Accelerating MaaS Growth: Active Mobility

Mobility as a Service (MaaS) is the integration of various forms of transport and transport-related services into a single, comprehensive, and ondemand mobility service. An essential part of the services offering are active mobility modes such as bicycling and walking. This document examines the opportunities that active mobility modes bring for accelerating the adoption and growth of MaaS in the market, as well as achieving desired improvements in societal goals.

With the term "Active mobility" we refer to the mobility modes which are primarily non-motorized and where the main source of energy comes from human activity. The most popular modes are walking and bicycling – including the use of e-bike. While active mobility is not always suitable for inter-city travel, it can many times be the preferred and best alternative for travel within one urban region.

One of the key enablers of active mobility is the use of public space for pedestrian areas and bike lanes. It is essential that the space allocated to active mobility is safe, comfortable, and friendly. This can be achieved best with dedicated space and infrastructure. When the space is shared between active mobility and motorized vehicles, it is important to have enough crosswalks and that motorized vehicles are slowed down to speeds that are less dangerous to bicyclists and pedestrians. Several European cities such as Paris are slowing down the traffic of cars to speeds like 30km/h in order to protect more vulnerable road users.

City design can have a major influence on attractiveness of active mobility. If essential locations are in proximity then active mobility modes can truly be the most efficient way to commute in a city. Similarly if the design of non-urban areas focuses on accessibility of public transport nodes with active mobility (for example, maximum 15 minutes ride with normal bike), than this can again prove as a positive enabler for active mobility.

For bikes and in particular e-bikes it is very important to also provide safe bike lockers at the origin and destination. In terms of digital

infrastructure, mapping plays an important role. While walking is mapped well in most countries, this is not yet the case with regards to digital maps designed specifically for bicycling. This is a big opportunity for regions to make bicycling more pleasant, safe and convenient without major investments into the physical infrastructure.

Active mobility will play an essential role within MaaS offering to reach desired societal goals. This includes positive impact on health, reducing congestion as well as reducing carbon footprint. For example, it is estimated by CIE that 1 trip with bicycle brings about 3 EUR of value to the society. Increasing active mobility modes also influences positively on liveability of cities.

For bicycling one can use an own bike or shared bake through a service provider. Currently there is a proliferation of different bike schemes as a result of specific business model where many times bike sharing services are subsidised by local government. For end user this brings inconvenience that many different apps or access cards need to be used within one wider region. This is a significant opportunity for MaaS platforms to improve the user experience. A good step in the right direction is to implement common data standards for bike-sharing services.

The growth of active mobility within MaaS business model can happen through:

A) Commercial models that focus on user experience and business fundamentals.
B) Policy based models where active mobility modes are prioritized based on regulation, taking into account the societal benefits that these modes bring into the ecosystem.

Pandemic had a very positive impact on active mobility, in particular bicycling increased significantly in some areas. People consider active mobility as a safe mode to travel and it also proved convenient in times when travelling was restricted. Some regions embraced this proactively and promoted active mobility with initiatives such as pop-up bike lanes. It is important to continue with targeted efforts to promote active mobility as we go forward.

Active mobility can integrate well into MaaS platforms and complement the multi-modal journeys that include public and private mobility services. Active mobility many times brings economic advantages that can be prioritized by MaaS apps. Additionally, MaaS apps can use gamification elements to visualize externalities and in particular the value brought to society by using active mobility modes. In terms of functionality, MaaS apps can show safer routes for bicyclists, better cycling experience, less hills on the way, etc. It could also map pavement to provide useful hints for people with disabilities.

Active mobility can also benefit from corporate mobility initiatives. Corporations can promote active mobility through incentives and also infrastructure initiatives. For example, having comfortable and secure locks for bikes with associated shower facilities, can be a major enabler for employees to use bicycling to come to work.

Cities need to explore further how to accelerate the use of active mobility modes. This can be achieved with living labs within the city, where the focus is exploring different business models and approaches to behaviour change. One promising new concept that builds on the new digital technology is to create mobility wallets that incentivize desired behaviour with targeted and personalized micro-subsidies. Such a data-driven approach can be used to nudge behaviour on individual level associated to specific context that is unique for each person.

References / Best practices

1 **Iomob**

Iomob offers a mobility on demand platform to enterprise customers such as rail and transit operators, airlines and corporate mobility programs.

A major objective for our clients, and for Iomob is to accelerate modal shift to more sustainable and active mobility journeys by making the door to door journey as simple as driving a personal car door to door.

Iomob has developed the capability for rail and transit customers to discover, route, book and pay for micromobility services as a first or last mile portion of a rail or transit journey. This is achieved by solving several pain points for users that until now have not been resolved by other MaaS platforms. These include:

1) Utilize a 300 meter radius around the user to expose them to the best micromobility options near the user for a first mile journey.

2) Create first mile routing options for the user that varies based on which micromobility device they select.

3) Incorporate geofencing and parking restrictions into micromobility journey planning and in the case of docked devices, account for number of docking spaces available at the destination of the micromobility leg.

4) Allow the user at the time of booking to have visibility into the likelihood of a micromobility device being available at the terminal station of their rail/transit journey leveraging a 300 meter radius from the destination.
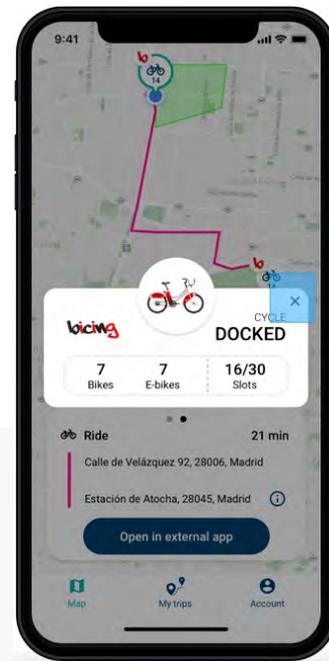
5) Allowing the user, when the provider supports this, to indicate their desire to book a micromobility device for their last mile of the journey to automate the reservation once the user is within the allotted reservation period (usually 10-15 minutes prior to use).

By offering all of the above inside the Iomob platform, a user can more easily visualize and book a journey with confidence they will be able to solve their door to door journey without the use of a car. Finally, Iomob is pioneering the deployment of a zero carbon multimodal solution by allowing users to not only track the carbon emissions of their mobility choices but also to purchase location based carbon offsets so that their journeys are net zero.

References / Best practices

2 Meep: MaaS Solution for Zaragoza

Between February and June 2021, Meep implemented in the city of Zaragoza (Spain) an agency-branded MaaS solution for Android and iOS. The solution is based on a partnership between Meep, Avanza, Zaragoza City Council and Liil Ventures.

All of Meep's mobility solutions support and pursue the goal of promoting active mobility. Meep integrates with several bike operators. Walking is recommended and prioritized as a healthy and convenient way to travel from one point to another. Active mobility is also combined with other transport options. In the ZUM platform for the city of Zaragoza, Meep integrated Bizi's public bicycles, allowing the user to search for the nearest one and check the availability. In addition, and due to the medium size of the city of Zaragoza, users are also usually provided with routes where they can walk to their nearest station (Avanza buses and trams are also integrated in the platform) giving them the option to combine a more active mobility with the use of public transport.

In another project Meep implemented gamification system that rewards points for users travelling with alternative means of transport to their private vehicle. These points can be exchanged for other valuable things. Meep observed that this gamification system worked well for people to start walking and bicycling more.
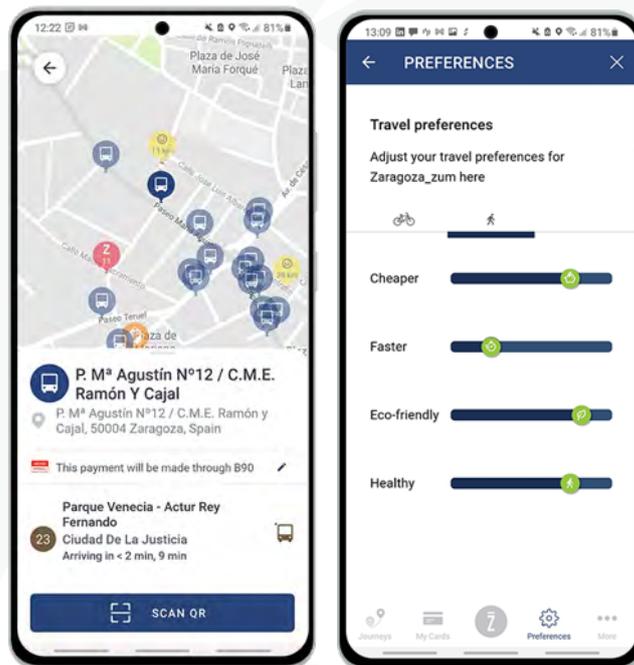
Mobility as a Service (MaaS) is the integration of various forms of transport and transport-related services into a single, comprehensive, and on-demand mobility service. MaaS offers end-users the added value of being able to access mobility through a single application and a single payment channel (instead of multiple ticketing and payment operations). To meet a customer's request, a MaaS operator hosts a diverse menu of transport options, including (but not limited to) public transport, active modes such as walking and cycling, ride/car/bike-sharing, taxi, and car rental or lease, or a combination thereof.

MaaS aims to be the best value proposition for users, societies, and the environment. To achieve this, it is committed to helping individuals meet their mobility needs, solving the inconvenient parts of individual journeys, and improving co-operation, efficiency, and sustainability across the entire transport system.

The MaaS Alliance The MaaS Alliance (Alliance) is a public-private partnership working to establish the foundations for building a common approach to MaaS and to unlocking the economies of scale needed to support the successful implementation and uptake of MaaS globally. The main goal of the Alliance is to facilitate an open MaaS ecosystem that benefits users, societies, and the environment. To do this, the Alliance brings together stakeholders from all sectors in order to enable the successful deployment of MaaS around the world. The Alliance also contributes to policy-making, promotes the added value of MaaS to new stakeholders, monitors and shares information on MaaS market development, and supports the technical interoperability of services.

MaaS Alliance
Avenue Louise 326,1050 – Brussels, Belgium
www.maas-alliance.eu / info@maas-alliance.eu

Follow MaaS Alliance on Social Media

@MaaS_Alliance

MaaS Alliance

Future MaaS podcast: MaaS Alliance