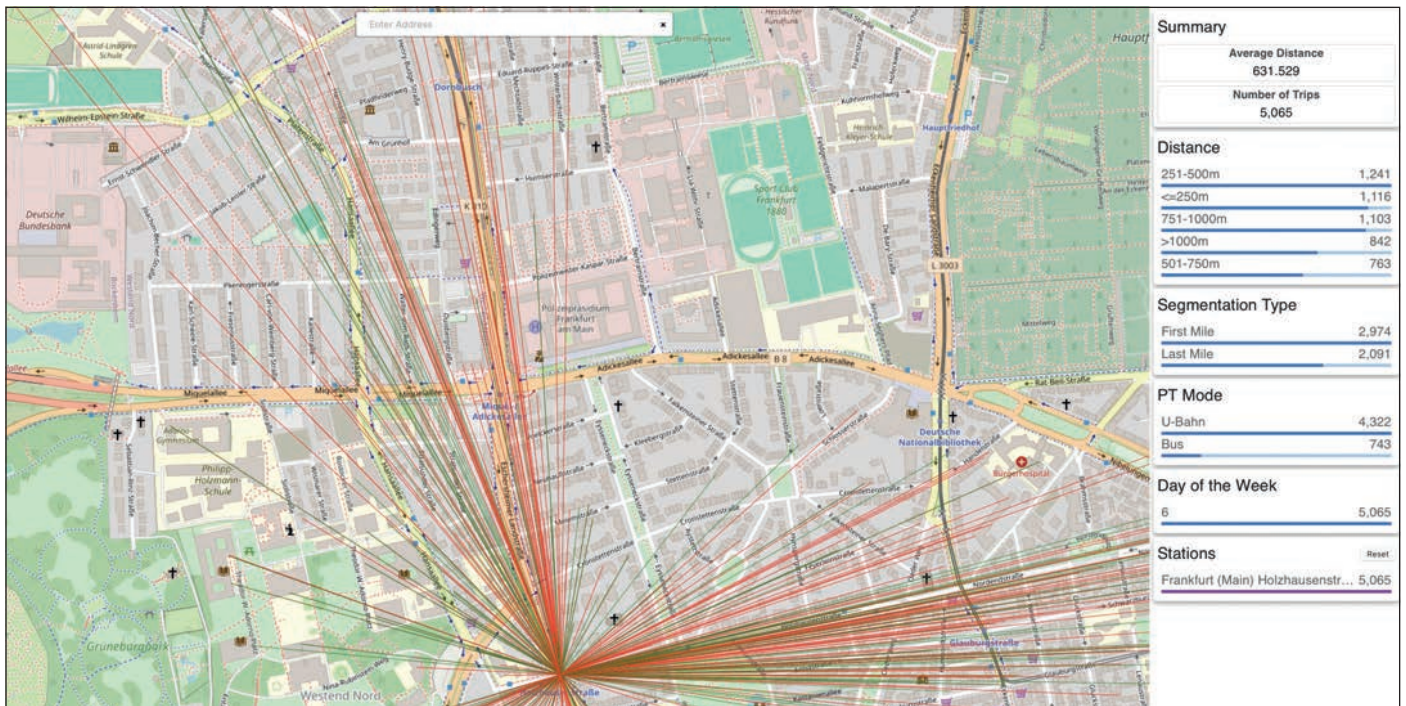




MaaS 2.0: navigating the post-hype reality

Fiona Peter

Business Development Manager
Siemens Mobility Software

The concept of Mobility as a Service once captured the imagination of urban planners, technology enthusiasts, and commuters alike. Promising seamless integration of transportation modes into one unified platform, MaaS was heralded as the future of mobility.

However, the broad, abstract scope and optimistic marketing, allied with failed pilot projects and unfulfilled promises, led to scepticism among industry professionals and consumers. The term became a buzzword associated with hype rather than tangible progress.

As the initial excitement subsided, MaaS needed a reality check. Adoption hurdles, interoperability challenges and the need for viable business models exposed the complexities behind the vision. Despite these challenges,

Advances in technology, particularly data analytics, are transforming Mobility as a Service from a failed experiment into a more pragmatic and sustainable real-time travel companion.

advances in technology, particularly around data analytics and artificial intelligence, demonstrate that MaaS is far from a failed experiment. Instead, it is evolving into something more pragmatic and sustainable. This article explores the current state of MaaS, its transformation into a real-time travel companion, the role of AI, and the importance of public-private partnerships for its success.

Three core milestones

The initial vision for MaaS imagined an 'all-in-one' booking platform, where every mode — rail, public transport,

taxis, bike sharing and more — could be booked in one seamless flow. However, reality revealed a preference for practicality over perfection. The first milestone in the transformation was a recognition that what users really needed was a flexible, adaptive travel companion.

Travellers require tools that accompany them from the initial phase of planning a journey through to their final destination, providing real-time information and travel updates while they are *en route*. Rather than booking a taxi weeks in advance, for example, users prefer to receive a timely push notification to order one when it is needed.

At times of disruption, users expect to be offered immediate alternatives, updated routes and automatic refunds, making this a critical moment where they depend on personalised support. Multimodal platforms must therefore focus on three key functionalities: holistic planning, sequential booking and real-time guidance.

Above: Analysing walking distances: visual analytics can be used to identify the potential options for first- and last-mile connectivity.

Equally important is the ability to deliver these functionalities through a seamless interface. Modern multimodal services need to prioritise intuitive design, minimise complexity and maximise usability. Logical page structures, a reduced density of information and a consistent user experience across web and native apps will enhance user satisfaction, helping these platforms to become indispensable travel companions.

The second big milestone has been the introduction of artificial intelligence, helping to turn data into genuine 'travel intelligence'. Passenger data is a rich resource but is often underutilised. Used effectively, it can offer insights into gaps in service coverage, unmet needs, and areas for improvement. Challenges in first- and last-mile connectivity might be addressed by integrating targeted solutions based on data analysis. Organisations that can act on such insights will not only improve passenger satisfaction but also enhance their operational efficiency and identify potential new revenue streams.

AI can be a transformative driver in the evolution of MaaS. With the right algorithms, it can enable apps to learn user preferences, predict patterns, and adapt to disruption dynamically. Public transport operators are often burdened by fragmented systems and inconsistent data standards, but can leverage AI to overcome these challenges. AI-powered systems are able to analyse vast amounts of data to provide actionable insights on a real-time basis. This can help operators to optimise underperforming routes, predict demand peaks for strategic fleet deployment, and address any first- and last-mile gaps.

Such insights also facilitate the integration of third-party services like ride-sharing and e-scooters into the public transport ecosystem. Predictive models powered by AI can suggest cost-effective, sustainable travel options and recommend alternatives during disruption. These advances will finally enable the multimodal platforms to deliver the long-promised added value, improving individual journeys for the users and streamlining entire transport networks for the operators.

The third key change has been a recognition of the power of public-private partnerships. Collaboration is the cornerstone of multimodal mobility. A successful MaaS implementation depends on partnerships that extend beyond technology into commercial and strategic issues. By pooling resources, expertise and technologies, public transport agencies and private providers are able to address interoperability challenges, developing

high-quality APIs, secure data-sharing protocols and coherent business models.

A notable example has been Uber's voucher model, which has enabled transport agencies to provide subsidised rides for first- and last-mile connections, or as an alternative mode during disruption. This approach uses Uber's ride-booking capability to complement rather than cannibalise public transport services, filling critical gaps.

One user of the Uber model is Brightline, which has a partnership to provide first- and last-mile access to its stations in Florida. 'It is critical to our guest experience that access to our stations is convenient and seamless', explained Brightline President Patrick Goddard. 'This partnership meets our guests' preferences and demands by unlocking an online fleet of vehicles to provide a door-to-door service when using Brightline.'

Practicality is key: passengers require tools that enhance usability, improve performance and provide flexible guidance throughout their trip.



Structured processes and region-specific strategies are crucial. Operators need to understand local mobility needs, from accessibility improvements to demand-responsive transport, in order to ensure their MaaS platform offers the appropriate tailored solutions. Aligning business models across stakeholders helps to ensure long-term sustainability and enhance the adaptability of the transport ecosystem.

3
functionalities that multimodal platforms must focus on: holistic planning, sequential booking and real-time guidance

Lessons for the future

The MaaS evolution from a hyped concept to a practical solution has been anything but linear. Key lessons learned along the way have included the importance of user-centric design, AI-driven insights and robust public-private collaboration. These elements create a solid foundation for sustainable MaaS ecosystems.

These three milestones, coupled with daily learnings from customers, partners and stakeholders, suggest that there is a promising path for future implementation of what we should perhaps describe as MaaS 2.0.

- 1. Establish clear requirements and standards.** Using standardised protocols for information sharing and APIs helps to reduce integration challenges and ensures a more consistent user experience. Precise documentation and adherence to industry standards streamlines collaboration, enabling smoother deployments and a scalable solution.
- 2. Prioritise scalable products over customised projects.** From the operator's perspective, a customised solution may offer more tailored functionality but this customisation can often introduce unforeseen complexities and delay. Scalable, ready-to-deploy products are faster to market, have already been tested for reliability, and are better suited to the dynamic requirements of evolving MaaS ecosystems.
- 3. Address commercial and organisational challenges at the outset.** While having the right technology is crucial, the real hurdles to implementation of MaaS often lie in the commercial and organisational domains. Clear communication between all stakeholders, well-defined roles and shared goals are essential. Investing in training and alignment ensures that the stakeholders can address these non-technical challenges effectively.
- 4. Adopt a modular, step-by-step approach.** It is nice to be ambitious, but large-scale, all-encompassing MaaS implementations can come with significant risks. A phased approach — piloting small initiatives and iterating based on feedback — minimises risk and fosters innovation. Modular solutions that evolve over time will help to ensure flexibility and scalability.

As MaaS continues to evolve, the success of the concept will depend on the collective efforts of users, operators, and innovators. Whether designing the next groundbreaking app or simply planning a daily commute, the future of mobility is about creating seamless, sustainable and satisfying journeys for everyone. By learning from past challenges and focusing on pragmatic solutions, stakeholders are well-positioned to ensure that the technology can fulfil its promise of transforming multimodal mobility for the better. 

References

- Peter, F. Unlocking the next level of MaaS. *Metro Report International* Autumn 2022, p28