

MaaS Alliance – response to EC Data Strategy, 29 May 2020

Mobility as a Service (MaaS)

MaaS is the integration of various forms of transport services into a single mobility service accessible on demand. For the user, MaaS offers added value through the use of a single application to provide access to mobility, with a single payment channel instead of multiple ticketing and payment operations. To meet a customer's request, a MaaS operator facilitates a diverse menu of transport options, be they public transport, ride-, car- or bike-sharing, taxi, car rental or lease, or a combination thereof. A successful MaaS service also brings new business models and ways to organise and operate the various transport options, with advantages including access to improved user and demand information and new opportunities to serve unmet demand for transport operators. The aim of MaaS is to be the best value proposition for its users, providing an alternative to the private use of the car that may be as convenient, more sustainable, and even cheaper while contributing to the achievement of societal and environmental goals.

The EU Data Strategy set out to make Europe an agile data economy and to enable society to make better decisions both in private and public sector. Creating new guidelines for the European data economy is a welcome development which can create the foundation for economic growth and increased well-being of the European citizens. Being able to utilise data more flexibly will empower the individuals and improves the competitiveness of European companies as well the quality of public services. The EU Data Strategy shows that data is the nervous system of an organisation as it enables new businesses and solutions and informs both strategic planning and tactical operations.

One of the fundamental principles in maximising the value of the data is to share it with other stakeholders adhering to respective legislation and governance settings. The strategy is, however, quite vague on the extent of the data access and is thus somewhat difficult to comment fairly. Despite aiming to create an open data market, the strategy simultaneously recognises that there may well be instances where data needs to be kept private — “as open as possible, as closed as necessary”. Open systems bear multiple benefits as they encourage more balanced development of the markets and provide more choices for the users. Indeed, the EU should also be a strong voice for protecting customer rights, only require necessary data from the users and endorse the principle empowering users to be informed and decide on the use of their data, in accordance to GDPR. The upcoming framework for data access and use should put the individual in focus and make ethical data sharing and the My Data principles the norm.

Eventually, the success of the implementation of the Data Strategy depends on how well the interest of data providers and data users can be aligned and in that regards there is still a need for creation of new incentive models and schemes to create a dynamic and fair data economy. This is especially true in the mobility and transport sector and will require relentless and coordinated efforts from the European Union as well from the individual public and private actors in the forthcoming years.

Data Strategy and MaaS

Mobility as a Service is a new promising integrated mobility sector, supporting the general policy goals of the European Union, such as decarbonisation, energy efficiency and creation of Single European Transport Area. However, the development of this new market relies heavily on **1) access to data, 2) open APIs (Application Programming Interface) and 3) interoperability of the systems**. In addition to access to data, an imperative requirement is the high quality and acceptable use of data. Interoperable systems and open and standardised architectures for booking, payment, ticketing, authentication and security and privacy protection, are similarly crucial elements to catalyse the development of the MaaS market.

When it comes to the effort entailed for the different stakeholders to access, share and use data, a few major barriers still exist today preventing transport providers, MaaS operators, the end users, public authorities and ultimately the entire society from seizing the full potential of integrated mobility services in the MaaS ecosystem. The first precondition for an emergence and integration of various transports services is **the availability of relevant data sets in digital, machine readable, non-proprietary format**. In order to build real multiplayer, multi-option market platforms the service providers should provide each other access to essential information in digital format, including routes, timetables, stops, prices and accessibility information. Further on, ticketing and reservation system interfaces should be accessible for other service providers. An additional crucial requirement is the existence of commercial agreements between the operators, and among transport operators and MaaS providers for the sale and resale of transport services.

In a digital economy, the ownership, right of use and access to data determines the market dominance. Therefore, it should be understood that data sharing does not necessarily equal free data, but data sharing and exchange models should be designed between partners to be fair and to fit for purpose. Generally speaking, the following options can be considered as principles / business models for data sharing:

- Voluntarily
- In collaboration
- In reciprocity
- Based on commercial agreement
- Due to regulatory obligation (by endorsing e.g. use of secure interoperable interfaces, non-discriminatory pricing or objective pre-determined criteria)

In the following we describe in details some of the key components where further actions are need, both from the industry and the regulators, under the scope of European Data Strategy and following legislative proposals related to MaaS market:

	Self-regulatory measures	Expected steps by the European Union
<p>Quality and completeness of data (covering both static and dynamic data)</p> <p>Often the quality of data published is poor or incomplete. For example, data giving information about availability of the services might be inaccurate, published infrequently, not in digital format or is missing for certain services. For example, all public authorities or transport service providers do not publish data elements critical for users to make informed transit choices, such as vehicle location, fare data, or park-and-ride information, or they are inconsistent about stop and route identifiers, impeding MaaS providers to offer a consistent experience to their customers.</p>	<ul style="list-style-type: none"> Establishing neutral platform / servers (e.g. GEOTAB neutral vehicle platform) Aggregation & anonymization of data Transparent & well defined MaaS user consent framework (fully compliant with the privacy rules) Creation of specifications for requirements for each high-value data set (e.g. in terms of latency, accuracy, metadata, ...) Constant monitoring and sharing of local and national best practices 	<ul style="list-style-type: none"> Adopt and share knowledge on data sharing schemes Identify the high-value data sets, including those of related to mobility sector, needed for multimodal integration
<p>Data Standardisation</p> <p>Non-existent standards, non-standardised data sets with in a standard and a lack of industry consensus prevent the simple and scaled integration of transport services into a single MaaS application and drastically increase the transaction cost within the ecosystem. Incomplete standards might also prevent certain organizations from publishing internally collected data that would provide value to users and to the creation of combined services. Industry best practices for data publishing feeds are sometimes just ignored, contributing to fragmented and inconsistent data.</p>	<ul style="list-style-type: none"> Liaising with the relevant standardisation organisations affecting MaaS ecosystem and data needs Reference to international data standards and commonly agreed APIs when procuring or setting Public Service Obligations Development and wide reference deployment of the MaaS Alliance API 	<ul style="list-style-type: none"> Definition of the international standards for the most essential data sets together with the industry Coordination and financial support for standardisation and its implementation
<p>Interoperability by design</p> <p>Certain technological or design barriers are still in place preventing a complete functionality of intelligent systems and integration thereof. Integrated booking and payment processing technology, although it already exists, is not accessible to all nor is</p>	<ul style="list-style-type: none"> Specifications for structured data and use case specific data models Setting standard requirements for data sharing and supporting effective collaboration between stakeholders 	<ul style="list-style-type: none"> Endorsement of “interoperability by design” principle (inspired by EU Directive on Payment Services (PSD2)) Wide implementation of the ITS Directive 2010/40/EU providing a

<p>it expandable to support multiple validation technologies and revenue generating rules that would cover both the needs of transport authorities and private transport service providers. There is proven demand for more flexible approaches to provide interoperability between these legacy systems. There is also a recognised need to scalable governance and licensing models for data accessibility and data use.</p>	<ul style="list-style-type: none"> • Good-will commitment to promote interoperability • Model contractual agreements • Reference to international data standards and commonly agreed APIs when procuring or setting Public Service Obligations 	<p>framework for interoperability of deployed ITS services and extension of its scope to ticketing and payment solutions</p> <ul style="list-style-type: none"> • Revision of Delegated Act 2017/1926 to ensure that NAPs support multimodal service integration • Coordination or/and financial support
<p>Ability to switch between different service providers (Personal + non-personal data portability)</p> <p>The traveller preference data, which is used to personalise a mobility service for the customer, can sometimes not be utilized by another service provider and will therefore have to be re-entered by the user or 'relearnt'. The same problem also exists when the entity wanting to switch the service provider is a professional user and not a consumer.</p>	<ul style="list-style-type: none"> • Code of conduct • Sharing best practices and industry self-monitoring • Experimentations with MyData managements models to empower individuals to manage their own data 	<ul style="list-style-type: none"> • Endorsement of "Right to data portability" principle for both the consumer and the professional user who want to switch the between different service providers in wide scope. • Coordination or/and financial support
<p>Lack of economic incentives</p> <p>In many ways this case entails most of the above-mentioned barriers. In some cases, transport operators or their technology vendors face a disincentive to make interoperable data available. For example, some mobility operator disallows dynamic data about their services to be shown alongside that of competitors, limiting a robust marketplace facilitated by innovative apps. Also, publicly supported existing data services, even if of bad quality, may hinder developers from offering better quality services on the market.</p>	<ul style="list-style-type: none"> • Development and use of advanced data sharing schemes base on the different data sharing options / models 	<ul style="list-style-type: none"> • Endorsement and support the use of advanced data-sharing schemes based on the different models • Promoting voluntary and reciprocal data sharing schemes • Setting up a clear competition rules/guidance for data sharing

MaaS Alliance feedback regarding the four pillars of the strategy and suggested key actions:

A. Cross-sectoral governance framework for data access and use

- The Commission's ambition to abstain from overly detailed legislation is a favourable approach to the data economy. In our experience, new concepts like MaaS greatly benefit from light and enabling legislation that leaves room for innovation.
- The proposed Data Strategy is promoting at the same time both data shared voluntarily and obligations to make important data available. It is unclear how much it is intended to force business to share data and what kind of data possible obligation would cover. The forthcoming Data Act should be flexible and clear. It is necessary to have data sharing rules which are not contradict to already existing EU rules.
- It is important to take into account that MaaS providers might fall under the different scope of EU legislation based on their character. For example, MaaS provider might act in EU legislation as a transport service provider or digital service provider and based on this there are different rules for service providers playing on same market. In this sense proposed Data Act and Digital Services Act should take care that the legislative framework for MaaS is clear and same data sharing rules apply to similar services.
- The MaaS Alliance welcomes the Commission's ambition to increase the availability and standardisation of data to reduce administrative burdens and barriers to the Single Market. The MaaS Alliance welcomes the Commission's focus on not just data access but also on the FAIR (*Findable, Accessible, Interoperable, Reusable*) principles. For the European MaaS-market to reach its full potential interoperability of systems is crucial.
- The principle of data reciprocity should be emphasized in all policy. This protects the European Union from monopolies - be it local, regional or national - and encourages a thriving internal market with viable businesses.
- Data governance plays a key role in building trust. We recommend articulating in this strategy how data principles relate to European values. In particular, the strategy needs to set out clear behavioural traits, how people and organisations exhibit those values in relation to handling of data during its lifecycle. This would help embodying European values in data related activities.

B. Enablers: Investments in data and strengthening Europe's capabilities and infrastructures for hosting, processing and using data, interoperability

- The MaaS Alliance supports the ambition to strengthen individual data portability rights. In a MaaS market, data portability does not just make customer choice simple and seamless, it also makes roaming between several MaaS services possible. This will also enable a more competitive and diverse single market.
- We recommend not to create replica of dataset as this elevates the risk leading to data governance overheads. Since most of the smart cities have a lot of sensors embedded in public places and other infrastructure, providing a business-friendly way to access these real-time datasets would help local businesses and start-ups to build new products and services. This can be facilitated through data marketplace.

C. Competences: Empowering individuals, investing in skills and in SMEs

- The MaaS Alliance supports frameworks that puts the individual in focus and make ethical data sharing and the My Data principles the norm.

D. Common European data spaces in strategic sectors and domains of public interest

- The MaaS Alliance, in principle, welcomes the Commission’s ambition for a single data space for mobility and all modes of transport. It is, however, somewhat unclear what the main goal and the operational and governance model of the space is. In order for the space to reach the desired goals, the intended scope, purpose and applicable terms and conditions requires further clarification and definition, in a dialogue with stakeholders.
- In order for the data space to unleash the full potential of the mobility sector, it is important that the data is of high-quality and complete, as specified in the section above. The data space should ideally include new modes of transport like micromobility and shared modes, without creating an undue burden for the service providers in this field.
- The threshold for the access and contribution to the single data space should be as low as possible, enabling mobility players of all sizes to reap the benefits of this new initiative.
- However, we also want to emphasize that open data in itself does not enable an industry like MaaS developing and that a MaaS-market also requires services with a high level of interoperability as well as fair and non-discriminating commercial terms.
- While the EU has taken some significant steps towards intelligent mobility and transport, there remains a clear need for further action on interoperability and APIs, ticketing, cooperation and data sharing, including the respective security and privacy protocols at place. The challenges identified in the report *Remaining Challenges For EU-wide Integrated Ticketing And Payment Systems* should be addressed in the upcoming review of the ITS Directive.

The Mobility as a Service Alliance (MaaS Alliance) is an international public-private partnership that is creating foundations for a common approach to MaaS, and unlocking economies of scale needed for successful implementation and take-up of MaaS in Europe and beyond. The main goal is to facilitate a single, open market and full deployment of MaaS services. MaaS Alliance members from all sectors collaborate to create the enablers needed for successful deployment of MaaS in Europe and beyond.

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