BMVI-Workshop series "Data Innovations for Smart Mobility in Europe"

Workshop No. 1: (Open)Data for enhanced and inclusive mobility options for European citizens

Date: Thursday, 08 July 2021   **Location:** Virtual Room (Zoom)
Time: 09.30 – 12.00 h (CET)

Summary

Inclusion plays a key role in the process of creating seamless and safe mobility for all users in European transport and mobility systems. Data solutions can contribute greatly to achieving these goals. The use of data opens new opportunities to address the mobility needs of different groups and to facilitate more inclusive and flexible mobility solutions.

With a focus on the role of data innovations for transport users, the BMVI Seminar Series "Data Innovations for Smart Mobility in Europe" started with a workshop on "(Open)Data for enhanced and inclusive mobility options for European citizens".

Thematic overview

The workshop commenced with words of welcome from the head of the ministry's division *Data Innovations, Grant Initiatives* (DG 21, BMVI), Christian Schlosser. In an inspiring key note, Sandra Witzel of SkedGo addressed the critical role of (open)data for improving mobility options and systems. In her presentation, Sandra pointed out that 70 million persons live with some form of disability in the EU and one third of these citizens perceive challenges associated with transportation as major barriers to leading an active work and private life. Measures to enhance inclusion and the accessibility to services, together with adaptations to infrastructure, can make an enormous contribution to improving this situation.

Innovative solutions

The main segment of the workshop consisted of the presentation of five projects focusing on data-driven innovations to improve the safety and accessibility of mobility services – and hence greater inclusion – in particular for persons with disabilities. Participants of the workshop engaged in an active exchange of ideas on the various innovative approaches pursued in the projects to use data to improve mobility of citizens in Europe.

Indoor and pedestrian navigation

The project CliWebNav presented by Jonas Flint (DEJ Technology GmbH) centers on a web-based ultrasonic indoor navigation system for use in complex indoors settings, such as

hospitals. Using mostly existing infrastructure, the system functions with an accuracy of +/-1-3 m. The system is currently being tested under real conditions, despite of the challenges resulting posed by the COVID-19 pandemic.

Citizens inclusion

Samyajit Basu of MOBI Mobility at the Vrije Universiteit Brussel showed how INDIMO – or *Inclusive Digital Mobility Solutions*, a project funded within Horizon 2020, is applying data in several pilot projects around Europe using inclusive and user-centric approaches. Based on the assumption that there is no "one-size fits all" solution for all groups and regions, each pilot tackles a specific transport field and application, as user needs are very different. The ultimate goal of the project is to better understand the needs of different user groups and to develop a toolbox to support developers, operators and policy makers when designing accessible and inclusive mobility solutions by incentivising a user-centric thinking and offering a universal design perspective.

Thinking of people with visual impairment, OD2Guide ScaleUp has developed an acoustic signage platform for barrier-free public transport. Flora Kawohl (contagt GmbH) explained that the platform integrates data from several open sources (mCLOUD, BIM, MDM) and uses depth sensors integrated in smartphones, Galileo and Bluetooth to develop positioning algorithms. The results are provided on smartphones by audio chat bots directly in the ear of the user.

According to Holger Dieterich of Sozialhelden e.V., MIKI concentrates its efforts to use (open)data to allow for inclusive mobility in neighborhoods. This is especially important for persons who need ramps in sidewalks to get around. With the use of "heat" maps, streets can be identified and users can better plan their trips. Most importantly, city planners can use these maps to make changes to allow for free mobility for everyone on the streets.

Road safety

The use of smart data to prevent road accidents is the theme of project FeGiS+ (English EDDA+). Arno Wolter (Initiative für sicherere Straßen UG) explained that in FeGiS+, several types of data (e.g. collision, road user, cinematic, weather, traffic) are combined and rated based on safety risk assessment. The results can help different categories of road users (cyclists, drivers, pedestrians) and user groups (e.g. young drivers, experienced drivers) to arrive at the desired destination using safer routes.

Discussion and wrap up

During the discussion session, participants had the opportunity to clarify and exchange on topics related to the application of the General Data Protection Regulation (GDPR) when collecting data, possibility or not of side-effects to humans and animals when using some of

the technologies presented, improved accuracy of the innovations, security and safety (real and perceived) and standardisation needs.

All of these projects show the importance of data to make transportation and mobility in Europe more inclusive. The innovative solutions presented during the workshop have the potential to be applied in any other country or city provided that there is access to data. Cross-border collaboration is seen as very beneficial by the participants of the workshop, as solutions created could be further developed and tested in different environments. Furthermore, international cooperation may facilitate scaled-up implementation of the solutions developed in Europe.