they are coherent with the Law and regulation. In Austria, according to § 67d EisbG (national railway act), if mark ups on direct cost charges are levied, they have to be approved by the regulatory body. The same is true for Portugal.

* *Documents examined in the charges review*

When reviewing the charges, the regulatory bodies examine a variety of documents. As a matter of fact, in addition to the network statement, some regulators look into accounts and regulatory statements. Depending on the country, other specific documents are examined. These ones range from studies or technical reports that the IMs are obliged to prepare to business plans, cost models and charging methodologies, contracts with the State and with railway undertakings, and the opinions of stakeholders on charges. In Poland, IMs must submit applications for approval of unit rates of charges with the calculation of costs.

Disparities are due to the existence of many national legal frameworks, different obligations of IMs and railway undertakings and different processes of establishing charges. In Hungary, for instance, in addition to the annual charging document, the regulatory body examines the charging methodology set for a five year period.

Regarding the collection of cost data, some countries, such as France and Spain, declare having difficulties to obtain this information. Sometimes, this can be explained by the IM’s lack of a proper information system (this is the case in Spain where the IM is adjusting the cost accounting model to the new charging framework). In other cases, the cost data is provided at an aggregated level, even though the IM may possess more detailed data. In the Netherlands and in Romania, the regulatory bodies have powers to enforce pecuniary penalties to constrain companies to provide information. In Portugal, the IM always provided the necessary information and whenever more detail was needed it was provided. With the revision of the charging model the IM will have to adapt its cost accounting model to the new charging framework, however that is an on-going process and the RB will analyse the impacts of this in the next period.

Only a small number of regulators have reported that they organise public consultations, prior to the issue of their decision on charges. This is the case of UK, France, Italy, Portugal, Slovakia, Poland and Germany, for example.

* *Frequency of charging reviews*

While many regulatory bodies review the charging principles on a regular basis, a few have no regular schedule for doing so. This is the case in Denmark, Finland or Sweden. In general, periodic reviewing is annual - for example Poland, Belgium, Slovakia, France and Portugal (since the charging model is in the transitional period, there are several things that are being defined and might have an adjustment in the near future) - but it can be more or less frequent. In Hungary, in Italy, the Netherlands and in the UK, the regulatory period extends to five years. Charges are reviewed every month in Slovenia, though the charging model is only reviewed when subject to changes. In the case of Sweden, the frequency of reviewing is approximately four years but it can vary across IMs and subject to yearly plans.

Modifications within the regulatory period can also be subject to reviewing as for example in Germany or Hungary.

* *Time span of the reviewing process*

There is no common trend across IRG-Rail members regarding how long it takes to review or control charges. Regulators that perform annual reviews carry them out in a time span ranging from one month to a whole year. In France, for instance, the formal review process takes two months. In Poland, the procedure for approval of unit rates of charges should last one month and, in the case of particularly complicated cases, two months. As for countries in which the regulatory period exceeds one year, more time is needed to perform the charging review. This requires approximately six months in Hungary and significantly longer in the UK.

Where the statutory time span for *ex ante* review may be short, in some cases for *ex post* controls, timescales, if any, may be less limited. For instance, the German regulator has two months for *ex ante* reviews but in general no time limit for *ex post* reviews. The Slovakian regulator also does not have a legal deadline for *ex post* reviews, while *ex ante* reviews are limited by law to three months. In Slovenia, although the regulatory body examines the fees on a monthly basis, in the case of an appeal, its decision must be made within two months. In the Netherlands there is a statute of limitations of five years for *ex officio* reviews.

In Portugal, Decree-law 217/2015 does not specify whether the regulatory control on charges (both control of charging principles and control of the level of charges) is to be conducted *ex ante* or *ex post* (nor AMT´s bylaws). In practice, AMT´s assessment on charges is triggered by the submission of the network statement and of the reasoning behind the charges by the IM. This normally occurs in November/December of each year, just before the publication of the networks statement takes place, which means that AMT´s intervention occurs already after the publication of the network statement. Please note additionally that AMT acts as the appeal body for matters concerning the charging scheme, the level or structure of infrastructure charges and the charging for rail related services, among other (in line with article 56 of Directive 2012/34/EU) and consequently may intervene on an ex post basis. The implementation of Regulation (EU) 2015/909 will most likely require changes in the charging system of the IM. The charging system currently in use by the IM has been developed under Regulation IMTT 630/2011, issued by the former regulatory body pursuant to the former legal framework and is not completely in line with Directive 2012/34/EU and the cost methodologies introduced by Regulation 2015/909. The Portuguese system is in a transitional period. IM is now reviewing its charging system and the regulator is also defining the new way of functioning. Given this, it is not yet decided the frequency of tariff approval (if it is year on year, every five years, and so on).

* *Publication of the review*

Not all IRG-Rail members publish the result of their charging reviews. Some members systematically publish the review and some never have so far but intend to as it is the case for the Swedish regulator. The German regulatory body publishes the decisions of the ruling chamber. Further, it only has a legal obligation to publish an annual report and a report on its activities every two years; it also issues press releases and publishes all decisions. In Poland, all decisions on charges for access and use of rail infrastructure are published as required under Polish law where decisions of public administrations (such as the Office of Rail Transport) are public information. The Spanish regulatory body has a legal obligation to publish the charging review as well as an annual activities’ report. The Romanian regulatory body is legally required to publish an annual activities report, issue press releases, publish studies about the railway sector as well as all issued decisions, as every citizen should have access to the text of decision. Other members only publish reviews based on complaints or *ex officio* investigations; this is the case in Denmark, Finland or Slovenia. The UK regulatory body publishes its final decision, together with any relevant consultation documentation or reports produced in the course of the five-year review. The same situation applies in Italy, where the new system of access charges was adopted, following several public consultations and a final assessment by ART on the coherence of the actual set of charges designed by the IM with the law and regulation in place[[63]](#footnote-63).

Most regulatory bodies pay attention to the confidentiality issue regarding any sensitive information that may be contained in their published decisions or reviews. For instance, in Poland, Germany and Romania some parts of the decisions are not published if they are considered as a business secret of the IM or other involved party. In Italy, the documents provided by the stakeholders during the consultations are published in their non-confidential versions. In Portugal, following a public consultation and a final assessment, the regulatory body publishes the final decision on the charges review.

* *Overview table for charging reviews*

|  | **Review of charging principles** | | **Review of the level of charges** | | **Documents considered for reviews** | | | **Frequency of reviews** | **Consultations on reviews** | **Publication of decisions or opinions** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Ex ante** | **Ex post** | **Ex ante** | **Ex post** | **Network Statement** | **Accounts of IM** | **Regulatory Statements** |
| **Austria** | **** | **** | **** | **** | **** | **** | **** | Ex post review every year | **** | **** |
| **Belgium** | **** | **** | **** | **** | **** | **** | **** | Ex ante review every year | **** | **** |
| **Bulgaria** | **** | **** | **** | **** | **** | **** | **** | Ex post review every year | **** | **** |
| **Croatia** | **** | **** | **** | **** | **** | **** | **** | Ex post review every year | **** | **** |
| **Denmark** | **** | **** | **** | **** |  |  |  |  | **** | **** |
| **Estonia** | **** | **** | **** | **** |  |  |  |  | **** | **** |
| **Finland** | ****[[64]](#footnote-64) | **** | ****[[65]](#footnote-65) | **** | **** | **** | **** | No fixed frequency | **** | **** |
| **France** | **** | **** | **** | **** | **** | **** | **** | Ex ante review every year | **** | **** |
| **Germany** | **** | **** | **** | **** | **** | **** | **** | Ex ante review every year and whenever changes occur | **** | **** |
| **Greece** | **** | **** | **** | **** | **** | **** | **** |  | **** | **** |
| **Hungary** | **** | **** | **** | **** | **** | **** | **** |  | **** | **** |
| **Italy** | **** | **** | **** | ****[[66]](#footnote-66) | **** | **** | **** | Ex ante review every 5 years | **** | **** |
| **Latvia** | **** | **** | **** | **** | **** | **** | **** |  | **** | **** |
| **Netherlands** | **** | **** | **** | **** | **** | **** | **** | Periodic ex ante review every five years | **** | **** |
| **Norway** | **** | **** | **** | **** | **** | **** | **** | No fixed frequency | **** | **** |
| **Poland** | **** | **** | **** | **** | **** | **** | **** | Ex post reviews every year | **** | **** |
| **Portugal** | **** | **** | **** | **** | **** | **** | **** |  | **** | **** |
| **Romania** | **** | **** | **** | **** | **** | **** | **** | Reviews every 2 years | **** | **** |
| **Slovakia** | **** | **** | **** | **** | **** | **** | **** | Ex post review every year | **** | **** |
| **Slovenia** | **** | **** | **** | **** | **** | **** | **** | After change of methodology | **** | **** |
| **Spain** | **** | ****[[67]](#footnote-67) | **** | ****[[68]](#footnote-68) | **** | **** | **** | Reviews every year | **** | **** |
| **Sweden** | **** | **** | **** | **** | **** | **** | **** |  | **** | **** |
| **United Kingdom** | **** | **** | **** | **** | **** | **** | **** | Periodic reviews every five years | **** | **** |

* 1. **Charging principles and costs model**
* *Charging principles and regulatory bodies’ review of cost assessment*

In most countries, the charging models are based (at least partly) on the principle of marginal cost pricing. In the case of Finland and Sweden charging systems are solely based on marginal costs. While some of the governments support IMs through a subsidy, others additionally require the IM to recover some of its fixed costs through the charging framework in the form of mark-ups, as in France, Germany, Italy, the Netherlands (for the high speed line only), Norway, Switzerland and the UK.

In most countries, a multi-annual contract approved by the IM and the government, states, among other things, the amount of public subsidy for maintaining the infrastructure and a range of defined quality standards. In the UK, statutory arrangements play this role. There is no contract per se.

In Portugal, a 5-year Framework Contract for the National Railway Network was signed, on 11 March 2016, between the Portuguese State and IP, the IM, in compliance with Decree-Law no. 217/2015, of 7 October. Under this contract, the State's main obligation is to finance the management of the infrastructures while IP is obliged to meet user-oriented performance targets, in the form of indicators and quality criteria covering elements such as train performance (line speed and reliability, and customer satisfaction), network capacity, asset management, activity volumes, safety levels, and environmental protection. The contract also sets financial efficiency objectives for IP in the form of revenue and expenditure indicators.

Most regulatory bodies are involved in the review of access charging. However, their roles and degree of involvement appear to diverge significantly from one country to another. All members are required to review charging principles, even though in some few cases, the regulatory body is not involved in determining the charges in any way. Regulatory bodies in France, Germany, Italy and in the UK carry out an *ex ante* review of the methodology of charges calculation and of cost assessment. Also in Portugal, the regulatory body reviews the methodology of charges calculation once, and has to homologate the tariffs considered concerning the use of railway infrastructure in the Network Statement (according to the bylaws of the RB). The ORR requires Network Rail to consult the rail industry on its methodology for calculating each charge. In addition, the ORR reviews the methodology and, for some work, appoints independent experts to subject the methodology to scrutiny and audit. A consultation on the charging scheme and network statements for the IMs is required by law in Germany and in Portugal.

* *Costs model*

In some IRG-Rail countries the regulatory body uses cost models to review the calculation of costs.

As stated before, the charging models are, in most countries, based on the principle of marginal cost pricing, although the methods by which the marginal cost is estimated varies between countries.

Econometric approaches are already implemented by some IMs, as in Belgium, Finland, France, Netherlands, Norway and Sweden. Bottom-up engineering methods are also used, as they are also able to provide robust estimates of direct costs. An engineering method is implemented in Austria. French, Dutch, Swiss and UK IMs already resort to such engineering and modelling calculations. Beyond that, the Swedish Transport Administration (Trafikverket) and the ORR have developed and implemented their own top-down econometric models (and bottom-up ones for the ORR)[[69]](#footnote-69) . In Italy, a mixed approach has been recently chosen. Once determined the full (efficient) cost of providing the service of access to the railway network, the IM must exclude all non-admissible costs, as identified by Regulation 909/2015, in order to identify the total direct costs (following a top-down approach) while the determination of the component of access charges related to direct costs associated to a specific request of track is computed on the basis of technical parameters such as mass, speed and contact wire that characterize the specific operator request (following a bottom-up methodology). In Portugal, the IM uses a cost model to compute direct costs. However, this cost model has been developed under Regulation IMTT 630/2011 that was issued under legal provisions that are not in force anymore. As stated before, que charging model is being revised by the IM and is expected a new one in a near future.

* *Costs drivers*

In their review of charging principles most regulatory bodies consider cost drivers. Most regulatory bodies interpret the cost directly incurred as a short-run marginal cost that should include operating costs (*e.g.* signalling), maintenance costs (*e.g.* *wear and tear* *costs*), and renewal costs. IRG-Rail members consider that examples of costs that are not costs directly incurred may be the cost of capital.

For most Member States, marginal cost based charges are only differentiated by freight and passenger traffic[[70]](#footnote-70). Essentially, they are not broken down into smaller market segments. In general, direct costs charges do not vary by other market segments.

* *Overview table for charging principles and cost model*

|  | **Methodology to calculate direct costs (art. 31.3)** | | | **Costs considered to calculate of direct costs (art. 31.3)** | | | | **Efficient costs**[[71]](#footnote-71) **taken into account in calculation of direct costs (art. 31.3)** | **Review of methodology to calculate direct costs (art. 31.3) by RB** | **Review of methodology to determine market segments and mark-ups (art. 32.1) by RB** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Econometric** | **Engineering** | **Difference methodology**[[72]](#footnote-72) | **Operation** | **Maintenance** | **Renewal** | **Cost of capital** | **Market segments** | **Mark-ups** |
| **Austria** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Belgium** | **** | **** | **** |  |  |  | **** | **** | **** | **** | **** |
| **Bulgaria** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Croatia** |  |  |  | **** | **** | **** | **** | **** | **** | **** | **** |
| **Denmark** |  |  |  |  |  |  | **** | **** |  |  |  |
| **Estonia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Finland** | **** | **** | **** | ****[[73]](#footnote-73) | **** | **** | **** | **** | **** | **** | **** |
| **France** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Germany**[[74]](#footnote-74) | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Greece**[[75]](#footnote-75) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Hungary** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **** | **** | **** |
| **Italy** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Latvia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Netherlands** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Norway** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Poland** |  |  |  | **** | **** | **** | **** |  | **** | **** | **** |
| **Portugal** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Romania** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Slovakia**[[76]](#footnote-76) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **** | **** | **** |
| **Slovenia** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Spain** | **** | **** | **** | **** | **** | ****[[77]](#footnote-77) | **** | **** | **** | **** | **** |
| **Sweden** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **United-Kingdom** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

* 1. **Investment and subsidies**
* *Review of the IM’s investment programmes*

Only the five regulatory bodies of France, Portugal, Estonia, Bulgaria and the UK have the task of formally reviewing the investments or investment programmes of the IMs. Some other regulatory bodies may however be consulted, as part of a more general consultation procedure, on medium to long term investments plans. In Sweden, the regulator is consulted on the national transportation plan which is prepared by the transport administration and constitutes a national investment plan over a period of 10-12 years. The Spanish Railway Act, transposing Directive 2012/34/EU, also foresees a general consultation procedure, which would include the rail regulator, on the strategic plan of network development. Finally, some regulators may have access to information on investments, without being formally consulted. The Italian regulatory body must be informed of the content of the contractual arrangements between the State and the IM which fix the investments and the renewals over a five-year period. The German IM has to set up a business plan including investment- and financing programs. The regulatory body has the possibility to comment on the document.

In France, the regulatory body by law reviews maintenance, renewal or enhancement investment programmes for projects over 200 million euros. This review takes the form of a non-binding opinion and should assess the financial viability of the project for the infrastructure manager[[78]](#footnote-78).

In the UK, the regulatory body is involved at all stages of the investment lifecycle, on all capital expenditures of the IM, including maintenance, renewals and enhancements. Its role notably consists in determining the efficient price of the infrastructure investment at the beginning of the Control Period (5 year-period), monitoring it through-out development and delivery and then determining the actual value of addition to the Regulatory Asset Base. To do so, the UK rail regulator analyses a series of documents (e.g. Project Management Plan, Asset Management Plan, Estimate Report, benchmarking and unit rate analysis, Investment Paper, etc.). The IM is incentivized to deliver the project at the target price, which is set at the regulator’s efficient determination of price[[79]](#footnote-79). Any change to the target price throughout the lifecycle of the project is monitored and approved by the UK regulatory body.

In Portugal, the regulatory body (AMT), might be consulted on the investment plan which is part of the activity plan that is to be approved by the Ministry of Finance and the Ministry responsible for the rail sector. The Infrastructure Investment Plan is part of the National Reform Program, which follows the Plan prepared by the IP designated by “Ferrovias 2020”, which is supported by PETI. At the time of the preparation of PETI, AMT did not exist however, IMT, the former regulatory body, participated in the road, sea and rail sector. According to AMT´s bylaws, it is the responsibility of this entity to issue recommendations on the drafting and modification of any public service provision agreements (article 5, 1, j)).

* *Financing of the IM’s investment programmes (replacement, expansion and maintenance investments)*

The IMs are largely financed either by governments (subsidies), railway undertakings (infrastructure charges) or the European Union (European funds). Some IMs also receive other income as in the UK for example, where Network Rail receives income from property. For all IRG-Rail members, the IMs receive subsidies to finance their investment programmes. In other countries, public grants represent a high percentage in terms of the costs that are covered. This percentage may change depending on the type of investment (replacement, expansion and maintenance). For example, in Finland approximately 90% of the IM’s expenses (including expansion investments) are funded by the State budget. In Greece, no less than 70% of the total costs are subsidized by the State. In Italy, State provides funds for investments in the conventional network (fully covered) and high speed network (partially); renewals and maintenance are partially financed by the State. In Portugal, the IM (IP) benefits from a package of community funds - “Connecting Europe Facility (CEF)” (general component - contribution of 30% to 50% and cohesion component - 85% contribution) and Portugal 2020 Programme (85% contribution), plus the Juncker Plan and the contribution of *Infraestruturas de Portugal*.

Investment programmes can also be cofounded by European Union funds. This is the case for example in Denmark, Hungary, Greece, Croatia, Italy, Germany, Poland and Romania. In Hungary, for example, the major renewal and upgrading works are mainly funded by EU funds. The maintenance cost, on the other hand, is financed using the IMs’ incomes.

In some countries, such as the Netherlands, Sweden, and Poland new infrastructure projects (expansion investments) are generally financed by the State, whereas renewals, enhancements and upgrades of the existent infrastructure are also financed by the IM. The IM also receives government subsidies to finance these expenses. In Sweden, the State essentially finances both development and maintenance of infrastructure. The principle has been that the government deducts track charges from the Swedish Transport Administration's appropriation needs and assigns the difference. In the Netherlands, for example, about 75-80% of the operation and maintenance costs incurred by the IM are financed by subsidies. In Sweden this percentage rises up to 85%.

In contrast with this subsidy allocation depending on the type of expense, the UK IM receives a grant from the relevant governments which is not allocated towards a particular category of expenditure although the different governments have specified what enhancements should be delivered within the same five year period of time.

In France, new investments are mainly financed by public subsidies and private funds (private funds are predominant in the case of concessions). The national legislation states that the investments incurred by the IM should not result in “bad” debt.

In Portugal, IM financing is guaranteed through share capital, State and European subsidies and loans. The majority of the loans are secured by the State, where the IM plays the role of “agent”. The financing of the infrastructure manager is done through: i) government subsidies - compensatory allowances - established in the 5-year Framework Contract for the National Railway Network signed between the State and IP; ii) railway undertakings - the infrastructure charges; iii) loans contracted with the Portuguese State; iv) subsidies from different entities to finance IM investments programmes. The European Union funds contribute to cofound some programmes, some of them are non-refundable subsidies; v) the profits and/or dividends of the companies in which it participates, such as IP Telecom and IP Patrimony and vi) the provision of services in service facilities, such as freight terminals.

* *The impact of public compensation on charges*

**High level impact of public compensation on charges**

The railway networks regulated by IRG-Rail members are natural monopolies. As such, the issue of the recovery of costs and, in particular of fixed costs, is central. Directive 2012/34/EU foresees a charging system based on direct costs (Article 31(3)) to which mark-ups that consider the competitiveness of the market segments may be added, in order to obtain full recovery of the costs incurred by the IM (Article 32(1)). In addition to this charging system, Article 8(2) allows EU Member States to provide the IM with public compensations. Given this framework, it can be argued that the level of public compensation necessarily impacts the overall level of charges paid by railway undertakings. Indeed, the Recast does not impose on Member States to levy mark-ups in accordance with Article 32(1). Thus, depending on the level of public compensation provided to the IM, charges may be set at the directly incurred costs or mark-ups may be introduced to cover a larger share of the full costs of the network.

**The impact of public compensations on direct costs and mark-ups**

Concerning individual charges, the level of directly incurred costs in a given country must not be impacted by public compensation as this charge should only reflect the additional costs incurred as a result of operating the train service. For countries which levy mark-ups and in the context of full recovery of costs incurred by the IMs, two diverging approaches may be used to set the level of these charges. In countries such as Spain, Finland, Slovakia or Greece, the level of charges is calculated in a first step. Then, public compensations, and in particular government subsidies, are set to balance the accounts of the IMs. An opposite approach is taken in Italy, the UK or Germany. In these countries, the level of public compensation is set first and the level of charges is then derived so as to cover the full costs incurred by the IMs. Using one methodology instead of the other to calculate mark-ups is likely to impact their level. In Italy, the length of the regulatory period is set at 5 years that is also the duration of the contract between the State and the IM for the public subsidies for investments and maintenance.

**The impact of public compensations on amounts paid by RUs**

Public compensations may also be used to impact the amounts paid by railway undertakings (RUs), rather than the level of charges. This is for instance the case in Italy and France where governments have chosen to support the railway freight sector. In France, the governmental support applies to all freight traffic, while in Italy it only concerns freight traffic towards or from the south of the country. In both states, the concerned freight services do not pay the full charges set by the IM. In Italy, the government subsidies, at the moment set for three years, cover the full amount of access charges to the railway undertakings operating in the freight sector that benefit from the incentive. Moreover, in most countries, indirect public contributions are also made to the IM to cover part of the track access charges of railway undertakings operating under public service contracts. In 2014, the German Federal Government provided regional transport authorities about 7.3 billion euros for the organization of regional passenger transport, of which 3.1 billion euros were used to cover part of the track access charges for these services. The overall level of contribution increased in 2015 and reached 8.2 billion euros in 2016. France has a similar organization in which the federal government pays for part of the track access charges of regional and national public services. In 2016, this contribution represented approximately 2 billion euros.

**Breakdown of IMs’ revenues between access charges and public compensations**

As underlined in the previous subsection, public compensations represent a substantial part of the revenues of the IM in most IRG-Rail Member States. In Greece, around 70% of the revenues of the IM come from public compensations. In Slovakia, public subsidies amount to around 80% of the IMs’ incomes, while in Finland they represent 90%. The rest is covered by access charges. The breakdown of incomes between charges and subsidies within a country may vary for different parts of the network. For instance, in Spain, public subsidies represent 90% of the IM revenues on conventional lines, whereas they only represent 45% on high speed lines.

**Time periods for the determination of public compensations**

Depending on the country or the source of financing, the level of public compensation may be set for different time periods. In countries such as Finland and Norway, public compensations are decided on an annual basis. In Germany, Italy and the UK, the bulk of public compensations is set for multi-annual periods. In the UK, the Department for Transport (for England and Wales) and Transport Scotland (for Scotland) pays a network grant to the IM for a five year period. In Italy and in Germany, part of the public compensations is included in the public contract between the State and the IM, for a period of five years. In Germany, some public compensation such as infrastructure upgrading subsidies is set on an annual basis.

* *Overview table for investments and subsidies*

|  | **The RB reviews the investments or investment plans of the IM** | **Financing of the IM** | | | | **Part of investment programmes (replacement, expansion, maintenance) financed by :** | | | **Some railway infrastructures financed by private funds** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Track access charges** | **European subsidies** | **State subsidies** | **Regional subsidies** | **European subsidies** | **State subsidies** | **Regional subsidies** |
| **Austria** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Belgium** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Bulgaria** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Croatia** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Denmark** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Estonia** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Finland** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **France** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Germany** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Greece** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Hungary** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Italy** | **** | **** | **** | **** | ****[[80]](#footnote-80) | **** | **** | ****[[81]](#footnote-81) |  |
| **Latvia** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Netherlands** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Norway** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Poland** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Portugal** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Romania** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Slovakia** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **Slovenia** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Spain** | **** | **** | **** | **** | **** | **** | **** | **** | **** |
| **Sweden** | **** | **** | **** | **** | **** | **** | **** | **** |  |
| **United-Kingdom** | **** | **** | **** | **** | **** | **** | **** | **** | **** |

* 1. **Other cost and accounting issues**
* *The cost of capital*

Only a few regulators review the cost of capital included in the pricing of the infrastructure. This is the case of Austria, France, Germany, Italy, Hungary and the UK. The methodology that prevails when determining this cost of capital is a CAPM/WACC approach. In Italy, the regulatory body has identified criteria for the determination of the parameters used in the CAPM/WACC formula, and for some of them, the specific economic values to fill in the formula.

In France and Germany, the cost of capital is considered as a fixed cost.

* *Definition of complete cost*

France and Italy are among the countries where the national legislation provides a definition for the full cost of the infrastructure. Article L. 2111-10 of the French transport code states that the complete cost corresponds to all the charges borne by the IM related to construction, operation, maintenance and renewal of the infrastructure, including the amortization of investments and the remuneration of the capital invested by the IM. In Italy, the same content is provided by Article 16(1) of the national Legislative Decree 112/2015 that implements the Recast.

* *Charges based on article 32.3 of the Directive 2012/34/EU*

Five IRG-members reported that the IMs base part of their charges on Article 32(3) of Directive 2012/34/EU (recovery of long term cost). This is the case for the Diabolo project in Belgium, for the high speed line Amsterdam-Breda-Belgian border in the Netherlands, for the rail line between Stockholm and the Arlanda airport in Sweden, for the Tours-Bordeaux line in France, and for the Channel Tunnel linking France to the UK..

* *The regulatory asset base*

In four IRG-Rail members a regulatory asset base is determined for charging purposes. This is the case in Croatia, Germany, Italy and the United Kingdom. In Germany, Italy and the United Kingdom the calculation is based on both internal data (cost data) and external data (annual report). In Croatia the estimation is only based on internal data.

* *Valuation of assets*

Only a few regulators reported having a national law or a practice for valuing assets for consideration within the calculation of charges. In Austria, Croatia, Portugal and Finland use an historic value approach for the value of assets. Germany uses the historic costs based on the balance sheets at the start of the regulation period which over time are adjusted by inflation and productivity increase. In Italy, the net book value of the assets used in operating the train service, with the exclusion of the assets financed by public subsidies, is taken into account for the computation of the cost of capital; IAS and IFRS apply.

Regarding the assets, the Portuguese law, Decree-law 217/2015, which transposed Directive 2012/34/EU, says in its article 30º, n. º 9, b) that the IM must prepare and keep up-to-date a register of its assets and assets under its responsibility, used to assess the financing needed to repair or replace, and the record should be accompanied by detailed information on the expenses with the renovation and modernization of the infrastructure. Besides what is defined in the in the Regulation 2015/909, (article 3, nº3), the national law, Decree-law 217/2015 does not say anything more. The Portuguese regulatory body shall monitor how the infrastructure manager will apply this, since all the charging system is being revised at this moment.

* *Overview table for investments and subsidies*

|  | **The IM includes the cost of capital in its pricing scheme** | **The RB reviews the methodology to estimate the cost of capital** | **A regulatory asset base is determined to calculate the cost of capital** | **How are assets valued for their consideration within the calculation of charges?** | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Based on current costs** | **Based on historic costs** | **Other methodology** |
| **Austria** | **** | **** | **** | **** | **** | **** |
| **Belgium** | **** | **** | **** | **** | **** | **** |
| **Bulgaria** | **** | **** | **** | **** | **** | **** |
| **Croatia** | **** | **** | **** | **** | **** | **** |
| **Denmark** | **** | **** | **** | **** | **** | **** |
| **Estonia** | **** | **** | **** | **** | **** | **** |
| **Finland** | **** | **** | **** | **** | **** | **** |
| **France** | **** | **** | **** | **** | **** | **** |
| **Germany** | **** | **** | **** | **** | **** | **** |
| **Greece** | **** | **** | **** | **** | **** | **** |
| **Hungary** | **** | **** | **** | **** | **** | **** |
| **Italy** | **** | **** | **** | **** | **** | **** |
| **Latvia** | **** | **** | **** | **** | **** | **** |
| **Netherlands** | **** | **** | **** | **** | **** | **** |
| **Norway** | **** | **** | **** | **** | **** | **** |
| **Poland** | **** | **** | **** | **** | **** | **** |
| **Portugal** | **** | **** | **** | **** | **** | **** |
| **Romania** | **** | **** | **** | **** | **** | **** |
| **Slovakia** | **** | **** | **** | **** | **** | **** |
| **Slovenia** | **** | **** | **** | **** | **** | **** |
| **Spain** | ****[[82]](#footnote-82) | **** | **** | **** | **** | **** |
| **Sweden** | **** | **** | **** | **** | **** | **** |
| **United-Kingdom** | **** | **** | **** | **** | **** | **** |

* 1. **Efficiency**

Some regulatory bodies review the efficiency of the IM. The ORR reviews the regulatory accounts and produces an annual efficiency and finance assessment of Network Rail. The ORR’s *final determination* sets the complete costs of Network Rail with respect to some efficiency assumptions on costs that allow reaching the outputs set by railway funders. Then, the assumptions ORR has made on the level of Network Rail’s maintenance and renewals expenditure will be reflected in the level of charges that operators pay, given that charges are set to be cost reflective. Those assumptions are made *ex ante* for the five year control period.

The French and the Dutch IMs also include efficiency targets within the annual evolution of (some) charges. In Italy, after a process of consultation a target of an annual rate of 2% of reduction in total costs was adopted by the Regulatory body for the first regulatory period (2016-2021).

In Germany the level of total costs is defined every five years for the regulatory period. During the regulatory period an annual ceiling of costs is determined, which considers inflation and productivity change rate as the ceiling for charges proposed by the IM.

The mechanism of the German incentive system is twofold: if the actual costs of the IM decrease during a regulatory period, the charges do not, but the profit increases. Therefore an incentive to cost reductions is set. Only with the next regulatory period cost changes are considered for the determination of the level of total costs. The second incentive is given by the determination of a demand and amounts of train kilometers for the whole regulatory period. Any extension of demand does not change the calculation, but increases the profit of the IM. Therefore the system sets an incentive to extend the amount of traffic on the rail network.

* 1. **Market segments**

Regulatory bodies are responsible for controlling the list of market segments that is identified in the network statement of the IM (Article 32(1) of Directive 2012/34/EU).

There are several important differences in the approach used with regard to mark-ups and market segmentation. The latter are not applied in all countries and, when applied, they appear to differ across countries.

French, Italian, German and UK IMs for example consider market segments when calculating charges. In general, market segmentation differentiates passenger services from freight traffic. Some sub segments may complete the freight segmentation, as it does in the UK, in Italy and in Germany. On the subject, a specific analysis is provided in the “Initial approach to market segment definition and criteria for an assessment of mark-ups in consideration of Directive 2012/34/EU” (IRG-Rail, 2016).

In Portugal, the charging system does not rely on any definition of market segments. The IM did not define market segments. It has the costs aggregated in service categories. In the former Regulation IMTT 630/2011 there was a formula that converted services into segments. Nowadays the market segments IP is considering are: i) passenger trains; ii) freight trains; iii) Urban and sub-urban trains; iv) Regional and interregional; v) empty trains and vi) Intercity and International service. These market segments were determined a few years ago, in the Regulation IMTT 630/2011, issued by the former regulatory body under the previous legal framework. IP is reviewing its charging model to bring it in line with Regulation 2015/909. From this process will emerge new segments and mark-ups.

* 1. **Performance regime**

Almost all members of the IRG-Rail have a performance regime included in their national legal framework. In Denmark there is a performance regime on the payment for the use of the State owned rail network and on the environmental subsidy to freight transport. In the Netherlands and Romania, there is a performance regime included in the Network Statement and it is agreed with railway undertakings in their access agreements. A performance regime can also be tailored to fit for a particular railway undertaking. The Portuguese legal framework also considers a performance regime - article 35 of Decree-law 217/2015 which transposed article 35 of the Directive 2012/34/EU. However, the performance regime currently in use in Portugal has been implemented before the entry into force of the Decree-law 217/2015. A new performance regime is currently being developed by the IM to meet the requirements established in Decree-law 217/2015. The new performance scheme is expected to be approved in 2017 and to be implemented next year.

* 1. **Traffic forecasts**

Only five regulators challenge the traffic forecasts made by the IM as part of the examination of charges. In the Netherlands, the charges are corrected by the IM *ex ante* on the basis of capacity applied for and extrapolations of volumes in previous years. In Germany traffic forecasts are also challenged during the *ex ante* examination of charges. The forecast of passenger train km is based on an extrapolation of current train km considering additional or reduced service requirements or changes in train km due to construction works. Freight train km are projected with the help of an internal analysis on the basis of general economic figures. In Poland, the regulatory body examines the forecast for operational work of the IM for each category of lines and weight. In case of a significant difference with the charge of the last timetable, the regulatory body asks the IM to provide a justification. In Italy, traffic forecasts over the regulatory period (5 years) are estimated by the IM on the basis of a consultation of the railway undertakings and their consistency is evaluated by the Regulatory body. In the UK, the majority of charges are not that sensitive to demand forecasts, because they are calculated per unit of traffic. However, when traffic forecasts do affect the level of charges, they are challenged *ex ante*.

* 1. **Complaints**

Some regulatory bodies declared having received complaints on charging issues. Some of them, as Croatia, Denmark and the Netherlands have received a reduced number of complaints (one for the case of Croatia, two and a court case for the case of Denmark and three for the Netherlands). In Denmark, the first complaint concerns the charging principles applying to a previous ton-kilometre charge for freight trains (case JN34-00006). The second one, from the same freight operator, lies in the continuity of the first one: this complaint (case JN34-00018) focuses on the calculation of the level of charges resulting from the decision of the Danish regulatory body in case JN34-00006. The Danish rail regulatory body was also summoned by the Court in a court case submitted by a freight operator against Rail Net Denmark as a consequence of JN34-00018. In the Netherlands, one complaint was related to the costs included in the minimum usage charge proposal for 2010, which included some fixed costs. Other countries such as Poland and Germany receive complaints on a more regular basis. For example, the Polish regulatory body states that the most common complaints are from rail carriers regarding the method and accuracy of the IM’s calculation of charges for basic service for the minimum access to the infrastructure. The German regulatory body has received complaints on diverse topics, such as the level of charges, price discrimination, performance regimes, billing errors and network statements. The Portuguese rail Regulatory Body received six complaints on charging issues. Complaints are based on various grounds, including for instance the alleged illegality of Regulation IMTT 630/2011 (concerning the method for calculating railway infrastructure charges) due to procedural reasons relating to its adoption, lack of reasoning, incorrect methodology and other alleged irregularities. The four decisions already taken on complaints mentioned above were taken in February 2017 and are available in AMT’s website[[83]](#footnote-83).

The Romanian regulatory body has received complaints on price discrimination, level of price and calculation methodology for services provided by the IM.

# *Annex: Summary of charging systems by IRG-Rail members*

# Austria

In Austria there are two charges for the minimum access package in 2017:

* the basic charge 1 is based on train-km and is different between three different market segments and between five different route categories;
* the basic charge 2 is charged on gross-tonne km and it covers the cost for repair and renewal. Incentives and mark-ups are added to the basic charges.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Basic Charge 1** | €/train-km | Route category (5)  Market segmentation (traffic) (3) | Marginal cost and part of fixed costs |
| **Basic Charge 2** | €/gross-ton km | No market segmentation | Cost for repair and renewal |
| **Incentives and Mark-ups** | €/train-km | Incentive for capacity optimisation (1)  Corridor-specific Freight Traffic Incentive (2)  Engine classification (3)  Congestion charge (1) |  |
| **Performance regime** | €/min delay | To reduce disturbance in the rail network, a charge will be levied for each additional minute of delay on selected trains if the delays are attributable to causes which can be influenced. Unit is by delay in minute (capped) attributable to IM or RU. |  |

The charging system for 2018[[84]](#footnote-84) will also contain a Basic Charge 1 and Basic Charge 2. Both cover direct cost in total and Basic Charge 1 also includes the mark-ups:

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Basic Charge 1** | €/train-km | Market segmentation (traffic) (6) | Direct costs plus mark-up |
| **Basic Charge 2** | €/gross-ton km | Market segmentation (traffic) (6) |
| **Incentives and Mark-ups** | €/train-km | Engine classification (3)  Congestion charge (1) |  |
| **Performance regime** | €/min delay | Same as 2017 |  |

# Belgium

In Belgium, the implementing act 2015/909 has not yet been implemented. The target of the IM is to implement a new charging system as per 2019. The IM has drafted a new charging system compliant with the implementing act 2015/909. This draft is under review by the office of the Ministry of Mobility and Transport and will be submitted to the RB.

The charges related to the minimum access package are split in the following categories:

* Charge path line ”Your move” in order to get a specific path on a line.
* Shunting charge “Your shunt”.
* Charge for use of service facilities
* Administrative costs

The IM propose other services beyond the scope of the minimum access package which are the following:

* Traction provision
* Pre-heating service
* Service for exceptional transport and transport of dangerous goods.
* Services beyond opening hours.
* Access to the telecom network
* Provision of additional information

For the provision of those services specific charges are levied.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Basic Charge 1**  Your Move | €/train.km | There are two kinds of charges: The charges related to the path-line and the charge related to the shunting-line. For this latter, there is differentiation between passengers trains and freight trains | Marginal cost and part of fixed costs |
| **Basic Charge 2**  Your Shunt | €/train.km |  | Marginal cost and part of fixed costs |
| **Incentives and Mark-ups** | n/a | n/a | n/a |
| **Performance regime** | Regime came into force as per 01/01/2017 |  |  |

# Bulgaria

The infrastructure charge is a variable charge which depends on the actual kilometers travelled on the railway infrastructure and depends on the gross weight of the train. It is paid to the IM for the costs incurred directly as a result of operation of the train service.

The charge for operating on the railway infrastructure does not depend on the type of the trains and is the same for all categories of railway lines of the railway infrastructure. Preferential charges for combined transport with block trains and for carriage of freight cars by railway transport are provided for.

The rates are: 0.7902 BGN = 0.404 EUR per train-kilometer and 0.0025 BGN = 0.0013 EUR per gross tonne-kilometer; Charge for realized gross tonne-kilometers of combined transport with block-trains – 0.0023 BGN = 0.0012 EUR per gross tonne-kilometer, irrespective of the category and of the type of the railway line. Charge for the realized gross tonne-kilometers from the carriage of freight cars with block-trains – 0.0018 BGN = 0.0009 EUR per gross tonne-kilometer, irrespective of the category and of the type of the railway line. Charge for the realized train-kilometers from combined transport with block-trains – 0.7112 BGN = 0.2828 EUR per train-kilometer, irrespective of the category and of the type of the railway line. Charge for the realized train-kilometers from the carriage of freight cars with block-trains – 0,5531 BGN = 0.2828 EUR per train-kilometer irrespective of the category and of the type of the railway line.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Charge for the realized train-kilometers** | BGN/train-km | None  Market segmentation; there are discounts for combined transport and for the carriage of freight cars with block-trains | the directly incurred costs |
| **Charge for realized gross tonne-kilometers** | BGN/gross tonne-km | None  Market segmentation; there are discounts for combined transport and for the carriage of freight cars with block-trains | the directly incurred costs |
| **Charge for the requested and unused capacity** | BGN/train-km | None  Market segmentation; there are discounts for combined transport and for the carriage of freight cars with block-trains |  |
| **Charge for electricity distribution in the amount of 146.73 BGN/МWh/** | BGN/МWh/ | None  Market segmentation | Full costs of the electricity distribution activity |
| **Performance scheme** | BGN/minute | 1.40 BGN per minute delay for a freight train and 2.50 BGN per minute delay for a passenger train |  |

# Croatia

In Croatia charges for minimum package of access services are based on the costs directly incurred as a result of operating the train service and they are applied on non-discriminatory terms to all rail companies. Fee for minimum package of access services is calculated through a formula published in the network statement by the IM. Based on the formula every railway undertakings can calculate the cost of using rail infrastructure.

Track access charges for the minimum access package are calculated considering:

- the number of train kilometres preformed on certain line categories;

- type of power car;

- type of towing vehicle;

- weighting of the line category;

- coefficient of the power car category.

The calculation of charges for the minimum access package takes into account the part of the cost which is directly incurred as a result of operating train service, in particular the part of the cost of maintenance and renewal and rail traffic management.

The calculation of charges for the minimum access package does not include cost which are not directly incurred as a result of operating train service, in particular administration cost, financial cost and indirect cost.

Charges depend on train km and they are different on the basis of six different line categories and weight of trains.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Minimum Access** | | | |
| **Access** | €/train.km | Differentiation between freight and passenger trains.  Freight: train km change with weight category.  Passengers: train km change with weight category.  Line category (7)  Main line (3)  Regional line (4) | The costs directly incurred for running the railway service (for instance maintenance and renewal, rail traffic management). |

# Denmark

Charges for 2016 are levied as laid down in the Danish Railway Act n° 686 of 27 May 2015 § 21 point 1, a national statutory order from the Transport Ministry n° 1379 of 1 December 2015 on payment of use of the state owned rail network and on environmental subsidy to freight transport on railway and a national statutory order from Rail Net Denmark n° 1357 of 27 November 2015 on infrastructure charges for the state owned rail network. The charging scheme is based on direct costs.

In 2016, the IM (Banedanmark) introduced a charge based on direct costs and train.km. The charging system includes a uniform charge (in DKK/train.km) for both passenger and freight trains and a bridge charge.

The charge is calculated on the basis of the direct costs related to maintenance of the tracks for the period 2009-2020. For the period 2009-2013 the calculation is based on real costs and train-km. For the period 2014-2020 the costs and train-km are estimated.

At the moment the IM is not able to separate other expenses concerning the directly use of the tracks.

The IM has calculated the charge DKK 4,80 (0,64 Euro) each Train-km. (2015 price level). This charge is regulated yearly by an index based on the general level for prices and wages.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Charge** | DKK/train.km | No market segmentation, but some kinds of transportation are free of charge | Direct costs |
| **Incentives and Mark-ups** | DKK/train.km | Incentives for capacity optimization  No mark-up is levied |  |
| **Performance regime** | DKK/min delay | To reduce disturbances on the rail network, a capacity charge is levied for delayed trains.  The IM has to pay a charge to the railway company for delays attributable to him and under different circumstances. |  |

# Estonia

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Charge 1** | Train-km | It depends on the passenger/cargo usage ratio. If the passenger train capacity is more than 75%, then it is charged both fixed and variable costs and the cargo trains only variable costs. If the passenger train volume is <75%, then cargo trains are charged fixed and variable costs and passenger trains only variable costs. | Fixed costs |
| **Charge 2** | Gross.tonne-km |  | Variable costs |

# Finland

Track access charges include three components: basic charge, infrastructure tax and, for a single rail line, investment tax.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Basic Charge** | €/gross tonne.km | Passenger and freight traffic | Marginal cost |
| **Infrastructure tax** | €/gross tonne.km | Passenger traffic, freight traffic (electricity) and freight traffic (diesel)  Currently not charged for freight traffic. For passenger traffic this component is small (< 10 % of the basic charge) | Origin in environmental and accident costs |
| **Investment tax** | €/gross tonne.km | No | Based on article 32.3 of directive 2012/34/EU  Charged for a single rail line: Kerava – Lahti |
| **Performance regime** |  | A rail operator compensates the Finnish Transport Agency (IM) if the operation of the rail operator essentially differs from the rail capacity allocated to it for a reason due to the operator, and such a deviation impedes the functioning of the railway system. The IM compensates a rail operator if, for reasons due to the IM, the availability of the rail network essentially differs from the rail capacity allocated to the operator, and such a deviation impedes the functioning of the railway system. |  |

# France

In France, the charging system implemented by SNCF Réseau[[85]](#footnote-85) is based on a three-part tariff regime for activities under a public contract (*e.g.* regional trains) and a two-part tariff for the other activities (*e.g.* high speed trains). An additional charge is applied in both cases but only to trains using electric traction facilities.

As defined in the French Decree No. 97-446 of 5 May 1997(amended), the current charging system includes running charges, reservation charges and access charges (only for activities under a public contract). As of 2016, a charge for the use of electric traction facilities, corresponding to the variable costs of using electrical traction facilities, was added to the charges reflecting the minimum access package.

A new charging system, requested by the regulator in 2015, will be put in place for timetable 2019. As for timetable 2018, the following table details the current charges:

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** (as implemented by SNCF Réseau in the Network Statement for 2017) | **Cost covered** (as laid down in Decree No. 97-446 of 5 May 1997) |
| **Running charge** | €/train.km | Type of service/train  The charge is issued only if the reserved path is run | Variable costs for operating, maintenance and renewal |
| **Access charge** | €/year | Only for activities under a public contract (TER, Transilien and TET) | Fixed costs for operating, maintenance and renewal |
| **Reservation**  **Charge** | €/ path.km | Period of the day  Route category  Crossing Paris area or not on high speed lines  Regional routes on high speed lines  Speed (freight) High speed trains where the origin (destination) is or not Switzerland | 0-100% of the cost of capital  Mark-ups “*if the market can bear this*”  Costs related to capacity constraints |
| **Charge for the use of electric traction facilities (RCE)** | €/train.km | This charge is only applied to trains using the electric traction facilities | Charge corresponding to the variable portion of costs for using electrical traction facilities |
| **Performance regime** | €/minute |  | Penalties for disrupting the operation of the network and compensation for actors which suffer from disruptions |

## 

# Germany

The following description is valid for the track access pricing scheme 2018. For 2018 many elements changed due to the transposition of the recast into German law in 2016.

The charging system for the minimum access package comprises a charging element covering the direct costs of a train run and further components. As the direct costs only cover a smaller part of the total costs, mark-ups are levied. When defining direct cost based charges and the mark-ups users are divided into market segments and charged considering their competitiveness. Further elements of the pricing scheme are the new traffic discount, a charge for issuing an offer, a charge for movements outside line operations and incentives, penalty payments (such as compensations for additional train path costs for work-related rail freight transport diversions in the working timetable, reduced charges for non-contractual conditions/reductions upon request, charging arrangements for diversions due to construction work after conclusion of the individual usage agreement, charging arrangements for rail replacement services or emergency bus services) and charges for amendments of allocated train paths and cancellations. The charging unit is the train path kilometre.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge[[86]](#footnote-86)** | **Unit** | **Differentiation** | **Cost covered** |
| **Charge** | € / train-path.km | Direct costs of train operation  +  Mark-ups  + / -  Additional elements | Sum of revenues should cover the costs of the IM (full costs - meaning total cost – minus public payments and plus return on investment)  Sum of revenues should cover the costs of the IM (full costs - meaning total cost – minus public payments and plus return on investment)  Sum of revenues should cover the costs of the IM (full costs - meaning total cost – minus public payments and plus return on investment)  Sum of revenues should cover the costs of the IM (full costs - meaning total cost – minus public payments and plus return on investment) |
| **Direct costs of train operation** | | |
| **Minimum access package** | € / train-path.km | Train path charge = charge for the minimum access package x train path kilometres |
| **Market segmentation** | | |
| **Market segments in long-distance passenger rail services** | € / train-path.km |  |
| **Market segments in local passenger rail services** | € / train-path.km |  |
| **Market segments in rail freight transport** | € / train-path.km |  |
|  |  | **“Standard” segment:** All train path usages in rail freight transport system that are not assigned to the “Sehr schwer”, “Gefahrgutganzzug”, “Gefahrgutgüternahverkehr”, “Güternahverkehr” or “Lokfahrt” market segments are assigned to the “Standard” market segment.  Additional market segments in the rail freight transport sector arise from combining the aforementioned segments with further planning or operational characteristics. |
|  |  | **Planning characteristics:** Planning characteristics include the “Z-Flex” time flexibility and “R-Flex” spatial/geographical flexibility options (except for the segment “Lokfahrt”): “**Z-Flex**” allows a temporal design-tolerance flexibility of +/- 120 minutes for rail freight train paths in relation to the departure and arrival time and the time of every stop ordered by the customer ie. total timetable construction of 240 minutes.  “**R-Flex**” allows temporal design-tolerance flexibility of +/- 120 minutes for rail freight train paths in relation to the departure and arrival time ie. total design tolerance of 240 minutes, as well as flexibility with regards all possible itineraries when the starting and end point are retained. The only binding geographical factors for constructing the train path are the starting and end points. If the train-path application contains scheduled stops for path construction, there is no geographical flexibility. |
|  |  | **Operational characteristics:** If the applicant requires special operational handling in the event of a fault or malfunction, he can choose either “Express” or “Schnell” in the freight rail transport system. Those operational characteristics can be combined with each of the aforementioned segments except for “Lokfahrt” and „Sehr schwer“ and are available on both the working timetable and ad-hoc services. |
| **Other charging components** | | |
| **Noise differentiated track access charge (NDTAC)** | Malus in percent of the basic price; bonus in cents per axle-km | NDTAC will consist of an additional 4.0 % surcharge to the train path charge for noisy freight trains and a mileage-specific bonus totalling EUR 0.5 per axle kilometre (maximum of EUR 211 per axle) for the active use of freight wagons that have been converted with low-noise technology. Low-noise freight trains do not pay a surcharge if, depending on the day of service and train number, corresponding formal verification in line with the format template requirements of DB Netz AG is affixed/attached by way of self-declaration by the first business day of the month. A train is regarded as being a low-noise train when at least 90 % of its freight wagons operate at low noise levels by design. |
| **New sector discount** | Percentage decrease to the standard usage charge | In order to promote the development of new railway services, DB Netz AG grants all applicants time-limited discount. The applicant must set out that it is a service that has been newly acquired for rail in intermodal competition, or is completely new, and runs on at least 10 train paths in a 12-month period upon the commencement of operations. |
| **Charge for issuing an offer** | Timetable costs multiplied by train-path kilometres of the constructed train paths multiplied by the number of days of service | As the costs for processing requests for the allocation of train paths are contained in the train-path charge, a failure to take up a train path once an application already submitted will result in a processing charge levied for issuing the offer.  Timetable costs are a part of the direct costs. |
| **Charge for movements outside line operating hours** | 30 euros/30 minutes or part thereof | Additional charge levied if signal-box occupancy for ad-hoc services exceeds the line operating hours. |
| **Compensation for additional train path costs for work-related rail freight transport diversions in the working timetable** | € / train-path.km | Under the certain conditions (detailed in the network statement), rail freight transport train paths registered in the working timetable are treated like train paths attributed to the “R-Flex” market segment with regard to the calculation of the charges levied for the days of service concerned: |
| **Reduced charges for non-contractual condition/reduction upon request** | € / train-path.km | DB Netz AG itself reduces the payable usage charge in the case of the faults listed in the network statement if these, due to a disruption, have resulted in additional delay minutes. |
| **Charging arrangement for diversions due to construction work after conclusion of the individual usage agreement (ENV)** | € / train-path.km | If the route of a contractually agreed train path deviates from the ENV (diversion) due to construction work not taken into consideration for such train path in the ENV, only the train path charge for the route to which the ENV relates is invoiced. |
| **Charging arrangements for rail replacement services or**  **emergency bus services** |  | In cases where the railway infrastructure cannot be used for a specific period of time as a result of planned measures such as construction, unforeseen faults or reasons that the RU must account for from a vehicle equipment and/or personnel perspective, the rules and regulations defined for rail replacement services (see network statement DB Netz AG) or emergency bus services are applied. |
| **Amendments** | Amendment charge per day of service = timetable costs × affected train path km | The amendment fee corresponds to the share of costs that are incurred as a direct result of train operation for the processing of requests for the allocation of train paths. It is charged for:   * Amended speed without amendment to the day of service * Amended time of day without amendment to the day of service |
| **Cancellations** | Minimum cancellation fee per day of service = timetable costs × affected train path km | **Minimum cancellation fee:**  For cancellations up to the 31st day prior to the departure of the train, a minimum cancellation fee will be charged for the day of service cancelled depending on the expense associated therewith. The minimum cancellation fee corresponds to the share of costs that are incurred as a direct result of train operation for the processing of requests for the allocation of train paths. |
|  | Increased cancellation fee per day of service =  train path km × applicable cancellation fee | **Increased cancellation fee:**  For cancellations within 30 days prior to departure of the train, an increased cancellation fee will be charged for every day of service cancelled in connection with the train path charge of the cancelled train and the time of the cancellation. |

# Greece

The infrastructure management charging system is constituted of a basic cost which includes the cost of track maintenance and operational services. Where appropriate, it also includes additional charges such as electrification and special costs.

There are two basic charges, each per train.km, one concerning operation services (0.65 euros per train.km) and the other concerning track maintenance (0.40 euros per train.km). Each one of these charges is to be multiplied by two factors. The first factor for the operation services (for the first quantity) has to do with the relation of the day time period of the route with the peak one and ranges between 0.7 and 1.2 and the second factor for the operation services (for the first quantity) has to do with the relation of the whole time of the route in the timetable in relation with the ideal minimum time that a typical fast train can operate this route without intermediate stops and ranges roughly between 1 and 1.5. The first factor for the track maintenance (for the second quantity) is related to the quality of the track and ranges between 0.53 and 0.90, while the second factor for the track maintenance (for the second quantity) is related to the axial load, the total load and the speed of the train and ranges between 1.0 and 9.61 . The sum of the two quantities gives the charge per train.km.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Charge** | | **Unit** | **Differentiation** | **Cost covered** |
| **Basic cost** | **Operation** | € / train.km | Categorization of routes based on peak periods Burdening line capacity | ≤ 30% of the actual cost (accrued expenditure) of maintenance and operating |
| **Maintenance** | Maximum speed  The train’s composition (number of axes)  The mean axial load  Quality of infrastructure provided |
| **Additional costs** | **Electrification** | € / train.km | Whenever using a route which operates under electrification |  |
| **Additional charges depending on the case** | No charge per unit : charging on a case-by-case basis | Special- dangerous consignments |

# Hungary

The Hungarian State Railway (MAV Co.) was established in 1992. In 2000, an internal separation of accounts occurred. Different entities were created in order to manage the main activities. In 2003 the first Hungarian Network Statement was released and opened the way to foreign RUs on the network in 2004 (4 freight companies at the end of the year). The same year, the independent Rail Capacity Allocation Body was created. In 2006, the Hungarian Railway Authority was set up. The Hungarian network has a total length of 7700km. It is owned and managed by the Infrastructure Management Business Unit that is a separate organisational entity, however still part of MAV Co.

The Győr-Sopron-Ebenfurti Vasúti Co. (GYSEV Co.) was founded in 1872 and is owned mainly (94%) by the Hungarian and the Austrian State. The company operates in the North-Western region of Hungary and Austria. In Hungary GYSEV provides IM (in its geographical area) passenger and traction services and is considered as one of the two national PSO companies and also has a freight company (GYSEV Cargo) legally separated since 2010. The GYSEV network has a total length of more than 400km.

The main principles of the access charge are the following:

* no discrimination between RUs should take place;
* prices set by the IMs must reflect the total justified costs;
* differentiation of the pricing system;
* bottom-up (engineering) approach;
* long term orders are preferred.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Minimum access package** | Number of paths  Train.km | Path allocation  Train running | MAV Co. is seeking a full cost recovery without profit |
| **Access to service facilities** | Electric train.km  Number of stops  Train departures/ destination  Number of cases  Number of wagons  Number of wagons  Number of wagons  Person/hours  Number of cases | Use of overhead catenaries  Passenger train stops  Passenger train departures/destinations  Freight train start/interim/destination usage  Freight wagon access to loading/unloading tracks (station usage for serving)  Rail vehicle storage  Access to weighting facilities  Additional personnel  Freight train check in | Shall relate to the cost of providing it, calculated on the basis of the actual level of use |
| **Additional services** | Number of wagons  Number of wagons  Number of wagons  Number of cases  Hours | Marshalling, shunting and consignment of freight wagons  Weighting  Change of axles  Forwarding of dangerous and outsized goods  Usage of normal gauge bogies |
| **Ancillary services** | Number of cases | Education and examination of personnel |

# Italy

In Italy, the charging system in place applied to the all lines is based on the economic regulation issued by ART in November 2015 (Decision 96/2015), that follows the relevant EU and Italian regulation (in particular, on the EU side, the Recast, Regulation 2015/909 and Regulation 2015/429, while on the national side, the Legislative Decree 112/2015)[[87]](#footnote-87). The new regulatory framework includes both costing and charging rules and introduces regulatory accountability obligations on the IM and different verification procedures along the regulatory period that lasts 5 years.

The identification of the perimeter of admissible costs to be recovered by the IM with access charges follows these principles and criteria: (i) only the relevant costs for operating the train service are considered, distinguishing direct costs from other costs; (ii) a full (efficient) cost approach, where a 2% annual efficiency target on operative costs is set for the IM; (iii) the CAPM/WACC methodology for the computation of the cost of capital is adopted.

The charging system established by the IM is modulated in components: (i) A component: direct costs (depending on mass, speed and contact wire related to the rolling stock used by the railway undertaking); (ii) B component: mark-ups; (iii) C component: other elements (for scarcity, environmental incentives, ETCS, etc.).

In July 2016, the Italian IM adopted the access charges for the regulatory period 2016-2021. The new set of charges successfully passed the verification procedure set by the regulatory body. It foresees 24 different market segments that belong to 8 main categories: technical services, maritime services, PSO regional passenger services, PSO national passenger services, open access international passenger services, open access basic national passenger services, OA national premium passenger services, freight services.

The table below sets out the principal elements of the access charges system according to the regulation issued by ART in November 2015[[88]](#footnote-88):

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Market segmentation** | **Cost covered** |
| **Access charges: A component** | €/train.km | Depending on the mass, the speed and the use of contact wire by the rolling stock used by the railway undertaking | Direct costs (following Regulation 2015/909) |
| **Access charges: B component** | €/train.km | -Market segments  -Track category  -Slot time  -market segments | Other costs than direct ones, such as the cost of capital and depreciation |
| **Access charges: C component** | €/train.km | -Scarcity  -Environmental effects  -ETCS  -Regional compensation regimes | Cost based |

# Latvia

The main principles of the access charges are developed hereafter[[89]](#footnote-89):

* the full cost of infrastructure should be covered by accumulated charges and state budget funding if it is available;
* all expenses are traced to particular train category;
* Train-kilometres and gross tonne-kilometres are used as cost drivers.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Market segmentation** | **Cost covered** |
| **Operating** | Train.km | Differentiation among:   * Freight trains; * Passenger trains (electric); * Passenger trains (diesel); * Passenger trains with locomotive; * Narrow-gauge trains. | 1/ Costs of maintenance of railway infrastructure objects made by IM;  2/ Costs of railway infrastructure objects development (renewals, reconstruction, building) consists of capital depreciations costs (excluding capital depreciations costs of government, EU funds) and premium costs;  3/ Duties and taxes paid by IM |

# Luxemburg

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Minimum service** | | | Equals the cost that can be allocated directly to running the railway service and include a fee for scarcity of access to infrastructure capabilities |
| Access and request of path | Train path.km | Regular train path  Pre-arranged extraordinary train path  Tailor made extraordinary train path |  |
| Operation of path (track wear) | Train path.km | Freight train  Combined transport freight train  Motor-driven passenger train  Passenger train  Running locomotive |  |
| Capacity / congestion charge | Train path.km |  |  |

Note: A performance regime is applied with penalties and compensations

# Netherlands

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| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Access Variable Usage Charge** | train.km / tonne.km | Differentiation between freight and passengers  Freight: train km by graduated weight category  Passengers: train km by graduated weight category | Covers the incremental cost of operating a train on the network. Measured by a percentage of wear and tear cost in total maintenance costs. |
| **Electrification: use of electrical wire** | € per KwH | No segmentation, defined by km per train type/weight, train type and speed (actual usage in case gauges have been fitted) | Covers cost of transport of electricity only, wear and tear of wire not included |
| **Access via rail to railway stations** | € per stop per train category | Six categories of stations (by size/number of passengers).  Three train categories defined by percentage of stops on their total route.  Category A: stops at max. 15% of stations on route  Category B: stops at max. 50% of stations on route  Category C: stops at 51-100% of stations on route | Recovery of ProRail’s part of station maintenance; ProRail does not own the stations, but has a right of use of the tracks and passenger corridors to and from platforms. Charge covers only the costs involved with corridors (cleaning and maintenance) |
| **Shunting and parking** | € per meter of track / day / month year | Two categories: service areas controlled centrally/ decentrally (switch points controlled locally or centrally) | Covers incremental cost of track wear and tear measured by a percentage of maintenance cost |

# Norway

Directive 2012/34/EU has not yet been implemented in Norway. However, the content has mainly been implemented in national regulation.

Charges corresponding with Chapter IV Section 2 (art. 29 -37) in Directive 2012/34/EU in 2018:

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Charges reflecting direct costs** | NOK/ gross tonne.km | Passenger traffic  Freight traffic  Differentiated for three parts of the network | Estimated average marginal maintenance costs incurred as a result of operating a train service |
| **Capacity / congestion charge** | NOK/ passage | Passage through the Oslo tunnel during rush hour |  |
| **Mark-ups** | NOK/ gross tonne.km | Market segment “main airport” | Yearly cost of maintenance and renewal |
| **Discounts** | NOK/ gross tonne.km | Freight traffic on “considerably underutilised lines” |  |
| **Performance regime** | NOK/ minutes delayed  NOK/ cancellation | Passenger traffic > 3:59 min, freight traffic and long distance trains > 5:59 min. | Penalties for disrupting the operation of the network and compensation for actors which suffer from disruptions |
| **Reservation charge** | NOK/ gross tonne.km  (percentage of charges reflecting direct costs) | Cancellation 59 days - 15 days before scheduled departure  Cancellation 14 days – 72 hours before scheduled departure  Cancellation less than 72 hours before scheduled departure |  |

# Poland

In Poland charges for the minimum access package are based on the costs directly incurred as a result of operating the train service and they are applied on non-discriminatory terms to all rail companies.

The unit rates of these charges must be submitted, together with the calculations of their values, to the President of the Office of Rail Transport. The President of the Office of Rail Transport approves the unit rates of charges within 30 days of the receipt or refuses to approve them if there is any infringement of calculation rules.

The calculation of charges for the minimum access package takes into account   
the part of the costs which is directly incurred as a result of operating the train service, in particular the part of the costs of:

* maintenance and renewal;
* rail traffic management;
* depreciation, if it is determined on the basis of the actual wear of the infrastructure attributable to traffic.

The calculation of charges for the minimum access package does not include costs which are not directly incurred as a result of operating the train service, in particular:

* the administration costs;
* infrastructure safety and public order in railway area;
* the financial costs;
* the indirect costs

Charges depend on train-km and they are differentiated on the basis of five different line categories and weight categories of trains. For passenger services there are 16 weight categories of trains and for freight services - 37 weight categories of trains. The line categories are determined on the basis of traffic intensity and speed limits.

The basic charge may be increased during periods of congestion on a particular rail line or its section with insufficient capacity.

The IM may increase the basic charge, if it proves that the expenditure has been incurred in made to:

* improve insufficient capacity of a particular line, or;
* avoid negative impact of rail traffic on the environment, provided that the increase in charges will be comparable to those used by the competing modes of transport.

The IM may grant discount on the basic charge. Discounts may be granted for a limited time and on a particular section of the infrastructure:

* to develop new rail services;
* in order to use the railways with a significant unused capacity, or;
* if the savings have been made in the management of railway infrastructure by the IM.

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| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Operating charge** | PLN/ train. km | - Freight/passengers services  - Weight categories of trains 16 for passengers services, 37 for freight services)  - Line categories (5) | The costs directly incurred, *i.e.* the part of the costs of:  - maintenance and renewal;  - rail traffic management;  - depreciation, if it is determined on the basis of the actual wear of the infrastructure attributable to traffic |
| **Reservation/**  **Cancellation**  **Charge** | % charge |  | Depends on the term of cancellation |
| **The additional charges** | | | The additional charges shall be determined on the same basis for all carriers, so as to ensure the financing of the costs which the IM will have to bear providing the expected range of available railway infrastructure, plus a margin of not more than 10%. |

The IM can levy higher charges (excluding transport for which the minimum unit rate basic charge is used and transport dependent on public funding), if the market can bear it i.e. in the case it has been established that the increased charge does not result in a shift to road transport. The IM undertakes ‘market can bear tests’ no less than once every three years, taking into account the division of the market into at least the following pairs of types of services:

1. passenger services/freight services;
2. regional passenger service/ sub-regional passenger services ;
3. trains carrying dangerous goods /other freight trains;
4. domestic services /international services;
5. combined transport / direct trains;
6. block trains / single wagon load trains;
7. regular train services / occasional train services.

# Portugal

In Portugal, the IM (IP[[90]](#footnote-90)) in addition to the daily management, maintenance and further development of the infrastructure, is also responsible for the control and the safety of all train traffic.

According to Decree-Law No. 91/2015 of 29 May, IP aims at the design, construction, financing, maintenance, operation, rehabilitation, enlargement and modernization of road and rail national networks.

The charging system implemented by IP should be in accordance with Directive 2012/34/EU transposed by Decree-law no. 217/2015. Charges for using the minimum access package correspond to the costs directly attributable to the operation of the rail service, as set in section 3 of article 31 of Decree-law 217/2015.

The implementation of Regulation (EU) 2015/909 will most likely require changes in the charging system of the Portuguese IM. The charging system currently in use by the IM has been developed under Regulation IMTT 630/2011, issued by the former regulatory body pursuant to the former legal framework and is not completely in line with Directive 2012/34/EU and the cost methodologies introduced by Regulation 2015/909.

The Portuguese IM is now in the process of analysing and redefining the charging model, so, the information stated bellow will change in a near future.

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| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Access charge** | €/train.km | Differentiation between freight and passenger trains | Costs directly incurred by train operations, for instance: maintenance and renewal, rail traffic management |
| **Cancellation Charge** | €/train.km | In case of partial cancellation, only the unused path will be subjected to penalty | If, for a given Working Timetable, a railway undertaking will not use more than 5% of the requested  capacity, when it reaches this percentage, it will pay extra 5% over and above the defined tariff for every additional train-path it had requested and not-used, up to a maximum of 500% of the  applicable tariff.  VAT will be added to these values |
| **Access to service facilities** | Charges for access to service facilities may not exceed the cost of their provision, plus profit established on the basis of Portuguese market values, as set in section 11 of article 31 of Decree law 217/2015. | | |
| **Additional services charges** | €/unit | These services may comprise: traction current, charges for which shall be shown on the invoices separately from charges for using the electrical supply equipment; tailor-made contracts. | Cost of providing the services, calculated on the basis of the actual level of use |
| **Ancillary services**  **charges** | €/unit | These services may comprise: access to telecommunication networks; provision of supplementary information; ticketing services in passenger stations; etc. | Cost of providing the services, calculated on the basis of the actual level of use |
| **Performance Regime** | The performance scheme aims at reducing disturbances to a minimum and to promote efficiency in the services, allowing for a better operating performance, in line with the standards foreseen in the allocation of capacity.  The performance regime implemented since 2010 in accordance with the IMT Regulation 473/2010 (issued under the former legislation) does not allow a full compliance with the requisites from Annex IV of Decree-Law 217/2015 which transposed the Directive 2012/34/UE. For this reason, at the publishing date of the 2018 Network Statement, IP and the RUs are jointly developing a new process during 2017. | | |
| **Noise charge** | Decree-Law nº. 179/2014, of December 18, amending Decree-Law nº. 27/2011, transposing Directive nº 2014/38/EU, on the interoperability of the railway system within the Community regarding noise pollution, allows IM to consider a noise charge. IM does not consider it yet. However, since the charging model is being revised it is possible that this component might be considered. | | |

# Romania[[91]](#footnote-91)

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| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **IAC (infrastructure access charge)** | train.km | The calculation of the charging elements depends on :  - category of traffic section  - electrified sections  - tonnage factor  -type of traffic: passenger or freight  - category of traffic section  -tehnical systems for electrified sections | directly incurred cost |
| **Charges for other operating services performed by CFR S.A**  **(the IM)** | | | |
| **Basic charges for train path preparation** | % from IAC | The charge for train path preparation is applied for trains especially ordered and for trains with occasional running. This charge is not applied if the train path is modified for reasons attributable to CFR |  |
| **Charge for the issuing of transport documents (tickets, season tickets)** | 0.78 Lei / for the transport document | It applies in the case when no agreements are concluded with the RU for this service. It must be monthly registered in a separate note, per each type of service, and the specialized regional office prepares the relevant invoice. |  |
| **Charge for filling in commercial files** | 11.98 Lei /file | No |  |
| **Charge for storage on CFR’s lands** | 1.17 Lei /hour and tonne | No |  |
| **Additional charge for falsely declaring the weight of goods for wagon shipments exceeding the axle load, the load per linear meter or the loading capacity of the waggon** | 89.61 Lei /tone | It is levied from the railway undertaking |  |
| **Additional charges for the non-compliance with or change in the scheduling of the use of train paths** | 1.17 lei /km of train path for freight traffic  0.39 lei/km of train path for passenger traffic | No additional charges are levied for the trains which are included in the temporary traffic timetable, which have a Special Order or which are Season Trains. |  |
| **Charge for train path reservation** | 0.1 x no. of days for which the RU requires the reservation x IAC | The charge is payable by the RU that does not use the allocated train paths |  |
| **Charge for long ordinary load transports with two or several wagons** | 5.03lei /100 kg of charging mass of the bearing wagon + number of safety wagons 26,77 Lei /100 kg of charging mass of a safety |  |  |
| **Special charge for explosive materials** | 5.81 Lei/100 kg of charging mass |  |  |
| **Charge for shunting on the infrastructure lines the wagons that are introduced in (taken out of) the train formation** | LEI 7.72/conventional wagon |  |  |
| **Charge for the access of the shunting convoys to the railway infrastructure** | LEI 7.72 convoy/km |  |  |
| **Charge for the participation of the operating personnel of the economic entities in the personnel training organized by CFR SA** | 23.17 Lei/person and hour | No |  |
| **Charge for stopping rolling stock not belonging to CFR SA on the lines of CFR SA** | 0.47/ Lei conventional wagon  1.29 Lei/other rolling stock than wagon | conventional wagon  other rolling stock than wagon |  |
| **Charge for shunting on the railway infrastructure lines in the railway stations or centres with a high activity volume on extended areas** | 18.05 Lei/physical wagon | No |  |
| **Charge for the commercial stops of the passenger trains in the stations** | 0.99 Lei /stop | No |  |
| **Charge for train trafic control for non-interoperable rented sections** | 2.99 Lei / train station (for passenger trains) Lei 4.79 / train station (for freight trains) | The charge for train traffic control for non-interoperable sections rented applies for sectioning points fitted with dispatchers and / or revise switches personnel |  |

# Slovakia

The Slovak Republic has a valid regulatory framework since March 2017. New charging system will be available in 2019.

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| --- | --- | --- | --- | --- |
|  | **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| Minimal access package | **ordering and allocation of capacity** | € per train.km |  | Variable costs and fixed costs are extracted |
| Minimal access package | **management and organization of traffic** | € per train.km |  | Variable costs and fixed costs are extracted |
| Minimal access package | **operability of infrastructure** | € per 1000.gross tonne.km |  | Variable costs and fixed costs are extracted |
| Track access to service facilities | **Electrical supply facilities** | € per 1000.gross tonne.km | different for passenger and freight transport | Variable costs and fixed costs are extracted |
| Track access to service facilities | **Access to passenger stations, buildings and facilities** | € per stop | different for passenger and freight transport | Variable costs and fixed costs are extracted |
| Track access to service facilities | **Access to marshalling yards and freight terminals** | € per stop | different for passenger and freight transport | Variable costs and fixed costs are extracted |

# Slovenia

In February 2013 the Public Agency for Railway Transport (the allocation and safety authority), who is competent for determining and collecting track access charges, implemented a new charging methodology, based on direct costs. Track access charges for the minimum access package are calculated considering:

* the number of train kilometres preformed on certain line categories
* type of power car;
* weighting of the line category;
* the coefficient of the power car category;
* cost of supplement / deduction for the type of transport.

User charges for the minimum access package are based on costs, which are directly incurred by train operations. The difference with full costs is subsidized by state funding. To date Slovenia has not taken the decision to introduce mark-ups.

In accordance with Railway Transport Act the allocation authority may establish higher access charges for congested infrastructure under following conditions:

* Allocation authority defines track section as congested;
* IM envisaged this situation and published in the network statement;
* IM prepares enhancement plan;
* regulatory body approves higher access charge.

By amending Railway Transport Act on 6th November 2015, which implemented Recast Directive, all essential functions (included determination of track access charges) were transposed from Public Agency for Railway Transport to Infrastructure manager. It is still not clear when IM will determine new charging scheme.

## 

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Access** | €/train.km | **Line category ( 7):**   * 3 main lines (G1-G3) * 4 regional lines (R1-R3) | Costs directly incurred by train operations |
| **Operating** | €/train.km | **Factor of power car’s (3):**  (A,B,C)  **Factor of transport type (18):**   * Cargo trains up to 1000 t gross weight * Cargo trains from 1001 to 1500 t gross weight * Cargo trains from 1501 to 1750 t gross weight * Cargo trains from 1751 to 2000 t gross weight * Cargo trains more than 2000 t gross weight * Cargo trains – empty (less than 100 t net weight) * Cargo trains (circular, collecting) * Locomotive trains (empty multiple units, solely running power cars) * Tilting passenger trains * Classic passenger trains * Multiple units * Motorail through the Bohinj tunnel * Other motorails * Empty classic passenger trains * Heritage trains * Service trains (scheduled maintenance) * Service trains (unscheduled maintenance) * Other trains |
| **Congestion / Scarcity** | €/train.km | (In 2015 no congested lines were declared) |  |
| **Late cancellation fees** | % of user charge for allocated train path  (+25 € for ad-hoc train paths) | Cancellation:   * up to 6 hours before scheduled time of departure – FREE * less than 6 hours before scheduled time of departure – 50% of user charge * not cancelled / train does not run – 100% |  |

# Spain

In Spain, the chosen charging system is based on a two part tariff (while the fixed part of the fee is very low).

For the rail network, the minimum access package is based on train-kilometres and includes operating charges and reservation charges. According to the new railway law, the reservation charge provides incentives for efficient use of capacity, foreseeing a penalization for the capacity reserved and not used.

The IM cost accounting model is based on a *top down* fully distributed cost, because the main goal of the charging system is full “cost recovery”. However, nowadays, this objective is only feasible for high speed lines due to the operational deficit of the conventional network.

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| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Access charge** | €/year | Total Annual Train-km running | Administrative costs related to the relationship of the IM with RUs. E g. the publication of the Network Statement, or the process of network capacity allocation. |
| **Reservation**  **charge** | €/ path.km | Period of the day (3)  Route category (4)  Type of service/train (4) | Fixed cost for operating and maintenance. |
| **Running charge** | €/train.km | Route category (4)  Type of service/train (4) | Variable cost for operating and maintenance. |
| **Traffic charge** | €/seats.km offered | Period of the day (3)  Route category (4)  Type of service/train (only HST) | Amortization and financial cost |

# Sweden

The charges for the minimum package of access services are based on the short-term marginal cost of operation, maintenance and reinvestments and charged according to use per kilometre, gross tonne-kilometre and passages.

The track charge is based on gross tonne-kilometres, and is imposed at varying amounts for both freight traffic and service trains, and for passenger traffic. From 2016 track charges have been levied in different amounts depending on the maximum admissible axle load (STAX) of the train. Trains with a higher STAX thus pay a higher track charge. STAX is an important parameter that reflects the wear and tear that is caused by a train. Differentiated track charges reflect variations in wear and tear between different trains.

The train path charges are levied at three levels. Passage charges are levied in three major cities during rush hours on weekdays. The emissions charge is based on the socioeconomic costs in terms of environmental and health effects. The size of the charge depends partly on the engine's environmental classification and partly on the amount of fuel consumed.

In the case of allocated capacity for train paths cancelled by railway undertakings or traffic organisers, a reservation charge is imposed.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Access & Operating Charges (marginal cost)**  **Track charge**  **Emission charge** | €/gross tonne.km  For 2018:  Factor 0.9-1.1 depending on maximum axle load  €/litre of diesel fuel | Passenger, service or freight traffic  Freight traffic and service trains ≤20 tonne / > 20 tonne ≤ 22,5 ton / >22,5-≤25 tonne > 25 tonne  Passenger traffic  <20 tonne/>20 tonne  Train type (diesel engine) | Maintenance, operation and reinvestment cost and socio- economical costs of environmental and health effects |
| **Train path**  **(also marginal cost)**  **Passage charge**  **Passage charge** | €/train –km  per crossing  per passage | Passenger, freight, service traffic  Route categories  (high, medium and base)  Freight traffic Öresund link  Stockholm, Gothenburg and  Malmö during peak hours | Special project  Part of fixed cost of infra |
| **Quality charges** | €/minute of additional delay | IM and railway undertakings |  |

# Switzerland

This is the Swiss charging system valid from 1st January 2017. The existing scheme of 2016 will be extended by a wear and tear factor by this date.

The charging for the minimum access package covers the standard marginal costs considering the different costs of infrastructure in the network, the demand and the environmental impact of the vehicles. Contribution margins are levied in the passenger transport segments, considering if it is a franchised or non-franchised service.

Note: Switzerland as non-member of the EU has not fully adopted the different European Railway reform steps. The legal structure of the Swiss charging system as well as the prices for the minimum access package are defined by State (and not the IM). However the prices for additional services are fixed by the IM.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***Charge*** | ***Charging Unit*** | ***Differentiation*** | ***Cost covered*** |
| Variable minimum train-path price | **Minimum train-path price** | CHF/path km | 3 categories of routes on the network | The revenue for each traffic segment should cover the standard marginal costs considering the different costs of infrastructure in the network, the demand and the environmental impact of the vehicles |
| **Peak-hour demand coefficient** | Factor 1 or 2 | Factor is applied, when the train-path is used during peak-hours on Mo to Fri between 6.00 to 8.59am and/or 16.00 to 18.59. |
| **Train-path quality** | 4 different factors | The applied factors consider the priority rules for the different traffic segments based in the railway act |
|  | **Stop surcharge** | CHF/stop | Surcharge for sections with mixed traffic |
|  | **Basic price by wear** | CHF per unit | Differentiation of the various trains on infrastructure in relation to speed, path layout, vehicle type and vehicle design. |
|  | **Basis price by weight** | CHF/gross ton kilometre | For historic vehicles. For regional transport segment in 2017 only. |
|  | **Surcharge for trains hauled by combustion-based move** | CHF/gross ton kilometre | Trains with thermic traction on electrified lines |
|  | **Dangerous goods surcharge for freight traffic** | CHF/axle kilometre | Specific costs arise in connection with the transport of dangerous goods (security or restrictions on operation) |
|  | **Low-noise bonus for freight traffic** | CHF/axle kilometre | For freight vehicles with disk, drum or composite brakes |
|  | **Discount for the ETCS train control system** | CHF per year | Granted for vehicles not travelling on specific new lines and brought into service before 1st January 2013. |
|  | **Discount for traction assisted transalpine freight trains** | CHF/powered axle and train-path kilometre | The discount is applied for the entire route travelled with more than four powered axles on the Lötschberg-Simplon and Gotthard-line section |
|  | **Cancellation fee** | Factor | Depending on the deadline of cancellation |
|  | **Contribution margin for passenger trains** | % of traffic revenues  or CHF/kilometre offered | Differentiation between franchise-holders' and non-franchise holders' passenger trains |  |
|  | **Ex-catenary energy** | CHF/kwh  x Factor | The „network load factor“ takes account of varying demand and the resulting production costs throughout the day | Price is fixed in the manner, that no uncovered costs arise |

# United Kingdom

In the UK, the charging regime for the IM of the national network[[92]](#footnote-92) has been developed to cover the short-run marginal costs of running services on the network. In addition, for the purposes of full cost recovery, train operators pay various fixed charges to cover a proportion of the IM fixed costs. These charges are recovered as mark-ups. Currently, open access operators do not make contributions towards the IM fixed costs.

|  |  |  |  |
| --- | --- | --- | --- |
| **Charge** | **Unit** | **Differentiation** | **Cost covered** |
| **Variable Usage Charge** | £ per thousand gross tonne mile for freight and £ per vehicle mile for passenger | All services pay this charge but it varies based on the vehicles used and for freight, also the commodity carried. | Covers the maintenance and renewal costs that vary with traffic in terms of the incremental damage the service does to the track, civils and signalling infrastructure |
| **Traction electricity charge** | kWh. For services that are not metered, this is modelled per train mile for multiple units, otherwise per kgtm | Operators have option of using modelled consumption rates or metering their use of electricity | Network Rail recovers their costs of providing electricity for traction purposes. |
| **Electrification asset usage charge** | £ per vehicle mile (passenger)  £ per thousand gross tonne mile (freight) | Applied to all electrically powered services | Recovers maintenance and renewal costs of electrification assets that vary with traffic. |
| **Coal spillage charge** | £ per thousand gross tonne miles | Only applicable to freight trains carrying coal | Recovers cost of coal spillage |
| **Capacity charge** | £ per train mile | Applied to all types of train operators | Intended to allow Network Rail to recover the performance regime costs that it incurs by allowing additional traffic onto the network |
| **Fixed Track Access Charge** | Lump sum charge determined for the control period (5 years) | Applies to passenger services under public service contracts (franchises) only | Determined on basis of Network Rail’s revenue requirement after accounting for the income received from variable track access charges, regulated station charges, other single till income and network grant. |
| **Freight only line charge** | £ per thousand gross tonne mile | Applies to freight services carrying coal for electricity generators, nuclear fuel or iron ore. | Recovers some of the fixed costs associated with freight only lines. |
| **Freight specific charge** | £ per thousand gross tonne mile | Applies to freight services carrying coal for electricity generators, nuclear fuel or iron ore. | Recovers ‘freight avoidable costs’ - the costs that would be foregone if freight services were to no longer use the network. |

1. IRG-Rail, An introduction to the calculation of direct costs in respect of implementing regulation 2015/909, November 2016. [↑](#footnote-ref-1)
2. Note: this table only refers to the mainline network of the incumbent. In some countries, this excludes high-speed lines where high speed trains (generally speed ≥200 km/h) are the only ones allowed. Other countries have a mixed usage of their whole network. [↑](#footnote-ref-2)
3. The charging system for 2018 foresees mark-ups, but they are not approved yet. [↑](#footnote-ref-3)
4. For Belgium, the charging system according the implementing act 2015/909 will be implemented for the service of 2019. A proposal with this respect is discussion with the Ministry of Transport and the RB. [↑](#footnote-ref-4)
5. The Danish IM charge for passing the two major bridges in Denmark. The regulatory body has not been checking the charging system for these bridge charges.. [↑](#footnote-ref-5)
6. But the new methodology will be implemented in December 2017 which does levy charges reflecting Article 31(3). [↑](#footnote-ref-6)
7. Applied to the new high speed line between Tours and Bordeaux and to the French section of the Channel Tunnel. [↑](#footnote-ref-7)
8. Incentives are included in the contract between state and IM, concluded in 2017. [↑](#footnote-ref-8)
9. The Greek IM gradually applies the implementing regulation. [↑](#footnote-ref-9)
10. Based on a current year cost analysis and a forecast of future costs. [↑](#footnote-ref-10)
11. Additionally, the IM applies article 32(2) of the Recast for the carriage of goods from and to third countries operated on a network whose track gauge is different from the main rail network within the Union, infrastructure managers may set higher charges in order to obtain full costs recovery of the costs incurred. [↑](#footnote-ref-11)
12. Incentives will be part of the contract between state and IM, which is expected to be concluded soon. [↑](#footnote-ref-12)
13. Only on lines designated by Transport Ministry (currently: high speed -only). [↑](#footnote-ref-13)
14. Currently under examination. [↑](#footnote-ref-14)
15. Currently under examination. [↑](#footnote-ref-15)
16. The actual charging model is being updated in order to adequate with the national diploma which transposed the Recast and the Reg. 2015/909 rules. [↑](#footnote-ref-16)
17. The charging model is being revised. It is not yet defined if the charges will be set on a yearly basis. At the moment, these are set on a yearly basis, but Portugal is in a transitional period. [↑](#footnote-ref-17)
18. Current access charges design is transitory; the new Railway Law which transpose the Recast Directive and foresees a direct cost approach. [↑](#footnote-ref-18)
19. But it is legally possible [↑](#footnote-ref-19)
20. Not applicable at present, but legally possible [↑](#footnote-ref-20)
21. Not applicable at present, but legally possible [↑](#footnote-ref-21)
22. Reductions for international complete freight trains in transit on the national territory [↑](#footnote-ref-22)
23. But it is legally possible [↑](#footnote-ref-23)
24. Implemented through the contract between the State and the IM. [↑](#footnote-ref-24)
25. Current access charges design is transitory as a new railway Law has been promulgated in September 2015. This law transposes the Recast Directive and foresees a direct cost approach. [↑](#footnote-ref-25)
26. Not applicable at present, but legally possible [↑](#footnote-ref-26)
27. Not applicable at present, but legally possible [↑](#footnote-ref-27)
28. Not applicable at present, but legally possible [↑](#footnote-ref-28)
29. Although High Speed 1 has this and there may be more examples in the future. [↑](#footnote-ref-29)
30. Periodic review, 5 years. [↑](#footnote-ref-30)
31. See ART Decision 96/2015, available at the link: http://www.autorita-trasporti.it/wp-content/uploads/2015/12/Determination-of-charges-for-access-and-use-of-railway-infrastructure\_ARTs-Regulatory-measures1.pdf [↑](#footnote-ref-31)
32. A new proceeding started in May 2017 in order to review some specific components of the Italian access charges system owing to the introduction of new passenger services on HS lines, i.e. the coupled trains (decision 77/2017). The proceeding is intended to end by 30 November 2017 [↑](#footnote-ref-32)
33. This is also due to the different national policies in terms of public compensation and subsidies – see paragraph 3.4 [↑](#footnote-ref-33)
34. It is worth noting that, in November 2014, IRG-Rail has adopted a position paper providing a common initial approach to capacity charging. [↑](#footnote-ref-34)
35. The IM may use the bonus/malus formula and the modalities provided for by Commission Implementing Regulation (EU) 2015/429. [↑](#footnote-ref-35)
36. Only for passenger services. [↑](#footnote-ref-36)
37. In Belgium, the IM is in discussion with the RB about it performance regime. [↑](#footnote-ref-37)
38. Late cancellation or non-use fees. Depends on cancellation time. [↑](#footnote-ref-38)
39. Charge combined with mark-ups levied under article 32.1 of Directive 2012/34/EU. [↑](#footnote-ref-39)
40. Noise differentiated track access charges for freight trains. [↑](#footnote-ref-40)
41. Cancellation fee referring to the withdrawal or changes in a train path or part of a train path, e.g. train running days, changes of departure time, departure or arrival point or changes in train characteristics like velocity. Minimum cancellation charge is applied for cancellations until 31. day before the ride. Between the 30. day and the train ride a higher percentage is due. [↑](#footnote-ref-41)
42. A reservation fee is invoiced to avoid abusive reservations. [↑](#footnote-ref-42)
43. Noise-related and path quality related (both optional). [↑](#footnote-ref-43)
44. Noise only. [↑](#footnote-ref-44)
45. Late cancellation or non-use fees. Depends on cancellation time. [↑](#footnote-ref-45)
46. Implemented but not used yet. [↑](#footnote-ref-46)
47. Currently under implementation. [↑](#footnote-ref-47)
48. Implemented but not used yet. [↑](#footnote-ref-48)
49. In Portugal the implementation of Regulation (EU) 2015/909 will most likely require changes in the charging system of the IM. The charging system currently in use by the IM has been developed under Regulation IMTT 630/2011, issued by the former regulatory body pursuant to the former legal framework and is not completely in line with Directive 2012/34/EU and the cost methodologies introduced by Regulation 2015/909. The Portuguese system is in a transitional period. IM is now reviewing its charging model, so is expected some changes. [↑](#footnote-ref-49)
50. Implemented but not used yet [↑](#footnote-ref-50)
51. Implemented but not used yet.. [↑](#footnote-ref-51)
52. Implemented but not used yet [↑](#footnote-ref-52)
53. Late cancellation or non-use fees. Depends on cancellation time. [↑](#footnote-ref-53)
54. Current access charges design is transitory as a new Railway Law has been promulgated in September 2015. This law transposes the Recast Directive and foresees a direct cost approach. [↑](#footnote-ref-54)
55. A performance scheme is in place. [↑](#footnote-ref-55)
56. There is only a reservation charge on the High Speed 1. [↑](#footnote-ref-56)
57. In Italy, ART has competences on passenger rights for the following transportation modes: railways, bus and navigation. [↑](#footnote-ref-57)
58. Finnish RB is an independent function within the safety authority. [↑](#footnote-ref-58)
59. However, it is a common safety authority for railways, roads, aviation and maritime. [↑](#footnote-ref-59)
60. For some regulatory bodies, the legal basis for this mission could be different from the transposition of the Directive 2001/14/EC or the Directive 2012/34/EU. [↑](#footnote-ref-60)
61. Although the regulatory body in Norway does not have ex ante control of charging principles and level of charges, the regulatory body is active in providing guidance about the regulation before the implementation of new charges. [↑](#footnote-ref-61)
62. In Norway, the Ministry is only involved in the approval of mark-ups (according to article 32.1 of directive 2012/34/EU). [↑](#footnote-ref-62)
63. All the documents of the consultations and the final decision are available on the ART website: [www.autorita-trasporti.it](http://www.autorita-trasporti.it). The final assessment, decision 75/2016 is available in English at the following address: <http://www.autorita-trasporti.it/wp-content/uploads/2013/11/Delibera-nr.-75-2016-english-version.pdf>. [↑](#footnote-ref-63)
64. Ex-ante only in case of mark-ups. [↑](#footnote-ref-64)
65. Ex-ante only in case of mark-ups. [↑](#footnote-ref-65)
66. The ex post assessment might take into account the level of charges in order to evaluate the conformity of regulatory criteria, such as the non discrimination principle. [↑](#footnote-ref-66)
67. Although ex post competences are envisaged in Spanish Railway Act, their implementation is difficult as access charges are included in General Budget Law. [↑](#footnote-ref-67)
68. Although ex post competences are envisaged in Spanish Railway Act, their implementation is difficult as access charges are included in General Budget Law. [↑](#footnote-ref-68)
69. ORR uses top-down benchmarking to assess Network Rail’s efficiency allowing her to set Network Rail’s cost efficiency savings targets. ORR does not use top-down benchmarking to set the level of charges to recover cost directly incurred. [↑](#footnote-ref-69)
70. This is not the case for Italy, as explained above. [↑](#footnote-ref-70)
71. Efficient costs refer to direct costs calculated as described in Article 3(2) of Commission Implementing Regulation n°2015/909. [↑](#footnote-ref-71)
72. The difference methodology refers to the methodology presented in Commission Implementing Regulation n°2015/909. [↑](#footnote-ref-72)
73. Based on the IM’s methodology, operation costs are not included. [↑](#footnote-ref-73)
74. The answer for Germany displays a situation after the transposition of the Directive 2012/34/EU into German law. The new rail regulation law came into force September 2016. [↑](#footnote-ref-74)
75. The Greek answer is marked “Non- Applicable” yet as a phasing in plan and the new charging system are expected from the IM. [↑](#footnote-ref-75)
76. Slovakia is currently preparing a new charging system. [↑](#footnote-ref-76)
77. With the exception of the charge related to the use of the tracks. For this charge, the Spanish law do not allow to recover the renewal cost [↑](#footnote-ref-77)
78. Article 2111-10-1 of the French Transportation Code states that the regulator’s opinion should notably focus on (1) the relevance of the revenue forecasts from the project and (2) on the adequacy between these revenue forecasts and projected investment costs. [↑](#footnote-ref-78)
79. Note that target prices may be set for individual projects or efficient cost may be calculated for a portfolio of projects. In case of a portfolio, the infrastructure manager is able to overspend on one project, provided that there is no net change on the overall portfolio cost. [↑](#footnote-ref-79)
80. Regional subsidies to the IM are refund through a reduction of access charges to the RUs that operate in that Region. [↑](#footnote-ref-80)
81. See footnote above. [↑](#footnote-ref-81)
82. Only for the charges of the service facilities. [↑](#footnote-ref-82)
83. http://www.amt-autoridade.pt/decisões/ [↑](#footnote-ref-83)
84. The approval of the mark-ups was revoked by the Administrative Court and the investigation was referred back to the regulatory body for a new trial. [↑](#footnote-ref-84)
85. The other infrastructure managers regulated by ARAFER are not considered here. [↑](#footnote-ref-85)
86. Figures are copied from DB Netz AG (2017), The Track Access Charges 2018 of DB Netz AG; http://fahrweg.dbnetze.com/file/fahrweg-en/14069476/wEJOWHhzkE7lehpKIKZVcG5QccE/15062906/data/track\_access\_charges\_2018.pdf. [↑](#footnote-ref-86)
87. Italy implemented the Recast with the Legislative Decree 112/2015 in July 2015. [↑](#footnote-ref-87)
88. A new proceedings started in May 2017 in order to review some specific components of the Italian access charges system owing to the introduction of new passenger services on HS lines, i.e. the coupled trains (decision 77/2017). The proceeding is intended to end by 30 November 2017. [↑](#footnote-ref-88)
89. In order to transpose Directive 2012/34/EU, currently responsible institutions and stakeholders in Latvia have started to develop new charging scheme. Significant changes are therefore planned. [↑](#footnote-ref-89)
90. Infraestruturas de Portugal, S.A. is a state-owned company resulting from the merger of Rede Ferroviária Nacional – REFER, E.P.E. (REFER) and EP - Estradas de Portugal, S.A. (EP, S.A.) through which REFER was merged into EP, becoming a public limited company named Infraestruturas de Portugal, S.A. (IP). The merger became legally effective on 1 June 2015 upon publication of Decree-Law no. 91/2015, of 29 May. [↑](#footnote-ref-90)
91. In Romania has not yet implemented a new charging scheme, based on the Regulation 2015/909. At the moment, CFR SA, the Romanian IM, is in procedure to hire a consultant for a new charging model. [↑](#footnote-ref-91)
92. All other infrastructure managers are not considered here. [↑](#footnote-ref-92)