

Independent Regulators' Group – Rail

Working group Emerging Legislative Proposals

Overview and challenges — integrated ticketing and through-ticketing measures in the EU

November 2021

Introductory Remarks

This paper gives an overview on the current state of integrated ticketing solutions within the IRG-Rail Member States. It analyses the situation by forming clusters of ticketing schemes and identifies challenges and issues, as well as spotlighting measures that have been taken under the competences of regulatory bodies.

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1. Introduction

1. The Fourth Railway Package adopted in 2016 updated European legislation to ensure an effective liberalisation of rail services. The package expands the framework of rail regulation to grant all passenger operators equal access to all domestic markets and is intended to enhance companies' efficiency and consumers' benefits. It encourages railway undertakings to work on the development of seamless public transport systems that would make „multimodal, cross-border and door-to-door mobility options possible"¹. It is therefore within this wider multimodal framework that ticketing must be considered. This paper deals, in particular, with the way in which integrated ticketing and through ticketing are dealt with in some European Countries.
2. The new Article 13 (a) of Directive 2012/34/EU, as integrated in the Recast by the Fourth Railway Package, provides that Member States may *“require railway undertakings operating domestic passenger services to participate in a common information and integrated ticketing scheme for the supply of tickets, through-tickets and reservations or give the power to competent authorities to establish such a scheme.”* It further provides that *“If such a scheme is established, Member States shall ensure that it does not create market distortion or discriminate between railway undertakings and that it is managed by a public or private legal entity or an association of all railway undertakings operating passenger services”*.
3. In addition, the Directive provides that *“the Commission shall monitor rail market developments concerning the introduction and use of common information and through-ticketing systems and shall assess the need for action at Union level, taking into account market initiatives. It shall in particular consider non-discriminatory access for rail passengers to data necessary to plan journeys and book tickets”*. Article 13 (a), paragraph 2, provides that by 31 December 2022, the Commission shall present a report to the European Parliament and the Council on the availability of such systems, to be accompanied, if appropriate, by legislative proposals.
4. At a workshop on anti-competitive and discriminatory practices held on 16 January 2020² with the European Network of Rail Regulatory Bodies (ENRRB), the European Competition Network (ECN), and the European Commission, the distribution of tickets was identified as one of the main obstacles to competition in passenger railways.
5. While not all regulatory bodies members of IRG-Rail have specific competences in relation to ticketing services, nor in relation to transport modes other than rail, under the provisions of Directive 2012/34/EU, they do have powers to monitor the competitive situation in the rail services markets, ensure that there is no discrimination between railway undertakings in accessing the infrastructure and service facilities, and handle complaints.

¹ Directive (EU) 2016/2370, recital 31

² Ref. Ares(2019)7649500 - 12/12/2019

6. Additionally, IRG-Rail has identified the growing necessity to integrate railways into the new business for a door-to-door approach to passenger travel as an issue to be closely monitored by regulatory bodies in its Strategy Document for 2021 to 2024.³
7. Article 13 (a) paragraph 1 of the Directive covers the possibility for Member States to require railway undertakings providing domestic rail services to participate in through-ticketing schemes. Article. 13 (a) paragraph 2 allows the European Commission to monitor the market and to assess the need for “action at a Union level”. This is especially made clear under Recital 31 Directive (EU) 2016/2370:
“In order to enable passengers to access the data needed to plan journeys and to book tickets within the Union, common information and through-ticketing systems that have been developed by the market should be promoted. Given the importance of promoting seamless public transport systems, railway undertakings should be encouraged to work on the development of such systems, making multimodal, cross-border and door-to-door mobility options possible.”
8. Taking into account the findings of the aforementioned workshop, and in the light of the objectives of Article 13 (a), it is meaningful to explore the experience that Member States have gained thus-far in the area of ticketing extending the overview beyond the territorial scope or transport mode of operation of the services involved. This paper therefore looks at what ticketing systems for international, national or regional (including local) passenger services, be they mono-modal or multi-modal, are currently in place or under development in some of the countries whose Regulatory Bodies are members of IRG-Rail. It also explores current and potential issues that have been raised by investigations and cases handled by regulatory bodies or competition authorities. Some of the findings in the Report on “Remaining Challenges for EU-wide integrated ticketing and payment systems”⁴ have been taken into account.

To gather evidence, in 2020 IRG-Rail undertook a survey on ticket distribution and purchasing systems for passenger rail services across European countries, which was integrated and updated in 2021. <19> regulatory bodies responded to the questionnaire on which this paper is also based.

2. Overview of existing ticketing systems and mobility platforms

2.1. Introduction to clustering ticketing systems

9. The overview presented in this paper draws on the output of the questionnaire mentioned above, undertaken by IRG-Rail, which provides information on the current situation concerning ticketing in the different countries. As it will be shown the legal framework set by the EU is the same for all countries, but specific implementation varies widely across countries.
10. For the purpose of analysis, the paper identifies several categories into which different ticketing systems can be clustered. These categories are not answering a legal definition set by Union law, but are based

³ Marginal Number 57, <https://www.irk-rail.eu/irk/about-irk-rail/irk-rails-strategy-2021/172,IRG-Rail039s-strategy-2021-2024.html>

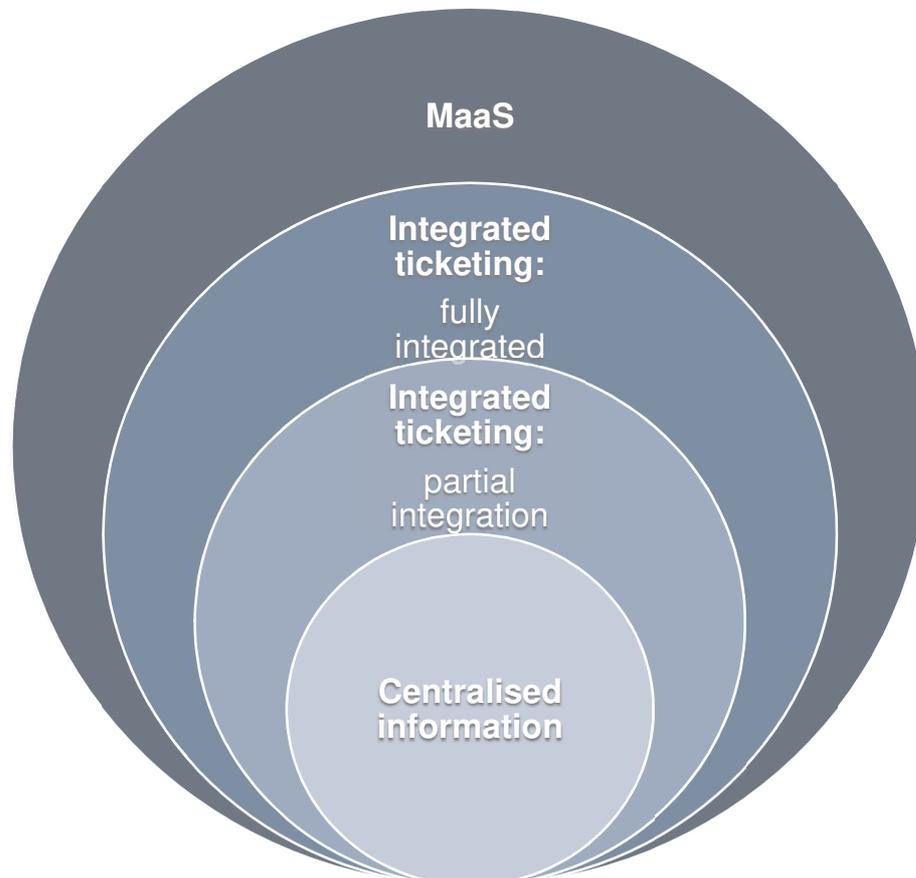
⁴ <https://op.europa.eu/s/pdbU>

on the observations of the ticketing systems in place in IRG-Rail countries. They are as follows and shown on the graph below:

- centralised/shared information on transport offer
- integrated ticketing: partial integration
- integrated ticketing: full integration and special forms of fully integrated ticketing systems
- Mobility as a Service (MaaS)
- incumbent (or joined enterprise) offering its service to new entrants

Often a single country has multiple systems in place, which cover more than one cluster.

11. These clusters relate to the integration of the ticket market (i.e. the possibility of booking a ticket for one trip with different operators, the existence of a centralised information pool or unified tariffs). Some overlaps may occur between and across clusters.



12. All of the identified forms of ticketing can occur at regional (including local), national and international level. If a cluster is marked as “regional and/or national and/or international” for a country, this means that the respective ticketing cluster exists in that country. It does not necessarily mean that the respective ticketing cluster exists at each possible opportunity. Further information can be found in the Annex.

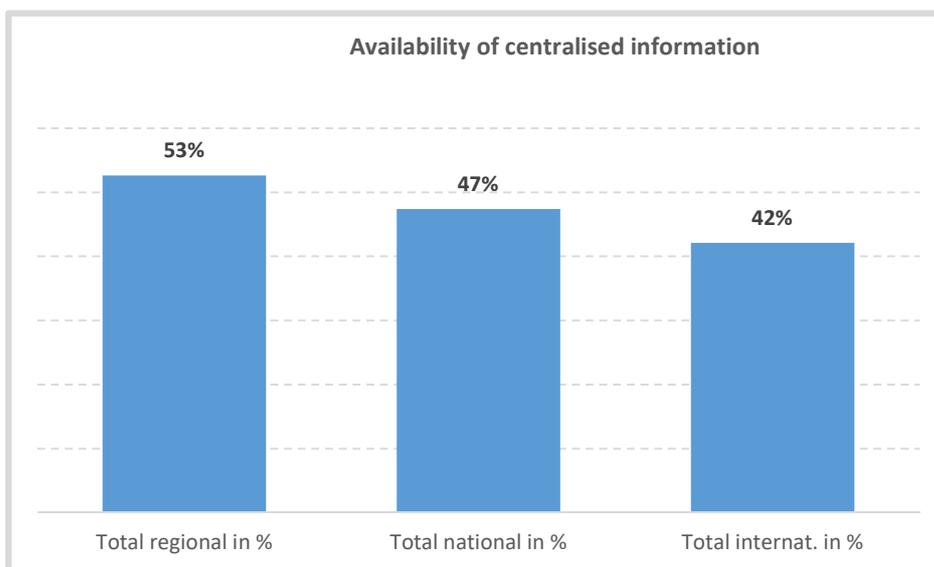
2.1.1. Centralised/shared information on transport offer

Cluster characteristics: centralised/shared information, no sales

Possible features: timetable, tariff grid (without booking system)

13. Centralised information is a prerequisite for most integrated ticketing systems; nonetheless, a centralised information platform can exist without an integrated ticketing system. Passengers book their tickets through the operators' channels, but they can plan their journey by checking timetables, routes and stops and obtain delay information via one app.

Example: In Romania, customers can obtain travel information centrally, while tickets are sold by all railway undertakings individually.



Based on IRG-Rails' survey with 19 participating Member States

2.1.2. Integrated ticketing: partial integration

Cluster characteristics: centralised/shared information, one ticket for each operator, each leg individually priced

Possible features: timetable, booking system

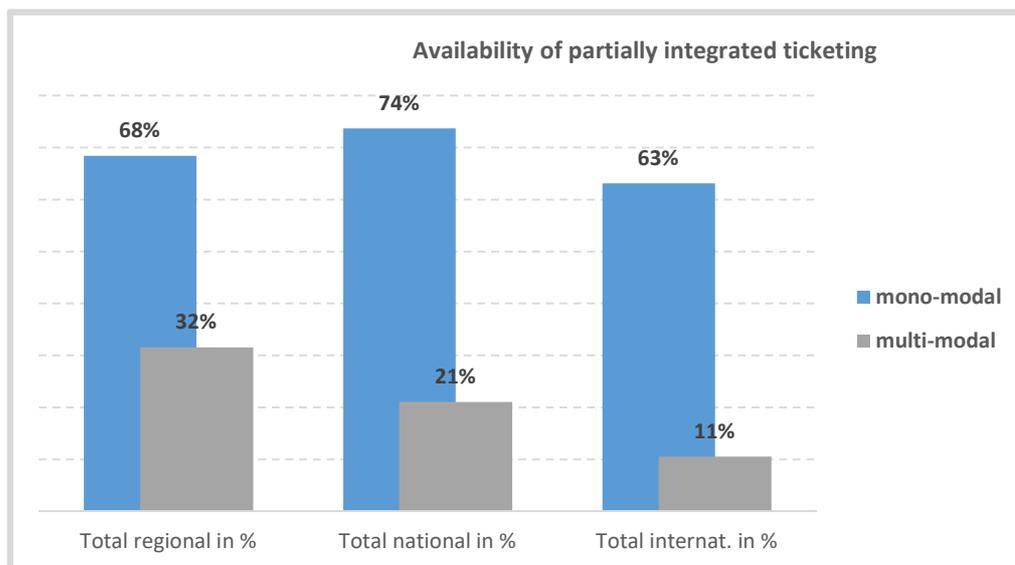
14. Article 13 (a) in conjunction with Article 3 (35)⁵ of Directive 2012/34/EU as amended allows for two types of through-ticketing systems, one of which uses more than one ticket for the whole journey. This

⁵ 'through ticket' means a ticket or tickets representing a transport contract for successive railway services operated by one or more railway undertakings

kind of approach is most often seen with internet platforms that try to facilitate international train travel. They differ from fully integrated services by only providing tickets for individual legs of the journeys and by adding up individual fares. They usually use digital platforms. Passengers can buy tickets for journeys with multiple operators at one point of sale, with a separate ticket being issued for each part of the journey. In the case the vendor informs the customer before the sale that he/she is not buying a through ticket but a series of individual tickets as single contracts, in the event of missed connections due to delay or cancellations of earlier services or of the departure of a service before the scheduled departure time, the passenger is responsible to plan for the continuation of his or her journey. Re-routing costs in this case are borne by the passenger.

15. In the case the vendor does not inform the customer, according to Article 12 of Regulation (EU) regulation 2021/782 (effective from 7 June 2023), such combined ticket sales [for long distance or regional passenger services] are considered through tickets and the vendor shall be liable to reimburse the total amount paid, and to pay compensation equivalent to 75 % of that amount if the passenger misses one or more connections. With this new regulation that came into force recently, the passengers' position is strengthened.
16. Partial integrated ticketing can occur either mono-modal (i.e. a passenger wants to travel from A to C via B and buys 2 separate tickets at one point of sale: train ticket from A to B, train ticket from B to C, both train rides being operated by different train operators) or multi-modal (i.e. a passenger wants to travel from A to C via B and buys 2 separate tickets at one point of sale: train ticket from A to B, bus ticket from B to C, the train ride and the bus ride being operated by different operators).

Example: Services offered by international platforms such as Trainline and Happyrail: Both platforms offer combinations of individual tickets from different operators.



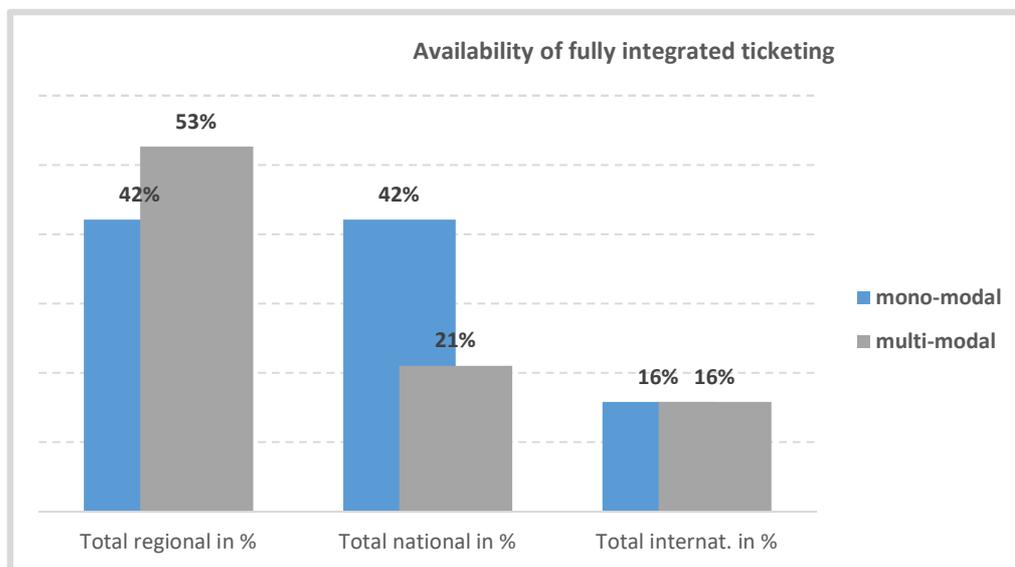
Based on IRG-Rails' survey with 19 participating Member States

2.1.3. Integrated ticketing: full integration

Cluster characteristics: centralised/shared information, single ticket regardless of number of operators, one price for whole trip

Possible features: timetable, booking system, revenue sharing

17. A fully integrated ticketing system enables a customer to book a complete journey via a one-stop-shop as a single operation. The system allows customers to look up information and buy the necessary ticket. With that one ticket, customers are able to complete their journey irrespective of the operator. In this case of railway through-tickets, the ticket vendor is liable in the event of missed connections due to delay or cancellation of previous services, or of the departure of a service before the scheduled departure time. The risk related to reimbursement or re-routing in such cases is borne by the ticket vendor.
18. Fully integrated ticketing can occur either mono-modal (i.e. passenger wants to travel from A to C via B and buys one ticket at one point of sale: one ticket for the whole journey consisting of 2 train rides operated by 2 different operators) or multi-modal (i.e. passenger wants to travel from A to C via B and buys one ticket at one point of sale: one ticket for the whole journey consisting of 1 train ride and 1 bus ride operated by 2 different operators).



Based on IRG-Rails' survey with 19 participating Member States

2.1.3.1. Special forms of fully integrated ticketing systems

19. There are several forms of fully integrated ticketing systems:
 - a. *Tariff associations:* These are characterised by a revenue sharing approach with a joint tariff system that allows the customer to change from one mode of transportation to another with the same ticket, offer of discounts and often operate at regional level.

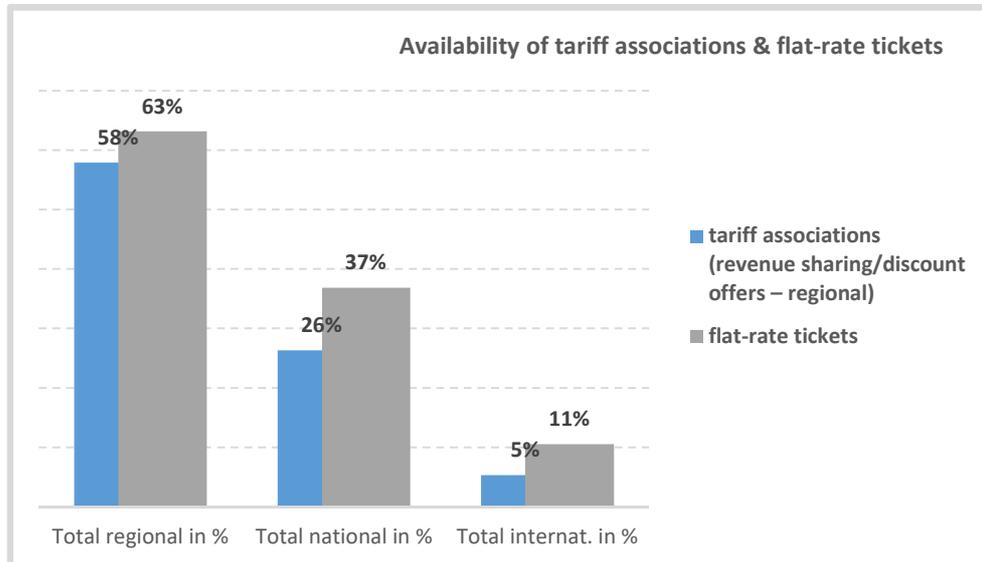
Example: In **Germany**, TBNE, the tariff association of federal and non-federal railways, is a cooperation platform within which the member RU's agree on the acceptance of tariffs and the split of revenues resulting from this.

In **Great Britain**, ticketing is managed by RDG – Rail Delivery Group (previously ATOC – the Association of Train Operating Companies). This organisation was set up by the train operators to ensure that nationwide services – such as ticket acceptance and railcards – continued after the privatisation of the railways). One of RDG's main operations is managing the Ticketing and Settlement Agreement. This agreement requires each passenger operator to be a member of RDG in order to participate in RDG's Dispute Resolution Procedures and allocate revenue to licensed ticket retailers. The ORCATS (Operational Research Computerised Allocation of Tickets to Services) system is a large centralised computer system used for real-time reservations and revenue sharing on inter-available tickets between train operating companies. The system is used to divide ticket revenue when a ticket or journey involves trains operated by multiple train operators. The system was owned by British Rail, and is now managed by RDG.

The **Czech Republic** has introduced the OneTicket system. The single ticketing system applies to all rail operators (but extension to bus companies is planned) for Public Service Obligation traffic. Participation is obligatory, open-access operation is free to join. The OneTicket offers ticket variants for commuting, complete network and single journeys. The OneTicket bears the advantage that is accepted irrespectively to which train is used. All rail operators' own offers and local transport tickets remain valid. With the OneTicket, there is no need to buy separate tickets and in the case passengers miss a connection due to delay, they can use any next train of any operator and may receive compensation.

- b. *"flat-rate tickets"*: These are tickets that allow one person to have unlimited usage of railway connections for a fixed price (usually paid annually). Often, this includes the use of other means of public transport (buses, trams, etc.).

Example: KlimaTicket Now in Austria, General abonnement in Switzerland, BahnCard 100 in Germany, Pass Navigo RATP for Ile-de-France Region in France



Based on IRG-Rails' survey with 19 participating Member States

2.1.4. MaaS (Mobility as a Service)

Cluster characteristics: same as mentioned above with full multi-modal dimension

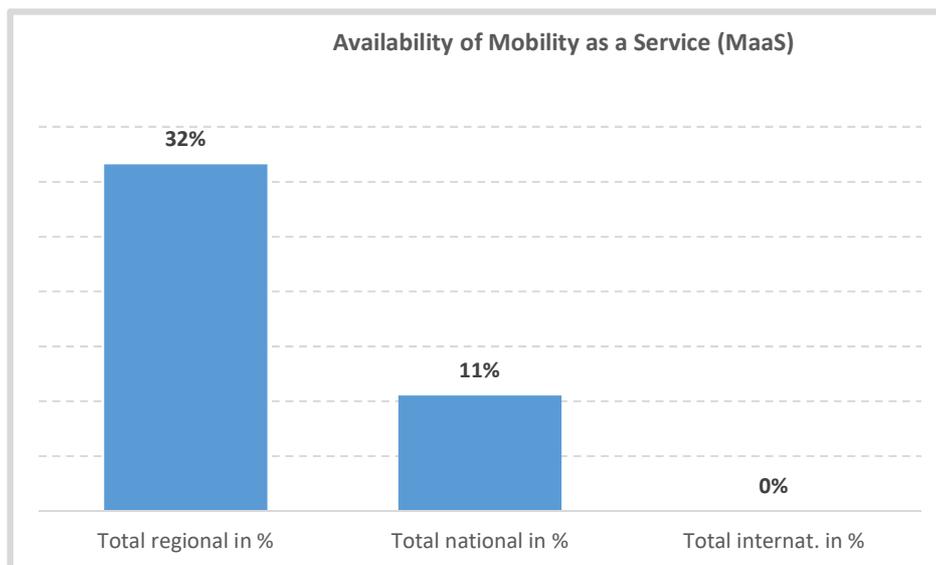
20. This cluster is represented by the interconnection of fully integrated railway ticketing with other modes of transport, i.e. bus, tram, boat, etc., and forms of mobility (sharing/individual), i.e. taxi, bike, etc., through a digital platform. The main difference with fully integrated ticketing mentioned above is the combination with individual transportation modes, which usually cover the “last mile” of the journey favouring door-to-door mobility.
21. Passengers can book a journey from their home to their final destination with multiple operators and multiple modes of transport at one point of sale, i.e. via a smartphone app. This covers the case where passengers travel by train from A to B, by bike from B to C using one ticket with one price provided by one app.

Example:

In the Netherlands, the services offered are approaching the concept of MaaS. Dutch Railways, the main passenger railway operator in the Netherlands, also offers bikes and cars. These options are also shown in the travel-planning app of Dutch Railways. However, the nationwide public transport card (OV-chipkaart) still plays a key role. Passengers still need to scan their public transport card each time they leave and enter for each segment of their trip with a different transportation mode. The public transport card is also used for the bikes and cars. In this case, the transaction does not take place beforehand, and no ticket is generated that can be used across all modalities.

However, the nationwide public transport card as method of payment will be phased out in 2023, to be replaced by debit card, credit card or smart phone.

In the recent years, it also has become possible to access public transport with a QR-code. There are now different applications that allow traveling without the public transport card, using a QR-code. Bikes, cars, and taxis are also available through some of these apps. Interestingly, the different apps use different bike- or car sharing brands; it is not yet the case that certain bike- or car sharing brands are available across different mobility apps.

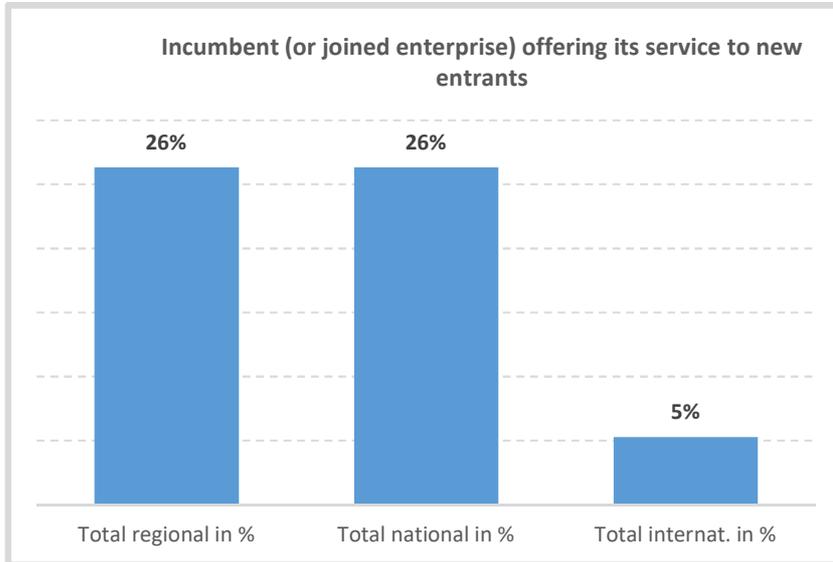


Based on IRG-Rails' survey with 19 participating Member States

2.1.5. Incumbent (or joined enterprise) offering its service to new entrants

Cluster Characteristics: centralised information but shared only one-way, sales for multiple operator tickets – single or multi - only by incumbent railway undertaking

22. Often, the incumbent railway undertaking tends to be the lead operator responsible for the distribution and sale of tickets, offering tickets for its own services as well as for services from other railway undertakings, usually in return for a fee.
23. These ticketing services usually do not only apply to local or domestic journeys, but often enable international travel with other national incumbent operators on a single ticket.
24. This category has been removed from the list of clusters since incumbent railway undertaking offering the new entrants' tickets can occur in all four of the above-described clusters. It is not a ticketing solution itself but can be a way to sell tickets for all operators.

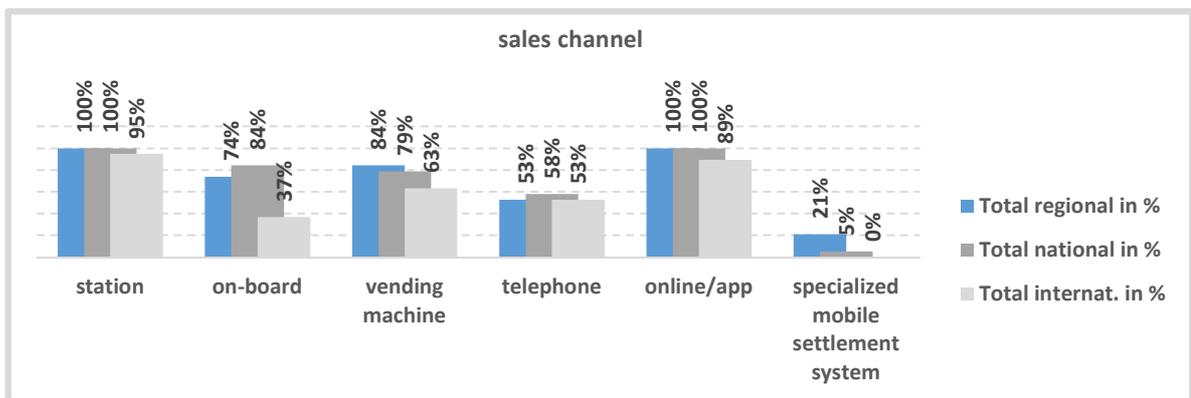


Based on IRG-Rails' survey with 19 participating Member States

2.2.Sales channels

25. There are several channels for ticket sales. Tickets may be sold by one operator of the transport chain or by a third party or intermediary. The sale and distribution of tickets may be managed by the transport service provider directly or outsourced. Tickets can also be sold through a mobile ticket platform, developed by the transport operator or a third-party independent service provider. Rail tickets can be sold at stations, on-board train services, via vending machines, telephone and online platforms or apps.

26. The graph below shows the situation in the countries of IRG-Rail members:



Based on IRG-Rails' survey with 19 participating Member States

- **Station:** tickets available for sale at ticket counters at stations

- **On-board:** tickets available for sale on the train, i.e. from the conductor or other service personnel
- **Vending machine:** tickets are available for sale at ticket vending machines, i.e. at train stations or other highly frequented junctions
- **Telephone:** tickets available for sale via telephone, i.e. hotline or sms
- **Online/app:** tickets available for sale via internet websites or smartphone apps
- **Specialized mobile settlement system:** in this subcategory, ticketing is executed via specialized mobile solutions, i.e. check-in/check-out system via generally accepted payment method or specialized chip card

2.3.Observations on the ticketing systems and sales channels

2.3.1. Sales channels

27. Concerning sales channels, we observe that some categories apply to all <19> IRG- Rail countries while others seem to cluster only a small number of countries: At regional level, all <100%> IRG-Rail members that answered the questionnaire indicated that in their country, there is at least one online sales channel (including app), but only <21%> have specialized mobile settlement systems. <100%> answered that tickets can be bought at ticket counters at stations, while <84%> said that tickets could be booked at vending machines. On-board sale of tickets is possible in <74%> of the responding countries, whereas telephone sale via a call centre or sms is shown in <53%> of the answers.
28. At national level, all <100%> countries indicated that they have at least one online sales channel (including app), while <5%> have specialized mobile settlement systems. <100%> answered that tickets can be bought at ticket counters at stations, while <79%> said that tickets could be booked at vending machines. On-board sale of tickets is possible in <84%> of the responding countries, whereas telephone sale via a call centre or sms is possible in <58%> of the answers.
29. At international level, all <89%> IRG-Rail members indicated that they have at least one online sales channel (including app), while none <0%> have specialized mobile settlement systems. <95%> answered that tickets can be bought at ticket counters at stations, while <63%> said that tickets could be booked at vending machines. On-board sale of tickets is possible in <37%> of the responding countries, whereas telephone sale via a call centre or sms is possible in <53%> of the answers.

Multiple answers were possible. The observed answers seem to confirm the general trend towards online solutions with regard to ticketing. It also shows that the sale of international tickets is available at fewer points of sale than national and regional tickets.

2.3.2. Ticketing

30. Looking at the ticketing category, we observe that the cluster “centralised information” exists in roughly half of the countries that answered the questionnaire (53% regional, 47% national and 42% international level).

31. Partly integrated ticketing exists in more than 60% of the countries (68% regional, 74% national, 63% international) on a mono-modal level, while multi-modal is less common and mainly available on a regional level (32% regional, 21% national, 11% international). Fully integrated ticketing on a mono-modal level exists in more than 40% of the countries at a regional and national level, while at the international level it occurs in less than 20% of countries (regional 42%, national 42%, international 16%). On a multi-modal level, the numbers are higher at regional level, lower at national level and equal at international level (53% regional, 21% national, 16% international).
32. MaaS exists in 32% of the answering countries at regional level, 11% at national level and in 0% at international level.
33. The incumbent or a joined enterprise that is offering ticket sales services to new entrants exist in 26% of the participating countries at regional and national level, and in 5% at international level.

3. Challenges and potential issues

3.1. Challenges and issues already raised by ticketing in some countries

34. This section examines several cases related to ticketing issues and determined by a regulatory body or a competition authority.

Sweden:

In 2018, the Swedish Competition Authority conducted an investigation, following some complaints, in the ticketing sector for train passenger services which showed that the incumbent RU's ticketing channel may constitute a barrier to entry (decision dated 4th of June 2019, Dnr 230/2018, 380/2018). The issue of ticketing regulation also arose. Indeed, the Swedish Competition Authority received two complaints, made by two non-incumbent RUs, against the Swedish incumbent RU "SJ". The complainants alleged that they had been denied access to SJ's digital sales channels. SJ replied that as the activities of these companies did neither complement nor benefit SJ's own offering of ticket sale, they were not entitled to offer and sell their tickets through SJ's online channels. The Swedish Competition Authority investigation showed that the market conditions for ticket booking in commercial passenger train services was likely to reduce competitive pressure as they led to barriers to entry and expansion. Besides, the Swedish Competition Authority showed that requiring SJ to allow certain other commercial train operators to sell tickets through SJ's online channels would risk consolidating the strong position already held by SJ's non-neutral sales channels. The Competition Authority therefore proposed in a letter to the Government to have the need and design of regulation in the area of tickets sales for train services. Read more about this case in the annex of this paper.

France:

In a decision dated 2 October 2014 (No. 14-D-11), the French Competition Authority accepted a series of commitments made by SNCF (incumbent) to meet the Authority's concerns in the rail ticket distribution sector. This case did not directly concern the entry of new railway undertakings on the railway market but the incumbent's ticket distribution by travel agencies. However it highlights issues related to ticket sales that are still relevant in the liberalisation of railway services context, such as: unequal billing conditions between the incumbent's subsidiaries selling tickets and other sellers, obligation of access to

the incumbent's ticket distribution tools and its charging conditions, guaranteeing the confidentiality of requests made by other ticket sellers via the technical interface, conditions for referencing the transport offer favouring the incumbent's website to the detriment of other sales channels. On 16 December 2020, SNCF requested the revision of some of the commitments made in 2014 on the grounds that they were no longer justified. The incumbent based this request on the development of competition in the rail ticket distribution market since 2014, the obsolescence of some of the rail tickets sales system to which SNCF was required to provide access, but also the opening up of mobility data with the delegated regulation (EU) No. 2017/1926 of 31 May 2017 as well as the provisions of the LOM (Mobility Act) adopted in December 2019 which encourages the development of multimodal digital services and sets the legal framework for fair and non-discriminatory access to transport data in the short term. The Competition Authority launched a public consultation that closed on 20 January 2021 to give interested third parties the opportunity to comment on this request. Further details on this case can be found in the annex of this paper.

3.2. Challenges and issues to overcome for a seamless and multimodal ticketing system

35. The European Commission has been pushing through tickets since Article 13 (a) was introduced into the 4th Railway Package. With the European Commission Report on "Remaining Challenges for EU-wide Integrated Ticketing and Payment systems",⁶ the European Commission has looked at what stands in the way of rolling out integrated ticketing systems. Simultaneously the European Commission has introduced additional provisions regarding through tickets with Regulation (EU) 2021/782 of 29 April 2021 on rail passengers' rights and obligations. They require railway undertakings to "make all reasonable efforts to offer through-tickets" and to "cooperate to that end among themselves" (Art. 12).
36. IRG-Rail assumes that future ticketing systems will be European, integrated and multimodal, and has for that reason closely considered the aforementioned report.

3.2.1. Perspectives

37. When considering the challenges remaining in order to make seamless, multimodal cross border journeys and door-to-door mobility options possible, as stated in recital 31 of the Directive, two perspectives need to be considered.
38. The first one is the passengers' perspective. From a customer point of view, the easiest and cheapest ticketing solution is preferable: Ideally a MaaS approach, where the customer can book his/her trip from the starting point to the final destination at one point of sale (i.e. a smartphone app) where all operators of different modes of transport are integrated into one ticket for the whole journey while possible discounts are allowed for. This should be easy to use, reliable (as the ticket vendor or the operators should be responsible for possible delays and re-routings) and transparent as well as attractive in pricing.

⁶ <https://ec.europa.eu/transport/sites/transport/files/studies/2019-remaining-challenges-for-eu-wide-integrated-ticketing-and-payment-systems-final-report.pdf>

39. The other perspective is that of the railway undertaking. Elimination of entrance barriers as well as non-discriminatory access to ticketing systems and sales channels is required for railway undertakings in order to be able to compete with the incumbent. Operators need to be able to make tickets available to customers. It is not enough for new entrants to obtain access to tracks, they also need access to ticketing areas and services.
40. This paper focuses on how the challenges identified in the European Commission's Report have been overcome in national or regional systems employed in the IRG-Rail member countries. IRG Rail especially addresses three challenges: commercial requirements, fragmentation of the systems, and digital solutions.

3.2.2. Commercial requirements

41. To fulfil the commercial requirements of an integrated ticketing system, sale of tickets by other parties than the operator of the specific journey would need to be possible: Every market participant should be able to sell tickets and therefore be granted the necessary access to data and booking systems (partial integrated ticketing, "a combination of tickets").
42. The Commission's report presents the phases and functions that need to be guaranteed for integrated ticketing and concludes that the *"single-ticket offer is complex and costly to implement, as it includes not only technical agreements, but also business and political agreements. It requires transport operators to circulate ticket prices for all segments. Additionally, it necessitates the development of a common ticketing scheme, with common processes to fulfil and control tickets, either at gates or on board. The parties involved must agree on commissions to be paid to the lead retailer. Further, the parties must conduct settlement and clearing."*

A contractual agreement on the split of revenues (e.g. regional tariff associations) is needed: Either by a bilateral (or multilateral if more than two operators are involved) contract or by connecting all operators via a neutral, independent and open hub. The latter may enable new entrants to join the through-ticketing network without the need for multilateral negotiations.

3.2.3. Fragmentation in national and regional systems, geographical and demographical challenges

43. The Commission's report also addresses the current fragmentation across the EU, as countries have developed national and regional ticketing systems and cultures.
44. The report highlights the geographical and demographical challenges: *"The results of the research, including the practical examples, demonstrate that integrated ticketing is currently operated on long distance transport (such as rail-air-shipping integrated transport) or at the local level (integrated ticketing in metropolitan areas). Empirical evaluation seems to suggest that long-distance and local/urban integrated ticketing do not cooperate effectively."*

3.2.4. Digital Solutions

45. Digital platforms and solutions are essential for integrated ticketing systems. Digitalization creates opportunities for the railway markets to create passenger-oriented ticketing systems that surmount the aforementioned obstacles. As integrated ticketing requires digital booking and payments, digital infrastructure is a prerequisite for seamless multimodal travelling. The difference in digital development will have an impact on adaptation. The Commission's report concludes among other things that each element of the travel chain requires access to different data in order to perform the service. Therefore, for customer-friendly integrated ticketing and payment systems to be implemented successfully, access to data (both static and dynamic) is essential.⁷ IRG-Rail believes standardized interfaces to be a basis that has to be created to enable a common, accessible ticketing system. To make this possible across a digitally diverse Europe, standards need to be agreed upon and put in place in order to make integration of new adopters into such a system easier and more affordable- although initial investments will be needed.
46. The following examples show how IRG-Rail Member States have dealt with ticketing challenges:

According to the national legislation in **Finland**, a provider of the road or rail passenger service shall provide access to the sales interface of its ticket and payment system for providers of connecting services and transport services. Purpose of the legislation is to enable other service providers (e.g. MaaS providers) to sell tickets to the services of those road or rail passenger service providers in order to establish combined transport service packages.

MaaS providers can decide for themselves which RUs to include in or exclude from their door-to-door journeys. The incumbent is one of the transport service providers, even though it is currently the only operator of railway passenger services in the country. Its long-distance tickets can be bought through its own channels or through at least one MaaS operator. However, the incumbent does not sell tickets for the Helsinki Region's commuter trains.

With effect from 1 January 2018, **Norway** introduced a central regulation on ticketing for railway transport. The regulation obliges railway undertakings to utilize a system approved centrally, and to submit travel information as decided centrally. Furthermore, the railway undertakings must pay a fee for joining and use an electronic ticketing support system. In effect, the regulation facilitates availability of travel information and tickets for consumers through the state owned Entur-platform.

The centralized travel information and ticketing system is organized under a company owned by the Ministry of transport, Entur AS, and called Entur ("one trip"). Entur AS' tasks are also specified by the Railway directorate, which is a directorate organized under the Ministry of transport, and which is also the competent authority procuring public services on the national railway network in Norway.

Public transport companies in **Sweden** must provide information about their traffic to a common information system according to the Public Transport Act. The information must be submitted to Samtrafik AB, which has a coordinating role by the government to create a coherent system for

⁷ Page 71

tickets that combine travel with several operators. Samtrafiken is a collaboration between 21 regional transport authorities and more than 30 commercial train and bus companies.

Ticketing systems provided for by the Mobility act "LOM" (n° 2019-1428 of 24 December 2019) in France.

Under the Mobility Act, the Transport Code (Article L.1115-10) provides that Mobility organising authorities (AOM) or private operators (whether or not they are transport providers themselves) now may create "digital multimodal services" (service numérique multimodal "SNM"), allowing the sale of mobility services, parking services or services provided by a central booking office.

Two types of sales are possible for the SNM:

- The first consists of the sale of the products of these services, applying their conditions of use, pricing and reservation. The SNM can then carry out this sale by right, without the need to obtain the agreement of the service manager. Indeed, in this case the LOM has created a right of access to ticket sales interfaces for SNMs. This only concerns certain services specifically identified in the law, but whose scope of application is broad (for example: regular public passenger transport services, bicycle, scooter or car-sharing services organised by a public person or a private operator, rail passenger transport services of national interest, intercity services by coach or rail with a regional scope, private hire platform, car-sharing platform).
- The second type of sale consists of the sale of services at the price set by the SNM, as well as the sale of its own products, which makes it possible to offer integrated mobility solutions. In this case, the SNM must obtain the agreement of the relevant service manager to sell its products.

By this law, obligations are created for both service manager and SNMs: the first must provide access to the SNMs to their ticket sales interfaces, allowing them to sell their transport offer; the second must ensure the service manager's transport offer will be referenced in a clear and non-discriminatory manner. A contract must be concluded between the SNM and the service manager to set the technical and financial terms and conditions for the sale of its products.

As the decrees implementing these provisions have not yet been adopted, no practical application has yet occurred.

It is noteworthy that the French State, after having initially faithfully transposed Article 13 (a) of the Directive into the Transport Code (Law No. 2018-515 of 27 June 2018), finally chose to repeal the transposition provision in order to create a legislative framework on ticketing which is much broader than the one provided in Article 13 (a). Noticeable differences between the European and the French legal framework for ticketing can be underlined. Indeed, where Article 13 (a) of the Directive 2012/34/EU provides that Member States may require railway undertakings operating domestic passenger services to participate in a common information and integrated ticketing scheme for the supply of tickets, through-tickets and reservations, the ticketing system provided by the Mobility Act is on the contrary applicable to various mobility forms and does not require the operators to participate to a common and single multimodal system, but offers the possibility to create several SNMs.

4. Competences of regulatory bodies

47. Most members of IRG-Rail do not have specific ticketing competences other than those envisaged in Directive 2012/34/EU. Enforcing of passenger rights is the responsibility of the body established under Regulation (EC) No 1371/2007⁸. In some cases, RBs are also national enforcement bodies under that regulation (e.g. in Austria, Croatia, Hungary, Italy, Poland, UK). This body deals with complaints related for instance to ticket reimbursement and compensation. In other still (Italy), regulatory bodies are also responsible for regulating transport services, particularly as it regards the allocation process.
48. The main role of regulatory bodies is centred on monitoring the competitive situation in the rail services markets, ensuring that there is no discrimination between infrastructure managers and service facility operators on one side and railway undertakings on the other side by ensuring compliance with the provisions of Directive 2012/34/EU. Ticketing services in passenger stations are part of the ancillary services outlined in Annex II of that Directive, a feature that, in its turn, raises the issue of guaranteeing that all interested parties have fair and equitable access to them.
49. Regulatory bodies are also responsible for handling complaints as appropriate. They can intervene in the event of a complaint for unfair treatment or discrimination (for example regarding the location of ticketing offices in stations or station areas). In addition, some regulators have also further powers and responsibilities under competition and consumer law supporting their supervisory activities.
50. Delegated Regulation (EU) 2017/1926⁹ on EU-wide multimodal travel information services establishes a National Access Point, with a series of obligations for transport authorities, transport operators and transport providers, intending to facilitate the development of multimodal travel information services, but without provisions directly relating to ticketing. Also, Article 9 establishes a compliance mechanism to ensure compliance with these obligations, which shall be carried out by a "competent authority", avoiding a possible conflict of interest.
51. Some examples of regulatory bodies' involvement in ticketing issues are outlined below:

ART FR was recently awarded new powers in relation to multimodal ticketing following the revision/introduction of new legislation (LOM) to ensure the proper functioning of the multimodal ticketing system. The LOM decree/law awarded ART FR the power to settle disputes relating to the implementation of the legal provision regarding multimodal ticketing systems (Article L. 1263-5 of Transport Code). ART FR has also the ability to initiate infringement procedures in case of non-compliance with the regulation on digital multimodal services, which can lead, after formal notice to comply, to a financial penalty (Article L. 1264-7, 12° of Transport Code). In order to exercise these new powers, ART FR has been given investigation powers (research, infringements stating by accredited officials) and access to relevant documents.

⁸ This regulation is undergoing a revision (now complete).

⁹ Commission delegated regulation (EU) 2017/1926 of 31 May 2017 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services

As some of the decrees that must specify the functioning of this multimodal ticketing system have not been adopted yet, ART FR has not had yet the opportunity to exercise these new competencies.

Italian regulatory body (ART IT)

As highlighted in paragraph 39, from the perspective of railway undertakings, fair and non-discriminatory access to tracks as well as to ticketing areas and services are both crucial. As mentioned above, the issue of ticketing (including integrated ticketing), is not only relevant where the responsibilities are exercised with respect to the regulation of services, but also where such responsibilities pertain to the regulation of access to infrastructure.

From a different perspective, passengers using services provided under an integrated ticketing system demand a clear and effective system of responsibility for complaints and damages.

Regarding the first instance, in Italy, based on Article 37 (2) (a) of the decree-law establishing it (no. 201/2011), ART IT adopted regulatory measures concerning station areas (including ticket sale areas) within the framework of its first umbrella decision introducing ex ante rail regulation (no 70/2014). In particular, Measure 10.6.1 of the decision provides that railway undertakings operating passenger services shall have access to station areas (including those for ticket offices and ticketing machines) under transparent and non-discriminatory conditions so as to ensure equal and adequate visibility and accessibility to passengers, thereby overcoming the application of a strict proportionality criterion based on the volume of historical traffic: a decision that was later upheld in Court.

After a few years, evidence of the need to ensure fair and non-discriminatory access to station areas as regards the location of ticket offices and ticketing machines as well as to identify objective criteria for handling conflicting requests and/or complaints called for further regulatory intervention. As a result, new provisions were introduced within the framework of ART IT's decision No 130/2019 on access to service facilities and rail-related services, executing, inter alia, Commission Implementing Regulation (EU) 2017/2177 of 22 November 2017. In particular, Measure 11.1 of the decision provides that "available areas and services shall be allocated to any undertaking operating in rail passenger services on the basis of transparent and non-discriminatory criteria, at the station where it provides or intends to provide its services, for the supply to its customers of ticketing services (automatic and not), reception and assistance to passengers and information desks. These criteria should ensure equal and adequate visibility and accessibility for travellers to all undertakings concerned". Measure 11.5 provides criteria to solve conflicting requests for the allocation of station areas (including both manned and unmanned ticket offices), whereas Measure 11.6 concerns the plan of the station. ..Concerning passengers' rights, in accordance with the recently adopted Regulation (EU) 2021/782 of the European Parliament and of the Council of 29 April 2021 on rail passengers' rights and obligations, ART IT is currently enquiring into the definition of a reimbursement system to be applied to integrated ticketing.

5. Conclusions

52. The present paper shows the variety of existing ticketing systems across Europe despite a common legal framework provided, in particular, by Article 13 (a) of Directive 2012/34/EU in the railway sector. In view

to this variety, the present paper attempts to classify ticketing systems and mobility platforms into clusters ranging from simple information provision to Mobility as a Service (MaaS) at the regional, national or international level, including multimodality. Even though each system aims to contribute to improved mobility and seamless public transport systems that would enable multimodal, cross-border and door-to-door mobility options, some challenges remain, including barriers to entry for new entrants as recalled by the European Commission in its report on "Remaining Challenges for EU-wide Integrated Ticketing and Payment systems". In this context, considering regulation 2021/782, especially articles 10 and 12 and as the revision of the Intelligent Transport Systems Directive 2010/40/EU is expected to result in a legislative proposal including a "multi-modal ticketing initiative" in 2021, the question arises as to the place of Article 13 (a) of Directive 2012/34/EU in the future. The Commission's report to the European Parliament and the Council on the availability of such common information and through-ticketing systems, that should be presented by 31 December 2022 under Article 13 (a), could be a relevant opportunity to provide some answers regarding the implementation of this article for the future.

Annex

This Annex provides additional information to several chapters of this paper. The additional information is referred to in the text. To simplify the assignment, the headlines of the corresponding chapters are mentioned.

1. **Regarding Chapter II., Introduction to Ticketing:**

For the defined clusters, we regard railway transport as the starting point: If not mentioned otherwise, railway is the transport method in focus. Nevertheless, any of the ticketing clusters can have a multi-modal dimension where the passenger uses different modes of transport to get from the origin of his journey to his/her final destination.

2. The purchase of a ticket directly from the operator offering the service through its traditional channels is a basic scenario that can be ranked before centralised/shared information on the transport offer of multiple operators. As this is a very basic feature that can be found in all cases, it is not mentioned separately in the ticketing clusters. The logic pursued with the approach described in chapter II. is to describe the possible ticketing solutions from the less to the most integrated, bearing in mind that the components required in each cluster are included in the next one.

3. **Regarding Chapter III. A, Challenges and issues already raised by ticketing in some countries, Sweden:**

Case sj.se MTR Express and Saga Rail - Online sales and brokering of train tickets (decision dated 4th of June 2019, Dnr 230/2018, 380/2018)

"Issues in an open-access environment"

Background

In 2018, the Swedish Competition Authority received two complaints against SJ (the Swedish passenger incumbent). The complaints concerned SJ's conduct towards MTR and Saga Rail (non-incumbent RU's) in the online sale and distribution of train tickets, which, according to the complainants, affected the rail market. The contested procedure consisted in SJ not allowing the sale of MTR and Saga Rail passenger train tickets through its digital sales channels. According to the appellants, SJ's conduct constituted an infringement of the rules on the abuse of a dominant position in the national Competition Act and in the TFEU. SJ provided its sales channels only to traffic operators that SJ deemed complementary and benefited SJ's sales of its own tickets. In its evaluation of MTR's and Saga Rail's activities, SJ had assessed that the activities of these companies did not complement or benefit SJ's own offering, which is why the companies were refused to sell their tickets through SJ's online channels.

Claims theories

The wide range enjoyed by SJ's online channels is natural in that SJ, as a former monopolist, is the single largest passenger train operator in the country, while the other passenger train operators operate only on individual routes. The Swedish Competition Authority's investigation also showed that SJ accounted for a large part of commercial passenger train traffic and an even larger share of ticket sales, which is why it was important for commercial train operators to be able to sell their tickets through SJ's online channels. A train operator risked being excluded from SJ's online channels in the event that the operator's offering changed, thereby moving them from complementing and promoting SJ's own sales to being a competitor. As a result, train operators had limited incentives to expand or improve their

offer to consumers. Therefore, a company wishing to sell its tickets through SJ's online channels could not fully compete with SJ. The train operators deemed by SJ to be competitors, and therefore not given access to SJ's online channels, could either accept higher marketing expenditure, or offer significantly lower prices, or a combination thereof, if they wished to gain market shares. Potential competitors thus had to expect that it could take a long time to achieve profitability. The procedure therefore meant that SJ increased the entry and expansion costs of its competitors.

In addition, the Swedish Competition Authority's investigation showed that SJ's online channels exhibited characteristics typical of platforms with strong network effects. Network effects in terms of the number of possible connection journeys risked binding customers to SJ's online channels, as SJ's journeys are such an important part of the offering and especially as SJ can refuse to offer its trips on competitors' booking sites. Such a situation could constitute an entry barrier in the commercial passenger train travel market, on which SJ is also the largest operator. The Swedish Competition Authority's decision shows that SJ's online channel was not considered competitively neutral. The investigation showed that SJ, through its position as the central sales channel for train tickets, had intermediation power and was able to direct consumers to buy SJ tickets over competing companies' tickets. The online channel was primarily designed to promote SJ's products through, among other things, filtering, loyalty programs and other offers. SJ also controlled the layout of the channel. Trade marks for services performed by complementary and promoting train operators were not exposed and marketed in the same way as SJ's own traffic. As a result, brand awareness, which is central to building loyalty among consumers and competing effectively, was negatively affected.

Outcome

The Competition Authority's investigation showed that market conditions for ticket booking in commercial passenger train traffic risked reducing competitive pressure as they led to barriers to entry and expansion, thereby raising barriers to entry. In addition, the sale of other train operators' tickets through SJ's online channels risked hampering the innovation and development of competing companies, as access to SJ's channels reduces incentives to develop and improve their own sales channels. An intervention to the effect of requiring SJ to allow certain other commercial train operators to sell tickets through SJ's online channels would therefore risk consolidating the strong position already held by SJ's non-neutral sales channels. The Competition Authority therefore considered that such intervention would not be effective in order to achieve well-functioning competition. The Competition Authority made the same assessment as regards the possibilities for resolving the observed competition problems through a prohibition appeal under the so-called conflict resolution rule.

Application of the Competition Act to the case.

The investigation showed that the current conditions regarding the sale of tickets for commercial passenger train travel created barriers to entry and expansion. However, the Swedish Competition Authority considered that an intervention under the Competition Act would not be effective. Instead of intervention, the Swedish Competition Authority therefore proposed in a letter to the Government to have the need and design of regulation in the area of the sale of tickets for train services investigated. In the letter to the Government, the Swedish Competition Authority presented how ticket sales in commercial passenger train services are best designed and regulated. In particular, it was pointed out that ex ante regulation can be an effective tool in the event of a suspicion of significant and lasting

upstream market power (in this case online ticket sales) having a negative impact on downstream competition (in this case commercial passenger train traffic). There are different types of physical infrastructure that are regulated in this way in Sweden, such as electricity distribution networks, broadband networks and rail networks. The Swedish Competition Authority's assessment was that SJ's online channels could help maintain a significant and lasting market power for SJ upstream, with negative effects on downstream competition. Therefore, the Swedish Competition Authority stated in its letter that ex ante regulation at the ticket sales stage may be justified.

4. **France:** Decision of the French competition authority on practices implemented in the train ticket distribution sector

Outcome:

In a decision dated 2 October 2014 (No. 14-D-11), the competition authority of France accepted twelve commitments made by SNCF to meet the competition concerns identified by the competition authority in the train ticket distribution sector.

SNCF has especially committed to:

- Apply billing conditions similar to the ones of its subsidiary “voyages-sncf.com” to all competing travel agencies.
- Limit the access price to certain technical interfaces to facilitate for agencies to offer, as “voyages-sncf.com”, the full range of SNCF transport services.
- Guarantee the confidentiality of requests from competing travel agencies by substantially reforming its organisation in order to put an end to the lack of boundaries between the subsidiary “voyages-sncf.com” and SNCF, which collects requests for access to the ticket distribution system from travel agencies.
- Change its website so that it no longer favours its subsidiary “voyages-sncf.com” reservation site by offering access to timetables without reference and without referring to the “voyages-sncf.com” website.

These commitments have been proposed for an indefinite term with a rendezvous clause 5 years after their implementation.

On 16 December 2020, SNCF requested a review of four of the twelve commitments taken in 2014. The requests for review relate to the following commitments:

- the obligation of access to train ticket distribution tools by the travel agencies and intermediaries offering ticket reservation engines: SNCF considers that this commitment is no longer justified for "distributor" tools (with the exception of "carrier" tools, i.e. tools developed by the carrier and not technically duplicable by a distributor or supplier of distribution tools). Indeed, the development of competition in the rail ticket distribution market since 2014 and the provisions of the LOM (Mobility Act) adopted in December 2019 encourage the development of multimodal digital services and thus enable the sale of mobility services;
- the reorganisation of SNCF's technical interfaces that allow travel agencies to access SNCF's information systems for the sale of train tickets: SNCF considers to be forced by this commitment to maintain in operation tools with almost no more users due to their obsolescence, when relevant alternatives exist;
- the communication to the competition authority of each new tariff grid applicable to the selling of the Business Portal (channel for distributing train tickets to business customers) at least one month before its entry into force: SNCF considers that this commitment poses disproportionate and

- unjustified practical constraints for individualised offers (in response to private or public calls for tenders) and proposes new methods of communication;
- the dissociation, on SNCF's websites, between train timetables and ticket reservations: SNCF considers that maintaining this commitment is no longer justified, due to the opening up of mobility data with the delegated regulation (EU) No. 2017/1926 of 31 May 2017 relating to the provision, throughout the Union, of multimodal travel information services, as well as the LOM. SNCF points out that all market players will have fair and non-discriminatory access to transport data in the short term and that they will thus be able to develop and offer services combining information and distribution.

The competition authority launched a public consultation, which ended on January 20, 2021 in order to allow interested third parties to comment on this demand.