Study on
REMAINING CHALLENGES FOR EU-WIDE INTEGRATED TICKETING AND PAYMENT SYSTEMS
Results

26.2.2019

Integrated ticketing value chain

Back office

- *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

- *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.

Survey results

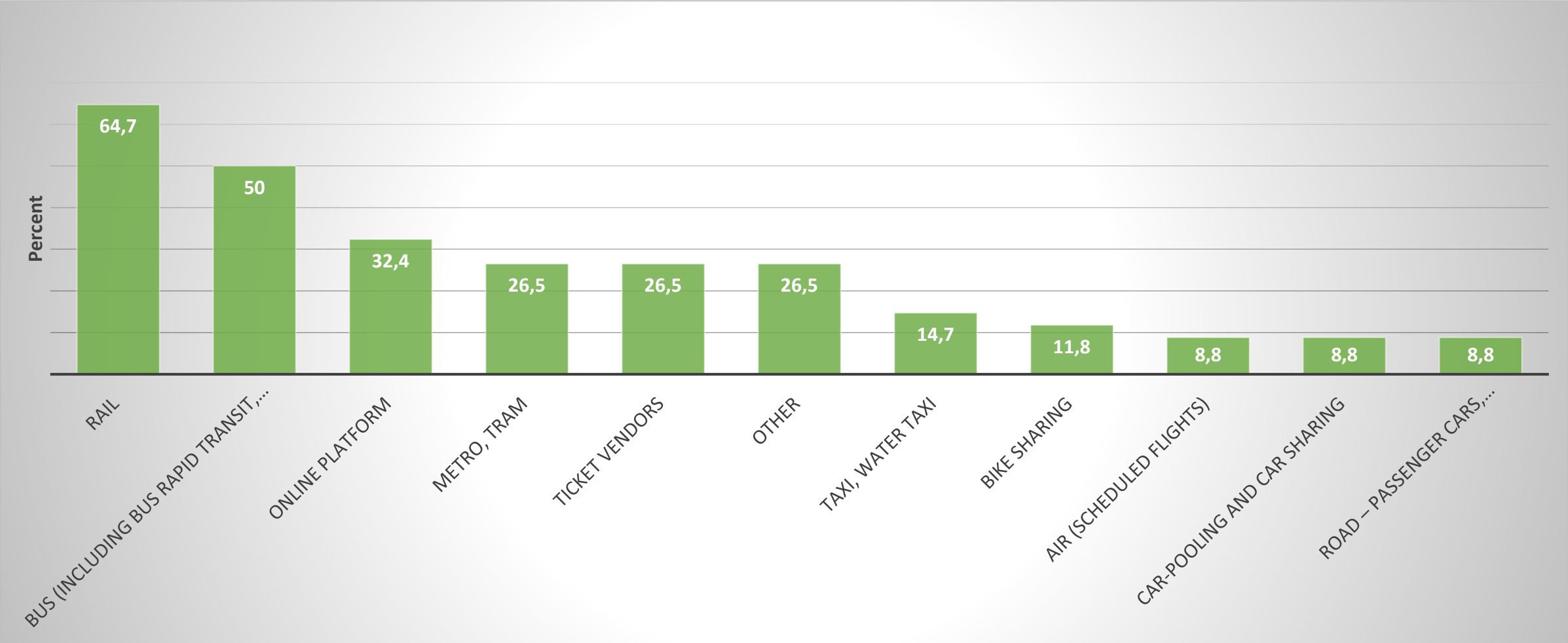Relevant projects

Commercial and legal barriers

Overview of fare data access

Recommendations

SURVEY RESULTS

What is your main activity in the transport sector?

Collected responses: 53 from 19 MS (27 completed, 26 partial)

* Other – IoT solutions, National Authorities and passenger organisations

Is your organisation/company participating in any initiative on integrated ticketing or fare data access?

7%

22%

70%

■ Yes, please specify ■ No ■ Other answer, please specify
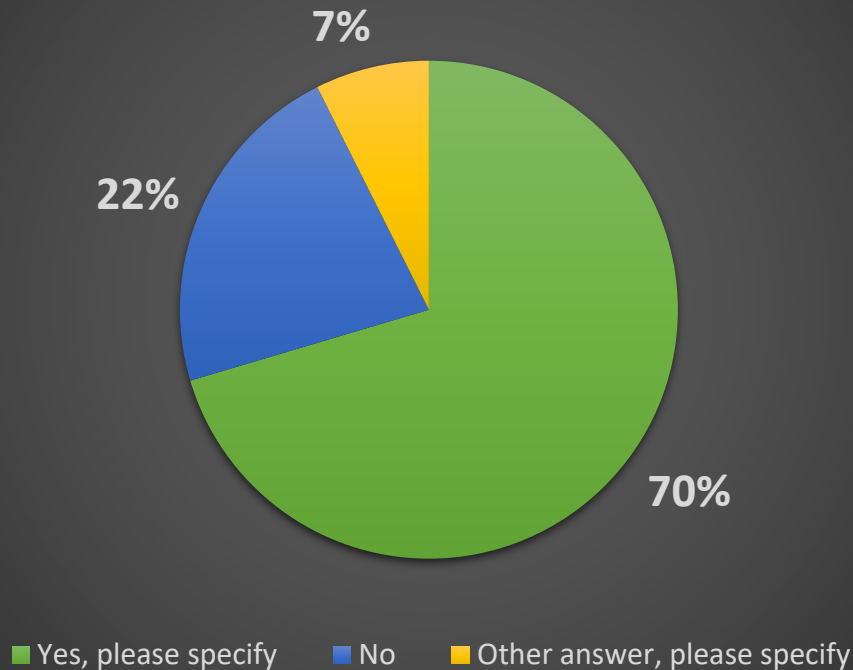
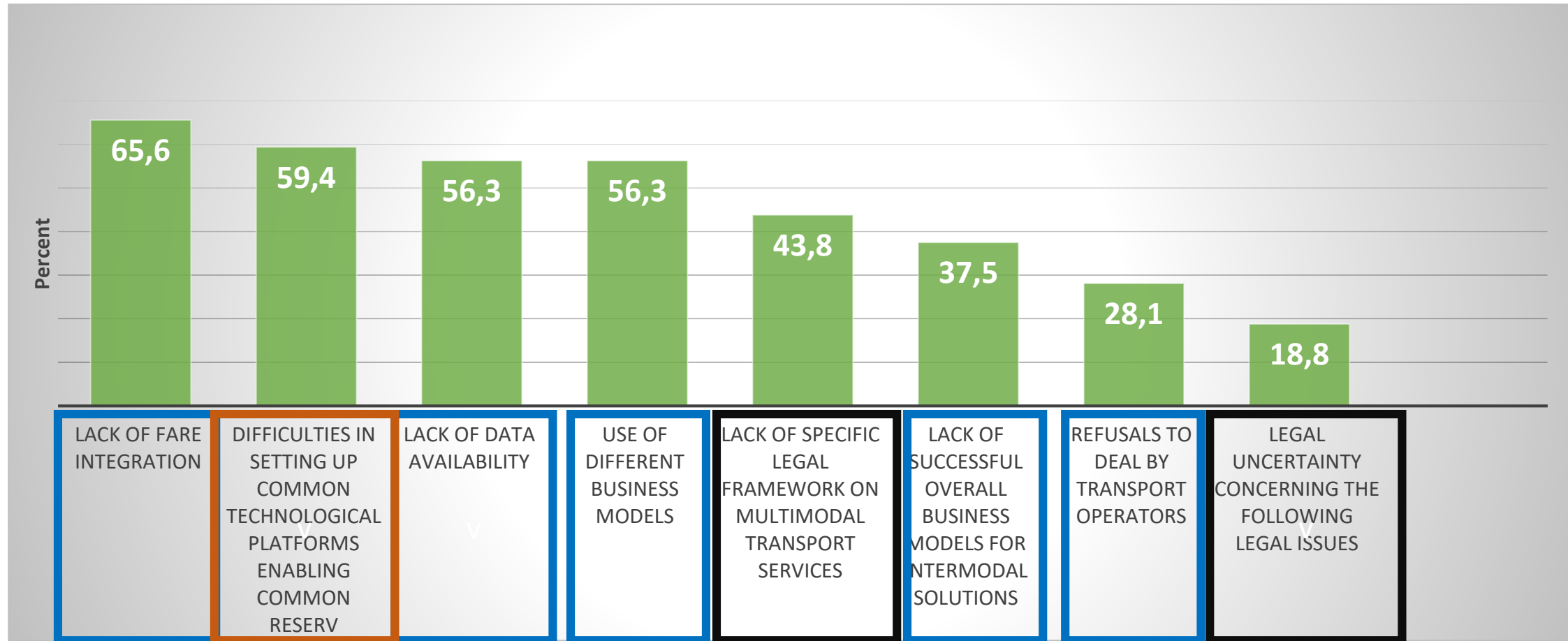**TYPES OF INITIATIVES ORGANISATIONS/COMPANIES PARTICIPATE IN:**

- **EU-wide**(ex. MaaS Global);

- **Cross-border** (ex. NL, DE, BE, LUX);

- **National** (ex. eTicket Deutschland);

- **Regional** (ex. between municipalities); and

- **Companies** (ex. Eurostar-Thalys)
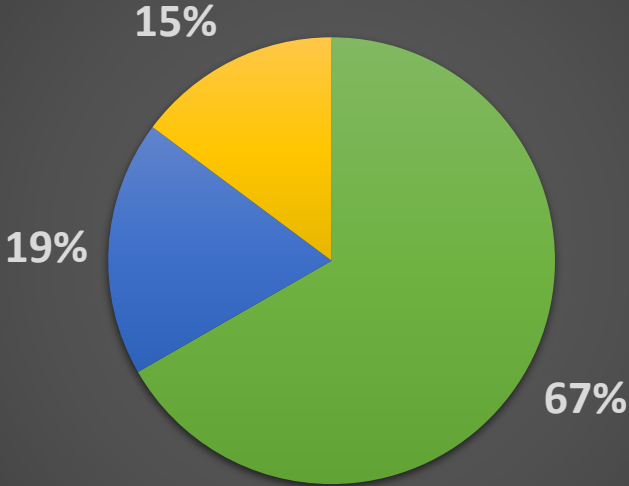
Do you think that further regulation may be required to ensure information provision, access to data or participation in an integrated ticketing system?

15%

19%

67%

■ Yes, please specify   ■ No, please specify   ■ Other answer, please specify

AGREE
Such schemes might not work on voluntary basis. Moreover, more regulation would clarify certain aspects and give more legal background to rely on.

DISAGREE
Believe in *self-regulation of the market* and think that more regulation might delay integration. Open market strategy has been preferred by these stakeholders.

OTHER
Prefer clarification of current legislation rather than creating a new one.

Which aspects of ticketing integration should be covered by regulation at either EU, or national or regional level?

- **Passenger rights**, their protection and privacy safety
- General **travel conditions**
- Service provision, **data access** and channel availability
- Unifying **electronic systems**
- System for claims for cancelled or delayed trips, **ticket reselling platforms**
- Integration of **local and regional transport**

Is your company/organisation willing to engage in greater collaboration with other market players?

EXAMPLES OF PROJECTS

H2020 - launched in May 2015 and ended in April 2018

Consortium - industry, end users (e.g. City of Bilbao) and research

Aim - create a platform to optimise door-to-door transport of passengers and goods in road, railway and urban transport

How - the platform analyses information from different heterogeneous databases, included in the platform

To what extent did the project improve fare data access and help passengers?

- If in use, the platform would gather all the data collected from the NAPs
- Provides passengers with the EU wide data on fare data, allowing them to travel multimodally easier

To what extent the project continues requiring EU intervention?

- The project has finished in April 2018
- The EU intervention would be necessary to encourage the NAPs to synchronise the systems they use and then share the collected data into a European-wide platform.

Full Service Model (FSM)

FSM is an industry initiative launched in 2013

Members of the project – railway companies, ticket vendors and associations
Vision - to improve the attractiveness of rail for European citizens

How - ticket vendors and railways have developed an Open-IT framework. FSM can be used like an adapter and enable data exchange between different businesses offering travel services and travel distribution services

To what extent did the project improve fare data access?

- Technical solution, allowing rail companies to keep their distribution software systems

- FSM compliance allows the rail companies to cooperate towards seamless rail travel

- Implementation of FSM is estimated to be about 15-20% of the costs which would occur by replacing fully the distribution system

- While being a technical solution, FSM requires distribution agreements between players

What factors influenced the achievements observed?

- The agreement between the rail companies and ticket vendors (other rail companies, GDS, travel agencies) to share the distribution data thanks to distribution agreements

The ETC is an initiative of several European e-Ticketing Schemes in Public Transport. The project was funded from the **Horizon 2020** research and innovation programme .

The cross border pilot between NL and DE was launched in **December 2017**. The project is ongoing.

Members of the project – e-ticketing schemes across EU Member States (DN, UK, NL, IE, DE)

How – Account based ticketing, set up next to the existing card centric systems.

- Currently, 90% of all the travelling in the EU consists of the travels within the Member States (90% of all passengers travel nationally). Only 10% is cross border travelling – it is priority for the EU

- Systems used for purchasing tickets vary not only between the Member States, but also regionally. It is hard to unify these systems

- ETC decided not to interfere with the regional and national systems. On the opposite, it created an extra layer to the existing systems, preserving the systems and technicalities used in different regions. This way, no operator is forced to adapt any new software or devices, which could be costly. Instead, the account-based system collects the data and stores them in one account, which can be accessible as a transport pass, through a bank card, an ID-card or a mobile phone. **This enables the travellers to benefit from synergies between travelling, e-payment and e-identity.**

- The first ETC **crossborder pilot started on 1 December 2017 between the German town Aachen and Maastricht in the Netherlands.** The pilot was supposed to finish on the 1st April 2018, however, it was so successful that all the parties agreed (transport providers and the initiators of the pilot) to continue the pilot. The pilot is still ongoing.

- 500 people took part in the pilot and half of them responded to this survey. The results show that **80% of the respondents agree that crossborder travelling is much easier when travelling with only one account/card/token**. Likewise, 80% of the correspondents would recommend this service further.

- Just Go

- Plan and Book at Once

- Never Pay Too Much

- Don't Worry

- Cross Borders

- Get More, but only if you want to

LEGAL AND COMMERCIAL BARRIERS

Legal barriers

➢ 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, including for public service obligations (PSOs) and passengers' rights, uncertainties exist concerning the applicable legislation especially in cross-border context.

➢ In most Member States, public transport tickets are subsidized by the State, which it has implications on how public transport operators are allowed to sell their tickets. Public service obligations are established by Member States. However the EU has adopted various measures laying down the procedures and conditions that apply to the execution of PSOs. It differs slightly between the different forms of transport and the specific features of each transport mean have to be taken into account, including the operational characteristics.

➢ Price-sensitive information (fare data) is not subject to open access provisions in most of Member States. In addition, their use is subject to licence and distribution agreements.

Commercial barriers

➢ **Lack of demand :** demand for services is essential in order to develop them. Some stakeholders have indicated that there is a lack of demand for integrated ticketing. According to them, there is no evidence that integrated ticketing will increase the number of the sold tickets. On the other side, from the reviewed evidence, the stakeholder consultation and the legal analysis, it emerged a clear interest towards integrated ticketing.

➢ **Lack of incentives:** Integration of ticketing and payment systems requires high investments, and public transport operators with short service contracts do not have incentive to invests in innovative ticketing since there is uncertainty about the returns of the investments.

➢ **Costs:** operators seek commercial returns. In order to promote integrated ticketing, tickets are sold at price below the operating costs. Operators cited different ticketing systems and costs of developing new interfaces, as well as different standards as commercial barriers.

➢ **Licence and distribution agreements**: many private-sector operators see competitive advantage in keeping data proprietary and use defensive strategies. Most transport operators are obliged to publish their timetable and fares but there is no obligation to grant third-party access.

➢ **Different business models**: existence of different business models as a barrier to integrated ticketing. A lack of integration is also the result of the absence of viable business models.

➢ **Competition issues**: exchange of sensitive information (price) between competitors and refusal to supply.

Commercial barriers

➢ *Refusal to supply as possible abuse of dominant position*

▪ Right to choose one's trading partners is one of the recognised principles in the laws of Member State and incursions on those rights require careful consideration (C-7/97, Bronner).

▪ In exceptional circumstances that refusal to supply amounts to an abuse of a dominant position when:

a. The undertaking has a dominant position in the relevant market;

b. The data to which access is sought are indispensable (Bronner);

c. The refusal prevents the emergence of a new product for which there is a potential consumer demand (C-241/91 and C-242/91, Magill; C-418/01, IMS Health);

d. The refusal is not justified by objective considerations and it is likely to exclude all competition in the secondary market.

Indispensable data: 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 its services. (*2009 EC Guidance on abusive exclusionary conduct by dominant undertakings*).

➢ *Exchange of information between competitors*

▪ 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.

▪ It is necessary to assess of potential benefits of the exchange of information under Article 101(3) TFEU.

Fare Data Access issues

Static fare data and real time fare data

Static fare data refers to final ticket price for a passenger. Real time fare data refers to how the fare (or ticket price) is calculated in real time.

National legal frameworks

Typically, Member States do not have legal obligations on access to fare data and the rules on fare data access do not differ much across transport modes in any of the interviewed Member States

Barriers to fare data exchange

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

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

SOLUTIONS

Voluntary agreements

Voluntary industry agreements are more successful with a presence of a mediator, which guarantees protection against the data misuse and guarantees fair competition between the operators. The mediator could be a National authority or an association of transport operators.

Revenue increase

Revenue increase as a result of increase in the number of travellers has been identified as one of the major incentives for the operators to enter agreements on sharing fare data or to share their fare data in general.

National legislative initiatives

Member State	New proposed legislative initiatives	Status of Legislation
FINLAND	The Finnish Act on Transport Service contains provisions on the opening of interfaces for normally priced single tickets in road and rail traffic. The new Act requires all public and private transport service providers to open an API 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 one mobile system.	**Adopted** Entered fully into force on 1 January 2018.
FRANCE	The French Draft Bill (Projet de loi d'orientation des mobilités (LOM)) proposed in November 2018 requires the opening of mobility data in real time and includes measures to enable MaaS applications.	**Pending** The opening of mobility data is expected to be implemented by the end of 2021.
DENMARK	Legislative proposal - L 129 Proposal for a law amending the Danish Transport Companies Act and the Railway Act - has been presented by the Minister of Transport, Building and Housing to the Danish Parliament in December 2018 with the purpose of promoting increased data sharing and third party resale of tickets from the public transport sector.	**Upcoming** Measures expected to be adopted by the end of February 2019.
ESTONIA	A legislative initiative aimed at regulating integrated ticketing schemes aims at ensuring better interoperability and enabling MaaS service providers, integration of APIs and using of ride sharing (i.e. including private ride-sharers) to better enable demand responsive transport. Detailed information are not publicly available yet.	**Pending** Currently in study phase.
SLOVENIA	The central government is working on a national travel card system. The scheme is aimed at achieving and maintain integration and interoperability of the transport ticketing and ticketing related systems (such as passenger information system) between the business entities in the public transport ecosystem as well as to avoid technology and supplier lock, enable competition on ticket sales and innovative fare products.	**Pending**

National legislative initiatives

Member State	New proposed legislative initiatives	Status of Legislation
HUNGARY	In November 2017 the Hungarian Government voted to approve a plan paving the way for a nationally interoperable electronic ticketing system combined with an information and traffic management system. The central system, called RIGO, encompasses national, suburban, regional and local passenger services. It aims to make travelling easier as well as helping the coordination of various timetables.	**Legislation in phase of implementation** The target date for the completion of the investment has been delayed and set to December 2019.
AUSTRIA	Austrian Government is working on the creation of a neutral database company, not owned by any of the local transport providers, which will be able to share with transport operators only the relevant and necessary data.	**Upcoming** The aim is to set up a system requiring a unique economic transaction by 2022.
CROATIA	The Ministry of the Sea, Transport and Infrastructure is planning to introduce a Law on Integrated public transport service in second quarter of 2020, which will extend to ticket regulation aiming at better integrating the international/national transport system with the local and regional transport systems with passenger hubs and integrated ticketing.	**Upcoming**
MALTA	Among the goals set in the National Transport Strategy 2050 there is the synchronisation of timetables and possible incorporation of multimodal ticketing (to cater for all modes of transport). Malta's bus card (Tallinja card) will, in the near future, be used for multi-modal transport and integrated ticketing systems.	**Upcoming**
SWEDEN	According to the Delegated Act (2017/1926), at the end of 2019 requirements on basic common standard fares and detailed common standard and special hazard query for all scheduled modes will be implemented in the national legislation. To handle the requirements Trafiklab, the national database for travel and traffic data, was developed, to provide access to data and APIs.	**Pending** Requirements will be implemented by the end of 2019.

RECOMMENDATIONS

Possible EU intervention

➢ National legislators are taking initiatives to promote data access for integrated mobility, moving beyond the basis of Regulation (EU) 1926/2017. However, uncoordinated legislative initiatives may increase fragmentation and barriers. In addition, many of those initiatives do not seem taking into account the cross-border dimension of integrated ticketing.

➢ Most of respondents are in favour of a EU legislative initiative, at least in order to cover the cross-border integration. New rules should be established to close the regulatory gaps while at the same time providing more legal clarity and ensuring consistent application of the legislative framework across the Union. Other stakeholders are concerned that regulation may reduce incentives for innovation and the operators' commercial freedom.

➢ There may be the need to accelerate and coordinate the national legislative initiatives in order to avoid fragmentation and ensure the cross-border dimension of integrated ticketing, including the freedom to provide services.

➢ In this context, a possible revision of Regulation (EU) 1926/2017 could be explored in order to include integrated ticketing and fare data access.

➢ Areas of possible intervention shall include the fare data availability and the interoperability of payment systems.

➢ A distinction is necessary between information services concerning the fares for the journey and the APIs for selling tickets.

Possible EU Intervention – Legislative intervention

➢ The legislative initiative should cover a minimum set of data which are considered necessary to develop integrated ticketing, in particular fares data.

➢ Distinction shall be made between information services on the costs of the journey and the APIs for selling tickets. All the providers of mobility services would be requested to open up essential data for selling their tickets in open APIs. Refusal to provide access shall be justified.

➢ For PSOs, access to static and dynamic data in order to develop a secondary market shall be included in the conditions of the service drafted by the public authority.

➢ Definition of *third-party service provider* of integrated ticketing. The definition should take into account technological developments. A transport service operator must provide to the providers of mobility services or integrated mobility services with access to the sales interface of their ticket, reservation or payment systems.

➢ Third party that intend to provide integrated ticketing service should be obliged to register themselves to the national competent authority and met minimum requirements, including data protection.

➢ Opening access to data shall not prevent operators from selling their tickets to their end users at lower prices than to an integrated mobility ticketing service, for example, using campaign-based discounts (no parity clause).

Non-binding EU measures – A Code of Conduct for promoting integrated ticketing?

➢ The Code could be a self-standing EU initiative or accompany a possible framework EU legislative initiative covering the fare data access.

➢ The Code shall include the principles that the parties shall take into account in drafting commercial agreements, namely reasonableness, fairness and non-discrimination.

➢ The principles shall be applicable to the agreement entered between the parties: identification, conditions of use (including the trademark), complaint management.

➢ The agreement between all the parties shall include:
  ▪ a description of the agreement's governance arrangements and internal control mechanisms, including administrative, risk management and accounting procedures, which demonstrates that those governance arrangements, control mechanisms and   procedures are proportionate, appropriate, sound and adequate;
  ▪ a description of the procedure in place to monitor, handle and follow up a incident and related customer complaints, including an incidents reporting mechanism;
  ▪ a description of the process in place to file, monitor, track and restrict access to sensitive or personal data and to handle security incidents.

Contracting parties must agree upon who will charge passengers for travel chain tickets and reservations and how this will be done, as well as how payments will be transferred or cleared between service providers.

QUESTIONS?

Thank you!