

Discussion guide

Creating a Complete Transport Ecosystem

The way we travel is undergoing a radical transformation: Autonomous Vehicles are only one of the more prominent examples of a wider trend in how the travel landscape is changing drastically. The rise of the digital and sharing economies mean that customers expect seamless, instantaneous and more personalized means of travel.



Mobility as a Service (MaaS) can help travel providers design new operational business models to provide best-in-class customer experiences. In innovative cities around the world, for example, shared mobility services for cars and bikes have soared in the past two decades ([source](#)), as well as the use of taxi-hailing apps such as Gett and Uber. So, as a business leader in a transport organization, how can you adapt to these new initiatives? And, how can you keep up with customers ever-rising expectations?

Goal 11 of the United Nations sustainable development targets, is to make cities more inclusive, safe and resilient. Intrinsic to that is expanding public transport and providing access to sustainable travel systems by 2030. When we consider market challenges such as the rising expectations of consumers as well as disruptive competitors like Uber, this ambition can seem daunting.

There are two main barriers to change in the current transport ecosystem: collaboration and innovation. By overcoming these obstacles, operators can provide new travel services that improve customer experience, revolutionize the way we travel and contribute to the wider ecosystem. For the passenger, this means streamlining the journey to create one seamless experience across different modes of transport. Whilst for providers, it has the potential to optimize their current services and open up new revenue streams. How do we get to that point? And, what are the obstacles in the way?

MaaS is a new business model for transport providers which puts the passenger experience as the core priority. Through integrating transport services, MaaS offers passengers a single application to access mobility services (including ticketing and payments), helping them to benefit from more connected end-to-end journeys rather than the fragmented journeys and services they currently endure.

By the end of this discussion paper, you will have a good understanding of how to embrace industry changes and look forward to delivering exceptional customer experiences in the digital age with the power of MaaS.

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Barriers to change: Collaboration

What is the challenge?

Lack of collaboration is currently a major barrier to forming a more modernized approach in the sector. The competitive nature in the current ecosystem means that operators in the transport world tend to work in isolation of one another and are generally resistant to collaborating with other providers and businesses. This means providers are hesitant to share data, information and resources. For meaningful change to happen, operators from all spectrums of the transport world – private and public - need to shift their mindset to become more open-minded and have a willingness to integrate.

The benefits for change and the power of MaaS

The current lack of integration causes challenges in big, urban cities. For commuters who need to use different travel operators or modes of transport around the city, their experience is often fragmented. For instance, a commuter might need to use national rail, a bus and a tram to commute to work every morning. In the traditional ecosystem, this potentially means the costly exercise of buying three different tickets and possibly standing in ticket queues in between each leg of the journey. This is tiresome and unproductive for passengers. The increasing use of electronic ticketing has eased this process somewhat, but the matter of cost and fragmentation calls for a further need to integrate. Gary Watts, CEO at Applied Card Technologies (ACT) surmises, “Passengers want a seamless experience that’s effortless and transparent...they don’t want to have to stop, start, queue, interact with ticketing agents or machines, or even get checked by an inspector” ([source](#)).



MaaS strives to combat the problems within the current divided ticketing process by providing one single payment channel which facilitates a plethora of transport options in one digitized system, allowing them to combine transport services and choose their mode of provider freely. This means that passengers can move from A to B using multiple different transport types without concerning themselves with the validity of their ticket or the mode of transport. The purpose of MaaS is to not only make transport around the city more accessible and sustainable (by eliminating the need for a car) but, also to make the way we move around the city 'smarter'.

The current ecosystem is especially damaging for public transport providers when you consider that travellers could otherwise move door-to-door with the convenient touch of a button through the use of a taxi app. Transport operators need to come together to provide a service that competes with the door to door convenience of a car or taxi journey. Operators must put customers at the heart of what they do, ultimately, putting the power back in their hands in order to move closer to an on-demand experience.



Barriers to change: Innovation

What are the challenges?

To rise to the challenge of this customer-centric and collaborative eco-system, transport operators need to change their mindset to a more agile way of working. Traditional transport providers are under huge threat from digital native organizations like Citymapper and Google who have a reputation for innovation and creating smart services. Passengers have become accustomed to this culture of convenience, where anything they want, they can get almost immediately. In the current ecosystem, operators are in jeopardy of being relegated to simply providing the service; this sparks a need for a new business model that is centered around innovation.

The culture of innovation is not as abundant in the Transport sector as it is in other sectors. A leader who understands the need for new skills in emerging technologies is crucial to shifting to a more progressive culture and bringing the industry up to speed. Part of the culture shift makes the notion of a 'job for life' increasingly rare. Workforces that have implemented MaaS will have to develop an ethos of lifelong learning as technology progresses in order to evolve alongside digital transformation.

In transport particularly, there is some resistance to adopting new emerging technology, such as AI and IoT. It's clear that there is a lag across the sector which correlates with the lower levels of digital and automation technology adoption. Compared with other sectors, such as Automotive and Financial Services, Transport falls behind; innovation is happening, but on a very small level that doesn't work towards one common vision across the industry. This lack of smarter, mobile/digital technologies in the transport sector means that the quality of service is compromised and providers miss out on the opportunity to create more efficient processes and open up new revenue streams.

A lot of the resistance in the industry is born from traditional operators who are concerned about how emerging technologies will be integrated alongside legacy systems, as well as cybersecurity concerns. Many of these worries are caused by a lack of understanding of the potential value of emerging technologies and can be remedied with more education and support infrastructures.

In order to accelerate innovation across MaaS, collaboration between other providers, companies, universities and the wider research ecosystem should be leveraged to inspire new business opportunities and 'big ideas'. The formation of Digital Innovation Hubs (large events supporting companies to embrace digital transformation) under a new National Innovation Programme are a valuable way to integrate with other service providers in the industry and to create a collaborative ecosystem.

The benefits for change and the power of connected service

Connected services form the foundation of what the MaaS eco-system could look like in the future – by providing seamless connected services across multiple organizations, services or providers.

Transport for London's customer payment scheme is one example where connected services have enabled passengers to use an electronic ticket (Oyster) or Contactless payments across Light Rail, Heavy Rail, Underground and River Boat services ([source](#)). This has greatly improved the customer experience by creating a seamless and accessible means of getting around the city. It is also a very effective way to yield data - each time the oyster or personal payment card is used, TfL gains valuable insights into how passengers are using the network, where they're going and how they're getting there. The value of this to operators, Rabih Arzouni (CTO, Fujitsu EMEA) says, is huge:

“ Data is at the heart of it all...when you look at people's movement in London and overlay that information with supply chain data, you may be able to optimize traffic more effectively, you may be able to optimize routes and deliveries more effectively, because you know where the congestion hot spots are, what the busiest routes are in London, to provide a customer service, and give a good customer experience. ”

For example, TfL uses this data to proactively compensate consumers that have experienced delays to ensure they are receiving a valuable service. This intelligent use of data endeavours to introduce personalization to everyday travel; providing consumers with the fairest price in the most secure manner. The beauty of MaaS is that data responds to consumers needs and behaviours. So, they can benefit from live trackers, journey plans and price comparisons. For Claus Gabriel, Principal Transport Consultant at Fujitsu, “a journey doesn't start at one station and end at another.”, customers are increasingly concerned with the whole travel experience and beyond, and for providers, that's where the value resides. For example, ‘67% of international experts agree that people's mobility needs that go beyond pure mobility will be the decisive factor for selecting a mobility offering in the future’ ([source](#)). By considering adding options such as hotel bookings, restaurant recommendations and entertainment possibilities, operators can deliver the level of service customers have come to expect and open up new revenue streams – MaaS means it is no longer about the journey or the destination, but the experience as a whole with the customer at the center of all that.

For operators, this use of data doesn't just serve to increase customer loyalty but creates a more precise and a smoother end-to-end journey ([source](#)). For example, through shared data, operators can optimize traffic management and address over-capacity by channelling demand to alternative modes of transport. For operators, this helps to manage demand more efficiently, and for travellers, they receive a safer and more comfortable journey.

Adapting to a MaaS system with Fujitsu

Trust is central to effective collaboration and data sharing with other providers through a MaaS system. We understand that for a transport provider the willingness to move to a more modernized MaaS is dependent on the commercial potential. The possible result of integration through MaaS is a more streamlined customer service, a more efficient operation for providers, new revenue streams and smarter use of data.

In order for transport operators to stay ahead in the market, they need to nurture a culture that embraces digital transformation and harnesses the notion of lifelong learning. By adopting new technologies, operators can better provide engaging services that are reactive to customer expectations – maintaining that the sector stays relevant in an evolving market.

At Fujitsu we have broad experience in the sector, covering rail & road, maritime, aviation and urban transport. Through technology, we work with transport operators around the world to deliver more efficient and intelligent services so that their customers can enjoy the most seamless and personalized services. Our partners trust us to help them through digital ecosystem services so they can drive loyalty and efficiency in service delivery. When we work together, the rewards could be incredible.

Contact Fujitsu to discuss how we can co-create your MaaS strategy.

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