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# REMAINING CHALLENGES FOR EU-WIDE INTEGRATED TICKETING AND PAYMENT SYSTEMS

Executive Summary

February 2019

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## Introduction

The scope of this study is to investigate and provide a comprehensive and neutral analysis on the challenges of delivering EU wide integrated ticketing and payment systems and what possible actions and initiatives at EU level could be foreseen in pursuance of such goal.

The purpose is to make a multimodal transport more attractive for users and to promote a more efficient use of existing infrastructure and services. It is a prerequisite for seamless multimodal door-to-door journeys. Integrated ticketing can be defined as the purchase of a single ticket that allows passengers to travel using different mode(s) of transport provided by one or more operator(s)<sup>1</sup> or as “combining all transport methods in one single ticket” and is considered as the natural partner to full availability of multimodal travel information and planning services<sup>2</sup>.

This definition is not generally shared by all the stakeholders: other selling modalities, such as combined tickets allowing for a connected journey should be taken into account. The combined selling of various tickets from different operators would solve some of the problems arising from integrated ticketing, in particular those relating to the liability of various transport operators.

Integrated ticketing requires performance of a number of phases as well as the intervention of various players in order to guarantee the lifecycle of the travel chain. The value chain can be divided into back office and transport value.

Back office value includes:

- *Application Programming Interfaces (APIs)*: interfaces supporting all distributed journey planning and ticketing, available to authorised users (or open to all users).
- *Interoperability*: common standards to facilitate integration between different ticketing schemes.
- *Product search/product query*: the user is searching for information concerning the journey, timetable, price, best option/combination. This may include also travel planners (e.g. on the mobile phone) to find the right route, means of access, and to order the ticket for this route at the same time.
- *Booking/preliminary reservation*: the user has selected the journey he/she needs and submitted a reservation.
- *Payment and Clearing*: the journey is paid via credit/debt card or via other digital payment/wallet and the payment is cleared.
- *Revenue sharing*: the revenue is distributed between the different actors of the transport chain.

Transport value includes:

- *Validation*: common validation rules for integrated tickets.
- *Transport service*: the transport operators included in the journey selection perform the requested services.
- *Change of reservation/Delay/Error*: re-routing or changes in case of errors or delays.
- *Complaints' managements*: a single point to manage passengers' complaints.
- *Compensation*: in case of errors or delays.

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<sup>1</sup> INTEGRATED TICKETING ON LONG-DISTANCE PASSENGER TRANSPORT SERVICES, European Parliament Study, 2012, page 15.

<sup>2</sup> Towards a roadmap for delivering EU-wide multimodal travel information, planning and ticketing services, SWD (2014) 194.

The development and implementation of integrated ticketing schemes is fairly heterogeneous across the European Union (EU). The level of integration may diverge significantly throughout the regions of the same country<sup>3</sup>. There are a lot of examples of electronic and smart ticketing, developed as part of EU-funded research projects or provided by different transport operators, start-ups or public-private partnerships. However, a full integration has not been achieved, meaning that it is not possible to buy a integrated ticket for a multimodal journey across Europe and thus to ensure an EU-wide door-to-door coverage.

## Legislative framework

### EU legislation

We have analysed the EU legislation which is relevant for the integrated ticketing and payment services.

- *Directive 2010/40/EU (ITS Directive)*

The EU adopted Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport-

The ITS Directive aims at accelerating the coordinated deployment and use across Europe of intelligent transport systems in road transport (and interfaces with other modes). Its objective is the provision of full, accurate and real-time traffic information to passengers, via a data collection system involving Member States, carriers, management bodies and service operators. the Directive identifies a list of six priority actions encompassing: a) the provision of EU-wide multimodal travel information services; b) the provision of EU-wide real-time traffic information services; c) data and procedure for the provision, where possible, of road safety related minimum universal traffic information free of charge for users.

Its potential impact on multimodal passengers is that access to the relevant information by multimodal passengers might help them anticipate or partially counter the knock-on effect that a disruption affecting one mode of transport might have on the others.

Five delegated acts have been adopted after the entry into force of the ITS Directive. Among them, the Regulation (EU) 1926/2017 on the provision of EU-wide multimodal travel information services<sup>4</sup>. The Regulation establishes the specifications necessary to ensure the accessibility, exchange and update of standardized travel and traffic data and distributed journey planning for the provision of multimodal travel information services in the European Union. Ticketing is not fully within scope.

- *Public Service Obligations (PSOs)*

Public service obligations are established by Member States. However the EU has adopted various measures laying down the procedures and conditions they apply to the execution of PSOs. The main scope of EU PSOs regulations is to provide transport services on routes where there are no commercial interests of private operators but the routes are essential for the development of the areas. The PSOs rules complement public procurements and lay down conditions under which compensation payments are deemed compatible with internal market and State aid rules.

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<sup>3</sup> The use of intermodal transport is for example more pronounced in Italian cities with populations of more than 100.000. In Poland the Warsaw City Card and ticket system is the most advanced (and oldest) system of this type and covers the largest amount of modes of transportation (trams, trains, buses, metro and city bike-sharing program).

<sup>4</sup> Delegated Regulation 2017/1926 on Intelligent Transport Systems (ITS)

For road and rail transport, PSOs and compensation are laid down by Regulation (EC) No 1370/2007<sup>5</sup>.

Regulation No 3577/92<sup>6</sup> includes PSOs for maritime cabotage, to maintain appropriate scheduled maritime transport of passengers and goods to and from or between islands.

Air Services Regulation 1008/2008<sup>7</sup> lays down the conditions for MS to impose PSOs to maintain appropriate scheduled air services on routes which are vital for the economic development of the region they serve.

- *Distribution networks - CRS*

The Computerised Reservation Systems (CRSs - also known today as Global Distribution Systems – GDSs) act as technical intermediaries between the airlines and the travel agents and provide their subscribers with instantaneous information about the availability of air transport services and the fares for such services and permit travel agents to make immediate confirmed reservations on behalf of the consumer. Notably Regulation 80/2009<sup>8</sup> ensures that air services by all airlines are displayed in a non-discriminatory way on the travel agencies' computer screens and introduce enhanced rules for the protection of passenger/personal data.

- *Payment Service Directive (PSD2)*

The PSD2 is analysed because it provides for new payment systems which can be integrated in ticketing, but also because is an important EU milestone in the sharing of banking data. Therefore, it could represent a possible model for further initiatives on data sharing.

The Payment Service Directive,<sup>9</sup> revised in 2015 (PSD2), has provided EU-wide harmonisation of payments services aimed at increasing the security for payment transactions and account information and creating a level playing field to enhance competition, opening the payment services to new non-bank providers.

Amongst other things, it introduces the Third-Party Provider (TPP) as a definition to regulate new payment services. Two new types of TPPs are introduced, namely Account Information Service Providers ('AISPs') and Payment Initiation Service Providers ('PISPs'). Both AISPs and PISPs will have to comply with the regulatory requirements under PSD2. Both AISPs and PISPs will have to comply with the regulatory requirements under PSD2.

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<sup>5</sup> Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC) Nos 1191/69 and 1107/70, OJ L 315, 3.12.2007.

<sup>6</sup> Council Regulation (EEC) No 3577/92 of 7 December 1992 applying the principle of freedom to provide services to maritime transport within Member States (maritime cabotage), OJ L 364, 12.12.1992.

<sup>7</sup> Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community (Recast) (OJ L 293, 31.10.2008)

<sup>8</sup> Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems and repealing Council Regulation (EEC) No 2299/89 (Text with EEA relevance) OJ L 35, 4.2.2009

<sup>9</sup> Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC, OJ L 337, 23.12.2015.

Banks are obligated to open up their IT infrastructure to TPPs (Open APIs) in order to facilitate data sharing concerning bank transactions (mortgages, credit cards, subscriptions, any other payment including transport services paid via credit card or debit cards) with TPPs which intend to use the data to create new products. The data transfer requires the authorisation of the account holders.

Through the initiation of PSD2, innovative payment services companies are given a suitable tool to compete with the banks.

- *Open data (PSI Directive)*

The Directive 2003/98/EC<sup>10</sup> (PSI Directive) on the re-use of public sector information establishes a minimum set of rules governing the re-use and the practical means of facilitating re-use of existing documents held by public sector bodies.

Against this background, in 2018 the European Commission adopted a proposal for a revision of the PSI Directive<sup>11</sup>. This was presented as part of a package of measures aiming to facilitate the creation of a common data space in the EU.

For what is of interest for the study, the Proposal aims at filling in a gap and to overcome the barriers that still prevent the full re-use of public sector information. Notably, if adopted, it will increase the availability of data by bringing new types of public and publicly funded data into the scope of the Directive, such as data held by public undertakings in the utilities and transport sectors.

EC Proposal on EU Regulation on promoting fairness and transparency for business users of online intermediation services

The Commission adopted the abovementioned proposal in May 2018. Providers of online intermediation services and online search engines are required to implement a set of measures to ensure transparency and fairness in the contractual relations they have with online businesses which use such online platforms to sell and provide their services to customers in the EU. The proposal intends to ensure a fair, transparent, and predictable treatment of business users by online platforms, to provide business users with more effective options for redress when they face problems, and to create a predictable and innovation-friendly regulatory environment for online platforms within the EU.

- *Competition law*

Integrated ticketing requires cooperation between operators who might be to some extent competitors in the same market, i.e. covering the same route. Within such cooperation, sensitive information might need to be shared among operators. This needs to be done within the limits set by the EU and national competition law. It is worth noting that the 2009 EC Guidance on abusive exclusionary conduct by dominant undertakings and the Horizontal Guidelines on Article 101 TFEU provide clarifications to undertakings concerning possible anticompetitive behaviours.

## National legislation

The legal mapping of current legislative initiatives on integrated ticketing at national level showed that six Member States have adopted or have submitted legislative proposals covering integrated

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<sup>10</sup> Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information OJ L 345, 31.12.2003

<sup>11</sup> Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the re-use of public sector information (recast), COM/2018/234 final - 2018/0111 (COD).

ticketing. In most cases, this mainly stems from the national implementation of Regulation (EU) 1926/2017.

At present, the only comprehensive legal framework has been adopted in Finland. The Finnish Act on Transport Service<sup>12</sup> contains provisions on the opening of interfaces for normally priced single tickets in road and rail traffic. The Act on Transport Services provides the new concept of “*acting on another’s behalf*”, which aims at creating preconditions for easier use of mobility services. The objective of data regulation, included in the Act on Transport Services, is to focus on the user of services and thus enabling to create uniform door-to-door trip chains. The new Act requires all public and private transport service providers to open an API (Application Programming Interface) in order to allow the integration of all transport modes into one holistic system and the creation of a seamless travel chain that can be paid by means of one mobile system.

The French Draft Bill presented in November 2018,<sup>13</sup> requires the opening of mobility data, on a real time basis, and accelerates the European timetable by providing data concerning part of the network which is not integrated into the trans-European transport network. Financial compensation may be requested from the user of data when the volume of data transmitted exceeds the threshold that will be defined by a decree of the Council of State. The article requires the regions and cities to be entrusted with the task of facilitating the process of opening up data and forwarding such data to a single digital interface (national access point) which will record all the mobility data.

A similar Draft Bill was presented in Denmark in December 2018<sup>14</sup>, with the purpose to regroup the functions of the travel card and the travel plan together in one digital mobility service under one company managed by a joint board. The joint company shall provide for the integration of the travel plans and the travel cards as products and services, in order to ensure a targeted and common strategy for a comprehensive digital service and a total prioritization of development initiatives for both products. Under the Danish Draft Bill, public transport companies shall provide selected static and dynamic transport data to third parties free of charge.

Governments of a growing number of countries are interested in promoting ticket integration and in some cases a number of specific projects are underway and a new legislation is being discussed or drafted (Estonia, Hungary, Croatia).

Concerning non-legislative initiatives, it is worth mentioning the UK “Public Transport Ticketing Schemes Block Exemptions”<sup>15</sup>, adopted by the Competition and Markets Authority in 2016 order to clarify, from a competition law perspective, what is allowed in integrated ticketing schemes, especially in terms of sharing price information. Their purpose is to help operators, local authorities and scheme administrators to assess compliance of ticketing schemes with competition law.

## Existing projects in integrated ticketing

Currently, a truly cross-border integrated ticketing scheme does not exist. All the analysed projects are national or local in scope. However, a clear interest towards an EU-wide integrated ticketing system emerges from the existing projects, although challenges and barriers need to be addressed in

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<sup>12</sup> Act on Transport Services of 1 July 2018:<https://www.lvm.fi/lvm-site62-mahti-portlet/download?did=246709>

<sup>13</sup> Projet de loi d’orientation des mobilités (LOM), NOR : TRET1821032L/Bleue-2.

<sup>14</sup> L 129 Proposal for a law amending the Danish Transport Companies Act and the Railway Act.

<sup>15</sup> Competition Act 1998 (Public Transport Ticketing Schemes Block Exemption) Order 2001.

order to develop an EU-wide multimodal journey planning services. On the other hand, stakeholders seem to be more reluctant to accede to integrated ticketing if no commercial benefits are envisaged.

For the purposes of the Study, 11 projects (including EU-funded projects) with a cross-border scope (all across the EU, except for the BMC project, whose subject-matter are the border regions of Belgium, France, Germany and Luxembourg) were analysed to identify barriers and solutions. These projects have evidenced the same problems as those under the literature review (price integration, regulatory uncertainties, technological challenges, lack of cooperation). These barriers and challenges are mainly related to data access and cooperation between stakeholders. However, based on the examined projects and the initiatives in the sector, no technical show-stoppers to achieving interoperability between travel providers systems was registered.

As to national-wide integrated ticketing projects, which have been reported by the stakeholders and emerged from the desk research, the Netherlands are a pioneer country in integrated ticketing and smart payments for all transport modes. The OV-chipkaart was launched in 2001 and is a contactless smart card for public transport that can be used on any bus, train, tram and subway within the Netherlands. It is managed by Translink, a consortium among the largest transport operators in the Netherlands. A trial started in 2019 to switch to direct use of contactless credit cards for ticket payment.

Similarly, Sweden has been a forerunner in national multimodal ticketing of long-distance rail services and public transport services, available in the country since 1994 under the name of “Resplus”. A considerable number of actors thereby have the possibility to sell multimodal trips to end-customers, with all the necessary information on the same ticket. The system is managed by the company Samtrafiken, appointed by the Swedish Transport Agency to manage the common traffic information database to which all public transport companies are required, by law, to submit data on their supply (timetables, lines including stations and stops). Through Resplus, traffic data, stops and lines are hence collected into a national database that is linked to national sales system. In addition, all passengers also have a “reach your destination warranty”, where the carriers jointly guarantee that passengers will reach their final destination, even if traffic disturbances occur, no extra charge applied.

For many years now, interoperability has become crucial also for German ticketing. Central to the German transport system is the zoning which is the foundation upon which ticket charges are based. Ever since 2003, the Association of German Transport Companies (VDV), together with partners from industry and transport operators, took action and created a nationwide, standardised electronic fare management system, and kicked off the VDV Core Application. As a result, the whole system is integrated in Germany. Each transit company operates within an alliance (Verkehrsverbund) which sets pricing and ticket types and they must offer and accept the same types of tickets across the network. Therefore, within each of these integrated public transit alliances, buses, trams and trains operate seamlessly within the network, working under the same tariff rules.

Another example is Denmark, where the vast majority of tickets sold for public transport today allow access to bus, train and metro; that is, one ticket for a single journey. The parties cooperate on the electronic travel card called Rejsekort. The system was developed by DSB, HUR, Ørestadsselskabet, together with various regional bus companies. It replaced the old zone ticket system, and allows fares to be calculated from the distance starting from the beginning of the journey to the end.

The Belgian ticketing system is card-based as well. In the Belgium federal context, transport competences are shared among four entities. Although there is no regulation requiring transport

operators of domestic passenger services to participate in common information and integrated ticketing schemes for the supply of integrated tickets, the four public transport operators entered into an agreement to develop a common card, i.e. the MoBIB card, and related exchange mechanisms. The card is managed by a private company (Belgian Mobility Card) established in 2010 and owned by those four public transport operators.

Another example is the integrated ticketing scheme for public transport launched in Dublin and subsequently extended nationwide, which is the Leap Card. The scheme is operated and maintained by the NTA. It was launched in 2012 following nine years of preparation, to allow travellers to switch between Dublin Bus, Luas, Dart, Irish Rail DART and commuter rail services as well as certain Bus Éireann services and Wexfordbus services, using one card.

## Passengers' panel

A passenger panel was launched in order to assess the passenger experience of EU-wide integrated ticketing and the availability of existing integrated ticketing schemes in relation to their needs and expectations. 520 passengers have been recruited through an online consumer panel with a balanced geographical distribution within the EU. Passenger experience typically includes a complete set of activities, ranging from the booking phase to the arrival at the final destination. The consumer panel's findings were complemented with in-depth interviews with passengers' associations and consumer organisations specialising in travelling.

The survey has shown that respondents heavily rely on three main means of transport, namely railway transports, cars (whether rented or shared) and airplanes. Respondents that have already used a single integrated ticket and those who were not yet able to use it seem to agree that the top three benefits of such a ticket are (i) lower prices and more promotions, (ii) easy booking and (iii) guaranteed journey connections. Respondents rated their multi-modal travel experience so far as good and seemed particularly satisfied with the time-saving possibilities offered by the ticket. However, factors that may improve their experience are cheaper prices and more promotions, the provision of clearer information and the creation of dedicated mobile apps.

## Legal challenges

### *Lack of clear legal framework*

Existing legislation is mainly designed for conventional transport systems, in particular transport modes provided and consumed separately. Since various transport modes and payment systems are involved in integrated ticketing, which are subject to different EU and national provisions, uncertainties exist concerning the applicable legislation especially in cross-border context.

While the ITS Directive and Regulation (EU) 1926/2017 provide the basis for data sharing on multimodal travelling, ticketing remains out of the scope. In this context, as explained above, national legislators have started introducing provisions in order to promote integrated ticketing and payment services.

The absence of a clear framework covering integrated ticketing has been raised by various stakeholders as one of the main legal barriers. In particular, the lack of provisions covering cross-border aspects has been signalled as a relevant concern.

### *Public service obligations*

Under PSOs contracts, the authorities provide public transport on the routes where the operator cannot do business at a profit. The authority negotiates the transport service on the “open” market, publicly and without discrimination. The service quality, the number of lines and transportation units, the level of compensation for providing the services, as well as the rest of their mutual rights and obligations are regulated by contractual provisions.

Depending on how the procurement procedure is organised, in most cases, the organising authority will assume large part of the financial risk associated with the operation, hence it has greater control over how the service shall be organised and provided.

Since the commercial risk is ultimately borne by the organising authority, compensation to transport operator plays a relevant role, especially when the price of the service is lower than the production costs, in order to incentivize the provision of the service.

As explained by various stakeholders, when the level of compensation is part of the selection procedure organised by public transport authority, this has little incidence on how integrated ticketing is organised and how revenues are shared.

However, it can be difficult to integrate compensated mobility services and commercially viable services in order to combine them in integrated mobility solutions. In the opinion of some stakeholders, in certain Member States<sup>16</sup> integration is sometimes not possible due to these core differences among national operators, since private companies are not as bound as the public ones by requirements on data disclosure and exchange, this leading to discrepancies between transport companies in the private and public sector.

On the other side, it has been observed that integrated ticketing seems to work better when the public authority plays a significant role in organising the services, also in connection with PSOs or other exclusive rights granted to certain operators.

This may be explained with the fact that public authority may impose cooperation among the transport service providers as part of PSOs or other granted rights, especially where the organising authority is assuming most of the financial risk associated with the operation of the services, and therefore.

For example, in France, there are many examples of multimodal ticketing involving PSOs: among the 12 regional authorities, 10 authorities have already put in place interoperable travel card that facilitate multimodal transport.

## **Commercial barriers**

The lack of initiatives in integrated ticketing and payment system cannot be considered as market failures, since it is currently difficult to determine the size of the market and the level of the demand.

As clarified by the literature, in order to be successful, integrated mobility services must reach out to a critical mass of users. The customer base should be identified, which on the one hand has sufficient spending power, but on the other hand is big enough to provide the critical mass needed

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<sup>16</sup> Such as e.g. Austria, France.

to make services work. The integrated mobility is therefore attractive for operators where benefits are higher than costs.

Moreover, the results of the examined projects on integrated ticketing focused on specific group of users (cross-border short distance commuters), specific areas (within a city or region) and in some cases, long-distance integrated ticketing, including rail-air travels. Most of these initiatives have the common denominator of being supported (and funded) by the public authorities.

#### *Interoperability and ability to invest*

Integration of ticketing and payment systems requires high investments including for interoperability. This is a particular obstacle for small and medium businesses. Moreover, transport operators with short public service contracts (below 10 years) do not have incentive to invest in innovative ticketing since there is an uncertainty about returns on investments.

A further obstacle reported by the stakeholders is the use of different sales and distribution modes. Indeed, in most cases loose standards are used in ticketing and each ticketing system ends up having its own local specificity and norm. This may certainly hamper ticket integration since a strain will be needed from operators to agree on common standards and technical aspects, including interfaces.

#### *Licence and distribution agreements*

Where interoperable and integrated system already exists, the technology of these systems is proprietary and cannot be accessed by other service providers. Most transport operators are obliged to publish their timetable and fares for information purposes, but there is no obligation to grant third-party access.

Even if data, including fares, are accessible, the owner of the data can lawfully impose contractual limitations to their commercial use. For any type of service, it is necessary, according to stakeholders, to make distinction between the sharing of the data for information purposes and for distribution purposes. For information purposes, both the ITS Directive and the Regulation (EU) 1926/2017 are relevant. For distribution, a commercial agreement is necessary. Distribution agreements are also necessary due to the fact that for rail and air transport, prices are yielded, which means that the price changes based on the demand, the date of departure, and various other factors. Yielded prices are available only to distributors under negotiated agreements.

#### *Large number of stakeholders*

Coordination is also a challenge due to the large number of operators and service providers. If long-distance and urban services are to be combined, this requires separate negotiations with a large number of operators.

#### *Commercial freedom and access to the market*

The uptake of integrated ticketing business models depends on commercial choices of transport operators, vendors and aggregators. These operators may have conflicting interests and, from a legal standpoint a major issue appears to be finding the right balance between ensuring the commercial freedom of transport operators and ensuring access to the market to providers of integrated ticketing schemes.

### *Revenue sharing*

Finding the right balance in revenue sharing appears to be an outstanding issue. Integrated ticketing requires all the participants in the scheme to circulate ticket prices for all segments. The parties involved need to agree on the commissions to be paid for the lead retailer. There is settlement and clearing to be carried out. In the legal survey it was confirmed that integrated ticketing permitting the use of different transport modes with the same ticket requires a complex decisional process, linked to the share of ticket sale revenues.

### *Reputation and assistance to customers*

Another obstacle to integration is related to the one above, and notably the fact that ticket vendors/aggregators do not offer assistance to customers, which might affect the reputation of the providers of transport services.

### *Exchange of information and refusal to supply*

In the distribution/sales market, some respondents in the consultation have mentioned transport operators' refusals to enter into distribution agreements, in certain cases coupled with the market power of the providers of transport services. Control of sales interfaces by incumbents as a means of controlling the relationship with the customer has been mentioned as the reason why such refusals may occur.

A possible commercial barrier which has been identified by the stakeholders is that integrated ticketing and payment systems involves exchange of data and information between competitors, including commercially sensitive information. The exchange may take various forms such as data shared directly between competitors, data shared indirectly through a common agency or a third party or through the companies' suppliers or retailers.

While these commercial behaviours may raise competitive concerns, it must be noted that certain conditions laid down by the EU Court of Justice (CJEU) case law and by the Commission guidance must be met for a commercial conduct to become a competition law infringement. In addition, the European Commission Horizontal Guidelines have provided clarifications to the undertakings to self-assess certain behaviours in order to claim efficiencies.

Concerning the refusal to supply, the CJEU has laid down the conditions under which the it may be considered as abuse of dominant position<sup>17</sup>. Refusal to supply amounts to an abuse of a dominant position when: (a) the refusal is likely to eliminate all competition in the relevant market; (b) such refusal is not objectively justified; (c) the service in itself is indispensable to carrying out the activity.<sup>18</sup>

The CJEU ruled that a product or service is indispensable only if there are no alternative products or services and there are technical, legal or economic obstacles that make it impossible or unreasonably difficult for any undertaking seeking to operate on the downstream market to develop, possibly in cooperation with other companies, products or services.<sup>19</sup> These CJEU requirements would only be met if it is demonstrated that the data owned by the incumbent is truly unique and that there is no possibility for the competitor to obtain the data that it needs to perform

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<sup>17</sup> Case 53/87 Renault, 1988 E.C.R. at 6039, para. 15.

<sup>18</sup> Case C-418/01 IMS Health, Magill, 2004, ECLI:EU:C:2004:257

<sup>19</sup> See footnote no. 14.

its services. Improved data access may also lessen incentives for rivals to develop their own sources of data.

With regard the exchange of data between competitors, the Horizontal Guidelines,<sup>20</sup> clarified that the competitive outcome of information exchange depends on the characteristics of the market (such as concentration, transparency, stability, symmetry, complexity) as well as on the type of information that is exchanged.<sup>21</sup>

Under the Guidelines, the companies must self-assess their cooperation in order to understand whether it falls under Article 101(1) TFEU and, in the affirmative, whether efficiencies can be claimed under Article 101(3) TFEU. In particular, exchange of information may, under certain circumstances, provide benefits to consumers.

As mentioned above, the UK CMA has clarified the situations under which the information exchange is allowed in integrated ticketing, especially in terms of sharing price information, because benefits of integrated ticketing schemes outweigh their negative impact on competition.

## Access to fare data

We have evaluated the current level of access to fare data, differentiated per Member State through country profiles and per transport mode (e.g. dedicated profiles for air, rail, public transport, on-demand transport services).

The availability of access to fare data varies between the public and private transport providers. Public operators are in most cases obliged to share their (static) fare data in a national database, where such database exists. But this does not usually apply to private operators. They share their fare data mostly on voluntary basis or based on agreements with other private operators and/or the national authorities.

Private operators share their fare data as a result of agreements or based on common created standards and interfaces at the national level. However, some Member States reported challenges in achieving such integration. The main challenges identified are:

- lack of trust between the operators;
- high competition;
- lack of experience or expertise; and
- missing legal framework.

## Conclusions and recommendations

In our opinion, the identified challenges in integrating ticketing and payment systems shall be addressed with EU initiatives, both legislative and non-legislative.

Concerning the legal barriers, in the context of the uncertainties referred to the applicable law, we envisage a possible revision of the Regulation (EU) 1926/2017, in order to include the fare data access.

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<sup>20</sup> Communication from the Commission - Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, OJ C 11, 14.1.2011.

<sup>21</sup> EU Horizontal Cooperation Guidelines, para 58.

A distinction shall be made between information services on the costs of the journey on the one hand, and the APIs for selling tickets on the other. All the providers of mobility services would be requested to open up essential data for selling their tickets in open APIs. In addition, the aspects of interoperability of distribution systems could be clarified.

In order to clarify the distribution aspect of the integrated ticketing, a definition of third party (distribution service) provider could be introduced. The third-party provider could be granted access to essential data in open APIs under certain conditions in order to develop new integrated ticketing and payment products.

Concerning the PSOs issues, a non-legislative measure (a guidance) could be adopted in order to clarify the role of the compensation in revenue sharing when the distribution models includes multimodal services carried out by operators under PSOs and those providing only commercially viable services.

The identified obstacles relating to competition issues, in particular refusal to supply and exchange of information might be addressed by non-legislative means, through a revision of already existing Guidelines.

On the other hand, a more flexible instrument such as soft law, in the form of guidelines or the enactment of a code of conduct setting minimum content for negotiating distribution agreements.

- *Clear legislative framework*

The absence of a common EU legislative framework on integrated ticketing and the large number of different local and regional transport operators, each one developing their own programme, may lead to higher transaction costs for each part of integrated ticketing transport chain.

The majority of the stakeholders consider necessary an EU legislative intervention on multimodal transport data sharing and access in order to foster integrated ticketing, especially at cross-border level. New rules should be established to close the regulatory gaps, in particular those concerning access to fare data and the role of PSOs, while at the same time providing more legal clarity and ensuring consistent application of the legislative framework across the Union and address fragmentation. Indeed, it can be noted that various national legislative initiatives on integrated ticketing have emerged, which are evidencing the need to regulate at least some aspects. Uncoordinated national initiatives may in fact result in creating an inconsistent framework that could prevent a pan-European integrated ticketing market.

1. Revision of Regulation (EU) 1926/2017 to include integrated ticketing and payment systems

The current legislative initiatives demonstrate that the Regulation (EU) 1926/2017 is a good framework to develop further initiatives. In particular, the revisions could include access to, not only static but also dynamic, fare data. The Regulation already intends to remove certain issues related to interoperability, providing that the data must be made available under certain standards. Strengthening the interoperability and the APIs would increase the amount and quality of data available to develop new distribution models. In addition, it would be important to clearly identify the role of third-party providers and grant them access to essential data in open APIs, in order to allow them to develop new integrated ticketing and payment systems. In our opinion, the open APIs model under PSD2 and its regulation of the role of third-party providers is a good example on how to foster the development of new products in payment market that could be replicated/integrated also in other regulated sectors, including transport services.

## 2. A new legislative initiative on integrated ticketing

Alternatively, a new legislative initiative could set forth a minimum set of essential data which are considered as necessary to develop integrated ticketing and payment systems. Essential data can include data about routes, stops, timetables, prices and the availability and accessibility of services. All the public and private providers of mobility services would be requested to open up essential data about their services in open APIs. Refusal to provide access shall be justified. In addition, the definition of third-party service provider of integrated ticketing could be introduced. A party must endow providers with integrated mobility services with open access to the sales interface of their ticket, reservation or payment system.

- *Soft law and promotion of transparent framework*

Non-legislative initiatives could be envisaged in order to foster integrated ticketing while leaving the solutions to the market.

A Code of Conduct could be introduced at EU level in order to define the principles that the parties shall take into account when drafting commercial agreements, in particular principles of reasonableness, fairness and non-discrimination.

The Code could contain: a description of the agreement's governance arrangements and internal control mechanisms, including management and accounting procedures, and the procedures to handle customer complaints. It shall include a description of the process put in place to file, monitor, track and restrict access to sensitive or personal data and to handle security incidents.

In addition, it has been highlighted that integration is sometimes not possible due to core differences among national operators and, in particular, due to the coexistence of "open access" long distance transport operators not funded by public authorities, and PSO operators receiving compensation by public authorities.

PSOs guidelines on integrated ticketing may clarify how public transport authority should deal with the role of PSOs in integrated ticketing, including how revenues are shared between the PSOs and the non-PSOs. In addition, public contracts could explicitly state that the provider makes the technology available and accessible to others.

Such clarifications in revenue distribution agreements in integrated ticketing and payment services would be helpful in developing new integrated ticketing products.

- *Clarification of the applicability of competition rules to exchange of information, revenue sharing and abuse of dominant position*

Other non-legislative initiatives could cover clarifications on commercial behaviours in the light of the CJEU case law.

In fact, certain commercial behaviours may raise competitive concerns, in particular the refusal of incumbent operators to provide access to their data. In the same way, exchanges of commercially sensitive information between competitors may adversely affect competition and infringe the EU antitrust rules.

As mentioned above, the CJEU has laid down the conditions under which certain commercial behaviours may be abuse of dominant position.

The European Commission has provided guidelines on exchange of information between competitors and when they may produce efficiencies. It may be worth exploring the opportunity that the future review of the Horizontal Guidelines include some paragraphs as to how exchange of information applies to multi-modal ticketing.

Similarly, a clarification on the CJEU case-law applicable to refusal to supply in integrated ticketing and payment services could provide some guidance to the operators. A review of the 2009 Guidance on abusive exclusionary conduct by dominant undertakings could be envisaged.