

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

Workshop No. 8: Harmonisation and standardisation of data and processes in the mobility sector

Date: Wednesday, 27 April 2022
Time: 09.30 – 12.00 h (CET)

Location: Virtual Room (Zoom)

Summary

The heterogeneity of data available in the mobility sector, ranging from vehicle sensors to user patterns, offers many opportunities for the mobility sector. Harmonisation and standardisation of data can facilitate a more rapid transition to greener and more sustainable mobility services and products. Furthermore, they can enable new business models to emerge. The projects presented in this workshop offered an insight into diverse aspects of data harmonisation and standardisation as well as addressing the many implementation challenges. Over 30 participants from 9 countries attended this workshop on the opportunities and challenges of harmonisation and standardisation of mobility data.

Thematic overview

Tim Rittmann (Federal Ministry for Digital and Transport, BMDV) welcomed participants to the eighth mFUND workshop in the Data Innovations for Smart Mobility in Europe series and gave an overview of the mFUND programme goals. The mFUND programme aims to make mobility more efficient and environmentally friendlier and to create opportunities for new business within the data landscape. Rittmann highlighted that around 400 innovative projects have received or are currently receiving funding through the mFUND programme. He briefly presented the workshop’s focus topic and proceeded to introduce four innovative projects illustrating different opportunities and challenges within the subject area.

Innovative solutions

Diego Allaix of the Netherlands Organization for Applied Scientific Research (TNO) presented the IM-SAFE project. IM-SAFE is funded within the Horizon 2020 research and innovation funding programme and aims to develop a harmonised European standard for monitoring, maintenance and safety of transport infrastructure to support decision-making processes in the operation phase of the lifecycle of these infrastructures. Regarding the role of standardisation, Allaix explained that decision-making processes on maintenance of infrastructure are currently organised at a national or regional level. Because the standards and policies of European countries are not harmonised, new findings from research and development (R&D) cannot be implemented consistently.

Data governance and standardisation of vehicle data platforms are the central topics of the mFUND project STAPL, presented by Michael Preusker (PSI Transcom). One challenge faced by the project is the acquisition of data from public transport vehicles according to the different technologies or engines used. Sensor and diagnostic data sets from public transport vehicles in Germany and other European countries are either not available or need to be extended. STAPL focuses on collecting data from low emission engines because this sector is growing and a lot of data about these vehicles is and will be necessary in the near future.

After a short networking session where the participants were able to chat in small groups, Timo Hoffmann (BAST) presented the NAPCORE project. NAPCORE is funded by the European Commission and is a partnership between the national road authorities and ministries of all EU Member States. The project's objective is the coordination of the National Access Points (NAPs) at an organisational level in Europe, thereby improving interoperability and facilitating common data discoverability and accessibility. Since the project ends in 2024, the partners are focused on building a working structure that can last beyond its lifetime.

Finally, Moritz Henninger (4.screen GmbH) presented the 4.screen project that uses connected vehicle data to empower smart cities. Central to the project is the web portal, which enables cities and businesses to communicate with drivers through live displays in small passenger vehicles. 4.screen evaluates over 200 data points per vehicle and its business can help smart cities to develop adequate infrastructures and mobility concepts, e.g. parking facilities, or motivating behaviour changes. Henninger showed how companies like 4.screen could benefit from data standardisation, as it would help to overcome barriers and facilitate the use of data.

The way Forward: Harmonisation and standardisation as necessary tools to optimise future data usage

After the pitches, moderator Marcia Giacomini led the discussion that focused on different aspects that the participants had experienced in the context of standardisation. Moritz Henninger (4.screen) addressed the subject of data privacy, mentioning that his company trusts that this issue is being addressed properly by the car manufacturers. Michael Preusker (STAPL) stated that it is difficult to have access to vehicle data in the public sector due to market competition between manufacturers, which sometimes withhold data from certain stakeholders. Standardisation might be a solution to the issue but could also limit the data that was made available, if a very small set of (or too general) data is selected. He was optimistic that the European Data Act, which is still in the making, might offer new possibilities in the area.

When asked about the challenges faced by large transnational cooperations, Diego Allaix (IM-SAFE) confirmed that standardisation of data at a European level would be a great support for monitoring bridges and tunnels.

When the participants spoke about the data available in the automotive sector, Timo Hoffmann (NAPCORE) pointed out that projects focusing on the standardisation of data first needed to define which types of data were to be addressed. Furthermore, data privacy and data ownership need to be defined. It became apparent that the goal of harmonisation and standardisation itself holds many challenges, some of which might not be visible from the outside. Hoffmann also mentioned that reaching data interoperability is a long process as it requires consent between stakeholders. All NAPs are expected to have implemented a common metadata set by 2024.