

BMDV-Workshop Series “Data Innovations for Smart Mobility in Europe”

Workshop No. 7: Recent and possible future data-driven developments in micromobility

Date: Wednesday, 06 April 2022

Location: Virtual Room (Zoom)

Time: 09.30 – 12.00 h (CET)

Summary

Micromobility has long been a feature of both urban and rural environments. In recent years new modes of micromobility such as e-scooters and e-bikes have become popular in many European cities. The urgent need to reduce transport CO2 emissions, congestion in cities, and the pandemic, amongst other factors, have all contributed to the increasing appeal of micromobility. This trend is likely to increase even further in the near future. In this context, data-driven innovations contribute to integrating new technologies in existing systems in a seamless and safe way.

Thematic overview

Sarah Schmelzer (German Federal Ministry for Digital and Transport, BMDV) briefly introduced the mFUND programme and the seventh mFUND workshop of the series Data Innovations for Smart Mobility in Europe. She provided insights into current funding activities of the mFUND programme, highlighting that over 370 innovative projects have received or are currently receiving funding through it. She introduced the topic of micromobility and the interest in its contribution to providing flexible and sustainable mobility options.

In her keynote, Marine Vignat-Cerasa (Micro-Mobility for Europe) talked about the experience of micromobility providers in sharing data with governments. As Micro-Mobility for Europe gathers data from six providers, they have large quantities of data which they make available to cities. These data can be especially helpful when planning more sustainable infrastructure for cities. She emphasized the necessity for standardisation to improve data usage.

Innovative solutions

After the introductory speeches, representatives from four innovative projects presented their different approaches to offering micromobility for safer and more sustainable mobility.

Consolidating static and dynamic traffic data for safe micromobility is the central topic of the project ScooterFusion, as explained by Joachim Denker (ASINCO GmbH). Their goal is to develop a driver assistance system for small vehicles to improve safety. This is to be achieved by measuring mobility density and with haptic warning systems. Mr. Denker pointed out that radar sensors have become much more consumer friendly as they are available at a miniature scale and at lower prices. The MIMO radar can be used in two ways: for an advanced driving assistance system and mounted in public spaces to measure individual movements.

Markus Lübeck (Vianova) argued that cities are in charge of the sustainable development of mobility. To enable informed decisions, access to mobility data is essential. Vianova provides mobility data to cities and policy information to the mobility operators. Mr. Lübeck explained that operators are generally open to sharing their data, yet reaching agreements with the interested cities presents many difficulties. Their platform makes data access easier. An example of the benefits of such an exchange of data for cities is predictive risk assessment. This information can be integrated into public infrastructure to plan safer cities. When asked which countries provide the best practices for data exchange, Lübeck highlighted that Switzerland gives cities leverage to control their own data market, enabling a more direct interaction with the mobility providers.

After a short networking session in which participants were able to exchange ideas in small groups, Andreas Boos (naturtrip GmbH) presented the mFUND project FerienFürsKlima. Boos started the presentation by stating that less than 5% of tourists go on vacation by train in rural regions. The goal of FerienFürsKlima is to make traveling by train more attractive by offering data sets presenting uncomplicated travel options with the support of micromobility options. In the App that is currently being developed, different travel destinations are presented and ranked by reachability and point of interest (POI) options in close proximity. When asked, Boos confirmed that the inclusion of micromobility options like e-bikes increases the reachability of recommended POIs.

Josep Laborda (Factual Consulting) presented the Horizon 2020 project Molière, which aims at building the world's best open data commons for mobility services. By using the precise geo-location data from Galileo, road safety is improved and secure payment transactions for mobility options are enabled. Laborda highlighted the necessity for incentives to encourage the usage of micromobility options and enable mobility for everyone. He presented the Rideal platform, which can be used by city mobility providers to create incentives using geo location data. To ensure the success of the incentives, the users of the platform are targeted via context factors like mobility hubs and user factors like membership or gender.

The Way Forward: Taking advantage of (micro) mobility data by updating government regulations

After the pitches, moderator Marcia Giacomini led the discussion on topics that had come up during the presentations. The participants spoke on how to improve mobility in transport deserts in suburban areas, with Josep Laborda emphasizing the importance of making business for micromobility providers in those areas more profitable. Potentially, cities' mobility budgets can be allocated to incentivize companies. Andreas Boos spoke about challenges faced when expanding the FerienFürsKlima App in other countries as there is a lack of information on available data. Sarah Schmelzer commented that this problem had already come up in other mFUND projects and the BMDV is actively working towards making more data available for example through the Mobilithek platform.

Wrap up

Over 30 participants from 9 Countries engaged in discussions on issues ranging from standardisation of mobility data to the use of geofence options to solve challenges such as parking of scooters and bikes. The importance of updating government regulations to enable an easier data exchange between mobility operators and cities was highlighted by several participants.

Sarah Schmelzer closed the workshop by highlighting the great potential of micromobility, standardization and data sharing to change mobility patterns in years to come. She acknowledged that regulation seems to be lagging behind practice but pointed out that there are several new initiatives on the German and European level, which should accelerate regulation.