

THE CASE OF MOBILITY AS A SERVICE INTEGRATED WITH ACCOMMODATION

Policy brief by Dr Emma Lund, Trivector Traffic, September 2018

KEY MESSAGES

- Mobility as a Service (MaaS) could contribute towards making urban mobility more sustainable and curbing carbon emissions from transportation.
- Technology is there, but the lack of experience on MaaS makes cities reluctant to invest in new and unproven solutions.
- City authorities can support MaaS through policies such as congestion charging and reduced parking requirements, and through putting pressure on public transport to enable MaaS.
- Finding viable business models for MaaS has proven to be a challenge. New revenue streams need to be identified for MaaS to take off.
- Through connecting MaaS to accommodation, EC2B creates value both for tenants and for property developers, who can save costs and offer a sustainable accommodation concept.

INTRODUCTION

Mobility as a Service (MaaS), the combination of different transport solutions into easily accessible mobility packages, is increasingly being promoted as an opportunity to reduce demand for travel by private car, and hence to make urban mobility more sustainable and curb carbon emissions from transportation. However, despite large expectations being tied to MaaS, implementation has so far been rather slow. This insight draws upon previous experiences of MaaS implementation around Europe, as well as from a case study on Trivector's MaaS solution EC2B, a mobility service integrated with accommodation which received support from Climate-KIC during 2016. EC2B was recently turned into a new company, and the service is now being implemented in several pilots in Sweden.

” *With their service EC2B, Trivector is at the forefront in the development of competitive mobility services for properties and users. Trivector shares Riksbyggen's view that it should be easy to live without owning a car and wants to be at the forefront of mobility solutions.*

- Mikael Allén, head of market area Gothenburg at Riksbyggen, where the first EC2B pilot will be implemented.

WHAT IS MOBILITY AS A SERVICE/MAAS?

Through combining different transport solutions into easily accessible and comprehensive mobility packages, attractive MaaS solutions can be created that could compete with the private car. Why should I own a car if it is both more convenient and cheaper to consume mobility as a service? Public transport with its high capacity is often considered the backbone in a MaaS system, which can then be connected to car sharing, car leasing, taxi, bike sharing systems, home delivery services etc. to cover consumers' full transport demand. Integrated information on all available mobility options and ease of payment are other important ingredients.

BACKGROUND

Over the last few years, MaaS solutions have been trialled in a range of different contexts, and with different rationales. Several initiatives originate from the public transport side, such as Smile in Vienna and Hannovermobil, where public transport operators have tried to broaden their offer through adding on new services. Car manufacturers, who see new attitudes to car ownership threaten their business, seek to reposition themselves on the transport market through launching new, innovative concepts for car usage integrated with other services. One example is Daimler, who have put a lot of resources into the development of their MaaS solution Moovel, which is now available in Stuttgart and Hamburg. An interesting competitor is the Finnish venture company MaaS Global, who launched their MaaS concept Whim in Helsinki in late 2016.

However, most MaaS providers, independent of their origin, are still struggling to find viable business models. Furthermore, public transport authorities do not always see the value of making their services available through private MaaS offers, and are reluctant to collaborate. Due to the lack of experience with MaaS, cities are also hesitant to invest in new and unproven solutions.

EC2B: MAAS CONNECTED TO ACCOMODATION

Working as consultants within sustainable transport and urban planning, Trivector has followed the development of MaaS with great interest. Eventually, we identified a niche market for MaaS which we felt was not being developed; MaaS connected to accommodation. Over the last years, many Swedish municipalities have started working with flexible parking requirements, meaning that property developers can negotiate with the municipality on reducing the number of parking lots to be provided in a new development, given that other measures are implemented to reduce the need for private car ownership. The most common measure so far has been the implementation of a car-sharing facility including free membership for residents during the first 5-10 years, which normally reduces the parking requirement with around 20 %. Through adding a more comprehensive MaaS solution, we believe the demand for parking could be reduced more substantially. This is how we first came up with the idea that has now turned into EC2B.



Figure 1. The main components of EC2B.

EC2B offers customers an attractive alternative to owning their own car, allowing easy access to a variety of transport modes, while also “nudging” users towards sustainability through personal counselling and a user community, see figure 1. EC2B is unique among MaaS concepts through its integration with accommodation, hence overcoming the first mile/last mile problem. Previous studies show that people who don’t own a car have a more sustainable travel pattern than others, which means that EC2B has a great potential for reducing car traffic. Furthermore, if property developers can skip building expensive parking lots and instead offer attractive mobility services, this means previously locked assets are released. If EC2B is broadly implemented, this may have an impact on how we think about mobility when we plan new developments in our cities, resulting in less car traffic and reduced accommodation costs.

EC2B is now in a dynamic development phase. In 2016 Trivector received support from Climate-KIC for further developing EC2B, first through a feasibility study and later through refining the business model. Partly based on the results of these studies, EC2B Mobility AB was formed as a new corporation in June 2017, and we are now working intensively together with mobility service operators, property developers and providers of digital solutions to set up the service for implementation. Our first two pilots are already underway, one in Gothenburg where EC2B will go live in the autumn of 2018, and one in Lund with expected launch in early 2020. We are discussing with several other property developers on potential new projects, and on how to scale up the service.

THE CHALLENGES FACING MAAS

One of the main challenges for MaaS so far has been the difficulties to identify a viable business model. As EC2B works with two different layers of customers, property developers and residents, a new revenue stream is created from property owners who see the value of adding EC2B to their property rather than building expensive underground garages.

Another challenge is the general lack of experience on MaaS, which makes it difficult for cities and other actors to make decisions to invest in new and unproven solutions. Experience from ongoing implementation processes shows that MaaS technology is there, but as participating actors lack previous experience, development is hampered by uncertainties. Experimentation and piloting is clearly needed to build the knowledge we lack today, not least on the effects of MaaS on users’ travel pattern.

Legislation could in some contexts act as a barrier towards MaaS implementation, and plays an important role in shaping which types of MaaS solutions are possible to implement in different national contexts. In some countries (e.g. Germany), public transport authorities are driving the development within MaaS through expanding their service offer to include e.g. car sharing and bike sharing. In other countries (e.g. Sweden), public transport authorities are not allowed to compete with private mobility providers, which sets limits to how active they can be in relation to MaaS. In yet other countries (notably in Finland), national legislation has been changed and now requires public transport to open up the sale of their tickets through other channels, with the purpose of promoting MaaS. The different approaches have their pros and cons: in Finland public transport authorities are now reluctantly making their tickets available for private MaaS companies, whereas in Sweden, where there is no such legal requirement, public transport authorities are moving in that direction anyway as they see this as the future for public transport.

IMPLICATIONS AND GUIDANCE

As MaaS holds the promise of contributing towards more sustainable urban mobility patterns, cities should be interested in promoting MaaS locally. The lack of experience of MaaS is one of the main barriers for implementation, and city authorities could play an important role to promote pilots through opening up for the city to be used as testbed. In the early phase, cities could also contribute through bringing together relevant actors behind a common vision, and act as a neutral broker between these actors when needed. Once pilots have been implemented, cities should try to create favourable conditions for upscaling successful services on commercial terms. Dissemination of lessons learned and knowledge exchange between cities with different level of experience with MaaS will also be of importance for scaling up the services to other cities.

On the infrastructure side, city authorities could support MaaS through investments in strategic infrastructure for e.g. bike- and carsharing in connection to public transport. Making available the necessary data (public transport APIs etc.) is another essential contribution. On the policy side, cities could contribute to increased demand for MaaS through working with regulations such as congestion charging, parking ticketing schemes and reduced parking requirements in new developments.

An important enabling factor, even a necessary condition, for a service like EC2B to take off is that city authorities are open to renegotiating the parking requirements for new developments. This is the key to releasing previously locked assets that enable the creation of new business models. As became clear from the feasibility study that was performed for EC2B, the possibilities for city authorities to do this vary between locations, depending both on national legislation and local political support. In the Swedish context, there are examples from several cities of new districts being planned where municipal authorities foresee property developers to implement new, innovative mobility solutions in exchange for a reduced parking requirement. We also see a strong demand from property developers, who need our help to meet these requirements.

In the longer perspective, city-wide MaaS solutions are expected to enable denser urban planning with less space dedicated to cars, but for this to happen these services need to attract a substantial share of those who today are commuting by car, and this will take time. EC2B's connection to accommodation means that the service already on a small scale could allow denser urban planning on district level, creating value both for the property developer and the city.

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