# AIT MOBILITY OBSERVATION BOX WINS Ö3-TRAFFIC AWARD 2022

Objectively record and improve traffic safety: The tool developed at the Center for Low- Emission Transport convinced in the category "Idea of the Year".

Vienna (AIT): Great success for the AIT traffic safety team around Anna Huditz, Peter Saleh and Michael Aleksa: The Mobility Observation Box, an AI-based system for recording and objectively assessing traffic infrastructure and conflict situations, wins the Ö3- Verkehrsaward in the category "Idea of the Year". On Tuesday, the AIT experts had the pleasure of receiving the award from Climate Protection Minister Leonore Gewessler, Interior Minister Gerhard Karner, ORF radio director Ingrid Thurnher and Ö3 station boss Georg Spatt at a festive awards ceremony. After the Mobility Observation Box was awarded the prestigious German DEKRA Award 2021 in the category
"Safety in Traffic" category last November, this is further confirmation for the AIT team of its successful research work in the service of safe and sustainable mobility.

### Increased safety - especially for vulnerable road users
In order to promote sustainable mobility, it is particularly important to increase the road safety of vulnerable and non-motorized road users. If pedestrians, cyclists and scooter riders do not feel safe on their daily journeys, they will rarely choose sustainable forms of mobility. For this reason, it is necessary to make the infrastructure appealing and, above all, safe for these groups.

Accident statistics clearly show that there is an urgent need to improve the safety of vulnerable road users: While the number of car drivers injured or killed in traffic has fallen continuously over the last ten years, the number of accidents involving cyclists and pedestrians has increased by almost 40 percent. What is needed here is a proactive approach that starts with traffic conflicts or so-called near misses. Conflicts occur much more frequently than accidents and thus provide a much larger data base for evaluating potential danger spots. Conflict analysis is thus a proven tool for increasing road safety.

### Mobility Observation Box: traffic evaluation and targeted improvement measures
Against this background, the experts at AIT have developed the Mobility Observation Box: A compact box films traffic events with a camera without influencing them, the data is then analyzed using AI. For the first time, it is now possible to measure the safety of traffic infrastructures according to objective criteria and thus make them comparable.

The collected data is the basis for the development of a risk-based assessment procedure, based on machine learning and artificial intelligence. This enables the highly accurate monitoring of all movements of the different groups of road users (pedestrians, cyclists, cars, trucks, scooters, etc.) in a given road section. The measurements are repeatable and do not disturb the traffic flow. Each road user is detected, classified and their line of movement is recorded.

The data obtained in this way is used to derive key figures for traffic conflicts, such as conflict severity or relative speeds, as well as to determine general traffic-related parameters such as traffic volumes, speeds, etc.The data is then used to calculate the traffic flow.
Data protection and data security have the highest priority: The Mobility Observation Box is officially approved and fulfills the strictest legal requirements. The automated anonymization of all road users ensures the highest level of data protection, and no conclusions can be drawn about individual persons.

The better understanding of possible causes of accidents helps to improve safety measures without referring only to historical accident data. The aim of the survey with the Mobility Observation Box is to provide objective and comparable evaluations of the effects of various infrastructural and traffic measures on the risk of accidents and injuries.

## Many different applications

Anna Huditz, Head of Competence Unit Transportation Infrastructure Technologies at the AIT Center for Low-Emission Transport: "Safety in traffic depends to a large extent on the condition of the respective infrastructure. And safety can be measured - whether in urban areas, at railroad crossings or on freeway slip roads. With the Mobility Observation Box, we are now providing transport infrastructure operators with a tool that can actually help prevent serious accidents - a crucial step on the road to Vision Zero."

Michael Aleksa, Senior Research Engineer and instrumental in the development of the Mobility Observation Box, adds: "We are convinced that with the Mobility Observation Box we can make an essential contribution to increasing the road safety of all road users. This justifies all the work we have invested in our research over the past few years. I am all the more pleased that we have now been awarded the Ö3 Traffic Award in the category 'Idea of the Year'. I would like to express my sincere thanks for this!"

## About the Ö3 Traffic Award

Hitradio Ö3, the Federal Ministry of the Interior and the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology award with the 20th Ö3 Traffic Award the heroes of the road, who with courage, civil courage and commitment take life-saving measures and make contributions to road safety. The Ö3 Traffic Award 2022 will be presented in three categories:

**AIT Austrian Institute of Technology GmbH**
Giefinggasse 4 | 1210 Wien, Austria | T +43 (0) 50 550-4015 | presse@ait.ac.at | www.ait.ac.at

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- Ö3ver:innen of the year
- Emergency worker of the year
- Idea of the year

**Further links**
AIT Center for Low-Emission Transport
Mobility Observation Box
Hitradio Ö3

Press Contact:
Mag. Michael H. Hlava
Head of Corporate and Marketing Communications
AIT Austrian Institute of Technology
T +43 (0)50550-4014
michael.hlava@ait.ac.at I www.ait.ac.at

Mag. Florian Hainz BA
AIT Austrian Institute of Technology
Center for Low-Emission Transport
Marketing and Communications
T +43 (0)50550-4518
florian.hainz@ait.ac.at I http://www.ait.ac.at/