

IRG-Rail (2023) 4

## Independent Regulators' Group – Rail

IRG-Rail

### Annual Report 2022

#### Introductory Remarks

IRG-Rail is a network of independent rail regulatory bodies from 31 European countries. The overall aim of IRG-Rail is to facilitate the creation of a single, competitive, efficient and sustainable internal railway market in Europe. IRG-Rail acts as a platform for cooperation, sharing of best practices on regulatory issues and the promotion of a consistent application of the European regulatory framework.

This IRG-Rail paper is published under the responsibility of IRG-Rail. The individual or common opinions expressed and arguments employed herein by IRG-Rail's Members do not necessarily reflect the official views of their countries' Governments.

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## IRG-Rail 2022 Chairperson's Letter

Following the year I served as Chair, it is a pleasure to present activities and work of IRG-Rail in the present Annual Report. 2022 was the European Year of Youth, with a lot of opportunities to learn, travel, meet people and engage in activities all over Europe. An emphasis was placed on the importance of European youth to build a future that is greener, more inclusive and digital. Thus, 2022 was a year of opportunity to move forward with confidence and hope in a post-pandemic perspective, which is also what we hope for transport to make a timely shift to rail and be supported by affirmative European policies.

A less welcome development in 2022 was the energy crisis which began in the aftermath of the pandemic impacting on the natural gas and electricity prices, rising the overall cost of railways and consequently of goods transported. Adoption of valuable measures stabilizing costs of energy and supporting railways' intermodal competitiveness i.e. state aids, will hopefully be accompanied by inclusive EU funding instruments strengthening further Trans-European Transport Networks (TEN-T) and turn railways into an unavoidable transport mean in the transition to climate neutrality. Thus, rail as a dominant green transport policy needs to live up its potential and be recognized in all industrial policies including the freshly presented Green Deal Industrial Plan: putting Europe's net zero industry in the lead.

Trends of rail modal share in rail transport will continuously be improved by attracting more cargo via e.g. upgraded intermodal facilities, better logistics information and improved TEN-T or in the case of passengers with measures such as the German low price tickets scheme allowing travel on local and regional transport in all of Germany. This offer aimed at reducing energy use and ease the cost of living. Similarly in Spain free train tickets for short and medium-distance journeys started to be available in 2022 and are planned to stay there in 2023. Croatia also adopted a similar perspective by starting in 2021 a pilot project of free public rail transport for children and pupils of primary and secondary schools in Croatia. As a result, the number of children and pupils who regularly use rail transport, increased from 7,000 to 49,450 users. As well, a pilot project of more affordable transport was introduced for regular students in Croatia, which enables unlimited use of rail transport for about 113,000 regular students at a single monthly ticket price of €9.95. The pilot project includes also unlimited daily train trips in the 2<sup>nd</sup> class of regular trains in Croatia. The aim of the project is to increase the mobility of students, stop migration to urban areas and support demographic revitalization, improve the standard of living of citizens and encourage the use of rail transport.

For the overall context of future railway developments it is worth noting current and future digital economy prospects. The European Commission launched the Digital Decade Policy Program in 2022, highlighting the overall need for very high capacity networks including gigabit speeds<sup>1</sup>. These new connectivity performances will enable transformative market developments in the form of artificial intelligence (AI), cloudification of networks, and appearance of innovative use cases i.e. connection of operations and objects across all industries, including railways and other actors in the transport value chain.

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<sup>1</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "2030 Digital Compass: the European way for the Digital Decade", COM (2021) 118 final, 9.3.2021.; Decision (EU) 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030 ("Digital Decade Policy Programme 2030"), OJ L 323, 19.12.2022.

Accordingly, in 2022 IRG-Rail decided to make a survey among its Members and respective national markets on the presence and prospects of use of advanced technology such as algorithms, machine learning and AI techniques which are likely to impact the society and numerous economic sectors including railways in the near future. IRG-Rail took particular note of the Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act). Regarding the protection of market competition, business processes assisted by algorithms will ideally guarantee equal market conditions for all undertakings, speeding up fair network capacity distribution, in-time transport services integration, instant information distribution, etc. However, it cannot be excluded in advance that in some prioritization cases, unattended AI may be led to source particular data and subtly filter for particular interests and not for the equal interest of all competitors. AI might also be used to ease cartels among undertakings at the detriment of consumers. Equipped regulators will play a vital role to prevent such scenarios in the future.

Consequently, regulators are to remain vigilant with regard to AI and data driven environment, continue monitoring edge technologies, exchange findings within IRG-Rail and with stakeholders. For regulators, AI techniques may enhance data gathering and processing, improve regulatory market impact assessment and overall speed-up decision making. Soon, AI will be useful in connecting different types of transport e.g. Mobility as a Service (MaaS), multimodality, integrated public transport, checking quality control and non-discriminatory capacity allocation for applicants or setting priority rules in railway traffic control process. Other use cases such as passenger information, maintenance prediction and cost optimization for rolling stock infrastructure are already present. A practical demonstration of AI fast evolution is trained chatbots and in particular the recently available ChatGPT with surprising capabilities.

Other keynotes include IRG-Rail's monitoring mission keeping the focus on rail recovery from the pandemic in Europe throughout 2022. The Tenth Annual Market Monitoring Report, published last April, gave special emphasis on that respect. This was the third publication focusing on the impacts of the pandemic on the European transport system since 2020. New developments triggered by e.g. energy price changes will be monitored accordingly. IRG-Rail is also encouraged to further its monitoring efforts by the positive feedback received from relevant stakeholders, including the European Commission, complimenting Group's market monitoring reports as a valuable benchmark for the overview of the economic conditions and market developments in the European railway sector.

Internally, a positive development for the Group was the return to earlier working habits, in particular meetings in person. This was complemented by practical virtual meetings and the hybrid format which proved to be flexible and economical. Plenary Assembly meetings were held in a hybrid format. Since in 2021 most statutory documents of IRG-Rail were amended, 2022 was the first year of application of amended rules and procedures which all proved to work well.

IRG-Rail has a large pool of regulation experts coming from 31 countries. The Group promotes intra-modal and inter-modal competitiveness of European railways and contributes to European Union's changing transport needs, energy-efficient policies and climate goals. Accordingly, IRG-Rail provided the European Commission with inputs from available experience and regulatory practice. This exchange enables IRG-Rail and its Members to guide and contribute to initiatives in the area of European railway legislation. Additionally, last year's exchange with stakeholders like Rail Net Europe (RNE), European Rail Freight Association (ERFA), Alliance of Passenger Rail New Entrants (ALLRAIL) and other esteemed rail associations confirmed IRG-Rail's responsiveness in addressing current and

emerging regulatory issues and building a common understanding of the challenges to the railway sector.

At the end of 2022, the European Commission started activities in order to set up a Single European Rail Area Forum (SERAF). The Commission invited Members States to nominate their representatives including the national regulatory body. Whichever format rail policymaking takes in the future, IRG-Rail will continue supporting the implementation of the Single European Rail Area and meeting the needs for a consistent application of the regulatory framework in Europe.

I would also like to express my gratitude to Maria-Theresia Röhler IRG-Chair for 2021 and her team, and Annegret Groebel and Karsten Otte IRG-Rail's Vice-Chair for 2023 and their team.

I extend my gratitude to HAKOM's team, particularly Dragica Flam, for their great support.

***Nikola Popović***

***IRG-Rail Chair 2022, Council Member, Croatian Regulatory Authority for Network Industries, HAKOM.***

## 1. Introduction

### 1.1 IRG-Rail Overview

The “Independent Regulators’ Group-Rail”, IRG-Rail, was established on 9 June 2011 by the regulators of 15 European countries with the aim of enhancing and promoting cooperation among national independent rail regulatory bodies (RB). The group has grown in number and currently consists of RBs from 31 European countries (*Figure 1*). The overall purpose of IRG-Rail is to facilitate the creation of a single, competitive, efficient and sustainable internal railway market in Europe, by acting as a platform for cooperation, sharing of best practice on regulatory issues and promotion of a consistent application of the European regulatory framework.

IRG-Rail has over the years become recognised as a valuable contributor by key stakeholders, including European institutions and sector organisations (*Figure 2*). Through the publication of position papers, input to legislative proposals and harmonised regulatory principles and practices, IRG-Rail continues to share its competences. It is composed of regulatory professionals from all around Europe. Based on an open and transparent dialogue with all relevant parties, notably the European Commission, the European Parliament and the main stakeholders, IRG-Rail strives to contribute its views, experience and efforts to the sustainable development of a single competitive European rail market.

*Figure 1 IRG-Rail organisation.*

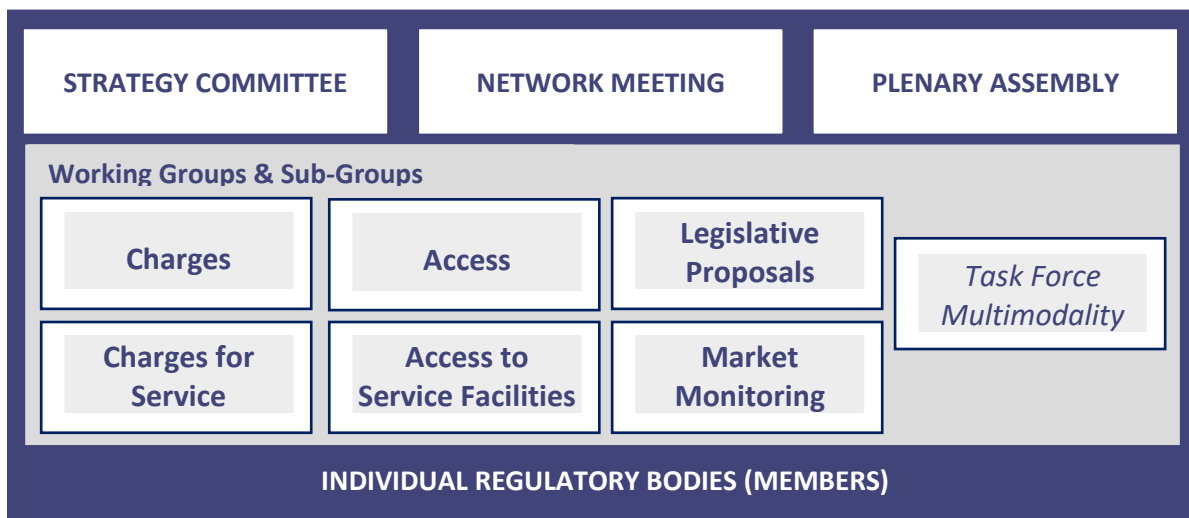


Figure 2 Sector stakeholders<sup>2</sup>



## 1.2 Questionnaire on Working groups engagement

Considering the different size of national railway markets and thus of national regulatory bodies, i.e. their human capacities, some Members of IRG-Rail are more involved in work and activities of the organization. In order to further examine this issue and find possible solutions with a view to increase engagement, the Presidency prepared in 2022 a questionnaire and invited all Members to give their view on this matter. 25 out of 31 IRG-Rail Members provided feedbacks. All of 25 IRG-Rail Members answered main questions, and provided detailed explanations where applicable.

The highlights are the following. The main reasons for Members who do not have their representatives in the meetings of the working groups (WG) was lack of resources, lack of experience in international co-operation, respective market situation, limitations with financial budget regarding travels, language as one of the barriers to a higher level of participation and limited knowledge resulting in a limited interest to engage.

Moreover, Members were asked to give their response regarding non-active participation of some Members at the WG meetings. The answers were similar to the previous question: topics are not relevant for them, lacking human resources, lacking experience on the topics, language barriers could lead to passive attendance, active work in WG implies preparation, topics research, research of practice, document analysis which is demanding and time-consuming and the long online meetings has made it easier for Members to monitor the work without being actively involved.

The majority of Members take part in all WGs and evaluates the level of their participation on the scale from 1 (not active) to 10 (very active) with grade 5. Most Members stated that the main reason for limiting/hindering/dictating the level of the engagement in WG are regular activities of the RB. Almost 70% would you like to contribute more to the work of WG in the future. Greater engagement could be achieved by strengthening of human and professional capacities and incentives to engaged workers, full commitment made clear at time of adoption of work programme and the most relevant topics in the work programme. Members do not see the need for any major changes in the work of working groups (organization, structure, number of groups, etc.), but the structure or the nature of the documents produced annually should be addressed. Almost all Members agree that the participation

<sup>2</sup> Non-exhaustive list.

in WGs is useful to their own work (institutional and individual) and they truly appreciate the work of WG Co-chairs and their commitment and participation encouragement.

Majority of the responses were in favour of both types WG meetings - in-person/online, but they agreed that in the future all meetings should provide a hybrid option in order to facilitate participation.

This exercise has allowed IRG-Rail to further assess current human resource constraints faced by regulators and encourage them to discuss and systematically look in their respective countries for available incentives that would allow more representation of their experts.

## 1.3 Artificial intelligence techniques

One of the goals of the 2022 Presidency was to explore more closely different Artificial Intelligence techniques (hereinafter: AI) and the experiences of the Members in this area. Namely, new algorithm based technologies affect all spheres of business, which is the reason to consider how it could affect the markets, as well as the work of the regulatory bodies. For that purpose, Members were invited to fulfil the respective questionnaire prepared by the presidency. Final results of the questionnaire were presented at the Plenary meeting in May 2022. Respective EU legal framework is being developed<sup>3</sup>. The definition of AI techniques listed in the Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) and amending certain union legislative acts is following:

*“Artificial intelligence system (AI system) means software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with”.*

The idea behind the questionnaire was to gather common experience with AI in rail regulation, especially in field of data collection and processing or assisted decision making, national legislation and rules, influence on safeguarding market competition, capacity allocation and railway traffic management, informing passengers, maintenance prediction and cost optimization. Besides, the aim was also to detect AI's potential weaknesses and possible threats in market regulation and passenger rights and identify needs for specific AI knowledge and hiring experts in RB's.

The main points are as follows. 21 out of 31 IRG-Rail Members provided answers and detailed explanations where applicable. The analysis of the responses showed that majority of the RBs don't use AI techniques (algorithmic forms of processing, recommending and decision-making) in data collecting and processing or making regulatory decisions. The minority uses AI for data analysis and modelling needs, but this process has neither been integrated in regular data processing nor regulatory decisions.

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<sup>3</sup> Artificial Intelligence for Europe - Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions - (2018); White paper on Artificial Intelligence - a European approach to excellence and trust - (2020); Laying down harmonized rules on artificial intelligence (Artificial intelligence Act) and amending certain union legislative acts – 2021/0106; Report on AI, 3 May 2022 – EP proposes a roadmap for the EU to become a global leader in AI.



When it comes to national regulations and other rule (e.g. by associations of undertakings) related to AI techniques, 33% of the Members confirmed the existence of such rules and gave some examples. Opportunities are that AI could be used for validation on high volume of market data, modelling and financial analysis. It could also support the development of Mobility as a Service (MaaS) - informing users in real time about available alternatives and/or modal combinations depending on the overall cost of transport. AI can help simulate the choices and behaviors of users moving daily in urban and suburban areas and allow a better understanding of the factors that determine the demand for mobility, operation and sustainability of transport systems as a whole for the purpose of better planning and scheduling of services, application of flexible solutions, such as demand-responsive transport, and a greater ability to modify capacity and frequency of the service supply, e.g., in view of extraordinary events. Besides that, AI can be useful in monitoring regulatory measures, by enabling the acquisition of information on compliance based on the data available on the websites of regulated companies.

On the other hand potential risks of AI are: lack of knowledge and skills to understand and use the AI techniques by the RBs, lack of transparency in the decision making process, difficulty in defining clear objectives for systems based on AI, cybersecurity-related risks, risk of a possible negative impact on fundamental rights, including the protection of personal data and privacy and non-discrimination; on security and effective functioning of the accountability system and possible issues of reliability.

Almost all respondents think that AI techniques have in general a positive impact on the railway market, because AI could help with repetitive jobs, companies can be reached 24/7 even if you are facing a lack of human resources and that does not require hiring more staff, more effective and tailor-made services for the customer, further influence on rail transport operation, e.g. driverless transport systems, real-time monitoring that allows greater attention to user information and development of greater integration with other transport modes. Besides that, mentioned was also that design of algorithms for the development of MaaS could be very relevant and the access, not just to rail infrastructure, but to the customer through connected devices (mobile) could become a bottleneck reducing competition. It was also noted that AI could have a positive impact on the development of competitiveness in the rail market. An example of its application is the Market Regulator's study of economic equilibrium (in the open access procedure). AI can quickly and objectively analyze a large amount of statistical and economic data, and then calculate the percentage of possible revenue loss for public service providers. The potential implementation of such algorithms would require great care and the use of an appropriate range of data.

From the point of view of the infrastructure manager, AI techniques related to rail management and maintenance should be very helpful for different operational jobs to enhance and secure competition in the railway market in different ways. If AI contains a discriminatory element/outcome, the damage could become much higher than caused by the "human factor", because the discrimination would repeat many times due to automatization.

Negative impacts on smaller railway undertakings are possible if they are not able to implement these techniques, since some AI techniques can require massive historical data which could be a risk for the competition in the railway market, as some models using AI might be trained exclusively on the incumbent activities and may not include other undertakings or markets. The use of AI techniques would then need additional input or regulation to prevent the creation of possible competition barriers.

For the time being, a minority of undertakings use AI techniques connecting different modes of transport (e.g. multimodality, integrated transport, etc.). Those who use AI use it for decision support systems in case of disturbances in order to provide the best alternate solutions to users. RUs are developing projects with the aim of integrating different modes of transport into a single platform that allows customers to organize their journey door to door, through a single payment. Forecast models are used to anticipate human resources needs for call centres, revenue management and pricing (applied to long-distance train services and possibly to train+coach services operated by the RU), crowd-modelling to anticipate train stop delays (applied to suburban trains connected to the urban metro+bus network), scoring model to detect fraud in passenger files, model to prioritize clients to be targeted for recalls optimizing fine recovery (applied to the regional PSO services operated by the RU, covering train+coach services), limit manual data entry and use robotic process automation to optimize data exports (applied to the regional PSO services operated by the RU, covering train+coach services).

According to the RUs, the main benefit offered by these techniques is the automatization of processes leading to increased productivity, and possible economic advantages. Some of the tools identified also clearly stress the benefit of forecasting models developed with AI techniques. Regarding freight RUs, they do not currently use any AI techniques. However, they are working on the future development of the European project for the management of multimodal freight flows (European Project Digital Platform). This project aims at promoting data sharing between freight transport operators in Europe to which will be associated development of new functions of tracking, tracing and geofencing.

When we consider IMs, also a minority of them use AI techniques when awarding capacity to applicants or for rail traffic management purposes. Although, there are some countries where AI will be used in capacity allocation in a few years and today capacity management already uses algorithms for that purpose. Besides that the allocation body uses a system that applies the adaptive learning cycle - KUMO timetable editor application - prepares and offers timetables for short term train path requests for train paths based on the request parameters provided by the customer. The timetable can be modified by the customer by changing the parameters (e.g. departure time, stays, locomotive, etc.) This allows scheduling short-term train path requests without using human resources. In other countries the IM is currently developing AI techniques to support the capacity awarding process, which could have the advantage of saving time and could increase the reliability of the allocation process. However, the IM pointed out as a problem the fact that the usage of AI techniques could take away the responsibility of the operator in the allocation process and lead to a loss of know-how in the long term. A greater number of IMs consider applying the AI for estimation and optimization of maintenance costs for parts of the infrastructure or rolling stock.

Some RUs and IMs use AI techniques in predictive diagnostic and maintenance systems through extensive use of sensors, timetable optimization, monitoring the movement of rolling stocks and shipments, monitoring diesel consumption; image analysis (including Deep Learning) on photos of the track to identify defects and priorities maintenance activities to fix the defects; mathematical models and simulations that analyze the connections between different measurements and events to determine the cause/effect relationships that lead to failures and dynamic maintenance system that uses SAP® IoT technology and allows to obtain real-time data generated by sensors, providing the resource management with greater predictive capabilities than traditional models.

There is a similar situation with operators of service facilities. Minority of them use AI techniques when awarding capacity to applicants, but a little bit higher number of operators use AI techniques related to the anticipation and optimization of maintenance costs for service facilities.

28% of RUs in passenger transport use AI techniques to assist passengers providing them with train travel information (e.g. AMRAK - “ask Julie,” an intelligent virtual assistant). There are examples of RUs who have implemented a Virtual Assistant (chatbot) on their website and apps to answer questions about prices, claims, timetables, ticket purchases and to give information and notices. Besides, virtual assistants are used to predict crowding and various systems are used in ticket engines to ensure that as many seats are sold at the best prices possible. Journey planners,<sup>4</sup> have algorithms to predict train arrivals when there are delays on the route. Help engine for call center employees, supervised model to estimate PSO short-distance train occupancy, passenger placing and platform crowd based on counting, validators, wifi and forecast model for train delays and train stops based on transportation plan is also in place.

As well, majority of RBs consider that they should be able to inspect (audit) algorithmic AI techniques used by RUs and the protection of passenger rights, in order to prevent discrimination and ensure objectivity, transparency and proportionality and should have appropriate knowledge and expertise to respond to potential challenges arising from the use of AI techniques. Also it is necessary to adapt and keep up to date the general skills related to the automation of management processes of regulatory interest and to the optimization of the balance between automated/automatable management/decision-making processes and processes that are focused or may be focused on human judgement. The technical complexity associated with the use of AI techniques could lead to difficulties for regulatory authorities to have the in-house hardware or software tools and skills (programming) to be able to inspect/audit the algorithms. RBs are not so explicit when it comes to the additional regulation in the field of market regulation and the protection of competition in relation to the use of AI techniques. 52% thinks this is not necessary.

Lastly, AI is already here but not many RBs have some AI techniques in active use. Those that use AI show there is a great potential. Identification of relevant AI topics for future regulatory oversight is needed and inclusion of relevant AI topics in future IRG-Rail work plans.

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<sup>4</sup> [https://www.thalesgroup.com/en/united-kingdom/news/darwin-helping-public-plan-their-railway-journeys-two-decades;](https://www.thalesgroup.com/en/united-kingdom/news/darwin-helping-public-plan-their-railway-journeys-two-decades)  
<https://www.realtimetrains.co.uk/>

## 2. IRG-Rail Structure

### 2.1 Chairperson

IRG-Rail is represented by a Chair and a Vice-Chair, who are both appointed for a term of one year. Each year, the Plenary Assembly elects a representative amongst its Members' heads to serve as IRG-Rail's Vice-Chair during the following year and as the Chair the year after. Apart from representing IRG-Rail, the Chairperson or the Vice-Chairperson convenes regular and extraordinary meetings of the Plenary Assembly and submits the draft multi-annual Strategy Document and the draft annual Work Programme to the Plenary Assembly for approval. The Presidency prepares also the Annual report.

### 2.2 Plenary Assembly

The Plenary Assembly is composed of all IRG-Rail Members represented by their respective heads or representatives of their heads. It is convened usually twice a year: in Spring and Autumn. Before each Plenary Assembly meeting, a Network Meeting is organized to prepare documents for the Plenary Assembly, which is the forum for discussion and monitoring of the activities of IRG-Rail. The Plenary takes all decisions aimed at pursuing IRG-Rail's objectives and related to the functioning of IRG-Rail.

More precisely, the main tasks of the Plenary Assembly are to:

- take all decisions aimed at pursuing IRG-Rail's objectives;
- approve documents;
- admit new Members and exclude Members;
- approve any amendments to the Memorandum of Understanding;
- adopt any amendments to the Working Arrangements;
- appoint the Chairperson; and
- set up working groups and appoint the co-Chairpersons of the Working Groups.

### 2.3 Strategy Committee

Since 2016 a Strategy Committee convenes with the goal of identifying key strategic issues that are likely to have an impact on the role or the activities of rail regulation or the railway sector in general. The Strategy Committee also assists in preparing the annual Work Programme.

In 2022 the Strategy Committee met two times via videoconference, and discussed organisational issues, artificial intelligence issues, ERTMS, multimodality and in particular the Work Programme 2023.

### 2.4 Working Groups

The Working Groups are the forum for developing, debating and encouraging Members' positions and IRG-Rail position based on Members' experiences and views on regulatory issues. They report to the Plenary Assembly and submit to it any documents they prepare for approval, e.g. position papers or internal discussion papers, reports, guidelines etc.

**Table 1** Summary of the scope of activities of IRG-Rail Working Groups/Subgroups.

Working Groups/Subgroups	Scope
Access Working Group	Focuses on all aspects of access to railway infrastructure with respect to market barriers, access restrictions, promotion of competition, needs of passengers and freight customers and improved performance of the railways.
Access to Service Facilities Subgroup	Addresses all issues regarding access to service facilities including additional and ancillary services performed and offered in these facilities. Seeks to develop a common understanding of service facilities and non-discriminatory conditions of access.
Charges Working Group	Seeks to develop a common understanding of charging principles across the European rail sector and looks into recommendations based on European legislation, taking into account practices in individual countries.
Charges for Service Facilities Subgroup	Compares charging practices in Europe in order to get an overview of general European charging practices for service facilities. Seeks to develop a common understanding of notions related to service facilities' charging.
Emerging Legislative Proposals Working Group	Promotes a single European rail market, the working group discusses regulatory issues with the European Commission on a regular basis, contributing to the development of primary and secondary legislative proposals. The Working Group either conducts these discussions directly or prepares IRG-Rail and its respective Chairperson for the interaction with third parties.
Market Monitoring Working Group	Collects and analyses data on the transport and rail sectors and drafts an annual Market Monitoring Report, an important resource and instrument for giving direction to the activities of the Regulatory Bodies and for stimulating market participants to improve their activities.

## Task Force for Multimodality in Transport

In 2018 in Turin, during the Presidency of ART-IT, a Task Force for Multimodality was created. In addition to the six Working Groups (*Table 1*) the Task Force explores issues related to multimodality in transport by studying intermodal competition, interoperability of infrastructure and services, and related regulatory issues. It is organised on an opt-in basis for Members and focuses on the collection of case studies.

## 2.5 IRG-Rail Work Programme

The Work Programme is designed in a way to enable IRG-Rail to pursue its aims of promoting a competitive, sustainable and efficient single European railway market and to maintain a consistent approach to the European regulatory framework for railways. The Work Programme is prepared each year by the IRG-Rail Chair and the Working Group co-Chairs. It is then adopted by the Plenary Assembly

for the following year. It includes a list of deliverables and activities the Working Groups should accomplish throughout the year. The resources needed are carefully planned towards the most relevant and pressing topics, for example, forthcoming consultations or revisions announced by the European Commission.

The Working Groups contribute to establishing the annual Work Programme in light of the respective four-year IRG-Rail Strategy Document. This Strategy enables the Working Groups to formulate mid- and long-term objectives and to take an outlook on the likely developments in the railway market. For the Working Groups the Strategy, whilst providing guidance and orientation, also entails obligations and responsibilities.

Working Group co-Chairs have to specify in their submission to the Work Programme, among other things, the nature of the planned work and its results. Activities co-Chairs may plan for in their Work Programme include workshops, participation in specific meetings, monitoring of developments in the railway sector, collaboration with other Working Groups, communication and exchange of information with individual stakeholders, institutions and organisations, etc. Should the need arise during the year, the Work Programme can be amended upon the initiative of the Strategy Committee, co-Chairpersons of Working Groups or at the request of a Member. In accordance with Article 6.4 of IRG-Rail's Working Arrangements, the proposed amendments shall be approved by the Plenary Assembly or via electronic voting.

## 3. Organisational Issues

### 3.1 Meetings and Communication

The Plenary Assembly is composed of the Heads of the Regulatory Bodies that are Members of IRG-Rail and/or any senior executive designated by them. In 2022, two Plenary Meetings were hosted by HAKOM. One took place in Split and the other in Dubrovnik, Croatia.

Besides that, two Strategy Committee meetings were held via videoconference, while two Network Meetings were held in Zagreb, Croatia, and also via videoconference. Most of the Working Groups meetings combined through the year longer physical meetings with shorter meeting via conference. The good practice of combining large meetings as Plenary and Network meetings with Working Group meetings has been continued in 2022 as well.

As in previous years, IRG-Rail's Chair and Vice-Chair engaged in exchanges with some of the sector's main stakeholders (*Table 2*). In 2022 the Chair followed earlier practice of structured bilateral meetings. Also, Working Group co-Chairs were invited to highlight the most important topics. RB's were also invited to the meetings at theirs. IRG-Rail continued to follow a current activities of the European Commission and its Directorate General for Mobility and Transport (DG MOVE).

Among the various subjects discussed with the stakeholder representatives were the TTR project, ERTMS safety regulations, the Rail Facilities Portal (RFP), as well as issues regarding track access charges, barriers at border stations and interoperability. Furthermore, revisions of the Rail Freight Corridor Regulation, the Rail Market Monitoring Regulation and the Integrated Ticketing and Through-Ticketing Scheme were addressed. In several meetings, IRG-Rail representatives brought forward the tenth Market Monitoring Report and the findings on the impacts pandemic had on railways.

In June 2022, an invitation was sent to IRG-Rail to join as a member of ERA's group that focuses on general railway statistics. Aim of the group is to identify differences between overlapping statistics, understand where deviations come from, and suggest improvements where needed. The invitation in question was well received by IRG-Rail Members and it was easy to propose the representatives, who are Members of the IRG-Rail Market monitoring Working group. IRG-Rail has a lot of experience in data collecting and analysis and uses every opportunity to share its experience and knowledge, which ultimately could support the development and sustainability of the single EU railway market.

**Table 2** Overview of IRG-Rail meetings with Stakeholders in 2022.

Stakeholder	Name
ALLRAIL – Alliance of Passenger Rail New Entrants	Nick Brooks (Secretary General)
EPF – European Passengers' Federation	Josef Schneider (Chairman) Michel Quidort (President) Arriën Kruyt (Management Board)
ERFA – European Rail Freight Association	Dirk Stahl (CEO) Conor Feighan (Secretary General)
RNE – RailNetEurope	Paul Mazataud (President) Joachim Kroll (Secretary General) Tsvetan Tanev Peter Šišolák

Philipp Koiser Miloslav Kogler Harald Reisinger Akrivi Gkampoura Filipe de Pina Anastasia Kontogianni (Legal Officer, DG MOVE)
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## 3.2 Information about Elections

According to its Memorandum of Understanding, IRG-Rail is represented by a Chair and a Vice-Chair, who are both appointed for a term of one year. Each year, the Plenary Assembly elects a representative amongst its Members to be Vice-Chair during the following year and Chair the year after. In 2022, the Group was chaired by Nikola Popović, Member of the Council of HAKOM, the Croatian Rail Regulatory Body and vice-chaired by Annegret Groebel, Director of International Relations/Postal Regulation and and Karsten Otte, Head of the Rail Regulation Department of BNetzA, the German Regulatory Body.

Other elections and changes concern the Access to Service facilities Working Subgroup and the appointment of Virginia Silvestri (ART-IT) as Co-Chairperson of the respective Subgroup through means of the electronic voting procedure.

Christiane Trampisch (BNetzA, DE) was elected to be Co-Chairperson of the IRG-Rail Charges Working Group, also through means of electronic voting procedure.

Anh Lai (ART-FR) will be absent as co-Chair of the Market Monitoring Work Group and her colleague Anthony Martin (ART-FR) will take this place temporary.



## 4. Overview of the Activities under the 2022 Work Programme

In 2022 IRG-Rail continued to closely follow, through Working Groups, the activities of the European Commission on implementing and delegating Acts. The Network also maintained dialogue on an institutional basis with infrastructure managers, railway undertakings and other relevant stakeholders on topics of common interest. Some of the topics on which the Working Groups acted throughout the year include the “Timetabling and Capacity Redesign for Smart Capacity Management” (TTR) project, the revision of the rail freight regulation, planning temporary capacity restrictions, private sidings, ways to publish service facility descriptions, the Rail Facilities Portal<sup>5</sup>, European Court of Justice (ECJ) decisions regarding service facilities, direct costs, traction current, MaaS platforms and the market monitoring (MM) with impacts of the pandemic on the market and railways in general.

All documents IRG-Rail published throughout the year were approved by the IRG-Rail Plenary and were made available on IRG-Rail’s website<sup>6</sup>.

### 4.1 Working Group Access

The objective of the Working Group is to focus on all aspects of access to railway infrastructure with respect to market barriers, access restrictions, the promotion of competition, the needs of passengers and freight customers and improved rail performance. In 2022, the Access Working Group continued monitoring access issues and engaged with the topics from previous years: TTR project, monitoring of rail-freight corridors, planning temporary capacity restrictions and Network Statement Common Structure. These topics cover the most important themes in the current European railway market.

#### 4.1.1 The TTR project and the revision of the rail freight regulation (EU) 913/2010

In 2022 the Access Working Group continued the dialogue with the European Commission, RNE and other stakeholders on the development of the TTR project with regard to market needs. The TTR project and its pilots were launched for the first time in 2014. TTR’s aims are to create a new and harmonised process for the allocation of capacity in Europe. Originally, full implementation had been foreseen for Timetable 2025. From the 2020 Timetable, the project has been running three pilots on existing Rail Freight Corridors in order to test and evaluate components in the TTR allocation model. The project’s official name is “Timetabling and Capacity Redesign” but its original acronym TTR has been maintained.

IRG-Rail took part in RNE (Rail Net Europe) Steering Committee meetings as an observer represented by the co-Chairs of the Access Working Group Gustav Sjöblom (Transportstyrelsen) and Roberto Piazza (ART-IT), the co-Chair of the Emerging Legislative Proposals Working Group Christian Wolf (BNetzA) and the former co-Chair of the Access to Service Facilities Working Group Vincenzo Carpinelli (ART-IT). The Access Working Group also monitored the developments of the project within the SERAC working

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<sup>5</sup> <https://railfacilitiesportal.eu/>

<sup>6</sup> [IRG-Rail documents](#)

group on TTR organised by DG MOVE and FTE (Forum Train Europe). Working group exchanges views on implementation pilots and national work towards implementing the capacity strategy, capacity model and other aspects of full implementation of TTR; Report on IRG-Rail's observations on and/or engagement with the development of TTR and other initiatives to reform capacity management in Europe.

Since 2019, the Access Working Group has had a dialogue with RNE, FTE, Services of the European Commission and other stakeholders (ERFA, CER, ALLRAIL) with the aim to exchange views on the TTR project. Some regulatory bodies have also engaged with domestic parties on the project. This stakeholder dialogue continued in 2022.

The Access Working Group also actively involved with the WG ELP in order to contribute to the task force on the impact assessment and contributed the following paper:

- *"IRG-Rail observations on TTR for Smart Capacity Management: a brief summary of previous TTR papers"*.

#### 4.1.2 Monitoring of Rail Freight Corridors (RFCs)

In 2020 the European Commission conducted an evaluation and full impact assessment of the Rail Freight Regulation 913/2010/EU and continued it in 2022. The Access Working Group actively contributed by exchanging views and experiences. The aim of the group was to provide a qualitative basis for the monitoring of the Rail Freight Corridors. The group continued the work it had initiated in a workshop in 2019 to share experiences with the aim of reaching a common position within IRG-Rail.

Article 20 of the Rail Freight Regulation gives regulatory bodies the duty to cooperate in monitoring the competition on the rail freight corridors. To provide a qualitative basis for this monitoring, the group will continue the work initiated in 2019. Therefore, another workshop was organized to share experiences of monitoring Rail Freight Corridors. This exchange has the promise of helping to provide a more coherent and effective monitoring across Rail Freight Corridors.

#### 4.1.3 Planning Temporary Capacity Restrictions according to the revised Annex VII

The Delegated Decision (EU) 2017/2075 replacing Annex VII of Directive 2012/34/EU has big implications especially for planning, consultation, and international cooperation concerning temporary capacity restrictions. With the 2021 Timetable, all rules in the revised Annex came into force. The rules have already provided to be a driver of change in national and international planning practices and moreover constitute one building-block for the TTR project.

In 2021, IRG-Rail WG Access published an overview of the experiences of Regulatory Bodies so far. Following the publication, WG Access gathered and discussed the experience of group Members in monitoring the implementation of rules on TCR in the decision (EU) 2017/2075.

#### 4.1.4 Network Statement Common Structure

On 4 December 2019, the RNE General Assembly approved a new Network Statement Common Structure (NSCS) to be applicable from Timetable 2022. While the NSCS is not part of the legal

framework and not compulsory for IMs, it is an important part of IM's common endeavour to harmonise the way in which they set out the nature of the infrastructure which is available to railway undertakings, and publish information setting out the conditions for access to the relevant railway infrastructure (Art. 27 of Directive 2012/34/EU).

In 2022 all RBs had the opportunity to gather experience of IM's publishing information according to the new NSCS and allocating capacity on the basis of the new format and discuss the experience of group members of monitoring the publication of network statements according to the revised NSCS.

## 4.2 Subgroup Access to Service Facilities

The Subgroup Access to Service Facilities works on topics related to access to the services and service facilities, which are described in Annex II p. 2-4 of Directive 2012/34/EU. The Group communicates on occasion with the European Commission (DG MOVE) and with various market players when and if necessary.

### 4.2.1 Private Sidings

According to Annex I of Directive 2012/34/EU, railway infrastructure consists of the items listed in this Annex, "excluding (...) private branch lines or sidings." However, a definition of the term "private siding" is not offered in European law. In addition, the considerations in recital 12 and the exemption rule in Article 3 par. 2 and 3 lit. d) of the Directive 2012/34/EU seem to lead in different directions. Therefore, IRG-Rail started investigating this topic in 2021.

The discussion showed that this topic is interwoven with questions regarding the definition of terms of Directive 2012/34/EU as well as a different understanding of the scope of regulation, especially at the connecting points with different modes of transport. To develop an understanding IRG-Rail SG Access to Service Facilities analysed national cases and developed a questionnaire for the Regulatory Bodies on their national approach and understanding, which was distributed in the last quarter of 2021. Received answers to that questionnaire were analysed. The held workshop helped improving the understanding of different national approaches. The results from the workshop is presented in an overview paper that will help setting the basis for a common understanding on private sidings.

In 2022 the *Sub-group Access to Service Facilities* delivered as follows:

- "Regulatory approach to the concept of private sidings"

### 4.2.2 Publication of Service Facility Descriptions

Service facility descriptions are a key element for non-discriminatory access to service facilities and enable Railway Undertakings and other applicants to offer railway service on a reliable basis. The main function of SFDs is to ensure transparency of all technical characteristics, arrangements and

procedures that applicants need to know to get access to the service facility or services and perform the necessary operation(s). This transparency is key for enabling non-discriminatory access to service facilities and services. Common portals, like the Rail Facilities Portal<sup>7</sup>, can be used by the operators of service facilities to publish service facility descriptions, according to Implementing Regulation 2017/2177. In 2020, RNE took over the management and development of the RFP, with the support of UIRR. Within the corresponding Governance Board, the Chairs of the IRG-Rail SG Access to Service Facilities take part as observers and secure the exchange of information. In 2021, IRG-Rail SG Access to Service Facilities intensified the monitoring of the development and use of the RFP, which activity continued in 2022. IRG-Rail observed that the publication of information on common web portals, like the RFP, is an important tool to offer transparent information on the services offered in service facilities throughout Europe. The success of a common web portal largely depends on the data it makes available. Availability of useful data depends on the willingness of SFOs to upload and update SFD information. However, according to Directive 2012/34/EU, the RFP is only one of several possibilities to publish information on service facilities. In a statement IRG-Rail provided information and considerations on the regulatory provisions for the publication of service facility descriptions, what is obligatory and what is not and elaborated on the key elements of transparent, comprehensive and easy to access information.

In 2022 the *Sub-group Access to Service Facilities* delivered as follows:

- “Role of Regulatory Bodies in relation to publication of Service Facility Descriptions on web portals”

## 4.3 Working Group Charges

In 2022 the Working Group Charges continued developing within IRG-Rail a common understanding of charging principles across the European rail sector by further looking into charges for the use of the railway infrastructure. The Working Group maintains regular exchanges on charging issues with the European Commission and other stakeholders.

### 4.3.1 Paper on direct costs

Some ideas from the benchmark were reutilized and the aim was to drill deeper into certain aspects of direct cost calculations. In 2022, the Working Group gathered and analyzed data on direct costs (DC) and train km of twenty countries, but generally not all the requested data was provided. Some RBs were not able to or did not have time or sufficient resources to provide data or they returned data rather late.

For the calculation of DC charges costs estimates of both are needed (Ex-ante. After the fact, DC revenues and train km are defined as ex-post values). The WG finds it interesting that deviation can arise between the actual and predicted traffic. Sometimes, it happens that the direct cost cluster is much bigger than expected. Differences could arise due to deviations between actual and predicted traffic, changes in demand structure, reduced charges due to phasing-in and changes in the system

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<sup>7</sup> See above

methodology. The starting point would be the total gross cost. That should be including subsidies, and there were some discussions referring to that issue and not everybody was in agreement on what to deliver first.

There was also some misunderstanding about gross and net data costs among the group members. Methodologies for the calculation of maintenance, operations and renewals incorporated in DC should be clarified by some countries.

The case studies have been provided by nine countries, which are in the Appendix of the paper. Although, 14 Members presented their studies and it was expected that the paper would contain all these studies.

In 2022 the *Working Group Charges* delivered as follows:

- “Paper on direct costs”

## 4.4 Sub-group Charges for Service Facilities

The Working Group Charges for Service Facilities delivered a Paper on Charges for Traction Current. During the year, several online meetings were held with presentations from different countries in order to see how the traction current system works in their countries, but also to work on the document itself by giving comments on the draft. On October 13 and 14, a hybrid workshop was held that dealt with the competences of the RB, the roles of the involved parties, the necessary documents and the separation of accounts, which was the result for the Work Program in 2020, but was postponed due to the pandemic.

### 4.4.1. Paper on Charges for Traction Current

This document has a challenging context in the light of the current energy crisis, increasing prices and instability in the market. This is the first time the group analyses initial approaches to this topic. The European framework is addressed as the way it is implemented in other countries. In most cases the provision of traction current is considered a rail-related service separated from the minimum access package (MAP), except in Great Britain, particularly from the angle of the infrastructure devoted to energy distribution. A working group was established, including Members from Austria, Germany, Spain and Sweden, which prepared a questionnaire with the most relevant topics and received 22 responses.

In 2022 the *Working Group Charges for Service Facilities* delivered as follows:

- “Paper on Charges for Traction Current”.

## 4.5 Working Group Emerging Legislative Proposals

The Working Group Emerging Legislative Proposals continued to monitor the implementation and application of the European legislation. On May Plenary 2022, the group contributed to the EC *“Impact assessment on measures to better manage and coordinate international rail traffic, including through revised rules for capacity allocation and infrastructure charging in rail”* by delivering Internal Paper on IRG-Rail consolidated statements regarding the EC – Impact assessment study on measures to better manage and coordinate international traffic. In June 2022 electronic voting procedure was launched for the adoption of the *“Response to EC Public consultation on international freight and passenger transport – increasing the share of rail traffic”* and *“IRG-Rail observations on TTR for Smart Capacity Management: a brief summary of previous TTR papers”* and documents were published on IRG-Rail web page. The group collaborated in the creation of this document with the other Working Groups in a way that the special Impact assessment task force was created, for this purpose since the matter covers the work of several Working groups.

Another deliverable was the workshop to exchange experience on issues of legal or legislative nature of Regulatory Bodies' decisions. A Hybrid workshop took place in London in September. Some of the topics covered at the workshop were: understanding European Regulators in other sectors (The Body of European Regulators for Electronic Communications - BEREC, The European Union Agency for the Cooperation of Energy Regulators - ACER, The European Regulators Group for Postal Services - ERGP), recent ECJ Decisions, Economic Equilibrium Test/Access applications, presentations of RBs about relevant national cases (open access, EET, charges, network statement, direct costs).

In 2022 the **Working Group Emerging Legislative Proposals** delivered as follows:

- *“Response to EC Public consultation on international freight and passenger transport – increasing the share of rail traffic”*

## 4.6 Working Group Market Monitoring

The Working Group Market Monitoring delivered 10<sup>th</sup> Market Monitoring Report which was published 10<sup>th</sup> of April 2022. Report presents the results at the European level as well as the data of individual countries, including the corresponding graphs. The Report covered the year 2020 and included 3 documents.

Furthermore, in November 2022 data were collected for the 11<sup>th</sup> market monitoring report, as well as additional information about the impact of pandemic on the European railway market in 2021 and its recovery. In summer 2022 the 12<sup>th</sup> Report questionnaire to collect additional data for the focus was distributed to RBs. Also, the Group prepared a written guide for the annual market monitoring.

The pandemic and its aftermath generally led to declines in rail transport demand in 2020, some of which were severe. The report and the figures it presented allowed for a comparison of the various relief measures taken across Europe in response to the consequences of pandemic in the rail sector. The losses suffered by the rail companies were cushioned by temporary and, in some cases, permanent measures. By laying out a clear comparison of countries with regard to the countermeasures taken,

IRG-Rail provided decision-makers with an important tool, as the report may have served as a basis for assessing the effectiveness of these measures.

The revision of the (EU) 2015/1100 Regulation and in particular its questionnaire for the data collection is still on hold, which was the reason why RMMS position paper has not yet been released to date.

In 2022 the **Working Group Market Monitoring** delivered as follows:

- “10th Annual Market Monitoring Report” - Main report,
- “10th Annual Market Monitoring Report” - Working Document,
- “10th Annual Market Monitoring Report “ - Dataset.

## 4.7 Multimodality Task Force

With respect to an immediate significant impact that pandemic had on collective transport in general, and rail transport in particular, it is necessary to promote the recovery of the sector by increasing its attractiveness. Possible way is providing multimodal mobility solutions, in particular through the innovative combination of traditional forms of collective transport and individual and shared mobility services. The railway sector, too, offers examples of bundling of services, which raise issues of access to infrastructure, be it physical or intangible. Different combinations of rail & sea, rail & bus, rail & taxi, rail & urban mobility services may be found in some EU countries. Therefore, the dissemination of MaaS platforms offering combinations of rail transport services with other modes of collective and individual transport is an innovative tool, including for the extension of demand in the sector. At the same time, the need arises to adapt the role of national regulators to the context of the new mobility ecosystem.

Task Force aimed to present MaaS systems implemented in the countries and to identify the regulatory implications of MaaS platforms. The objective of the proposed activity was firstly to identify, starting from case studies on the implementation of MaaS systems in the countries represented in the Network, the necessary conditions for the deployment of such systems, together with their possible implications on the application of the existing regulatory measures and the related innovative features that may be the subject of future regulation. The identification of the elements characterising the implementation of MaaS platforms at national and sub-national levels will also provide the basis for future developments aimed at ensuring door-to-door mobility at the EU level.

In 2022 the **Multimodality Task Force** delivered as follows:

- “*Mobility as a service (MaaS) – An overview*”

## Annex I – Published Documents in 2022<sup>8</sup>

- Tenth MM Report – Working Document
- Tenth MM Report – Main Report
- Annual Report 2021
- Role of Regulatory Bodies in relation to publication of Service Facility Descriptions on web portals
- IRG-Rail observations on TTR for Smart Capacity Management: a brief summary of previous TTR papers
- Response to EC Public consultation on international freight and passenger transport – increasing the share of rail traffic
- Overview of the Implementation of Direct Costs in Europe
- Appendix to the Overview of the Implementation of Direct Costs in Europe
- Regulatory approach to the concept of private sidings
- Overview Paper on Charges for Traction Current
- Mobility as a service (MaaS) - An overview
- MaaS - Annex 1 (IRG-Rail regulators: functions and powers in rail and other modes of transport)
- MaaS - Annex 2 (List of MaaS, integrated-and through-ticketing systems and platforms surveyed in the paper)
- MaaS - Annex 3 (A survey on Mobility as a Service (MaaS))

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<sup>8</sup> All the publications are available on the official website of [IRG-Rail](#).



- MaaS - Annex 4 (Documents and link of interest)
- Work Programme 2023

## Annex II – Members of IRG-Rail

Nationality State	Independent Rail Regulatory Bodies
Austria	Schiene-Control GmbH (Austrian Rail Regulatory Body)
Belgium	Service de Régulation du Transport Ferroviaire et de l'Exploitation de l'Aéroport de Bruxelles (Regulatory Body for Railway Transport and for Brussels Airport Operations)
Bulgaria	Изпълнителна агенция "Железопътна администрация" (Executive Agency - Railway Administration)
Croatia	NAKOM - Hrvatska regulatorna agencija za mrežne djelatnosti (Croatian Regulatory Authority for Network Industries)
Czech Republic	UPDI - Úřad pro přístup k dopravní infrastruktúře (Transport Infrastructure Access Authority)
Denmark	Jernbanenaevnet (Danish Railway Regulatory Body)
Estonia	Konkurentsiamet (Estonian Competition Authority)
Finland	Rautatiealan sääntelyelin (Finnish Rail Regulatory Body)
France	ART - Autorité de Régulation des Transports (Regulatory Authority for Rail, Road and Airport sector)
Germany	BNetzA - Bundesnetzagentur (Federal Network Agency)
Greece	RAS - Ρυθμιστική Αρχή Σιδηροδρόμων (Regulatory Authority for Railways)
Hungary	NKH - Nemzeti Közlekedési Hatóság (National Transport Authority)
Ireland	CRR - Commission for Rail Regulation
Italy	ART - Autorità di Regolazione dei Trasporti (Transport Regulation Authority)
Kosovo	ARH - Autoriteti Rregullativ i Hekurudhave (Railway Regulatory Authority)
Latvia	VDA - Valsts dzelzceļa administrācija (State Railway Administration)
Lithuania	RRT - Lietuvos Respublikos ryšių reguliavimo tarnyba (Communications Regulatory Authority)
Luxembourg	ILR - Institut Luxembourgeois de Régulation (Luxembourg Institute of Regulation)
Netherlands	ACM - Autoriteit Consument & Markt (Authority for Consumers and Markets)
Norway	SJT - Statens Jernbanetilsyn (Norwegian Railway Authority)

Poland	UTK - Urząd Transportu Kolejowego (Office of Rail Transportation)
Portugal	AMT - Autoridade da Mobilidade e dos Transportes (Portuguese Authority for Mobility and Transport)
Republic of North Macedonia	ARTZU - Agencija Za Regulaciju Tržišta Željezničkih Usluga (RRA - Rail Market Regulatory Agency)
Romania	Romania Consiliul Concurentei (Railway Supervision Council)
Serbia	Raildir - Direkcija za železnice (Directorate for Railways of Republic of Serbia)
Slovakia	DU - Dopravný úrad (Transport Authority)
Slovenia	APEK - Agencija Za Koumikacijska Omrežja In Storitve Republike Slovenije (AKOS - Agency for Communications Networks and Services of the Republic of Slovenia)
Spain	CNMC - Comisión Nacional de los Mercados y la Competencia (National Commission on Markets and Competition)
Sweden	Transportstyrelsen (Swedish Transport Agency)
Switzerland	SKE - Schiedskommission im Eisenbahnverkehr (RACO - Railways Arbitration Commission RACO)
United Kingdom	ORR- Office of Rail and Road