



Multimodal Passenger Mobility Forum

Report from the Expert Group

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1. INTRODUCTION

1.1. OBJECTIVES OF THE MPMF

The Sustainable and Smart Mobility Strategy (SSMS)¹ outlines that sustainable transport alternatives should be made widely available to passengers in a fully integrated and seamless multimodal mobility system. Digitalisation will help achieve this goal. In particular, Multimodal Digital Mobility Services (MDMS) help users compare different travel options, choices and prices, and can facilitate the sale and resale of mobility products from different operators. By facilitating the access to information, booking and payment of mobility services, these services will improve the sustainability, resilience, efficiency and comfort of the transport system.

MDMS are currently deployed in a fragmented manner across the EU, lacking proper legal and market frameworks to develop more successfully. While Mobility as a Service (MaaS) applications are being developed in many cities, the legal framework for their development varies from one Member State to another. For long distances, few MDMS, offering all multi-modal, multi-operators offers to passengers, exist. Many issues remain, such as difficult co-operation between mobility operators and MDMS; complex and lengthy negotiations to obtain licences and distribution agreements; the lack of common standards and interfaces; lack of transparency on liability for the passenger; and the lack of solutions concerning fare revenue sharing.

The Working Programme of the ITS Directive for 2018-2022 refers to an initiative on interoperable payment and ticketing. In the Commission Work Programme 2021², published in October 2020, the Commission announced a multimodal ticketing initiative alongside the revision of the ITS Directive. In line with the Work Programme, in the Sustainable and Smart Mobility Strategy, flagship 6 on *Making connected and automated multimodal mobility a reality* announces several actions to support further the development of MDMS.

To support the Commission in this work, the Multimodal Passenger Mobility Forum (MPMF) was established on 3 December 2021³.

Specific tasks of the MPMF are outlined in the Decision setting up the expert group:

- Assist the Commission in the preparation of policy initiatives in the field of sustainable multimodal mobility for passengers;
- Establish cooperation and coordination between the Commission and Member States or stakeholders on questions relating to the implementation of Union legislation, programmes and policies in the field of sustainable multimodal mobility policy and shift towards more sustainable and active transport modes for passengers;
- Assist the Commission in the early preparation of implementing acts, before submission to the relevant committee in accordance with Regulation (EU) No182/2011 of the European Parliament and of the Council;
- Bring about an exchange of experience and good practice in the field of sustainable multimodal mobility for passengers, including in cross-border regions.
- Provide advice and technical expertise to the Commission on the development and implementation of future proof and innovation friendly legislation, policies, projects and programmes in the field of multimodal mobility for passengers and shift of more activity

¹ COM/2020/789 final

² COM/2020/690 final

³ [C20218688-MPM.pdf \(europa.eu\)](https://eur-lex.europa.eu/eli/dec/2021/18688/1/01/pdf)

towards more sustainable transport modes, for example in the form of opinions, reports or analyses, and contribute towards an integrated and seamless multimodal system of sustainable and smart mobility services;

- Provide advice on developing synergies between EU, national and regional funding and financing opportunities in the area of research, innovation, development, deployment and scaling up of cross-border sustainable multimodal mobility solutions and modal shift towards the most sustainable transport modes;
- Facilitate exchanges of information on initiatives, projects and partnerships dealing with sustainable multimodal mobility for passengers;
- Interact with the Mission Platform for the implementation of the EU Mission on climate-neutral and smart cities on the development and implementation of future proof and innovation friendly legislation, policies, projects and programmes as well as on developing synergies between EU, national and regional funding and financing opportunities in the field of multimodal mobility for passengers and modal shift, including urban mobility.

As part of these tasks, the MPMF was initially oriented to support, through enhanced dialogue with and between public and private stakeholders, the development of a clear EU framework to increase cooperation between operators and MDMS within and across modes, with the intention to significantly improve multimodality, inclusiveness and sustainability

Following a call for experts⁴, the list of MPMF members was established⁵, representing Member States; local and regional authorities; public and private organisations with relevant expertise working on sustainable mobility, including environmental, mobility, passenger and civil society organisations.

1.2. ORGANISATION AND WORK PLAN

Based on a work plan presented on 4 March 2022, the work of the MPMF was divided into three subgroups, each with a specific thematic focus.

Subgroup 1 focused on aligning MDMS with public policy goals (including issues related to sustainability and accessibility) and addressed the following two points:

- Point 1: Mobility data for public transport authorities (PTA)' mobility management needs
 - Which type of data are needed and for which transport modes? Which actors would be required to share data with authorities? Under which conditions could they be shared? What is the link with the Data Act proposal?
- Point 2: Alignment of MDMS with PTA authority's objectives
 - Should there be an obligation for MDMS to align with SUMPs? How would this be implemented in practice?

Subgroup 2 focused on facilitating cooperation between operators and MDMS and addressed the following points:

- Point 1: Addressing the questions of data quality and cost of data generation

⁴ <https://transport.ec.europa.eu/system/files/2021-12/MPM-Call-for-applications-2021-12-09.pdf>

⁵ <https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?lang=en&groupID=3826>

- How to determine appropriate data quality and facilitate feedback mechanisms? What would be the operational costs?
- Point 2: Developing unique European identifiers for each access nodes (e.g. bus, tram or metro stop)
 - How can this be organised at European level? Which similar projects are already in place? On which access nodes to focus?
- Point 3: Conditions for access to data (in all transport modes) / licence agreements for selling and re-selling mobility services
 - How to ensure fair, reasonable and non-discriminatory access to data? What does it mean in practice (in terms of completeness of the data; technical and marketing restrictions; level of commission; type of tickets re-sold; customer data re-use; misappropriation of sensitive data; data portability; and viability of business models which rely on (fair) access to data)? Which other examples could support this work e.g. proposal of the Data Act?
- Point 4: Development of harmonised standards for MDMS technical interfaces (APIs)
 - How to ensure that standards can respond to the need of each sector whilst promoting harmonisation? How to support uptake and harmonisation/alignment of standards?

Subgroup 3 focused on enhancing cooperation and addressed the following points:

- Point 1: Avoiding self-preferencing
 - What are the most appropriate tools for the sector? A ban on self-preferencing? Neutral display?
 - If so how to apply neutral display of the MDMS? Lessons learnt from the CRS code of conduct.
- Point 2: Enforcement: how principles and rules will be enforced.
 - What are the most appropriate tools for the sector? Which other examples could support e.g proposal of the Data Act?

Rapporteur or co-Rapporteurs were appointed for each of the subgroups, with the objective to present a report on the questions of the work programme. The reports are presented in the following sections. Polis was appointed for subgroup 1, EPF and BEUC for subgroup 2 and MaaS Alliance and EU Travel Tech for subgroup 3. **The reports agreed on by each of the subgroups represent the different views of the members and are provided for information purposes only. They do not legally bind the Commission on whether the identified actions will be pursued or on the form in which they will be pursued.**

In total, there has been five expert group meetings held under the MPMF, on top of the separate meetings held by the different subgroups. The five MPMF expert group meetings were all held digitally and took place during on the following dates:

- 23 February 2022
- 6 April 2022
- 25 May 2022

- 28 June 2022
- 16 September 2022

2. REPORT FROM SUBGROUP 1

2.1. INTRODUCTION

Task description

Thematic area 1 is intended to provide insights on the topic of aligning MDMS with public policy goals, indicating that this area has a distinctly public authority and sustainability focus. The area is further broken down into two sub areas dealing respectively with the sharing of data from MDMS platform to public authority, i.e., B2G, and the alignment of MDMS with public authority goals. Specific questions had been defined for each sub area.

Sub-area 1: Mobility data for public authorities' mobility management needs

1. Which type of data are needed and for which transport modes?
2. Which stakeholders should be required to share data with authorities?
3. Which conditions should apply when sharing data with public authorities?

Sub-area 2: Alignment of MDMS with PTA's objective

1. How could we ensure that MDMS align with SUMPS? Which aspects needs to be taken into account? How to enforce it?

Task scope

Urban focus: from the outset, it was decided that the geographic scope of this thematic area should be limited to the daily mobility of citizens in their respective functional urban area (FUA) and should exclude long-distance journeys between different FUAs. The metropolitan and inter-metropolitan ecosystems are different in many respects, not least in terms of the market size (number of trips and of mobility players) but also the level of multimodal integration, and the very nature of trips undertaken (the majority of trips within a functional urban area (FUA) are intra-urban and a substantial proportion are actually repeat trips). The level of market maturity was also another consideration with the long-distance ecosystem being more advanced in terms of the resale of trips by third party ticket vendors. Nonetheless, the point has been raised by rail stakeholders that many long distance rail services are used for short distance commuter trips and that some national bodies operate as PTAs. Any arbitrary separation could lead to contradictions and perpetuate fragmentation in the rail system. A shared, unambiguous definition is necessary and might best be achieved based on trip characteristics (a trip within an FUA as part of someone's daily mobility vs. a trip to another FUA for a non-everyday occasion) rather than mobility service characteristics which differ vastly across member states.

B2G data sharing focus: Thematic area 1 has explored data sharing from commercial MDMS platform to public authority (B2G), not the other way round. It has been necessary to remind subgroup 1 members of this on many occasions because invariably the discussion would shift to G2B data sharing, particularly access to public transport data and tickets by MDMS platforms. This has often led to crossed-purpose discussions. In future, it may be helpful to distinguish B2G data sharing by being more descriptive about the data itself, such as 'sharing of MDMS usage data' or 'MDMS data reporting', which is essentially what comes under this type of data sharing arrangement. In response to a comment about the sharing of data by public authority-led MDMS platforms, it is important to underline that

thematic area 1 is primarily focused on commercial MDMS platforms, as this is the market that the EC is trying to develop through the MDMS policy initiative. Nonetheless, some elements of this report, particularly data protection, will apply to any type of MDMS platform.

Other considerations

Public authorities: In the context of MDMS, two types of public authorities (PA) have been identified as key stakeholders; they are the public transport authority (PTA) and the local authority (LA). They have different roles, responsibilities and jurisdictions. Furthermore, neither a PTA nor a local authority is a homogenous entity. They vary significantly across Europe and their role and remit are in constant evolution. In simplistic terms, the PTA is responsible for contracting public transport services, which usually also includes defining the tariffs and the ticket distribution channels, whereas the local authority provides the infrastructure for those services, which may include measures such as PT-only lanes and PT priority at traffic signals.

PTAs are gradually taking on more transport responsibilities, such as parking management, running bike sharing services, supporting car-pooling and contributing to the SUMP development, suggesting a shift from a traditional PTA to a multimodal authority and ultimately an integrated transport authority. A PTA is typically governed by the local authorities or regional entities of the given PTA area (typically an urban functional area or city-region). There is therefore often a direct link between the local authority and the PTA.

The local authority is responsible for public space management and infrastructure development according to the policy goals and measures set out in the strategic transport plan, aka the SUMP (Sustainable Urban Mobility Plan). In addition, the local authority often (but not always) has the power to regulate some types of commercial transport services within its borders, particularly shared micro-mobility schemes and taxis. In practice, this means that a public authority can issue a licence to operate and define the conditions of that licence.

About this report

This report draws on input received from Subgroup 1 members between June and September 2022 and is therefore intended to offer a synthesis of discussions held. It touches on many aspects of the thematic sub-areas (data sharing and SUMP alignment) in a high-level manner - it is acknowledged that there are other initiatives underway which are exploring certain aspects in depth, particularly sensitive issues such as data protection. It goes without saying that adherence to the principles of GDPR applies to all data sharing activities and underpins this report.

Report preparation process

In the first instance, a subgroup 1 workplan was drafted by the rapporteur (POLIS) setting out (i) the approach for consulting MPMF members; and (ii) the more detailed questions to guide discussions.

Three group meetings were held in June 2022, the first targeting public authority members, followed by two meetings open to all subgroup 1 members. The group meetings were followed by bilateral interviews, in August and September 2022, with 14 MPMF members and one external initiative recommended by an MPMF member.

A draft report was circulated on 14 September 2022 to subgroup 1 members and all persons interviewed. A group meeting was convened on 15 September

2022 to collect feedback on the draft report. All MPMF members were invited to suggest targeted edits by 21/9 for consideration in the final version of the report.

2.2. MDMS DATA SHARING

Why is there a need for MDMS data sharing?

While MDMS data sharing discourse has mostly focused on the needs of MDMS platforms to access public transport information and tickets, there is growing acceptance that public authorities need data from MDMS providers to support a wide range of transport management and planning tasks. The case for PAs to receive MDMS data is even more compelling in a scenario in which a growth in third party sales channels leads to a loss of travel data that a PTA would normally collect from its own ticket distribution channel(s). This was confirmed by one ministry, which reported that the extensive travel data generated by Smartcards is being lost in the course of the country's gradual shift to mobile payment, following the refusal by the telecom operator to continue sharing travel data (citing data privacy).

Existing or planned business to government (B2G) data sharing practices

Existing or planned approaches to data shared by mobility operators (and to a lesser extent MDMS platforms) with public authorities came up regularly during the consultation, offering an opportunity to draw lessons for MDMS data sharing. Today, most B2G data sharing occurs between individual modal operators and public authorities, be that from PTO to PTA for what concerns public transport and from shared mobility services (e-scooters, bike-sharing mainly) to municipalities. Public transport data sharing appears to be far more widespread than other modes. Municipalities are at different levels of maturity regarding data collection from transport operators. Many still do not systematically gather data due to a lack of a vision, capability, resources and/or jurisdiction. This situation is slowly changing. PTAs rarely have the jurisdiction to collect data from modes other than public transport. Some have found creative ways to collect data, such as through subsidising trips, quid pro quo or advertising. In the long-distance rail sector, where ticket reselling platforms are more established, data sharing with railway operators is already common practice, and this can include the sharing of some personal data.

Regarding MDMS data, there is limited data sharing with public authorities today due to the very small size of the MDMS market and the fact that most public authorities are still in the process of defining their MDMS data sharing requirements. A small number of large PTAs have defined standard data sharing requirements in their agreements with commercial MDMS platforms. National law enabling/requiring MDMS data sharing or at least not explicitly prohibiting it has been instrumental in allowing this provision. Italy is creating a national platform for data sharing in which MDMS usage data is expected to be placed.

Challenges of sharing MDMS data with public authorities

Sharing MDMS data with PTAs is considered sensitive by some due to perceived competition (PTA has set up own MDMS platform), jurisdiction (PTA is mainly responsible for public transport although this is changing, cf. 1.3) and data privacy issues. While MDMS platforms may accept to share with PTAs data about public transport usage, extending this to other modes may be problematic for some MDMS platforms. French law allows PTAs to request data about modes that are used before or after the public transport leg of a journey, in recognition of the role of French PTAs as multimodal authorities. The French approach was supported by several stakeholders during the consultation.

Sharing multimodal data with other types of PAs, such as municipalities, may be less of an issue since these bodies are perceived as neutral, although practices, policies and public attitudes may vary significantly across the EU. However, municipalities (can) already gather some data from individual transport operators, such as e-scooter data for enforcement purposes. This raises the question about the necessity and proportionality of creating another channel with MDMS platforms. Ultimately, this will

depend on the public authority use cases that MDMS data can support (described at a high level in section 2.6).

There is a need to understand what are the perceived competition issues with PTAs since they are not commercial entities; they receive a mandate to produce and integrate public transport services in their respective jurisdiction through a democratic process. Nonetheless, several MDMS providers and transport operators do consider PTAs as having a commercial interest, which has been rejected by PTAs. One way of getting round this issue is to stipulate that any sharing of MDMS data (related to travel needs/demand for instance) should not be used for commercial purposes, particularly not for the benefit of competing products, i.e., a PA-led MDMS platform. This requirement does not preclude MDMS data from being shared with a PTA developing its own MDMS service. Finally, it must be acknowledged that many PTAs are transport knowledge centres for the LAs in their jurisdiction. LAs may therefore delegate the MDMS monitoring activities to their PTA and any data sharing obligations towards a PA must similarly be transferable to the PTA if required by the LA.

Data sharing agreement and legal basis

The contract concluded between the MDMS platform and the transport operator provides an obvious mechanism for negotiating/agreeing on data sharing rules. This is practiced in France and Finland in which national laws have been adopted to enable the MDMS market to develop. In France, PTAs can demand travel data from MDMS providers in the French Mobility law (the 'LOM') and public authorities should be able to access data from digital mobility service providers (mono and multimodal) in the more recently adopted Climate law. Data sharing from MDMS to public authority is not mandated in Finnish law, leaving it to Finnish PTAs to decide whether to include it in the agreement with MDMS platforms. An alternative legal basis for a data sharing mandate is licensure or a PSO. One regional authority is planning to develop an MDMS licence, which would establish minimum data sharing requirements. It goes without saying that the data sharing conditions defined by a public authority should be the same for any MDMS platform wishing to operate on the territory. A transport service provider called on the EU to establish a high-level data sharing framework, covering for instance data types, format(s) and granularity and potentially proposing a template to simplify the design of contracts between MDMS and PAs.

Data sharing legal framework considerations

Support was expressed for an (EU) obligation requiring MDMS platforms to share data with public authorities to support public service tasks, mirroring the approach taken in France on regional transport. The absence of a legal basis may give rise to potential problems and liabilities regarding the transfer of personal data. A universal legal basis would be useful both for enabling justified use cases and regulating against overreach. While any legal provision should be sufficiently general to accommodate different national contexts, to allow national and local approaches to emerge and to respect subsidiarity, it should also have a certain degree of specification to avoid lengthy negotiations with MDMS platforms about which data can be shared, and to avoid protracted discussions about data protection and GDPR compliance. One stakeholder hinted that the Data Act may be relevant to any potential future European legal provision for MDMS data sharing. This would need further investigation.

Data sharing use cases

Four high level use cases have emerged from the subgroup 1 consultation, which are briefly described in this section (and require further detailing). Some of these overlap with the three (MDMS) use cases set out in the French mobility law and in the (micro-mobility) use cases defined under the Dutch protocol CDS-M. Many respondents agreed with the principle of setting data sharing thresholds to avoid overburdening MDMS platforms with data sharing requirements, ie, a "platform should be operating at justifiable volume and data sharing should be proportional to the impact". At a lower threshold of ticket

sale, more general data could be acceptable, whereas a higher threshold could warrant more detailed data. What constitutes a high and low threshold requires further exploration.

Use case 1: Planning

To support the planning of public transport services and the wider mobility system, including the development and evaluation of SUMP, many stakeholders, particularly PAs, expressed the need for data for the analysis of travel patterns, such as origin-destination, route choices, intermodal trips, trip searches and completed trips, etc. Data is expected to be mainly aggregated and anonymised although some more granular data may be necessary in some cases. This is the subject of workshops in France in the context of the French Climate law.

Through MDMS data, PAs seek to evaluate public transport service attractiveness, to verify whether the current offer (lines, frequencies, timetables, multimodality efficiency, etc) and the infrastructure (bus lanes, cycle tracks, etc) are fit for purpose, to understand ticket choice and validate/change tickets and tariffs, to support the design of new products and mobility packages and to feed the design of demand studies.

Use case 2: Sustainability

To determine the contribution of MDMS to achieving societal (particularly SUMP) goals including sustainability and equity, data is needed to assess/understand how MDMS is contributing to the goals and the extent of that contribution. MDMS is often held up as the solution to deliver modal shift away from the private car; yet there is no evidence to support this (nor is there any evidence that contradicts this). In essence, a set of SUMP metrics/indicators could be established at city level, which MDMS platforms must sign up to (or part thereof) and define objectives/targets. (Self-)assessments should be undertaken periodically to determine how the platform is delivering on its contribution to the public mission (or otherwise). This use case is explained in more detail in section 3.3.3. Other policy measures. This use case could also include data to support the development of Sustainable Urban Mobility Indicators (SUMI), identifying the strengths and weaknesses of the mobility system.

Use case 3: Avoiding fraud

To avoid fraud, most PTAs require some personal data for identification purposes. This is particularly the case for subsidised fares (e.g., season passes) and social tariffs, where identification is typically a part of the ticket (re)sale conditions. PTAs stress that resale conditions must be respected in any ticket resale channel, be that physical or digital. It is worth noting that it is commonplace for tickets purchased online to be nominative to reduce the risk of the ticket being printed out and reused by others. A rail ticket vendor indicated that the sharing of some personal data is commonplace in the rail sector. A transport provider cautioned against the uncontrolled sharing of personal data.

Not all countries require the sharing of personal data to obtain an urban transport ticket. In Norway, it is apparently illegal to require a passenger to share personal details to purchase a ticket, even a subsidised or discounted one. Finland cited a new law removing the need for personal details to be shared for certain simple ticket products. Some respondents suggested that onus could be on MDMS platforms to perform the necessary checks and to be liable in case of fraud and subject to sanctions. A PTA expert claimed that this proposal underestimates the complexity of ticket pricing and inspection. Such a scenario would place a greater inspection burden (including cost) on PTAs. More importantly, it would remove the right of PTAs to set their own ticket (re)sale conditions, requiring a major legal reform in some countries.

Use case 4: Customer service

To ensure the passenger remains at the heart of the evolving MDMS ecosystem, PTAs need some limited personal data to be able to communicate with users about service disruptions – in cases where digital platform services do not pass on disruption information provided to them - and for market monitoring purposes (to avoid MDMS lock-in and/or monopoly). Several PTAs also indicated that this would go a long way in helping to build trust between the PTA and MDMS platform, and in understanding whether MDMS is actually growing the customer base rather than just shifting it from one sales channel to another ('growing the pie rather than cutting it into smaller portions'). It could be explored whether this could potentially be a short-term measure until trust has been established.

Data sharing with public authorities other than PTAs

To date, B2G data sharing discourse in the MDMS context has revolved around PTAs, as opposed to other public authorities such as LAs/municipalities. As regulators of public space, LAs usually have the powers to collect some data from shared mobility service providers (e-scooters, bike-sharing schemes), although this is not systematically implemented and excludes certain service providers that are typically regulated at national level (notably private hire vehicles such as ride-hailing). A key question is whether it is necessary to set up another data sharing channel from the MDMS platform to the municipality, in addition to the MDMS to PTA channel. Currently, there is no clear picture about which MDMS data a PTA will be able to request from an MDMS provider. Could it be limited to public transport trips only, meaning that the intermodal/door-to-door trip is omitted? Ultimately, it is the use cases that should determine who needs to receive the data and for what purpose and whether the data is personal or otherwise. The diversity of mobility options, data sources (user, driver, vehicle) and data types (usage, observed, volunteered, personal details, etc) is another important consideration because it may mean that a data sharing requirement applied to one sector/mode may not work in another.

The French Climate law requires digital mobility service providers to make data available to public authorities for the planning, implementation and evaluation of mobility policies. This provision applies primarily to route and journey planners and could potentially apply to MDMS platforms which have a journey planning component. Independently of the municipalities need for MDMS data, a key issue is through which mechanism this data sharing could be agreed given that there is no transaction between the two parties - the contractual relationship is between the MDMS platform and the body in charge of the public transport ticketing system (typically the PTA or the PTO). To address this, a regional authority is considering creating a MaaS ordinance, essentially covering minimal requirements for data sharing and liability.

Data fragmentation and siloes are widespread in Europe's cities, pointing to the pressing need to create a coherent data organisational and governance framework at city-region level. In line with the SUMP principle of planning at the FUA level (and acknowledging the fact that most municipalities do not have the capability), it has been suggested that PTAs, as integrated authorities operating at regional/metropolitan level, could play a strong role in the data space, with responsibility for gathering data and managing its distribution to others. Any other structure sharing similar characteristics could also play this role of regional data access point, or alternatively a new organisation could be established.

Data protection

Data protection is a key issue in the B2G data sharing and reporting realm. It does not just apply to the sharing of personal or personally identifiable data, but also observed data, such as digital clicks and transactions. Concerns have been raised about mandatory real-time data sharing and new rules emerging without a proper data privacy impact assessment, about surveillance and the appropriate safeguards being in place to protect user data. The subgroup 1 consultation suggests that some EU Member States have adopted a far stricter interpretation of GDPR than others. This has, for instance, led to the shelving

of the MaaS learning programme in The Netherlands, which involved the sharing of some MaaS data with academic institutions for analytical purposes.

There are protocols available or under development that address data privacy, one of which is the Dutch CDS-M. This protocol was designed for micro-mobility data sharing with public authorities, but some principles are expected to apply to data sharing between any two parties, including MDMS to public authorities. Data privacy can be addressed in other ways, including obtaining user consent for sharing data and data aggregation and anonymisation. With regard to user consent, a PTA has expressed concern that the MDMS platform may design this in such a way that the user is likely to reject it and has therefore called on EC to address this, potentially through standard/harmonised consent terms. Aggregated data is dealt with in the next section. Whatever data privacy means are adopted, it is imperative that data protection principles are observed, such as transparency and data minimisation.

Regarding the sharing of personal data for the purpose of authenticating credentials, it was suggested that this could be achieved through third party platforms such as MyData, which separate identification, authentication and use. Ultimately, the European digital identity wallet could offer a solution, although this is many years away. The GDPR principle of data portability offers another way of sharing personal data (volunteered and observed) from one data controller to another for ad-hoc transfers; they are obligatory if requested by the data subject.

Data aggregation

There is general acknowledgement that the level of data aggregation should be determined by the use case and the applicability of GDPR. Another common acknowledgement is that the aggregation level affects the usefulness of the data. More insights are therefore needed on the most appropriate level of data aggregation. One regional authority is working with a data aggregation platform to compare the efficiency of working with raw and aggregated data. If the sharing of raw data is considered too sensitive, it was suggested that it may be necessary to move towards a common approach for data processing that is written in law. There is work underway in France on this precise matter. Regarding personal data specifically, any aggregation by the MDMS platform requires a legal basis. Finally, while aggregating data may offer a solution to data privacy, it comes up against a company's intellectual property. In contrast to raw data, aggregated data has an economic value for a company. This needs to be recognised and incentives for the private sector should be envisaged, which could be financial or in-kind such as reciprocal data sharing.

Data sharing compensation

Views on whether to charge for data shared by MDMS providers with public authorities are mixed. As the core business of an MDMS platform, data should be available at no additional cost. However, it is recognised that any processing and the distribution of that data would incur costs for the platform. This cost/effort can be offset in-kind, through data sharing for instance (cf. 2.8), or in monetary form where the data exchange is not equivalent. Many stakeholders agreed that the applicability or level of compensation would depend on the type of data shared (for the use case in question) and the effort required to produce that data. Where remuneration is agreed, it was suggested that the burden of proof on the cost and effort should sit with the MDMS provider; and that FRAND conditions should apply. The definition of FRAND conditions in the MDMS context is expected to be challenging. It may be necessary to develop preliminary guidelines for some typical use cases. The Data Act may offer a reference in this regard.

2.3. MDMS ALIGNMENT WITH SUMP

Background to SUMP

During the consultation, it became evident that the development of a SUMP is not an equal process across the EU, where LAs and PTAs play different roles depending on the territory. In some areas, PTAs are in charge of collecting wider mobility data, maintaining models, and having a strategic network planning system – having competencies to prepare the SUMP but not really to implement it. In others, PTAs just support the SUMP development with public transport data, and the process is completely led by local authorities with external technical support. In most cases, PTAs have limited power to develop the SUMP; the decision-making and implementation power lies with LAs. The lack of coordination between LAs and PTAs was also cited as a barrier to enabling (digital) multimodal sustainable mobility.

It was noted by a PTA representative that the EU should not undermine the capacity of local authorities to be more ambitious at the local level through SUMP. Given their experience and their central role as integrator, their local knowledge, and their legitimacy as elected officials, any regulation or policy initiative should recognise the strong context specificity of mobility and the instrumental role of PAs.

It is a difficult task to understand and define what it means to align MDMS with SUMP in practice, considering that the general SUMP objectives are:

1. Guaranteeing accessibility to all road users, with a focus on the so-called “vulnerable users”, namely pedestrians, cyclists, children, disabled persons, etc.
2. Fostering a balanced development of all transport modes, tackling public and private, motorised and non-motorized transport, intramodality, urban logistics, mobility management and ITS systems.
3. Reducing environmental impacts (primarily air and noise pollution) and decarbonising mobility rationalising efficiency and cost-effectiveness.
4. Optimising the use of urban areas leading to a cleaner urban environment and consequently more attractive cities and better quality of life for all citizens.
5. Improving road safety and security.

These objectives do not represent all the SUMP objectives in Europe (there are more than 1000 SUMP, making it a complicated exercise to sum up in this report), but they serve to establish the general direction EU cities have taken in recent years and allow us to visualise the discussion presented in this report.

All dimensions of sustainable mobility need to be considered for the deployment of MDMS. Mobility needs are heterogeneous, and thus, a broad variety of mobility options is needed to serve people living in FUAs. All transport modes need to be used in the most efficient way and need to be integrated into a connected network, a multimodal ecosystem that is convenient, affordable, and accessible for all citizens and customers including people with reduced mobility. Multimodality is the mechanism needed to explore the mobility mix which fulfils both mobility needs of users and, at the same time, the requirements of economic, environmental, and social dimension of sustainable mobility.

Challenges aligning MDMS and SUMP

Aligning the operation of MDMS with SUMP is challenging due to the difficulty in aligning operational objectives with high-level sustainability KPIs. As a starting point, the draft policy measures from the MDMS Impact Assessment (emissions information, active modes, data sharing and consultation with PAs) were discussed with all stakeholders. Interestingly, neither a consensus was found amongst key players, nor even amongst PAs. In any case, it was noted by several stakeholders that to achieve a meaningful impact on transport and sustainability, policy measures need to prioritise services and infrastructure. To achieve SUMP goals and shift private motorised mobility towards sustainable modes, measures acting on the physical infrastructure and vehicle access regulations have delivered more

significant impacts (so far) than policy measures acting on the digital layer of mobility. There is potential for MDMS to have a positive impact on sustainability, especially when integrated with a good public transport service and sustainable modes. Regulation could be the key to steer new mobility services and MDMS in the right direction and to increase the prospect of a positive contribution towards sustainability, decarbonisation and road safety.

There is still no solid research on the impacts (either positive or negative) of new mobility services and MDMS. Anecdotal evidence across Europe suggests that new mobility services are shifting demand from active modes and public transport, and not from private vehicles. There are some national plans and initiatives trying to understand the impact of digital services in transport that will create some valuable insights in the coming years, as new services are deployed and understood through usage. Since there are no defined KPIs for MaaS and digital mobility services they can be difficult to model, which makes data collection from MDMS usage crucial to understanding their real impact and value in the transport system.

The current main levers that PTAs have to manage MDMS are access to ticketing and data. When (if) these levers disappear through a mandate to open ticketing services, PTAs will have less agency to act on any negative impacts that might happen. LAs seem to have more power to regulate new mobility services (although it varies across the EU) whenever their operation requires the usage of public space and infrastructure. Because the evidence on impacts is very limited, any new regulation should ensure that PAs maintain certain capacity to regulate digital new mobility services within their territory in order to manage any negative impacts that might arise, without undermining the positive impacts. Some PAs would like to use MDMS as an instrument to push the city's sustainable goals, although they realise that this is not easy and there is no clear path on how to make it happen for now.

Policy measures

MPMF stakeholders were asked about the policy measures identified by the MDMS Impact Assessment, with different levels of agreement. Some believe that a realistic starting point to align MDMS with policy goals would be to set an obligation to consult and cooperate with PAs when deploying MDMS. It is noted that having such an obligation could be a barrier to the deployment of MDMS services across nations, but it could also be a safeguard for cities to ensure sustainable integrated deployment. There are cases where MDMS already consult with LAs, but how to establish a structured framework to facilitate cooperation remains a challenge.

Information on GHG emissions

Under certain conditions, all stakeholders agreed to have mandatory information on GHG in MDMS. The main justification is that citizens/users should have all the necessary information to travel sustainably and seamlessly across the EU, including all modes of transport. Transport users should be informed as a minimum about time, cost, and GHG emissions of a trip.

To achieve Green Deal goals, transport users need to have reliable information when traveling, allowing them to compare all modes of transport in different cities and countries. If the provision of information on GHG in MDMS becomes mandatory in future EU legislation, there needs to be standardised calculation methodologies for all modes, services and business segments. The provision of information on GHG emissions of a trip can only be mandated provided data is there and it is accredited. The EU Counts initiative is developing a common framework to calculate and report transport-related greenhouse gas emissions, which should be coordinated with an obligation to have GHG information in MDMS.

Irrespective of the GHG calculation methodology adopted, to make the information more accessible to the user, it should be presented in a way that enables comparison (CO₂ emissions per km or per person are typical metrics), preferably allowing also for a visual comparison (for instance with a traffic light

system). It was suggested that to induce behavioural change at FUA level, the environmental information for any trip could be compared to that of a car-based trip as a default. It was noted by a long-distance MDMS provider that any visualisation solution should avoid any damaging threshold effect. Marginal CO₂ emissions at ticket level could mean major CO₂ savings at horizontal level and shall also be encouraged. To facilitate the implementation of mandatory environmental information, it is suggested to have a staged implementation of such measures to facilitate deployment. As a reference, the recently published French Climate Law aims to align MDMS with higher sustainability goals through a set of policy measures. The measures include the obligation to provide GHG emissions on all modes (for both mono- and multimodal trips), and the obligation to display the options according to environmental impacts. The law also includes a methodology for a standardised calculation of the carbon footprint in all modes that can serve as a starting point for an EU methodology.

Information on active (and sustainable) modes

The ability of users to set own preferences when selecting a travel option is at the core of MDMS' value and it is widely agreed that any regulation on MDMS should not undermine this feature. However, the consultation shows that there are differing opinions between stakeholders on how information about active (and sustainable) modes should be displayed. Although sustainable commercial integrators are not unusual in long-distance travel, at the FUA level sustainable travel behaviour may be at odds with the general business interest of commercial integrators. There is little revenue potential from active modes, notably walking, cycling, which are free or low margin and from sustainable public transport, which are highly subsidised or compensated modes. However, there are potentially higher margins for integrators from unsubsidised shared mobility services (car-based or otherwise) proposed by private mobility operators, which may lead integrators to promote these services over sustainable and active modes.

For some PAs, the issue is not how to display sustainable modes in MDMS, but how to ensure that sustainable modes are part of MDMS. Social inclusion and affordability especially are key user needs that MDMS should not leave behind, independently of their business models. Public transport, cycling, and walking are the most accessible, affordable, and sustainable modes of transport, and they should be encouraged through MDMS. Some PAs see it necessary to have more incentives to use public transport and active modes to achieve SUMP goals, and this does not exclude MDMS.

Currently, practices on displaying active modes in MDMS are varied across the EU. In France, if data on walking infrastructure and shared micro mobility services are available on the National Access Point, then digital mobility service providers are obliged to implement them in their platforms. In Finland, national legislation does not mandate the integration of active modes in MDMS. In Italy, there is a national MaaS project that will serve to define a national MaaS framework. As part of the project, all mobility modes (public and private) will be included in the MaaS pilots and incentives will be given to users to travel sustainably through the platform, although the conditions are still being discussed and it is too early to understand the impacts of these measures.

The consulted MDMS providers support the voluntary provision of information on active modes, although how this information is displayed is a different matter. A public authority remarked that information about active modes (for full trips, and not only complementing other modes) can already be integrated on a voluntary basis, yet very few commercial MDMS have done so, suggesting that this is justification enough to go further and mandate it.

There seems to be an agreement that information on active modes should be part of MDMS, although some stakeholders believe this should be voluntary and depend on the MDMS business proposal. Where it is part of MDMS, the user should always have the freedom to choose the preferred mode as mandating it could create resistance and become counterproductive. Arguing against the mandatory display of sustainable modes prioritisation, some pointed out that if the purpose of MDMS is to shift private

mobility towards more sustainable solutions, then the displayed alternatives should be appealing to that specific user profile, which in many cases will not be active modes. A compromise could be to mandate/set sustainable modes as the default option, while maintaining the user's ability to filter results according to own preferences based on e.g. time, cost, mode, accessibility or environmental impact. It is necessary to understand the full impacts of new mobility services when establishing what defines a 'sustainable mode'.

Considering the geographical and socioeconomic differences across territories, it is not clear that determining minimum thresholds for displaying a walking/cycling trip in MDMS should be done at the EU level. In any case, further research is needed on the issue.

Other policy measures

Besides the policy measures identified in the impact assessment, stakeholders were prompted to suggest other possible ways to align MDMS with sustainability goals.

- MDMS could be requested to make a proposal on how they are going to support the SUMP, using their own or selecting from a set of PA-provided indicators, which they self-declare. This way MDMS can decide how it can add value to the SUMP, and LAs can monitor what they do. For instance, indicators could relate to vehicle occupancy or modal shift. If sustainability targets are not met, PAs should be able to alter access conditions (to tickets, to infrastructure) in order to avoid negative impacts on the mobility system, as long as access to data and commercial conditions are on a FRAND basis. Alternatively, MDMS could be ranked according to sustainable mobility goals and be granted access to digital and physical infrastructure consequently. To sum up, MDMS could be awarded advantages or incentives to continue encouraging sustainable mobility, and MDMS could also be penalised if they contribute negatively to the whole mobility system. This policy measure is linked to the data sharing use case on Sustainability. This measure was proposed by a PA, whilst a ride-hailing company noted that it requires further consideration as there might be external factors outside of the provider's control limiting their progress towards sustainability targets (e.g. lack of charging infrastructure).
- Regarding time information, the issue of biased routing needs further research. Biased routing happens when travel information is not completely accurate (e.g. wrong walking time between modes at an interchange, lack of walking paths) leading to longer trips or even missing a bus/tram/metro. This can occur due to a lack of good quality data, lack of data maintenance, biased MDMS algorithms or other unidentified causes.
- EU policies should further promote a closer collaboration between all mobility stakeholders in FUAs. The EU should therefore support local, regional, and national initiatives aiming at: harmonising rules that ensure a level playing field where private mobility providers can launch innovative business models accompanied by a minimum level of standardisation, while maintaining the prerogative/power of LAs to regulate vehicular access; promoting incentive policies for private mobility service providers at MDMS level when providing new mobility solutions and technologies that meet certain public interest obligations to fulfil both mobility needs of users and, at the same time, the requirements of economic, environmental, and social dimension of sustainable mobility.

3. REPORT FROM SUBGROUP 2

BEUC and EPF have been designated as co-rapporteurs for subgroup 2, covering the thematic ‘Facilitating cooperation between operators and MDMS’, focusing on four points:

- Point 1: Addressing the questions of data quality and the cost of data generation
- Point 2: Developing unique European IDs for each access node (stop place)
- Point 3: Conditions for access to data (in all transport modes) / license agreements for selling and re-selling mobility services
- Point 4: Development of harmonized standards for MDMS technical interfaces (APIs).

To gather input from subgroup members on the above questions, three online meetings were held on 3. June, 4. July and 7. September 2022. In addition, all subgroup members were invited to provide further input either in writing and/or through bilateral calls with the rapporteurs. The current report presents the outcomes of this consultation process, aiming to reflect the views of the different stakeholders that participated in it.

3.1. ADDRESSING THE QUESTIONS OF DATA QUALITY AND COST OF DATA GENERATION

Which data is needed, for which purposes, by which stakeholders?

Appropriate data quality and cost of data generation depend on the type of data that needs to be available and shared. Therefore, the members of subgroup 2 agreed that the MDMS initiative should clarify the scope of data sharing; the actors required or expected to share data; as well as contexts and acceptable use cases.

Regarding the scope of data sharing – which data is needed? – participants referred to existing Regulations, notably the MMTIS and the revised Rail Passenger Rights’ Regulation, which both already contain extensive lists of (static and dynamic) data to be shared in their Annexes. In addition to the elements already contained in these existing lists, some participants suggested the following missing data, not yet included, may be considered too:

- Data on occupancy (real-time)⁶
- Data related to cycling and micromobility
- Post-journey information⁷
- Booking & payment information / APIs
- More detail on fares (including ancillary services, surcharges, fees), conditions for changing / cancelling tickets etc.⁸

UITP commented that a common glossary would be helpful, as currently many terms are being used

⁶ CER and UTP object to a data sharing obligation on occupancy, as (CER) not all RUs are collecting such data and it is commercially sensitive information.

⁷ UTP referred to the French LOM, which entitles PTAs to get access to MDMS / MaaS providers data regarding statistical information on journeys made, after-sales service for products sold and fight against fraud.

⁸ CER commented that such information is already shared and transparent in the Conditions of carriage to the passenger and will also be shared in real-time manner through the OSDM online interface to ticket vendors.

with a different meaning in each transport domain (rail, road, waterborne, air, local public transport).

Regarding actors involved, the mobility ecosystem is very diverse: from large operators and service providers to small SMEs, covering a variety of modes and contexts. The MDMS initiative therefore needs to define roles and responsibilities of all active stakeholders, both public and private, in accordance with those specificities. Which are the access points for data? To whom should the data be made available? Which types of data sharing are covered by the MDMS initiative: B2C, B2B and/or B2G? In addition to operators, infrastructure managers and ticket vendors (as foreseen in the revised RPR Regulation), also the role of authorities (PTAs) should be considered (notably for urban mobility). It was also suggested to clarify the role of GDSs and to clarify how the review of the CRS Code of Conduct will feed into the new MDMS initiative.

Finally, it was pointed out by several subgroup members that any obligations to generate and share data (both static, dynamic and historic data) should be based on concrete use cases (what is the data used for?) to avoid unnecessary burden and cost (see also below)

Quality criteria

There was a consensus among subgroup 2 participants that minimum availability of (interoperable) data must be guaranteed, as it is a crucial enabler for MDMS. Data must be 'FAIR', i.e., findable, accessible, interoperable and reusable. In other words, data must not only be (made) available, but also of sufficient quality. The subgroup members agreed that there is a need to better define data quality.

The main quality criteria that came up were: completeness, granularity; accuracy, reliability; speed of transmission (real-time updates). It is relevant to know the data source (is it authoritative?) and to avoid multiple sources of conflicting data. The principle of 'equal treatment' was referred to as very important, meaning that the same information – consistent, and up-to-date – should be available across all information and distribution channels.⁹ To ensure passenger confidence, such information flow must be ensured throughout the interaction with passengers, keeping them informed about any changes or disruptions.

As higher data quality comes with a higher cost (see below), it was pointed out by several subgroup members that data quality thresholds should depend on the use case (what is the data used for?) and that we need to keep the cost reasonable and proportionate by finding a suitable balance between requested quality of data and the associated cost.

Quality control / feedback mechanisms

Quality assessment tools and feedback mechanisms should be foreseen to ensure that data quality is monitored and improves over time. The following suggestions were put forward:

- The data provider should be responsible for the quality of its data;
- Open-source quality assessment tools for all data producers and consumers to use, translating existing standards into pieces of code, e.g. the Canonical GBFS Validator;
- Such tools should be integrated into NAPs, to have a direct quality assessment every time a dataset is produced and uploaded;
- Guidance to data producers on how to increase the quality of their data (e.g. as done by

⁹ For IATA, however, transport service providers should not be required to provide all information across all information and distribution channels; the scope of the information made available should depend notably on the nature of the data or information and, e.g., its importance for the consumer to exercise their rights.

the French NAP), possibly leading to quality certification such as offered by ITxPT;

- A standardized exchange interface between MDMS and MSPs would allow a feedback loop signaling errors / data rejections;
- A European standard on data quality could be produced and once standards are agreed, a “certification body” could validate the quality of the data.

Cost for data collection & quality control

Several subgroup members pointed out the difficulties in estimating the costs for data collection, data sharing and quality control, as they depend on many different factors: existing data vs. data that needs to be generated; static vs. real-time data; standards and interfaces to be used, etc. The volume of data and the size and capabilities of operators also have an impact.

Which data already exists, and which data still needs to be generated first – before it can be shared? For long-distance trips, data availability and data quality are in general not such a significant problem (Trainline however clarified that in some Member States, data availability on long-distance trains is still an issue), as airlines and railways already (need to) provide quality data to enable distribution, both by their own and third party channels. However, for local public transport, data availability might be much poorer. It was also signaled by some subgroup members that digitalized tickets are not always available. Finally, it should be noted that some modes are moving away from the traditional concept of ‘ticketing’, which, to be future-proof, the MDMS Regulation would need to take into account.

Overall, the following costs need to be taken into account:

- Initial development (implementation of standards, developing APIs, technical interfaces, processing workflow, ...);
- Recurring costs (financial & human resources) for maintenance, infrastructure, monitoring, quality control, investments in protection against cybersecurity;
- Sometimes investment in hardware (e.g., equipping buses with GPS) or adaptation of the ticketing infrastructure is needed;
- Potential liability costs if data is incorrect or of insufficient quality.

Some examples mentioned by subgroup members:

- For bike-sharing operators, implementing a new standard can take up to 29PM & integration of a new API can then also still take up to 1 year;
- HSL spent €1 million on adapting its infrastructure to enable MaaS (to note that such costs may be higher for less digitally advanced PTAs).

To conclude, underlying costs – for data collection, data sharing, and quality control – are not easy to calculate but can be significant. Some further concrete examples would be welcome.

How to regulate?

In general, there was a consensus among subgroup 2 members on the need to agree on data requirements and quality parameters, use case by use case¹⁰. This would need to be done in a wider stakeholder process, as currently stakeholders are defining such parameters for themselves, e.g. within NAPCORE or EU-EIP. To ensure interoperability, there is a need to agree on specific data

¹⁰ UITP commented that different modes of transport (road, rail, waterborne, air, local public transport) are each regulated differently and that the organisation of local mobility falls under the competence of local authorities (subsidiarity principle). This aspect has been discussed in more depth in MPMF subgroup 1.

formats (see also §4).

As there is no one size fits all solution (in light of the varying circumstances in different modes of transport and their distribution), a tier-based approach was suggested: some data being obliged to share as a minimum, while further tiers in data scope and quality could be based on voluntary negotiated arrangements / commercial contracts (see also §3).

Operators voiced their concerns that a disproportionate cost and burden could hamper innovation and investment, both for large and settled operators (CER), and still young on-demand urban mobility actors (MOVE EU). Also from the side of PTAs and PTOs (UITP, EMTA, POLIS), the need to ensure proportionality of necessary investment and expected benefit was stressed. Therefore, many subgroup members offered that data quality obligations should be reasonable, i.e. proportional to scale of operation and added value. There is a general willingness to share data, on the condition that it is already available, as the cost and time needed to produce new (interoperable) datasets (as exemplified by the UK's Open Bus Data System) are generally underestimated and not all PTOs and PTAs have the means to do it.

An important issue to address is who should pay for the (additional) cost involved in gathering and sharing data (see also §3). Data integration costs are not normally covered by revenue or subsidy schemes. Many subgroup members (mainly authorities and operators, some of them SMEs) would find it fair and necessary to receive support, which can take several forms: financial incentives, but also training, technical assistance etc.

More transparency is needed on cost and how it is calculated, although some stakeholders expressed concerns that this shouldn't lead to disclosing trade secrets and commercially sensitive information. This could be achieved, for example, through bilateral feedback between operators and MDMS (Trainline), by means of an industry agreement on the average cost of generating data (MobilityData) and/or by requiring proof of extra cost on determining fair compensation (HSL, Trainline).

Furthermore, when deciding on the level of compensation to be paid by data consumers, in general costs should be shared among those who benefit and FRAND principles need to be applied (see also §3).

3.2. DEVELOPING UNIQUE EUROPEAN IDs FOR EACH ACCESS NODE (STOP PLACE)

Good examples

A number of existing initiatives to map access nodes (stop places) were put forward:

- In Norway, a [National Stop Register \(NSR\)](#) has been developed as the master database for public transport stops in Norway. It is used to store and redistribute detailed information regarding the infrastructure of a stop place. The aim is to avoid duplication of stop data across providers and to make it easier for new operators to plan and establish routes. Basic information stored in NSR is ID, name, relation, and position, but it includes also other data such as shelter or wheelchair accessibility. All data is exported daily to NeTEx files and APIs are also freely available.
- In the UK, [NaPTAN](#) (National Public Transport Access Nodes) is the national dataset for uniquely identifying all public transport access points in England, Scotland and Wales. It covers bus, rail, tram, metro, underground, rail and ferry services. NaPTAN is maintained by local authorities and public transport operators to keep them advised of changes and additional (off road) requirements. In addition, the National Public Transport Gazetteer (NPTG) contains

geographical data for all cities, towns, villages and other localities in England, Scotland and Wales.

- In Austria, this issue was tackled on national level by uniting station naming and IDs of several public transport and rail operators, station by station ensuring that no ID is used twice or one and the same station has different IDs from different operators.
- Sectoral arrangements on the identification of access nodes already exist both in air travel and in rail travel. These are based on industry-led projects (e.g., IATA airport codes) or involve European regulators (as in the case of rail).
- UNECE is working on the identification of '[international railway passenger hubs](#)', based on a set of technical and service parameters that are being developed.
- Currently no comprehensive mapping exists for shared mobility. NAPCORE is working on standards for bicycle infrastructure, but there is no identified work stream for cycling parking and interfaces. Open data on cycle parking is published by many public bodies, but the process is inconsistent.
- Useful GIS data format standards for transport nodes exist for quite some time.

Which nodes to consider

The total volume of access nodes is immense (e.g., 30.000 in Helsinki region), therefore there is a need to prioritise. There is consensus within the subgroup to focus on transfer points, i.e. main mobility hubs for public transport and long-distance travel (e.g. train station, bus stop) and existing mobility hubs for shared mobility (e.g., existing public bike and moped racks, as well as shared-bike dockings). The question was raised on how to map dynamic stop places (floating systems).

According to UITP, each stop place has to be identified at the local level. The location reference should follow the technical requirements of the EU's Inspire directive. The NeTeX standard provides information on how to proceed.

More as R&D investment than as Regulation, the role of AI could be investigated further in figuring out what the access points are. Airports can be very large, but platforms, bike parking, pedestrian crossings, are very specific and complex to determine exactly.

Technical compatibility and standardization were raised as important points, also noting that the format should be flexible enough to be able to include cycling infrastructure whenever this type of data will be standardized at EU level (refer to the work done by the French NAP).

How to regulate?

Subgroup members agreed that unique identifiers for access nodes would be useful, both for distributors – as this would facilitate the technical side of distribution – and ultimately for passengers – as this would enable more multimodal / intermodal products and hence seamless travel.

Regarding the question on how to regulate such efforts, the following suggestions were made:

- The work should be led by a European non-profit organization in partnership with an international one; work should be informed and/or in coordination with existing European mapping efforts (e.g., the standardization of ZIP codes) (MobilityData).
- Under the TAP TSI, Member States need to assign a National Allocation Entity (NAE) as the owner and creator of the reference data for locations (often a task passed on to the rail infrastructure managers). More NAEs are needed for other modes. NAPs can serve as collection

points for this reference data, which can then be aggregated internationally by organisations like RNE and TSGA (CER).

- To ensure compatibility and avoid undue competitive advantages, solutions should be technology-neutral and sector-driven / a cooperative effort (Trainline).

3.3. CONDITIONS FOR ACCESS TO DATA (IN ALL TRANSPORT MODES) / LICENSE AGREEMENTS FOR SELLING AND RE-SELLING MOBILITY SERVICES

FRAND in EU Regulation

The FRAND – Fair, Reasonable And Non-Discriminatory – principle is a legal concept found today in a wide variety of EU sectoral legislation¹¹ and finds multiple application in the Commission’s approach to regulating data sharing.

Notably, the Data Act proposal sets out a new model for data sharing and includes relevant concepts and obligations when dealing with compensation for data shared on a regulated basis. If there is a legal obligation to make data available, then:

- The conditions for data sharing must be FRAND;
- Data holder and data recipient agree on a reasonable compensation.

The members of subgroup 2, with the exception of IATA, agreed that the Data Act is a good place to start from, when considering how to regulate MDMS. However, some shortcomings were identified. Notably, the Data Act does not cover any distribution issues (only data sharing) and the dispute settlement under the Data Act is non-binding. MDMS could, and should, fill these gaps as *lex specialis*, while taking care not to deviate from the Data Act’s general principles.

FRAND is a flexible (not dictating any specific contractual elements, allowing to take into account specificities of a given sector), fit for purpose (setting a principle-based benchmark while stopping short of a more invasive or constraining regulation) and future-proof (not requiring to be regularly revisited or amended to keep up with market developments, new technology or business models) concept. As such, FRAND can help address market distortions while maintaining incentives to innovate. It would enable TOs and MDMS to continue to individually negotiate distribution agreements, while allowing all involved parties to contest unfair commercial terms before national courts or competent authorities or relevant dispute settlement bodies.

FRAND application in the new MDMS initiative could cover the following aspects, amongst others:

- Guide points to calculate compensation, emphasising the balance between costs/investment over use/access and reflecting the different interests of the parties;
- Guide points on access to data¹²;
- Guide points on look to book ration and marketing restrictions; transparency on terms and conditions.

¹¹ See for example <https://www.4ipcouncil.com/research/frand-regime-dominant-digital-platforms>

¹² ECTAA and ERA suggested that this aspect should also look into B2B parity clauses and their effect on competition.

Access to content

Access to certain necessary content is a fundamental precondition for multimodal information and ticketing systems, i.e., MDMS. Currently there is a lack of (independent) multimodal transport distributors, which is, according to distributors, due not to a lack of willingness, but to a lack of commercial viability, as a result of having no access to data under FRAND conditions.

As suggested by MobilityData, a distinction can be made between basic data (schedules, location of mobility hubs, for ex.) which should be considered as “raw” data, open and accessible to the public, and additional data that can be shared according to specific (FRAND) terms in negotiated commercial agreements.

Distributors require that MDMS need access to transport content from all relevant operators upon request, in a non-discriminatory manner without delay, including core optional price supplements and ancillary services, under FRAND conditions & in the context of a commercial and negotiated agreement (for this, see also below). According to Amadeus, such a content access obligation could possibly be limited to large transport operators, as smaller ones have more incentives to share their data with distributors to improve their market access and outreach. However, several other stakeholders (CER, UTP, IATA) pointed out that this would go against non-discriminatory practice.

On the other hand, some stakeholders (UITP, IATA) are of the opinion that – notwithstanding some basic data that must be opened, under FRAND conditions – data sharing should be done on a voluntary basis with selected partners, for which terms and conditions depend on B2B negotiations.

A reinforced mandate is needed for ‘**public-facing**’, **static data** to be collected and published by NAPs, as exemplified by the French ‘Loi d'orientation des mobilités’ (LOM). Such mandate already exists through the MMTIS Regulation, but NAPs are still struggling to get data listed.

Whereas the MMTIS does recommend to share also **dynamic, real-time data**, this is currently no obligation. However, real-time data must be available as well, where possible (as foreseen in the revised RPR Regulation, as well as in the CER Ticketing Roadmap). Most importantly, passengers need timely and practical information should things go wrong during their journey. They need to be informed about disruptions (e.g. delay, cancellation, or any change in the planned journey) and the effect this will have on the rest of their trip: either by the operator they are travelling with and/or by the ticket vendor who sold them the ticket. Other transport service providers also need to be informed because it enables them to secure travel connections, if necessary.

In the air sector (and increasingly in the low-cost segment of long-distance rail travel), we see a trend towards unbundling of **ancillary services**, which means that in order to have a like-for-like comparison, it is important that also the price of at least some ‘core’ ancillary services are passed on to distributors, so as to give customers an accurate idea of the final price when booking a (one-mode or multimodal) trip. This aspect is currently being discussed in the review of the CRS Code of Conduct and the Air Services Regulation (1008/2008, provisions on price transparency). Also for urban transport, it can be relevant, e.g. when travelling by bike a passenger will want to know the conditions and price for taking along a bicycle (this aspect is addressed in the revised Rail Passenger Rights’ Regulation).

Should **sustainability** be a criterion for displaying results of a travel query (see subgroup 3), then distributors also need to be supplied with such data (e.g., GHG emissions) by operators. BEUC, ERA and EPF pointed out that such sustainability sorting criteria should be defined following a common, EU-wide methodology defined by law, to truly enable a fair comparison for customers. Upcoming proposals from the European Commission (CountEmissions EU, Aviation label) are to be considered should such criteria be included in the MDMS initiative.

Some subgroup participants pointed out that the legal framework is different for PSO services and commercial services. DB mentioned that it is free to exchange data on long-distance services, but for regional and local trains they need to go by the PTA. Nevertheless, all actors agreed that at least regional, and of course long-distance, rail needs to be included in MDMS, as it forms a crucial part of the mobility chain, whether performed under a PSO contract or not (note: the distinction between long-short distance is further addressed in subgroup 1).

According to the travel distribution sector, to facilitate access to transport operators' content, a content access modality through the opening of APIs outlined would be an appropriate policy approach. According to eu travel tech, such an opening must be mandatory considering the current lack of willingness of operators to cooperate with MDMS, it must be applicable for all operators and it must be handled based on a request by an MDMS. Amadeus adds that the data access obligation should be agnostic to the type of ticket issued by an MDMS platform and not be limited to the booking of multimodal trips only, as the end result of a (multimodal) search can also be a rail-only or a flight-only ticket, for example. For IATA, such a "content access modality" would deprive airlines (the entities providing the travel services and contracting to sell the tickets) of the right to decide which fare classes can be integrated into MDMS tickets (for this, see also below). ERA fears that the obligation on transport operators to provide full content access would put the airlines, and especially the smaller ones, in an extremely weak position towards GDSs and alike.

There is a general consensus and willingness among subgroup members to share some categories of data in case it is available (the same principle applies in the MMTIS Regulation) and, for certain types of higher-quality data, under FRAND conditions including reasonable compensation (see below). If new (interoperable) datasets need to be created, operators and PTAs ask to consider the associated cost in the context of a cost-benefit analysis.

Sharing data should not be a one-way street. As pointed out by CER, currently railway undertakings have many data-sharing obligations, while MDMS distributing those services don't have obligations to share data regarding the use of such transport services by their customers. Authorities and transport operators also wish to have access to data from MDMS, so as to gain better insights into their passengers'/citizens' mobility patterns, plan investments etc. In their joint opinion paper on EU-wide integrated ticketing¹³, UITP, POLIS and EMTA stress that the absence of reciprocal data sharing could lead to data asymmetry (data-poor transport operators and authorities and data-rich platforms), which could lead to a situation where local travel demand data are held by large tech companies outside of Europe. They therefore suggest that the obligation to allow third parties to act as a ticket/trip reselling channel should mean that in return, the vendor, integrator or MaaS platform has an obligation to provide enriched data it creates and generates to the public authorities. BEUC and EPF noted that the role of MDMS towards passengers implies that they must inform them about their rights in a proactive manner (see also below on liability).

Distribution / license agreements

Should it be mandatory for TSPs to sell tickets through third parties? Such a mandate is already included in national legislation in some countries, as is the case in Finland or France. In Finland, the Act on Transport Services foresees that there must be well-justified reasons for a refusal to negotiate or enter into an agreement dealing with opening ticket interfaces. Similarly, the French Loi d'orientation des mobilités (LOM) provides that MaaS platforms are entitled to access to the mobility service providers' selling channels with no right for them to refuse, in this case on the condition that the MSP has a digital sales channel. However, there was no agreement on this question within the

¹³ <https://www.polisnetwork.eu/wp-content/uploads/2021/02/UITP-EMTA-POLIS-Joint-opinion-on-EU-wide-integrated-ticketing.pdf>

subgroup.

Several stakeholders (e.g., EPTO, MOVE EU, UTP, CER, IATA) were of the opinion that entering into a commercial agreement should remain voluntary. MDMS players (both MSPs and MDMS providers) should in such a scenario be free to choose whether or not to engage with which other parties. In some cases distribution through third parties is not considered feasible, e.g. in the case of a local bus company that only sells tickets through the bus driver. Therefore, a general obligation to provide tickets through third parties, without taking into account the context, may not be feasible as small PTOs and PTAs may not have the resources to completely change their systems to accommodate such an obligation in the short term.

On the other hand, both from the end-user side and from the perspective of distributors, and backed up by AllRail, ideally an MDMS should be able to display (and distribute, in a one-stop-shop) all relevant transport services, where possible from door-to-door, as seamless travel really makes multimodality a more convenient and attractive choice, necessary to encourage a modal shift. Also MOVE EU supports the distribution of PT tickets through ride-hailing platforms, which in their view could be a game-changer to provide a seamless, holistic and diverse mobility offers to consumers.

Most subgroup members agreed that, to ensure that the legitimate interests of transport operators are respected, the cooperation with MDMS should take place in the framework of negotiated agreements, which would then also address, e.g., liability, security¹⁴, and other contractual issues. In certain sectors (such as air transport), such agreements are already in place. Subgroup members agreed that licensing / distribution agreements should respect FRAND principles¹⁵. FRAND should apply to all parties. How to operationalize these principles, is an open question that needs further discussion.

Problems signaled by distributors include: some (dominant) operators are withholding content (lowest fares, ancillary services, real-time data) from indirect distribution channels; adding surcharges to such channels (notably by large operators); unsustainably low commission levels; imposing marketing restrictions to them (e.g., restrictions on selling through metasearch or other price comparison websites, restrictions on brand-bidding, restrictions on offering discounts).

Problems signaled by operators include: unavailability of tickets in (an interoperable) digital format; need to balance commission fees to MDMS that would eat into their small or non-existent profit margins¹⁶; wishing to keep in charge of the price to be paid by end-users; losing direct contact with customers to provide a better service; some distributors being very different in their vision, values and business strategies, incompatible with the PTO's or PTA's own vision and policy objectives; some distributors using dubious practices misleading the customers and damaging the reputation of PTOs.

Local authorities wish to remain in charge of determining the conditions for resale of PT and other publicly procured or compensated transport services. Such conditions include technical restrictions or use of technical standards, making sure that the viability of the ticket can be checked and fraud can be prevented. Another important aspect is pricing policy. For UITP, EMTA and POLIS, leveraging the fare structure is a means for authorities to achieve sustainability, equity and effective governance. Also in CER's view, tickets cannot be resold at different prices without the operator's prior agreement. On the other hand, it was pointed out by several stakeholders (Finnish Ministry, eu travel tech), that MDMS operators have the freedom to set end-user prices to provided services, as foreseen by EU competition law. In air travel, some OTAs offer prices that are lower than those on airlines' direct channels, for the same flights. Such intrabrand competition, guaranteed by EU competition law, is

¹⁴ Transdev noted that this should include financial guarantee to be issued by the MDMS platforms in order to secure the payment to the MSP of their services as sold by the MDMS platforms.

¹⁵ IATA specified that for them, licensing / distribution agreements should respect FRAND principles *in the event that negotiated agreements cannot be reached*.

¹⁶ Transdev noted that sometimes the price to be paid for PT services under PSO contracts is fixed by the PTA.

beneficial for consumers in the end. At least, this is the case for commercial services, the situation could be different for PSO services. For example, UTP pointed out that the French LOM allows MDMS to resell MSP services at a price set by the MPMF only with the consent of the PTA or the MSP, otherwise MSP services may be sold through the MDMS under the terms and conditions set forth by the MSP regarding the use, booking and pricing of their services (“marketplace model”).

For some MSPs, another reason for not wanting to enter into any kind of agreement with third party MDMS is the importance of direct interaction with end-users. Any integration or aggregation of services would need to guarantee quality of service towards customers, their privacy, security and safety¹⁷. Indeed, transport operators should not be obliged to grant access to their data to anyone and without any guarantees for security, fraud prevention, etc.

Should MDMS be allowed to distribute all available fares? For end-users, it is important to see all relevant fares, including the most attractive ones, as stated in the revised RPR Regulation. Otherwise, they may have no incentive to use an MDMS. From the distributors’ perspective, it is also necessary to include, perhaps not all, but in any case the lower fares (not merely the single fare), in MDMS and to allow MDMS to distribute them. Otherwise, there is no business case for MDMS. This is why there are few MDMS currently or why they are not profitable. For both distributors and passengers, it is therefore important that MDMS have equivalent and non-discriminatory access to transport service providers’ content when compared with TSP-owned distribution channels. For local public transport, UITP suggested that the MDMS initiative should, at least at the start, limit itself to single tickets, and possibly touristic tickets like 24h or weekly passes.

One of the barriers for all fares being present in an MDMS (e.g., discounts for youth, seniors, loyalty programs) is that this requires access to a user’s personal data / profile. Finland has come up with the concept of “authorization on behalf of another party” to solve this issue, which enables personal discounts in the transport chain offered by the MDMS operator in a transparent way that does not require mode-specific identification in every leg of a journey.

Data security and data protection indeed need to be considered, both for companies – IP – and individuals – GDPR compliance, data portability. For example, bike sharing actors run operations that are more GDPR sensitive which makes data handling more difficult. End-users must be / remain in control on how their personal data is used. Also for operators and distributors, as pointed out by CER, sensitive data should be safeguarded and remain under its owner’s control. Existing legislation such as the Trade Secrets Protection Directive already contributes to protecting sensitive information. CER suggests that third parties using operators’ data should meet the following requirements: i) They submit the proof of their registered office (if it is outside the EU territory, it would make it challenging to enforce EU law and standards); ii) They disclose where the data processing infrastructure is based; iii) They inform how the data technical protection system is implemented. MobilityData added that MDMS should be obliged to register before they access and make use of data, which would help operators and local authorities know the level of engagement and build trust between the parties. As mentioned by the Finnish Ministry of Transport, decentralized data flows and automated data transactions, as well as investments in European data spaces, could also help build trust as well as efficiency in data exchange.

Regarding the important topic of compensation & commission levels, we can conclude that, in order to be FRAND, these must be sustainable for all parties involved while also considering the impact on the price paid by the end-users. According to Trainline, TOs incur costs for data collection and

¹⁷ For example, ERA sees travel agencies not as resellers of airline tickets but as representatives of the airlines with a mandate to sell air tickets under strict conditions. Thus, if the travel agency does not properly represent the airline, the airline must have the power to break the commercial relationship with the travel agency.

processing for their own use and as “these costs are inherent to the provision of the transport services”, there should be no additional costs for TOs in sharing the information with MDMS providers, all the more given that often protocols and interfaces will already exist. However, most other subgroup participants disagreed and found data sharing does come with a cost (see §1) and therefore, a reasonable compensation for access to certain content (beyond basic, ‘public-facing’ static data) is to be negotiated between MDMS and TOs.

Regarding distribution agreements, some participants suggested that MDMS / distributors should be remunerated at a fair and reasonable level which covers costs and provides a reasonable margin. On the other hand, in IATA’s view, one cannot assume that transport operators shall remunerate MDMS providers (e.g., consumers could pay a booking fee, as they do today with event tickets), as this is a matter which is subject to commercial negotiations and decisions. Also, CER remarked that ‘fair and reasonable level’ does not automatically mean that all costs and a reasonable margin for MDMS shall be covered by the TOs, as MDMS have proved successfully to be able to generate additional income e.g. from booking fees and they are in control of the majority of their cost base.

Trainline commented in this context that independent distributors must be dealt with in the same way as in-house distributors (non-discriminatory principle) and that the risk of price-cost squeeze / predatory prices should be addressed (as for ex. in German post regulation): in-house distributors can survive on very low commission levels but independent distributors cannot. On the other hand, such compensations may not be overly high so as to not endanger the revenues of PTOs (especially smaller ones), and eventually damage end-users who would risk to pay more. The FRAND principle should prevent the risk of unaffordable commission fees and rates for all parties. Compensations must be fair, in light of the specific context, therefore the FRAND obligation should be accompanied by guidelines addressing each use case (e.g., PT: What is a fair commission for local PT?).¹⁸

Another aspect of FRAND is that we need to avoid exclusivity and ‘walled gardens’. MDMS operators, whether public or private, should not be able to exclude other operators or dictate the terms of the market for all mobility service providers (Finnish Ministry). Also pointed out by UITP-POLIS-EMTA in their joint position paper on EU-wide integrated ticketing, any regulation or policy initiative must be applicable to all types of mobility operators (public and private) and all vendors must be subject to the same rules and regulations (e.g., passenger rights, accessibility information). In terms of rights and responsibilities, platforms must be obliged to offer all relevant available services, not only the services with the highest revenue potential. Exclusivity between transport service providers and vendors, that may lead to parallelly-operating, walled-garden ecosystems must be prevented to ensure best possible access to transport services for all and the most effective and sustainable use of public space and infrastructure over time.

A final aspect to address (outside of the scope of the MPMF) is liability in case something goes wrong during a multimodal journey, which is currently a main obstacle for passengers. Some stakeholders argued that such liability would lead to significant additional costs to operators or MDMS, which would need to be recovered by either an increase in ticket prices or an increase in contract prices for service operation, or both. At the very least, passengers should be informed: i) about their rights (as currently foreseen in the revised RPR Regulation: operators and ticket vendors are liable if there is no disclaimer to warn passengers), i.e. whether or not their ticket constitutes a ‘through-ticket’; ii) about any disruptions (in real-time) and how to work around the problem (therefore, ticket vendors need access to real-time information). They also should have access to an easy, convenient procedure for claiming

¹⁸ In this context, CER commented that “socializing all risks with the TOs or PSOs while privatizing near-certain profits is neither fair nor adequate from taxpayers’ point of view”. UITP also stressed that commissions for reselling PT tickets must be limited so PT doesn’t become more expensive and to avoid to “privatise the profits (of platforms) and compensate the losses (of PT companies) with public money”. UITP pointed out that the options that are most desirable environmentally or socially should be promoted by MDMS, and one way to do that is by limiting the fees for resale of these options, for example by establishing them at the level of marginal costs. There are examples of platforms established jointly by several PT companies, which mutually resell each other’s public transport tickets; it could be helpful to study at which level the commission fees were established in that case.

their rights to reimbursement. This should be a requirement for MDMS, being the first interface with consumers.¹⁹ Also, from the passengers' point of view, journey continuation is the main priority. Legislation should foresee the conditions for ensuring that passengers can expect to reach their final destination, for instance by taking into account and supporting existing sector-driven initiatives. Alternatively, as suggested by some members of the subgroup, travel insurance could be offered to passengers as a recommendation, esp. in case of an expensive trip.

How to regulate?

There is agreement in subgroup 2 that the EU should set a framework where all stakeholders have access to data that is necessary to provide MDMS services, can define data quality requirements and are encouraged to develop services further.

As mentioned above, it needs to be clarified if the MDMS initiative will cover B2C, B2B and/or B2G relationships and – considering B2B – how it will relate to the (reviewed) CRS Code of Conduct.

In some countries, model agreements for MaaS are being developed (for example, “Open Wheels” in the Netherlands). However, many are not in favour of standardised license agreements as such, as it would not be necessary to achieve the purpose of the MDMS Regulation and would be difficult to agree what it should include.

Subgroup 2 members (with the exception of IATA) rather supported that in the new MDMS Regulation, FRAND should feature as a core standard. I.e., a general provision regarding the application of the FRAND principle to contractual relations between operators and MDMS should be included in the MDMS, while avoiding to be too detailed or prescriptive.

Next, it will be crucial to draw out recommendations on how this can be arranged practically (e.g., mandatory opening of APIs, designed to effectively enable content access to provide MDMS services).

Further guidelines or implementing acts per sector (future-proof, can be adapted as the market evolves), including specific requirements targeting common unfair practices, should be developed in addition to the core Regulation, to define or explain what practices qualify, or do not qualify, as FRAND-compliant, for example, as mentioned by some stakeholders:

- Brand-bidding restrictions, marketing restrictions in search engines and advertising in app stores;
- Unsustainably low commission rates or compensation;
- Self-preferencing; access restrictions to data, services, fares;
- Misleading presentation of offers, prices and tariff-conditions;
- Misuse of registered brands.

Enforcement is needed for MDMS, like any Regulation, to be effective (the topic of enforcement is further dealt with in subgroup 3). Unlike in the Data Act, dispute settlement mechanisms should be made binding on all parties.²⁰ It was suggested that a dedicated authority (either at national or EU level) should be able to supervise negotiated agreements, to enable quick action outside courts, as done in other regulated sectors.

¹⁹ ECTAA notes that an obvious prerequisite for this is that the transport operator has processed the underlying B2B refund first.

²⁰ Not agreed by CER

3.4. DEVELOPMENT OF HARMONISED STANDARDS FOR MDMS TECHNICAL INTERFACES (APIS)

Which standards are available?

Within the S2R-funded project GOF4R, an inventory has been made of available standards in the transport sector²¹. The following standards were put forward by the subgroup members:

- For local public transport, the reference is Transmodel, NeTEx, SIRI;
- For regional and long-distance rail, OSDM (work is ongoing to ensure interoperability with CEN standards) is seen as the reference to exchange tariff data more flexibly and create through- ticket offers;
- GBFS for shared mobility (bikes, scooters, mopeds, and car-sharing).

It was also noted that some countries started to work on APIs to exchange data between transport and MaaS operators (e.g. TOMP-API²²).

Some of the subgroup members expressed concerns about technical standards: As there are many, the question arises – which ones to use?

How to regulate?

Standardisation is considered as an essential aspect of the proper functioning of the sector, with a clear emphasis on open standards. Integration through bilateral solutions is very expensive, standardization can lower the cost through economies of scale.

It was agreed that we should not reinvent the wheel, and that sector-based solutions are to be supported as starting point. Letting the industry work together on open standards, is considered the best way to increase consensus and usage of a standard (e.g., GBFS, OSDM), making sure that the standards respond to the involved actors' needs.

As suggested by HSL, a minimum viable standard to enable already recognized usage would be a feasible approach to push Europe-wide uptake and allow scaling up services, while allowing more advanced local and national solutions would promote innovation and feed future upgrading of EU standards.

It is probably not realistic to aim for one universal standard across all sectors and modes (all operators using the same API, allowing the booking requestor to connect to all transport operators in an identical way). As pointed out by eu travel tech, an interoperability requirement of APIs applicable across *all* transport modes, from e-bike to airplane, would be highly complex and ill-suited to address the needs of each individual mode. A universal standard developed with the buy-in of all transport operators just within one mode would be not only very slow to develop but very costly to implement across the industry – and may be business prohibitive to many transport operators. Additionally, the governance for the evolution of such standard would require complex organizational structures and processes for representation at global level to adapt to the evolution of new business needs.

Therefore, it is important to stress that interoperability is more important than standardization. We need to look for the most cost-efficient way to achieve it. In the end, it is the aim of standardization to reduce cost, not increase it. Building an open framework that provides full interoperability whilst limiting impacts on existing systems is the aim.

²¹ <http://www.gof4r.eu/download.aspx?id=d154526e-ed75-42f1-a3ca-cded4dfbdce5>

²² <https://github.com/TOMP-WG/TOMP-API/wiki> & <https://tomp-wg.org/>

Technological solutions like semantic interoperability, e.g., as being developed by S2R IP4²³ can be a good way forward. Such solutions provide ‘translation’ mechanisms to overcome the fragmentation of different standards and interfaces used. It allows operators to interact without having to change their legacy systems and communication protocols. Further research and a proof of concept of such solution are necessary to proceed further. On the other hand, even in this scenario standardization is still useful since it would reduce the cost of any semantic interoperability solution (because adoption and implementation reduce the number of translations to be coded, performed, maintained and evolved).

Standards should be readily available, for free (especially when it is mandatory by law to use them) or at a fair and reasonable cost. On the other hand, we should realise that standards require significant investment, in R&I, auditing, maintenance, governance, ... Hence, a sustainable business case is needed. Financial support is welcome: to facilitate participation in standardization work for all relevant actors (e.g., PAs now often lack time and resources for this); to build capacity at all levels; to support initiatives working on EU-based standards; to operators when obliging them to comply with new standards; to subsidize technical assistance centers at NAP level, etc.

3.5. CONCLUSIONS

The discussions between members of the MPMF Subgroup 2 have highlighted several problems the mobility sector is facing when it comes to make multimodal trips (at local, regional or international level) easy for passengers and end users of mobility services. The rapporteurs note that the current situation is not optimal in this regard and highlighted the issues at stake in this report.

It is clear from the discussions that the main point of tension lies in the exchange of data between actors, whose conditions must be defined by the MDMS initiative. Despite diverging interest between stakeholders, the scope of data sharing and the roles of each actor should be specified by the initiative. The rapporteurs noted the consensus among Subgroup members to share more data.

As such, the MDMS initiative should cater for different realities, at local, regional and international level. The involvement of public authorities or the investment gap for some mobility modes are to be considered. The initiative could prioritise on the most pressing issues, where multimodal journeys are currently the most complicated (lack of information and booking options, difficulties at transfer nodes, etc.), however without preventing the integration of some “quick regulatory fixes” across all transport modes.

The Commission should also pay specific attention to the integration of the CRS Code of Conduct into the MDMS proposal. Several Directorates are involved and stakeholders in the airline sector (airlines, but also GDS) have pointed out existing provisions that need to be updated. As a long-standing piece of Regulation, the integration of the CRS Code of Conduct into MDMS should be dealt with carefully.

Moreover, all stakeholders mentioned the importance of setting principles guiding the relations between them: equal treatment, reciprocity in data sharing, FRAND conditions, liability mechanisms and standardization/interoperability. The MDMS initiative should therefore set these principles and detail the conditions under which access to certain contents is granted. There is no consensus between Subgroup Members on this issue.

In conclusion, the rapporteurs point out that the initiative should focus on the solutions it could bring in the short and medium term in the transition towards a more sustainable mobility, especially the end-user perspective (notably the passenger) in terms of convenience, access to relevant information, including its rights, trust in its planned journey and availability of alternatives in case of disruption.

²³ <https://rail-research.europa.eu/research-development/ip4/>

Members of the MPMF Subgroup 2 have discussed the four questions during three online meetings. Written inputs have also been shared to the rapporteurs throughout the process. The rapporteurs would like to thank all participants of the MPMF Subgroup 2 for their contribution to this report.

4. REPORT FROM SUBGROUP 3

4.1. INTRODUCTION

The Multimodal Passenger Mobility Forum was set up by a decision of the European Commission on December 3, 2021. Its purpose is “*to assist the Commission in the preparation of policy initiatives in the field of sustainable multimodal mobility for passengers*” notably by providing “*advice and technical expertise to the Commission on the development and implementation of future proof and innovation friendly legislation, policies, projects and programmes in the field of multimodal mobility for passengers and shift of more activity towards more sustainable transport modes, for example in the form of opinions, reports or analyses, and contribute towards an integrated and seamless multimodal system of sustainable and smart mobility services*”²⁴.

During its first plenary meetings (February 23 and April 6, 2022) a work plan was discussed and adopted by the expert group, dividing its work into three thematics, each to be addressed by an informal subgroup:

- Thematic 1: Aligning MDMS with public policy goals (including issues related to sustainability and accessibility)
- Thematic 2: Facilitating cooperation between operators and MDMS
- Thematic 3: Enhancing cooperation

For each of those subgroups, rapporteurs were designated by the Commission to steer the work of the members. eu travel tech and MaaS Alliance have been thus designated co-rapporteurs for subgroup 3, meant to address Thematic 3 under the work plan, including two questions:

- Point 1: Avoiding self-preferencing.
- Point 2: Enforcement: how principles and rules will be enforced

Following a discussion with the Commission, and as presented during the plenary meeting of 25 May 2022 (add reference to minutes once available), it was decided to split the discussions under point 1 between short-distance passenger transport (including urban transport) and long-distance passenger transport (excluding urban transport). Indeed, those two categories of services are operated within different ecosystems, from a commercial, technical and legal standpoint. The same policy solutions could therefore not be applied indistinctively to both categories. The differentiation criteria between the two categories is not to be addressed by this subgroup. For the mobility user it is important to scope the output of MPMF towards “A trip” in which we will align all the services required to fulfil the user needs with all mobility services, long distance or short distance, depending on the situation

As Chair of the MPMF, the Commission has clarified the task assigned to the rapporteurs of the informal subgroups: each subgroup is to present a report with possible responses to the questions outlined in the work plan. Such a report shall reflect the views of all participants, providing recommendations only if a consensus could emerge out of the discussion, or identify the points of disagreement..

²⁴ Commission Decision C(2021)8688 of 3.12.2021 on setting up the Multimodal Passenger Mobility Forum

To conduct its work, subgroup 3 has held 3 online meetings on May 17, June 9 and June 28. All subgroup members (“Members”) were invited to provide written input in addition to the oral input provided during the meetings. This report results from this thorough consultation process.

4.2. PART 1: AVOIDING SELF-PREFERENCING

Work plan of the MPMF

Point 1: avoiding self-preferencing

1. What are the most appropriate tools for the sector? A ban on self-preferencing? Neutral display?
2. If so how to apply neutral display of the MDMS? Lessons learnt from the CRS²⁵ code of conduct.

The objective assigned to the subgroup by the work plan of the MPMF is to define how to avoid self-preferencing (defined in the Digital Markets Act as “treating more favourably services provided by the undertaking in control of the ranking parameters”) may be solved. The subgroup has therefore explored the different remedies which could be considered to tackle such practices.

Clarifications

Definition of a Multimodal Digital Mobility Services (“MDMS”)

This question is crucial to appreciate the existence of self-preferencing practices: if distribution platforms operated by transport operators were not to be considered as MDMS, such self-preferencing practices would by definition not take place on MDMS platforms: independent MDMS platforms, unaffiliated to any transport operator, have by definition no means to self-preference. On the request of the subgroup, the European Commission has brought a clarification during the plenary meeting of May 25 (see table below):

- An MDMS provider is already defined in the [proposal](#) for the revision of the ITS Directive, currently under discussion in the EP and the Council²⁶. Under this definition, an MDMS is “*a service providing **information** on traffic and travel data such as location of transport facilities, schedules, availability or fares **for more than one transport mode**, which **may include features enabling the making of reservations, bookings or payments or the issuing of tickets.**” It could still be amended by the co-legislators.*
- However, the Commission is considering a wider scope for the MDMS Regulation (see Commission slide below) as it would cover in addition to the MDMS services as defined by the ITS Directive the multi-operator distribution platforms active only in one transport mode and the integrated distribution platforms of transport operators when they distribute more than one transport mode. However, such platforms, while included in the scope, may benefit of certain exemptions such as not being forced to distribute the services of their competitors (see further discussion in the point below on self-preferencing).

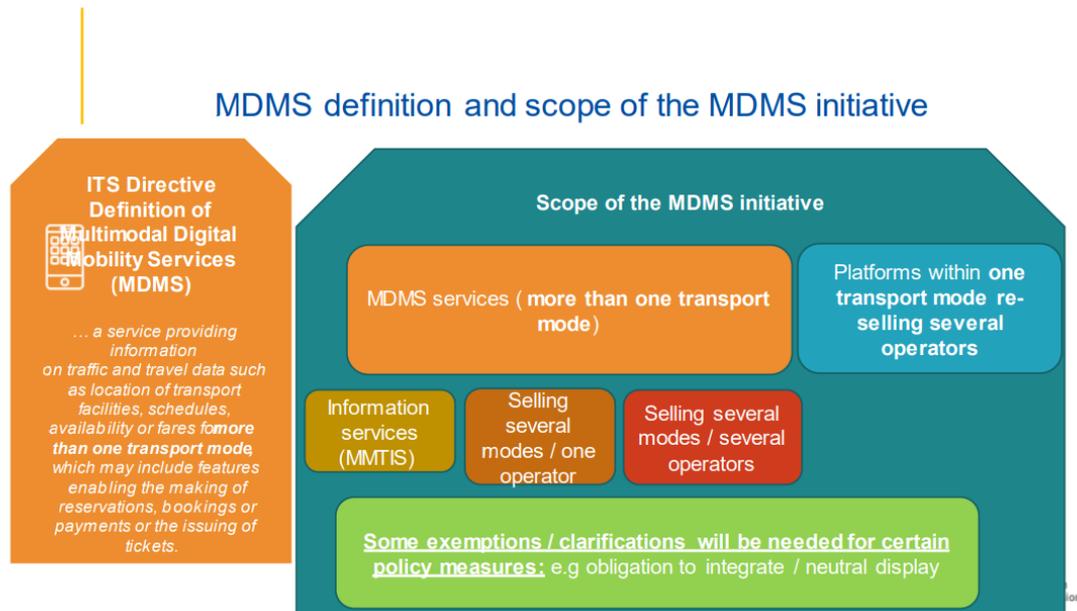
From UITP point of view, the definition of MDMS should not be presented in the ITS directive but in the future MDMS legislation. In addition, according to UITP, local public transport should be regarded as one mode providing access to the urban area (through a variety of intermodal services).

²⁵ CRSs are Computerised Reservation Systems as described in Regulation 80/2009

²⁶ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending 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

Regardless of the definition of MDMS, the relationships between MDMS and the service providers should be accounted for in order to allow for the definition of self-preferencing itself.

MDMS definition and scope of the MSMS initiative



Preferencing of certain travel options based on commercial agreements

For some subgroup members (CER), it is necessary with the MDMS initiative to also address “*other commercially incentivised displays of options to passengers that could be problematic, such as preferencing options where the MDMS platform earns a higher commission, where the platform earns more advertisement income*”.

Although this issue was not in the initial scope of the subgroup, it has been considered. As detailed in annex, there is already an extensive horizontal legal framework regulating display of search results for distribution platforms, including MDMS platforms:

The **Platform-to-Business Regulation**²⁷ obliges platforms to provide transparency on their ranking criteria (article 5) and possible differentiated treatment (article 7) including relating to direct or indirect remuneration charged for the use of the platform.

The **Unfair Commercial Practices Directive**²⁸ regulates advertising and paid ranking on MDMS. According to point 11a (transparency of paid ranking and advertisement), platforms have an obligation to inform consumers when search results include products of traders who have paid to be included in the search results (advertisement) or when the ranking is influenced by direct or indirect payments. The UCPD does not ban the inclusion of advertisement or higher rankings due to payments received but requires a clear information of the consumer²⁹:

²⁷ Regulation 2019/1150 and its interpretation guidelines on ranking (EC Notice 2020/C 424/01)

²⁸ Directive (EU) 2019/2161

²⁹ “Advertisements within search results and search results that are the object of payment specifically for achieving a higher ranking must be clearly and prominently highlighted as such. Information about the advertisement or payment specifically for achieving a higher ranking must be presented in immediate affiliation to the relevant search result in a visually salient way, that stands out from the rest of the general online interface, and in a way that the consumer cannot avoid noticing when seeing the search result.” Commission Notice on the interpretation and application of the UCPD

The Digital Services Act³⁰ imposes transparency on online advertising (article 24): recipients of the service shall be able to identify “in a clear and unambiguous manner that the information displayed is an advertisement”.

BEUC highlighted that coherence with existing frameworks is important and that the MDMS Regulation could intervene where loopholes have been identified and evidenced.

Avoiding self-preferencing³¹ in short-distance services

Although we understand the scoping split for the regulation base between Long Distance and Short distances, many short distance members (Cycling industries Europe, Finnish MoT, MaaS Alliance, MOVE EU) want to point out that it is the We need to keep in mind that what we try to facilitate is the user’s mobility. We need to make sure we provide the right information³² to make the right decision within any door – to – door trip a user wants to make, helping European Citizens (=Users) to choose from all mobility options available.

Within the discussions, it is also made clear that there are 4 main areas we need to keep in mind.

- The internal Business to Business Discussion: How do we organize our industry between commercial companies
- The internal Business to Government Discussion: role between PTO and PTA
- The external Business to Consumer Proposition: What do we offer the User
- The external Business to Government discussion: How do we organize our industry with Government (License to operate)

A clear message from most of the Short Distance members: To make the required difference, we need to be sure we provide the right proposition to Users. We can only achieve the EC goals if we align on the B-to-B issues and start working together on trust and making the right User propositions. We need to focus on the output of the MDMS.

The identified issues discussed are:

Availability of Services

All members are clear: to create an open MaaS ECO System, we need Data.

- Access to essential data
- Minimum Quality of data
- EU-wide interoperability of interfaces at a system level.

The base of the solutions to reach this Availability of services is within Scope of thematic 1 and 2. We need to point out that Data is needed to build, create trust and align with partners within the entire Mobility Industry to serve Users and reach the goal set by the European Commission.

Next to availability of services, it was discussed that all Services need to be applicable for planning needs. The accessibility of services for planning purposes is promoted by all members.

³⁰ Add reference when adopted

³¹ CER believes Self-preferencing has to clearly be defined. UITP believes Self-preferencing has to be defined in a glossary, on which an EC consultation should be led.

³² This right information should be validated by the competent public authorities. The new local mobility service should not harm the economic balance of public service contracts for public transport services operated under PSO.

Neutral Display Obligation

A neutral display obligation should acknowledge the new value creation models of digital services. Setting a **minimum** list of sorting criteria or display Criteria for all MDMS providers allows the users to compare the needs of comparing and fulfilling their own trip³³:

1. Travel Cost / Pricing
2. Time: travel and waiting
3. Ease to use
4. Sustainability / Environmental impact

These Display Criteria should be explicit for the Users and Non-discriminatory towards Mobility Service providers,

Every MDMS Provider should not be limited to develop sustainable business models. The offering of a Personalized Service based on the individual user preferences (B-C) is critical to facilitate innovation and develop the best proposition from a Business point of view (B-to-B).

Agreements

We discussed the required model to facilitate the cooperation. Most of the subgroup members noted that an Open Eco System is the best solution for all. Within this setting all players can operate as an MDMS provider. To facilitate the Open Eco System, there is a clear need for building the necessary framework that structures contractual alignment. By creating this framework we can provide:

- A fair level Playing field
- Fair, reasonable and non-discriminatory (FRAND) Terms
- Market Access for all

The discussion is not only about legal Certainty and minimum conditions to grant access to API's and data, but also the need to share and provide data to create better solutions for users and

Urbanisations. The difference between Operational Data and Commercial data is critical for creating trust and collaboration within the Open MaaS ECO System.

By connecting to the Open MaaS ECO system, you connect to an Urban Area to create business and company revenue, but also to facilitate the Urban Area to improve services, accessibility and liveability of Cities. Within the Open MaaS Eco System, we need to address the legal framework to provide accessibility to the Market.

Avoiding Self Preferencing

The members foresee the main challenge in the different roles of companies within the MDMS. The services offered are mainly focussed on promoting and strengthening their own offering. Most of the members want to facilitate an open market for all players without any barriers and keep the development and innovation of new services. However, this should be in line with the local mobility policy and regulation defined under the responsibility of public authorities.

³³ Combination of multiple criteria might be problematic & lead to confusion. Example: DB Navigator/bahn.de combining filters for "fastest connection" (default setting) with "lowest available price". Default setting of "fastest connection only" leads to slower but cheaper services not being displayed.

To facilitate an open MaaS Eco system that avoids self-preferencing, it is clear that we need to address the different roles and responsibilities of the MDMS players.

- Mobility Operator: provider of Mobility services
 - Long Distance
 - Short-Urban Distance
- MDMS Provider: offering the service to the user
- If there is a combination of Mobility Operator and MDMS Provider, the functions need to be split into a legal, operational, financial and commercial role.

To avoid the risk of market power abuse cross subsidisations, we need to address these roles.

Avoiding self-preferencing in long-distance services

Identified problems

The European Commission has described in its inception impact assessment the problems the MDMS initiative aims to tackle³⁴. Among them is the issue of self-preferencing when an MDMS provider is at the same time an operator competing with other operators such as large incumbent state-owned railway undertakings. Such self-preferencing practices could take different forms: higher ranking or display of their own services on their MDMS platforms, refusal to integrate other operators' offers, hence leading to “*less transparency for users, less comparability and fewer choices for users*”.

For certain members (Amadeus, eDreams ODIGEO), similar practices are to be found in air travel with vertically integrated airlines, increasingly attempting to favor their own services through established or newly created distribution channels controlled by them (B2B or B2C). This is disputed by other members (IATA) who consider that Global Distribution Systems hold dominant positions on the air ticket distribution market, allowing them to impose anticompetitive conditions to airlines such as parity clauses³⁵. This view was opposed by ECTAA, who asserted that “today only a relatively small part of all bookings are made in the GDS, instead, most bookings are made on airline.com, direct connect, new aggregators”.

The subgroup has assessed the different possible options to address such self-preferencing practices.

1st solution considered: inclusion of a horizontal neutral display obligation in the MDMS

Benefits provided by a horizontal neutral display obligation

A neutral display obligation would allow a level playing field across the board through strict neutrality in ranking imposed on all market players. It would allow providers to compete on MDMS platforms on the basis of the factors considered in the neutral display obligation (e.g. price, journey duration).

³⁴ “Difficulty to ensure that incumbent MDMS do not adopt anti-competitive practices or that deployment of MDMS is not limited by anti-competitive practices: in some cases, multimodal digital services do not integrate other operator’s offers leading to less transparency, less comparability, and fewer choices for users. This behaviour can especially occur when a (multimodal) digital services provider is at the same time an operator, competing with other operators (e.g. large incumbent state-owned railway undertakings). In other cases, within the terms of commercial agreements for land-based modes, waterborne and maritime transport, operators limit the ability of multimodal digital services to compete on an equal footing by providing equivalent and relevant real-time information to passengers before, during and after the journey”. MDMS inception impact assessment, October 2021.

³⁵ The European Commission conducted a competition investigation from 2018 to 2021 into two GDSs practices (Amadeus and Sabre). The investigation was closed on July 2021: “The Commission has reached the conclusion that the evidence collected is not sufficiently conclusive to justify pursuing the investigation further”.

For some members (ECTAA, BEUC, EPF), the neutral display obligation imposed by the CRSs Code of Conduct has been a “collateral benefit” (ECTAA) of the Code, even after the divestment of airlines from CRSs as it has imposed a level playing field on all CRSs. For IATA as well, the neutral display obligation is pro-consumer as it ensures that airlines contents are not biased by GDSs in their display for the GDS commercial advantage and/or for the specific advantage of one of the participating airlines. For CER a Neutral Display obligation would support and improve visibility of RU-incumbents when sold in non-railways specialised online MDMS platforms.

However, for several members³⁶, neutral display must be tied with mandatory access to contents (meaning access to transactable booking and ticketing data) to be effective: a neutral display of only a part of the offers available would not provide an actual benefit to consumers. In addition, ECTAA supported an extension of the scope of neutral display to all "CRS-like" players, including aggregators fulfilling similar functions but not currently caught in the scope of the CRS CoC.

Drawbacks of a horizontal neutral display obligation in a multimodal context

Several members of the group³⁷ have raised attention on the limits that could be put on innovation by the imposition of such a horizontal obligation. It would prevent notably the personalisation of offers in light of the preferences of consumers. It would also limit innovation in terms of ranking as it would allow the sorting of results only according to the criteria designated by the regulation, leaving out other criteria such as convenience (ex: avoid early departure times, limiting transfer time) or cost efficiency (getting the best services for the best price rather than the lower one). For SJ, it is important to preserve the possibilities of third-party sales channels to offer a different kind of customization. Offers presented today on online booking channels are often influenced by several dozen factors to provide a tailored experience to users.³⁸ The current ranking practices (not applicable to GDSs) offer an opportunity for booking channels to differentiate themselves and compete based on their technological offering. CER also stressed that such an obligation should not lead to “unachievable obligations”.

Furthermore, for Amadeus and ECTAA, the imposition of such an obligation would not answer any identified market failure as the only preferencing practices in display are originating in distribution platforms controlled by transport operators. With no market failure to be addressed, the imposition of such a rule to all players would be unduly burdensome. The issue of transparency of the sorting criteria is already addressed by existing legislation (cf. supra, P2B regulation). This was contrasted by Flix SE, who stated that certain intermediaries “discriminate against RUs that do not fully accept their commercial terms”.

Which practical limitations of a neutral display obligation?

The subgroup has considered which sorting criteria could be considered in case of the implementation of a neutral display obligation, assessing the benefits and drawbacks of each one. The following criteria have been discussed: price, duration, sustainability, number of changes, accessibility.

Each of those sorting criteria, considered individually, could raise issues by bringing adverse effects (not necessarily foreseen by legislators) when applied across modes for long-distance services, with some transport modes being unintentionally favored against others and some impractical offers being presented to travellers:

- Price would lead in most cases for rail offers to be relegated out of the first page of search results, after air and road services. This would particularly benefit low-cost short-haul (i.e. under 1000 km) flight options.

³⁶ Including Amadeus, BEUC, ECTAA and EPF

³⁷ Amadeus, eDreams Odigeo, SJ, Finnish MoT

³⁸ See written comments by eDreams ODIGEO and Finnish MoT

- Duration would also greatly favor air over rail and road even for distances where rail alternatives are actually more competitive (ex: Paris-Brussels or Brussels-Amsterdam), going against the policy objectives foreseen for this initiative. However, some members (CER, EPF) have called for the inclusion of transfer time into the calculation of duration of air travel. This may raise additional methodological issues.
- Sustainability would favor rail then road over air in many cases³⁹, with the risk for travellers to opt out of this neutral display by filtering results by mode of transport in order to find the travel option addressing better their needs in terms of duration. It could also lead to the systematic display of cycling or walking options among the first results, even for long-distance services.
- Number of changes would favor air over other modes of transport in many cases, with none to one change only for almost any destination in Europe. Such unintended adverse effects can already be seen through the CRSs Code of Conduct. The Code include an obligation for CRSs to display a rail option on the first results page, even when this option is not practicable (see infra).

Finally, the subgroup discussed the possibility to combine such sorting criteria in order to avoid the adverse effects described above. However, it was not considered possible to determine a horizontal, “one size fits all” combination through law.⁴⁰ Instead, the subgroup considered the option of mandatory filters options.

Mandatory filter options

Although a neutral display obligation was considered by most members to raise strong implementation issues and unjustified restrictions, there was a consensus on the need to provide travelers with relevant information on all modes of transport, in order to enable European citizens to compare and combine travel options in light of their own preferences (sustainability) and needs (duration, convenience, accessibility). **To this end, the subgroup recommends for all MDMS platforms to be mandated to offer filter options focused on price, duration, sustainability and number of changes.**⁴¹ For CER, it shall be possible for such filter to include the choice of a favored mode of transport within a multimodal journey. These filter options could be selected by users at will but would not prevent MDMS platforms to offer a default display based on a synthetization of various ranking criteria.

However, it was stressed by several members⁴² that such mandatory filter options could only prove effective if tied with data/content access requirements (to be discussed in subgroup 2).

Which lessons to be learnt from the Computerized Reservation Systems Code of Conduct?

The Code of Conduct has been adopted in 1989 in order to address the self-preferencing practices of CRSs (also know as Global Distribution Systems, GDSs) in favor of the large airlines owning them. Such CRSs/GDSs are at the interface between airlines and travel agencies (TAs⁴³), as direct distribution was then very limited. The Code has imposed on GDSs/CRSs to display results to TAs queries “*in a neutral and comprehensive manner, without discrimination or bias*”. It has also imposed on “*parent carriers*” (i.e airlines owning CRS) not to discriminate against a competing CRS by refusing to share data (withholding of contents) it is sharing with the CRS it owns. As a result of this legislation, revised in 2009, airlines have slowly divested their investments in GDSs, a process fully completed before 2000. However, the regulation remains in force and with it, the neutral display obligation imposed on

³⁹ Flix SE indicated that in some cases, long-distance coach could be more sustainable than rail due to high occupancy rates

⁴⁰ Additionally, Flix SE raised that this approach may lead to market distortion by MDMS owned by transport operators

⁴¹ BEUC further advocated for a measure enabling customers to pre-select their preferred filter options before starting a search query on a MDMS

⁴² Amadeus, BEUC, eDreams ODIGEO, ECTAA, EPF, Trainline

⁴³ Regulation 80/2009

CRSs. For Amadeus, this is limiting the possibility for CRSs to provide useful results to the requests of their customers. Ex: CRSs have an obligation to display a rail result on page 1, even for journeys (Ex: Madrid-Budapest) where rail is very unlikely to be the choice favored by the customers, therefore leaving out of page 1 another travel option which could actually fit their needs⁴⁴. Furthermore, certain members (Amadeus; eDreams Odigeo, ECTAA) consider that the effectiveness of the CRSs Code of Conduct was impaired by the lack of enforcement by the European Commission.

2nd solution considered: a ban on self-preferencing

Such a ban would aim at avoiding self-preferencing practices by MDMS platforms affiliated to transport operators by simply prohibiting such practices.

A more targeted instrument than neutral display

As opposed to a neutral display obligation, which would be applied across the board to all MDMS platforms, whether or not they are affiliated with transport operators, a ban on self-preferencing would apply only to MDMS platforms affiliated with transport operators.⁴⁵ Being more targeted, it would limit the scope of regulatory intervention on the market, while also limiting the severity of the intervention by only addressing practices determined to be problematic.⁴⁶

Possible features of a self-preferencing ban in the MDMS

The Digital Markets Act, recently adopted by the Council⁴⁷, includes a ban on self-preferencing practices⁴⁸ imposed on all companies qualified as gatekeepers under the legislation. For some members (Amadeus), this provision could be a useful basis for a ban on self-preferencing in the MDMS regulation:

“In respect of each MDMS they own, control or operate, a transport operator shall refrain from treating more favourably in ranking and related display, services and products offered by the transport operator itself, or by any transport operator that is under common control or ownership, compared to similar services ~~or products~~ of a third party and shall apply transparent, fair, reasonable and non-discriminatory conditions to such ranking and display.” (Amadeus proposal).

Such a principle-based ban, whose implementation could be specified further by the Commission with adequate guidance, would allow the regulation to be future-proof by not targeting specific self-preferencing practices (ex: display of an offer on top of the search results despite a higher price or a longer duration) but capturing all existing and future ones.

However, the principle could be supplemented with exemptions as indicated by the Commission (cf. supra regarding definition of a MDMS): MDMS platforms operated by transport operators, while included in the scope of the initiative, may benefit of certain exemptions such as not being forced to distribute the services of their competitors. Practically, it would mean that the ban on self-preferencing would only apply if a MDMS platform owned, controlled or operated by a transport operator also distributes services operated by other transport operators (multi-operator platform) in competition with them. The concept of “competing services” would have to be clearly defined by the Commission in its proposal (which relevant market shall be considered to assess if services are competing or not?).

For some members, self-preferencing practices are not problematic

⁴⁴ Annex I, point 9 of the Regulation 80/2009.

⁴⁵ See written comments by eDreams ODIGEO, Finnish MoT

⁴⁶ The Finnish MoT highlighted that where an MDMS operator also acts as a transport operator, an unfair advantage could arise. As such, cross-subsidising of MDMS and mobility service activities should be limited and transparent.

⁴⁷ <https://data.consilium.europa.eu/doc/document/PE-17-2022-INIT/en/pdf>

⁴⁸ Article 6 (1) d of the Digital Markets Act.

CER, SJ stressed that, looking at the current rail market situation, self-preferencing by MDMS platforms managed by transport operators was “not a problem, as commercially driven organisations do not want to sell tickets of a competing service”.⁴⁹ However, some examples of such self-preferencing practices were presented in the input provided by members⁵⁰.

A self-preferencing ban would limit commercial freedom

In line with the proportionality principle, some members (CER, SJ) stressed that such a ban would be unduly burdensome for some market players as it would limit their commercial freedom. SJ also stressed that existing horizontal competition rules, at national and EU level, were sufficient to address such practices⁵¹, making sectoral rules unnecessary.⁵²

4.3. PART 2: ENFORCEMENT

Work plan of the MPMF

Point 2: Enforcement

What are the most appropriate tools for the sector? Which other examples could support (e.g proposal of the Data Act)?

The objective assigned to the subgroup under Point 2 relates to the enforcement framework to be introduced within the MDMS Regulation. The question specifically addresses the EC’s Data Act proposal (COM(2022) 68 final)⁵³ as a point of consideration, but also leaves room to discuss other relevant frameworks. The subgroup has explored its views on enforcement and existing approaches to facilitate a strong application of any obligations under the MDMS Regulation.

General remarks

Subgroup 3 members are in agreement that a strong and clearly delineated enforcement framework will be indispensable to reap the benefits of the MDMS Regulation. Without strong enforcement, the text’s provisions and thus the underlying ambitions to facilitate multimodal travel, competition and consumer transparency in Europe’s transport system will not be achieved⁵⁴.

Regarding general enforcement features, Members refrain from recommending whether enforcement authorities should be designated at national or European level. Such a decision should be based on the available resources and expertise required to take swift and effective enforcement actions. In any case, strong EU-wide coordination of enforcement activities will be crucial to avoid fragmentation.⁵⁵ In this context, certain members⁵⁶ suggested to empower the Commission to supervise national enforcement activities. Other members⁵⁷ called for rules to establish jurisdiction in case of cross-border transactions or behaviour that has an effect in more than one Member State.

⁴⁹ Flix SE strongly disagreed with this assertion, stating that self-preferencing is blocking market access for new entrants

⁵⁰ See for an example in Sweden: <https://www.snalltaget.se/en>

⁵¹ See for example the investigation against Deutsche Bahn by the German competition authority.

⁵² Flix SE disagreed with this statement, stating that SJ’s own sales platform was part of an investigation of the Swedish competition authority that concluded that legislation is needed. See [here](#).

⁵³ Hereafter referred to as “Data Act”

⁵⁴ Members repeatedly requested that lessons should be drawn from the unsatisfactory enforcement and non-compliance with related legislation (such as the CRS CoC).

⁵⁵ Members raised varying national enforcement issues regarding several EU pieces of EU legislation, with negative impacts on consumers and the single market. A concrete example given was the Air Passenger Rights Regulation, for which Member States have designated national bodies differing in structure and enforcement methods, resulting in a lack of uniform enforcement.

⁵⁶ E.g. BEUC

⁵⁷ E.g. Amadeus

Further, members⁵⁸ consider the following points as key regarding enforcement:

- Clear designation of enforcement authorities with easily accessible contact points for possible complainants or other affected stakeholders;
- Comprehensive complaint handling procedure in case of non-compliance and clarification of the rights and obligations of third parties in enforcement proceedings;
- Comprehensive procedural framework: clear and binding timeline in handling complaints; obligation to motivate decisions, binding timelines should be applicable to the entire process;
- Enforcement authorities should have sufficient penalty powers, including fines, to ensure compliance with the MDMS Regulation's provisions;

Enforcement and implementation of content access / data access

In line with the recommendations of subgroup 2 on content / data access, the MDMS Regulation shall set general principles which guarantee access of MDMS to transport operator's transactable reservation, booking, ticketing and payment data. According to subgroup 2's report, the goal should be to ensure access to all data and systems necessary to facilitate completely transparent bookings via MDMS.

To implement and enforce such an access obligation, certain aspects will need to be specified further. Experience of similar provisions⁵⁹ in other sectoral EU legislation highlights the need to prevent a circumvention of any access provision based on technical or other hurdles built by data holders. Specifically, transport operators should be prevented from hindering data access by intentionally or unintentionally providing unusable or otherwise technically infeasible means of access (e.g. empty or incompatible APIs or superfluous steps in accessing data). To this end, a possibility could be the adoption by the Commission of secondary texts (either secondary legislation or guidelines) to give very concrete guidance on how content access is to be implemented in practice.⁶⁰ These secondary texts should be developed as swiftly as possible and should be adopted relatively shortly after the adoption of the Regulation (ideally on the implementation date). The continued involvement of the Multimodal Passenger Mobility Forum, in addition to other expert advisory bodies, may facilitate the development of such texts.

The adoption of such guidelines should not imply an imposition of a single distribution standard to be imposed on all players. Subgroup members were opposed to such measures, instead calling for strong enforcement which ensures the access potentially mandated by the MDMS Regulation is applicable and usable to further transparency and innovation.

Enforcement and implementation of FRAND principles

In line with the recommendations of subgroup 2 on ensuring fair, reasonable and non-discriminatory (FRAND) commercial conditions in distribution agreements between transport operators and MDMS, subgroup 3 highlights the importance of the Data Act.

Chapter III of the Data Act includes a useful template with relevant principles on the topic of data sharing under FRAND conditions. Nonetheless, members⁶¹ raised that certain elements of the FRAND provisions of the Data Act are not suited to achieve the goals of the MDMS initiative. The main issues are that the FRAND obligations are applicable only to practices related to data sharing, whereas the MDMS Regulation will address a broader set of issues related to the distribution of (multimodal)

⁵⁸ CER Members never explicitly agreed to this framework

⁵⁹ See Art. 35 of the Payment Services Directive 2.

⁶⁰ Here again, lessons should be drawn from the implementation of PSD2 and the EBA's process of developing guidelines for open banking APIs.

⁶¹ See statements by Amadeus and BEUC during the subgroup 3 meeting of 28 June

transport services, and most crucially the non-binding nature of the dispute settlement system under Art. 10.⁶²

In light of these shortcomings, several members⁶³ were in favour of the possibility to use Chapter III of the Data Act as a template, but to address this issue in the MDMS Regulation as *lex specialis*. As sectoral legislation, the MDMS Regulation should more concretely identify the harmful practices to be addressed and refine the associated dispute settlement and enforcement framework. This approach would be in keeping with the Data Act's approach of putting forth general principles to govern the regulation of the European data economy, which may be further specified in targeted legislation.

In this context, the Commission could develop concrete guidelines on the application of FRAND to distribution agreements for transport services. These guidelines should address specific use cases of the FRAND principles, incl. applicability to different modes of transport, usage contexts (e.g. urban vs. long-distance) and specific market circumstances.⁶⁴ Ideally, these guidelines should be published on the implementation date.

Regarding the issue of dispute settlement, the Data Act may again offer a useful template in terms of procedure and designation of dispute settlement bodies, but contains the significant concern of making the final decision "binding on the parties [only] if the parties have explicitly consented to its binding nature prior to the start of the dispute settlement proceedings"⁶⁵. This approach may be suitable for the horizontal applicability of the Data Act, but could have negative consequences if applied in sectoral transport legislation. Several members stated that dispute settlement should rather be binding⁶⁶ to facilitate a swift resolution to disagreements, thereby avoiding lengthy legal proceedings before national or European courts (although these should still be possible). Regarding the dispute settlement framework of the Data Act, certain regulators have already pointed out that "dispute resolution mechanisms by specialized bodies have already proven effective"⁶⁷ in other sectors, recommending an amendment to facilitate binding procedures. If a swift and binding dispute settlement mechanism is not implemented, final application and enforcement of FRAND elements as a cornerstone of the MDMS Regulation may be delayed by several years.

Regarding the designation of dispute settlement bodies, subgroup members generally did not indicate a need to depart from the framework established in the Data Act. This means Art. 10 (2) of the Data Act was judged to be sufficient in its basic design. Subgroup members agreed with the general approach of designating national dispute settlement bodies, also to ensure that sufficient resources and expertise are available, provided these national bodies operate in a strong EU coordination and cooperation mechanism. Certain members (e.g. BEUC) highlighted the urgent need to ensure that the designation and operation of such national dispute settlement bodies is supervised at the EU level to ensure compliance with criteria and proper functioning.

Regarding a possible dispute settlement procedure within the MDMS Regulation, the following elements were seen as beneficial by a majority of members who have expressed their views⁶⁸:

1. Binding procedure in all cases, not only after consent given by the parties;
2. Binding and swift timeframes for dispute settlement bodies to issue decisions (e.g. 90 days);
3. Official publication of dispute settlement decisions;

⁶² Certain members (e.g. CER) held that the framework of the Data Act is already suitable and does not require further finetuning

⁶³ Incl. Amadeus, BEUC, Finnish MoT

⁶⁴ Certain members (e.g. CER) were opposed to this approach

⁶⁵ Art. 10 (8) Data Act

⁶⁶ Amadeus, BEUC, eDreams ODIGEO, Trainline

⁶⁷ Body of European Regulators for Electronic Communication, BEREC High-Level Opinion on the European Commission's proposal for a Data Act, p. 9

⁶⁸ CER dissented to this view, particularly regarding the first bullet point

4. Formalized cross-border cooperation mechanism to avoid contradictions and venue shopping;
5. Dispute settlement free of charge for all parties;
6. Dispute settlement bodies to comply with criteria of Art. 10 (2) Data Act (Impartial & Independent, sufficient expertise, easily accessible, capable of issuing decisions in a swift, efficient and cost-effective manner.