

New business models and market analysis towards electric Mobility as a Service (eMaaS)

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The demand of shared mobility and multimodal transport services is expected to significantly increase during the coming years [1], [2], [3]. The market research company Frost & Sullivan forecasted that the number of car sharing users worldwide in 2025 will increase 5 times in comparison with 2015, at a compound annual growth rate (CAGR) of 16.4% [4]. Figure 1 shows the increase in the number of car sharing users from 2006.

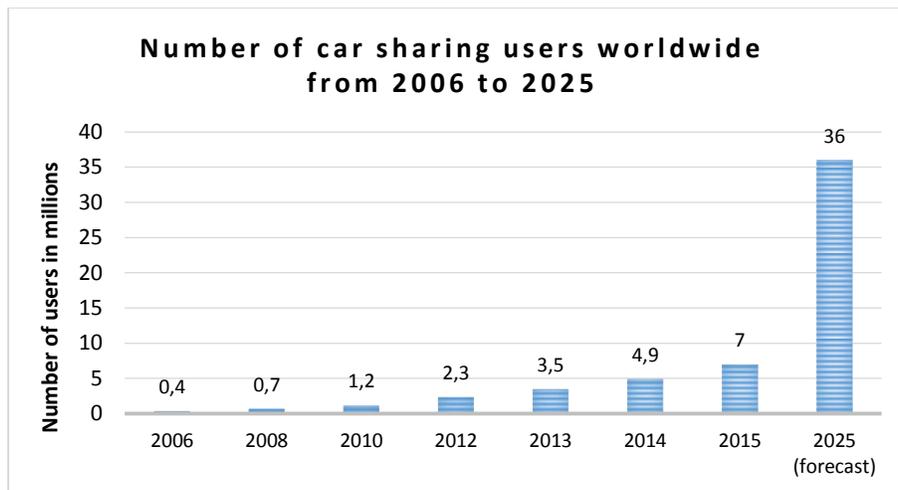


Figure 1: Number of car sharing providers users worldwide.

Source: [5] (Original source: [4])

In response to such demand, new mobility concepts such as Mobility as a Service (MaaS) and electric Mobility as a Service (eMaaS) will become a commonplace. However, in order for new MaaS and eMaaS operators to become competitive, innovative business models (BMs) and market strategies are needed. An online survey conducted in 2017 [5], showed that in the United Kingdom (UK) only 14% of respondents have ever used car sharing services. Figure 2 shows the frequency of car sharing usage in the UK in 2017.

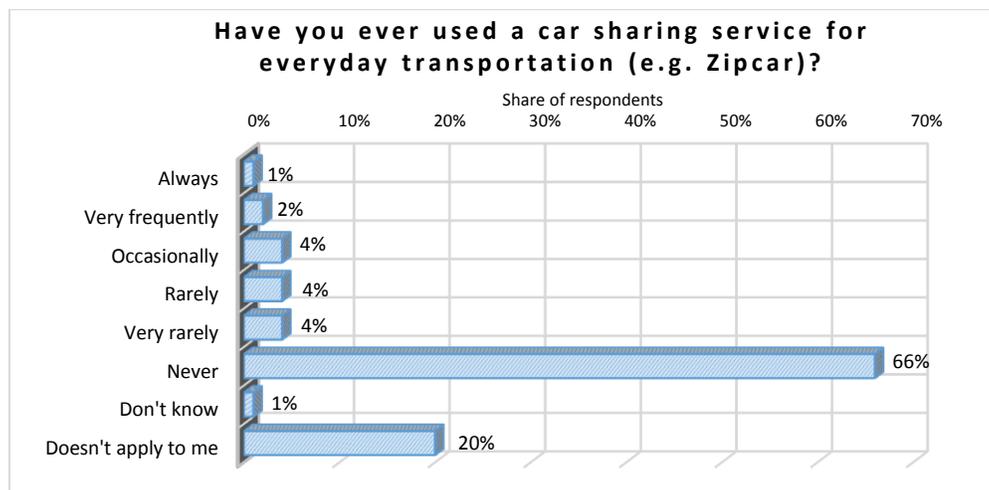


Figure 2: Frequency of car sharing usage in the UK in 2017.

Source: [5]

As part of the eMaaS project, one of the research lines of the University of Twente within the project focuses on analysing the current BMs used in practice by shared mobility and multimodal transport companies. Furthermore, a market analysis over existing providers, apps, and technology platforms is also being conducted. The goal of the analysis is to provide an overview of the state-of-the-market for MaaS and eMaaS endeavours, and to determine new business models and distinguishing features that can be provided within the eMaaS solution to achieve a competitive advantage.

The analysis is divided for each of the groups under study independently, namely e-Mobility providers, e-Mobility apps, and Technology platforms that are employed for providing e-Mobility services. Each group is assessed under certain aspects, such as registration fees, services fees, number of users, type of (mobility) service or by the countries where the service is offered.

The analysis, for example, looks into the number of users of e-Mobility apps and the rating that they have given to such apps in Google Play. With this data, we want to have insight of the user preferences and the most successful business models. Figure 3 shows the number of downloads for e-Mobility apps in Google Play.

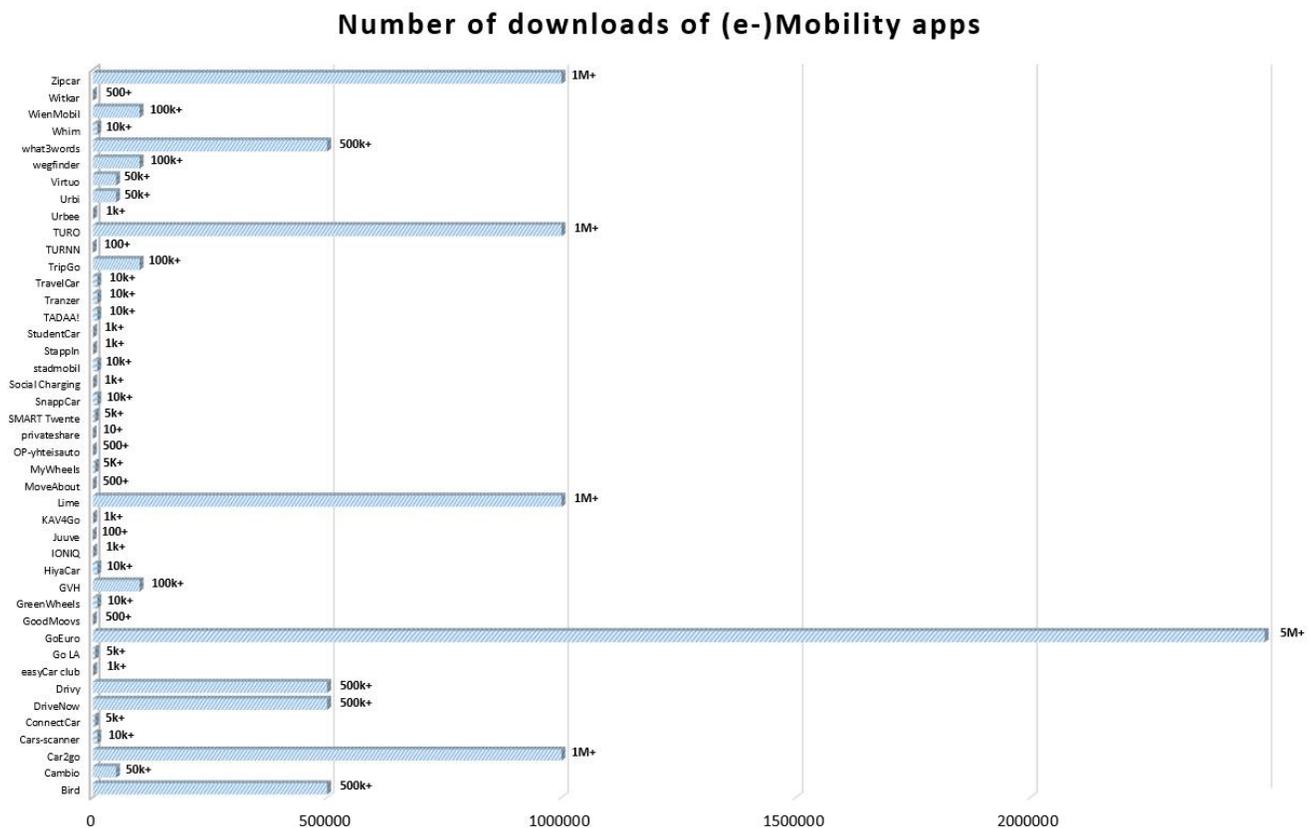


Figure 3: Number of downloads of e-Mobility apps in Google Play.

Source: Own elaboration with data from [6]

Finally, the results of the analysis will determine what are the strengths and weaknesses of the key players within shared mobility and multimodal transport fields, and how the core characteristics of their BMs can contribute to the further development of eMaaS.

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