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Mobility-as-a-Service – have you protected your assets from the competition?

Mobility-as-a-Service is envisioned as the tool to bring about a greener and more sustainable world and the backbone to ensuring people have a seamless customer experience in achieving it. However, to achieve this is not without its challenges, both legally and practically. This article will explore these challenges in more detail and what to consider when launching a Mobility-as-a-Service technology.

What is Mobility-as-a-Service?

MaaS can be defined as “Multimodal and sustainable mobility services addressing customers’ transport needs by integrating planning and payment on a one-stop-shop principle” (according to The MAASiFiE project consortium based in Europe). The general aim is to combine all travel options in one place so that “mobility becomes effortless and intuitive” and users do not need to purchase a vehicle of their own.

The world’s first MaaS platform, the app Whim®, was launched in Helsinki, Finland in 2017, which allows users to book travel by public transport, city bike, e-scooter, taxi, ferry and rental car via subscription service. Since then, many more platforms have been launched globally, which aligns with many government agendas to reduce private car usage and create greener cities. According to the MaaS Alliance, MaaS aims to provide “an efficient and sustainable alternative to private car usage to reduce congestion, pollution and other local mobility issues”. Indeed, Uber® is one of the companies pioneering this mission, having already partnered with global ticketing and payment provider Masabi® to access and serve public transit users. Uber® has also acquired leading bike-share company Jump and partnered with Collins River Enterprises Limited

to launch the Uber Boat by Thames Clippers.

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Patent registration

Integrating on-demand use of micromobility devices with existing transport infrastructure can generate technical challenges – both in developing hardware for publicly available vehicles and in allowing users to plan multi-modal journeys. Patent filings related to route prediction have seen a four-fold increase in filings in 15 years. Recent patent applications disclose real-time route planning based on many factors, and combine different modes of transport to complete a trip. A MaaS provider may be able to match suitable transport options to a specific person's needs. The law around patentability of AI inventions is continually developing, so it's worth speaking to an expert to see if you have made any potentially patentable developments in this area.

Fleets of light mobility vehicles available for 'last mile' public use have become commonplace in many urban areas. Hardware innovators are continually developing, and seeking patent protection for, products that enhance the user experience in terms of range, handling and charging infrastructure. For example, Metro Mobility have patented and recently launched an integrated docking and charging station for light electric vehicles, providing improvements in both safety and convenience.

With more MaaS platforms being launched and interest continuing to grow in sustainable transport options, competition is ever increasing. If you think you have created a patentable technology seek legal advice sooner rather than later, and keep the idea confidential until you do.

Data protection

At the core of MaaS services is data. It represents the "intelligence" of the members of the community it serves as it relies upon users sharing their personal travel information (vehicle availability, origins, destinations, GPS coordinates, financial information, etc.). Under GDPR, this data could be considered personal, as such, the service would be subject to the regulations and restrictions this categorisation implies. For example, privacy by design, consent, protection, and security and confidentiality are all factors that must be thought about from the outset of development of any MaaS service. How the platform manages and controls the information it receives and the security surrounding the technological platform is critical to the success of the service both in terms of the user experience as well as compliance with the GDPR. However, data considerations do not stop once the service is launched. The security and transparency of data collection and processing is critical throughout the lifecycle of the service. This includes having a clear privacy notice on the user facing platform so that all users can understand why and

how MaaS data is collected and further processed by the respective company or any third parties.

Cyber security

MaaS platforms are often the targets of cyber threats due to the nature of the data it collects. Therefore, it is imperative that robust cybersecurity measures, regular vulnerability assessments and crisis management plans are put in place to ensure the safety and system resilience of the platform and user data.

Commercial considerations

Furthermore, when launching a MaaS service, there are various commercial considerations, for example:

- **Branding:** In a growing and competitive market it is important that you establish a strong brand identity that will resonate with users and create repeat business. Therefore, taking the time and due diligence at the outset to ensure none of your competitors (known and unknown) have a similar or identical brand could be critical to the long-term success of the brand. Ensure your brand stands out to create user loyalty. Seek an expert to assist with clearance searches and consider registering your own intellectual property rights to provide you with the tools to prevent others riding off the back of your success. Rights such as trademarks and designs can be used to protect many aspects of brand identity, for example a name, logo, slogan and graphical user interface.

- **Partnerships and collaborations:** MaaS relies upon multiple stakeholders, including public transport operators, government (either national or local), private companies and service providers. As such, strong partnerships and good relationships amongst these stakeholders is key for MaaS's success. Take the time to carefully review and negotiate any contracts or service-level agreements from the outset, as it could be costly to try to fix any issues down the line, especially if there has been a breakdown in the working relationship. Use an expert if you don't have in-house experience because you might unwittingly lose out.

- **Business models and pricing:** There are different business models available to MaaS providers. It could be an advertising-funded platform, subscription-based, pay-as-you-go or a hybrid of business models. However, whichever model you choose should be balanced against the affordability of the target users because the pricing model could dictate the profitability, success and longevity of the platform.

Conclusions

MaaS is an exciting inevitability and will form part of the future landscape of creating a greener and cleaner world. However, to provide a successful MaaS service, a great deal of collaboration is required between various parties, as well ensuring compliance with applicable data protection regulations and protecting your own innovations. If you are a company in this sector or think you may have a patentable MaaS invention, EIP could assist. EIP has experts in patents (AI, chemical and hardware), data protection and commercial IP contracts, so please contact the authors with any questions.