

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

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13/09/2019

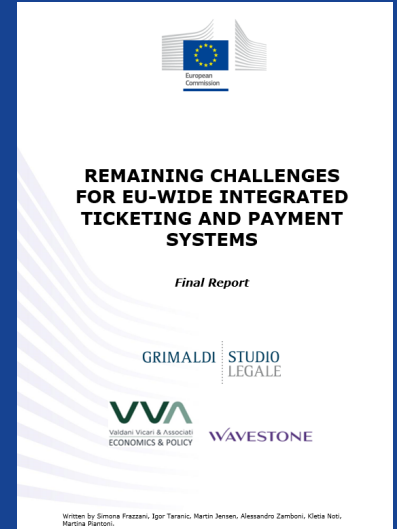


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- **Chapter 9** scenarios that recommend how some of the existing barriers and challenges may be overcome
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- **Annexes.** For example, a detailed description of the existing legislative and market framework at **national level** for all countries is provided in Annex III.



## In a nutshell (1/3)

The study showed that integrated ticketing requires :

- **cooperation** between the public and private transport operators (local, regional and national);
- strong **partnership**, based on **governance** arrangements;
- support and participation of the **public authorities**;
- ensure the **access to essential data**: travel, traffic and fare data;
- guidance on **licences and distribution agreement**;
- development of **common standards and interoperability**;
- **investments** to support smaller service providers; and
- simple **fare structure**.



## In a nutshell (2/3)

### Commercial challenges

- Critical mass of users needed to be successful.
- But the bigger the geographical area, the more difficult it is to achieve cooperation.
- If long-distance and local/urban services are to be combined, separate negotiations with a large number of operators are required.
- Integrated tickets require a complex decisional process, linked to the sharing of ticket sale revenues.
- Lack of commercial interest reduces opportunities for technological developments and
- the lack of common standards and interoperability reduces commercial interests.



## In a nutshell (3/3)

- Despite the legal and commercial difficulties, there is a clear interest in integrated ticketing.
- Various initiatives have been adopted at the local and national levels; however, a cross-border integrated ticketing project still does not exist.
- There is a lack of a common legal framework
- The heterogeneity of national rules concerning road and rail transport services, especially short distance, is an issue.
- National initiatives to promote data access for integrated mobility, moving **beyond** the basis of the Delegated Regulation (EU) 2017/1926 may increase fragmentation.
- An in-depth relevant market analysis should be carried out.



# Chapter 2

# Background



# What are we talking about? (1/4)

## « Ticketing - Integrated ticketing »

- *Integrated ticketing can be defined as*
  - *the purchase of a single ticket that allows passengers to travel using different modes of transport provided by one or more operators or as*
  - *"combining all transport methods in one single ticket" and is considered as the natural partner to multimodal travel information and planning services.*

**!** *This definition is not generally shared by all stakeholders: other selling modalities, such as **combined tickets** are another option. This could solve some of the problems with integrated ticketing, in particular the liability of various transport operators.*

*[There are two options to organise ticketing for a cross-network or multi-modal journey:*

- *to offer the customer one single ticket for the entire journey; or*
- *to offer separate tickets for each segment on a single support.]*



## What are we talking about? (2/4)

“An integrated **system**” – integrated ticketing/travel value chain

- *requires tight integration during the performance of a number of phases of the travel chain,*
  - *from the user's search/query for information on the journey*
  - *to the revenue sharing between the different actors,*
  - *passing through the booking, payment and clearing, ticket issuance and validation,*
  - *possible changes of reservation/re-routing in case of errors or delays, and complaints' management.*
- *Each element of the travel chain requires **access to different data** in order to perform the service. Therefore, for integrated ticketing and payment systems to be implemented successfully, access to data (both static and dynamic) is essential.*



## What are we talking about? (3/4)

### Long distance - local

- *The results of the study research 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.*
- *Additionally, there is no common definition of long and short-distance transport*

# What are we talking about? (4/4)

## Integrated public passenger transport services

- *Regulation (EC) No 1370/2007 defines the integrated public passenger transport services as interconnected transport services within a determined geographical area, and with a single information service, ticketing scheme and timetable.*

# Chapter 3

## Legislative framework



## EU Legislative framework (1/2)

- Directive (EU) 2010/40 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport (ITS Directive)
- Commission Delegated Regulation (EU) 2017/1926 supplementing Directive (EU) 2010/40 of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services
- Public Service Obligations (PSOs)
- Directive (EU) 2016/2370 amending Directive (EU) 2012/34 as regards the opening of the market for domestic passenger transport services by rail and the governance of the railway infrastructure (Rail Directive)
- Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (Open Data Directive)



## EU Legislative framework(2/2)

- Regulation (EU) 2018/1807 on a framework for the free flow of non-personal data
- Directive (EU) 2015/2366 on payment services in the internal market (PSD2)
- Regulation (EC) 80/2009 on a Code of Conduct for computerised reservation systems
- Directive (EU) 2016/943 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure (Trade secrets Directive)
- Regulation (EU) 2019/1150 on promoting fairness and transparency for business users of Online Intermediation Services
- Passenger's rights



# Most relevant national legal frameworks

- Finland
- France
- Denmark
- UK
- [Others: DE, NL, EE, HU, KR, MT]

See annexes

Country reports

**FINLAND**

**Legislative framework**

**General description of legal framework:**

Specific rules on access to fare data exist in Finland and apply to all transport modes.

**Legislation in place and legislative initiatives mandating access to fare data and integrated ticketing schemes / New legislative initiatives**

Concerning disclosure of pricing information, there are two alternatives: a transport service provider is obliged to either disclose the exact price of a journey or indicate the elements of the price.

There is no data format regulatory requirements at domestic level, however all the transport service providers are obliged to produce information on their transport services in a machine-readable format.

The Act on Transport Services achieves interoperability by setting obligations for transport operators to provide access to essential data and sales interfaces, opening their relevant data on mobility services via an open interface. Other mobility service providers and combination services also have to be able to access the interfaces for ticket and payment systems. The obligation to provide access to sales interfaces in ticket and payment systems applies to those road and rail transport services, who manage a ticket and payment system. They are obliged to provide access to their sales interface enabling the purchase of a standard-rate single journey ticket.

In order to make it possible to examine transport as a whole single service, the opening of data plays a central role in the Act, and is emphasised in the second stage thereof. The core idea of the Finnish Government is, in fact, that future transport will rely on the interoperability of information and information systems, as well as the openness of interfaces. This is why the Act lays down provisions for the interoperability of ticket and payment systems and for the handling of matters through open interfaces. Opening of data is, with regard to data on the use of mobility services. The Finnish Transport Agency is obliged to open data received on the use of services through open interface, in a form where it can be accessed by individual users, service providers or services.

The law requires, in addition, to open an Application Programming Interface (API) for public and private service providers so that it can be integrated into one seamless and multistep travel chain that can be paid by one mobile system and all transport modes can be integrated into one holistic system. This creates a possibility for everyone to attach themselves to one ticket system which includes all different opportunities to move from one place to

## Market situation

#		Transport Mode						
	Key fare component	Air	Bike sharing	Bus	Car-pooling and car sharing	Metro, Tram	Rail	Road, water taxi
1	Authorities in charge of mobility and transport at national, regional and local level. Are they active in the promotion of integrated ticketing?	National: Ministry of Transport and Communication and the Finnish Transport Agency  Regional: provincial administrations, such as Helsinki Regional Transport Authority						
2	Specific rules on access to fare data	The Act on Transport Services in Finland establishes the preconditions for the digitalisation of transport and enables a comprehensive overview of the transport system. The intention is to link different transport services, such as taxis and train journeys, into travel chains. At the same time, the Act facilitates market entry for new companies and alleviates the regulations in the transport sector <sup>1</sup> .						
3	Legal requirements about pricing information							
4	Main difficulties in concluding agreements concerning disclosure of travel and traffic information?	The Act covers all modes of transport. It sets forth the requirements for opening of data registers as well as ticketing and payment systems in public transport. Moreover, the Act sets obligations for service providers to open their relevant data on mobility services via an open interface. Other mobility service providers and combination services also have to be able to access the interfaces for ticket and payment systems. The data is provided to the National Access Points (NAP) operated by the Finnish Transport Agency. The Act also requires providers to disclose pricing information.						
5	Information shared between organisations/companies (e.g. schedules, fares, availability, real time information)							
6	How can collaboration between companies be fostered to improve access to fare data?							
7	Are companies/organisation reluctant to share certain type of information? Why?							
8	Can voluntary agreements between companies foster further collaboration?							
9	Initiatives on fare data access (legislation, projects, etc.)							
10	What should be done at European/national/regional/local level to foster the sharing of fare data with other players?							

# Chapter 4

## Review of projects and initiatives



# Review of relevant projects and initiatives – EU level

- All ways travelling
- BMC
- Bonvoyage
- EUTravel
- European Travellers Club
- Full Service Model
- IT2RAIL
- MaaS Alliance
- MASAI
- MobiWallet
- Smart Ticketing Alliance (STA)





# Review of relevant projects and initiatives – National level

- The Netherlands
- Sweden – Resplus
- Germany – VDV
- Austria +CZ!
- Cross-border project Finland-Estonia (Tallinn)
- Denmark
- Belgium
- Ireland
- Slovenia
- Hungary
- Luxembourg



## Some conclusions

- The majority of existing projects are focused on
  - specific groups 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.
- The common denominator of these projects is that most of the initiatives are supported (and funded) by the public authorities.

# Chapter 5

## Legal barriers

# PSO and access to and use of dynamic fare data

- The lack of common rules regarding fare dynamic data access-and-use for both public and private operators increases the complexity and reduces opportunities for integrated ticketing and payment systems to be developed.
- PSOs are considered an obstacle for revenue sharing in integrated ticketing. Integrating public-subsidized mobility services and commercially viable services can be difficult.
  - The subsidisation of the operations has an impact on how transport operators are allowed to sell their tickets.
  - PSOs operators may be exempted from providing fare data access. The exemption arises under clauses related to the subsidized fares.



# Chapter 6

## Applicable Competition rules



## Outcome of the consultation

- Most of the operators responding to the stakeholders' consultation highlighted **antitrust** concerns for exchange of information.
- In addition, national competent authorities have indicated that the **exchange of sensitive information among competitors** and/or companies at various levels of the supply chain, and some incumbents' **refusal to supply** as the main competition law concerns.
- In Germany and France, the competition authorities adopted decisions regarding railways operators
  - for abuse of their dominant position in rail passenger ticket sales (Germany) and
  - for vertical restraints (France).
- In Finland, there is the FICORA Code of Practices, accompanying the *Lippu* project.
- In the UK, the CMA has considered it necessary to clarify the application of the competition rules. It limits its application to some exchanges of information related to integrated ticketing, and in particular, to price fixing in certain multimodal ticketing schemes.



## Consultant analysis

- The case law and EC guidelines cover the refusal to supply and exchange of information-price fixing.
  - The CJEU case law on refusal to supply provides guidance on data that may be considered essential and non-replicable for the development of new products on secondary markets for which there is consumer demand.
  - The Horizontal Guidelines provide clarifications of agreements between competitors that can produce benefits and efficiencies for consumers
- These criteria could be useful in making decisions regarding the development of integrated ticketing products, concerning the minimum dynamic fare data for which access should be granted, and the conditions for such access.



# Chapter 7

## Commercial barriers





# Main topics discussed

- Unfair trading practices
- Interoperability and ability to invest
- Access to and use of data: Licence and distribution agreements, CJEU case law
- Cooperation among a large number of stakeholders
- Different business models
- Commercial freedom and access to the market
- Reputation and assistance to customers
- Revenue sharing and fare management
- The validation and payment parts of the value chain
- Account-based ticketing – use of contactless bank cards



## Conclusions – Commercial challenges

- The main hurdles for private actors are identified at the commercial level.
- Technological barriers :lack of interoperability between the interfaces of the various stakeholders and use of different standards.
  - This increases costs and reduces incentives to invest, and requires negotiation and licences and distribution agreements. Different business models are also the result of a lack of interoperability and common standards.
- Large number of stakeholders involved, which increases the transaction costs,
- Commercial freedom of undertakings which may refuse to enter into commercial agreements, which does not necessarily entail an anticompetitive behaviour.
- Revenue sharing among multiple parties requires new back office structures and new models for fare and revenue collections.
- Fare structure should be simplified and the transport operators and stakeholders should also agree on **new fare collection schemes, such as post-travel collection.**



# Chapter 8

## Passengers experience



## Passengers experience – online consumer panels (1/2)

- Respondents rely heavily on three main means of transport, namely the rail, cars (rented or shared) and planes.
- Respondents were sometimes able to buy an integrated ticket for different journey types, both in an urban and non-urban context, as well as internationally. Within the EU, this is especially true for Germany.
- People usually purchase their tickets at a ticket machine or a counter at the station and pay mostly with a credit or debit card.
- Respondents seem to equally frequently rely on hard-copy tickets and electronic tickets.



## Passengers experience – online consumer panels (2/2)

- The top three benefits of an integrated ticket would be:
  - lower prices and promotions,
  - ease of booking and
  - ensured journey connections.
- Respondents rated their integrated ticketing experience so far as good and seemed particularly satisfied with the time-saving possibilities offered by this ticket.
- Factors that could improve their experience are
  - cheaper prices and promotions,
  - the provision of clearer information and
  - the creation of dedicated mobile apps.



# Chapter 9

# Recommendations



# No new measure

## Monitor the implementation of Delegated Regulation (EU) 2017/1926 and of Directive (EU) 2016/2370

- in particular with MS opt for mandating access to dynamic data

## Monitor the implementation of Directive (EU) 2016/2370 on the fourth railway package (EU-wide through-ticketing system)

- monitor the market initiatives which have good potential to be developed on a larger scale, such as FSM project

- ! Increased fragmentation and uneven development



# Non-binding EU initiatives (1/3)

## Code of Conduct on data sharing

= guidance and clarification of travel dynamic data, as well as fare data access to third parties that want to develop integrated ticketing services.

- Reasonableness, fairness and non-discrimination, applicable to the agreement entered between the parties: identification, conditions of use (including the trademark), complaint management.
- Agreement should include:
  - ✓ 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 on incidents and related customer complaints, including an incidents reporting mechanism; and
  - ✓ a description of the process in place to file, monitor, track and restrict access to sensitive or personal data and to handle security incidents.







## **Non-binding EU initiatives (2/3)**

### **Guidelines on data sharing, ticketing and payment systems related to public services obligations**

- Conditions to provide integrated ticketing, including interoperability and data access, as part of the commercial offer.
- This solution has been adopted by the Finnish Act on Transport, which has mandate the transport authority to evaluate compliance of the PSOs provider with the requirements on data access and interoperability when awarding a PSO contract.
- A transparent contract notice requiring that the transport provider comply with the terms of interoperability, including a possible clear separation between the compensation and the fare revenues, could allow for the development of integrated ticketing from both third parties or transport operators and public authorities.

## **Non-binding EU initiatives (3/3)**

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

- The CMA, with the block exemption, has provided legal certainty to operators as to what was available under the UK competition rules.
- Similarly, individual exemption under the current Horizontal Agreements guidelines may be considered in cases of integrated ticketing, as such initiatives that could create benefits under Article 101(3) TFEU.
- It may be worth exploring the possibility of future revision of such Guidelines. This would help alleviate operators' fears that, by collaborating, they may risk infringing Article 101(1) TFEU.
- In the same way, a clarification of the CJEU case law applicable to refusal to supply and abuse of dominant position to integrated ticketing could provide operators with guidance.



# Legislative EU initiatives (1/3)

## Revision of the Delegated Regulation (EU) 2017/1926 to include integrated ticketing and payment systems

- Strengthening access to dynamic travel data
- Mandatory access to dynamic fare data
- Minimum standards should be included in order to grant interoperability of API/interfaces of the services providers, included payment systems.
- *Definition of third-party service provider – access to data for distribution purpose*
  - within the limits (in terms of objectives, content, and scope) of the delegation granted in the ITS directive.
  - These third party service providers should be granted access to the necessary data and interfaces for distribution purposes and therefore, it should include the data re-use for commercial purposes.



## Legislative EU initiatives (2/3)

### New legislative proposal on integrated ticketing

- Identification and definition of “essential data” (cf CJEU case law)
  - *data for the development of a secondary market*. Perform first a market analysis in order to identify the existence of the secondary market for integrated ticketing and the minimum set of data to be made accessible.
- Access to data on fair and non-discriminatory conditions
  - be subject to reasonable and fair commercial conditions.
  - Compensation for the data provided shall be introduced
  - Refusal to provide access shall be justified.
- Account-based ticketing
  - open access granted by PSD2 to be taken into account, in part interoperability standards
- Introduce «Right to buy on behalf of users»
- Definition and obligation of third party service provider
- Technical regulation for ticketing :
  - EU namespace and ID register
  - Machine readable ticket/ID media with corresponding travel rights
  - Open and fast access to secure storage on mobile phones



# Legislative EU initiatives (3/3)

## Revision of Regulation (EC) 80/2009 on CRS code of conduct

- The Regulation should be extended to other modes



## Conclusions of the consultant

- While most of the stakeholders seemed oriented towards a set of new legislative measures, some of them were in favour of a wait-and-see approach, mainly for the need to monitor the implementation of the Directive (EU) 2016/2370.
- Certain elements of the integrated ticketing, such as the dynamic fare access, can only be addressed by a legislative intervention, while other technological aspects can also be left to the market developments, where the best option will emerge.
- In addition, guidelines for data sharing should be drafted to clarify the role of PSOs in integrated ticketing, data sharing, revenue sharing, and interoperable service interface accessibility.



# Study on remaining challenges

## A puzzle of suggested actions

Monitor the implement of  
Del Reg(EU) 2017/1926  
and Dir (EU) 2016/2370

a **code of conduct** on  
data sharing

Guidelines on data  
sharing, integrated  
ticketing and payment  
systems related to **Public  
Service Obligations**

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



Revision of the Delegated  
Regulation (EU)  
1926/2017

Revision of Regulation  
80/2009 on CRS code of  
conduct

A new legislative initiative  
on integrated ticketing  
systems

