

POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL
CONFERENCE
2024

27-28 NOVEMBER 2024

KARLSRUHE (DE)



Baden-Württemberg
Ministry of Transport



Karlsruhe



Accessible mobility for all

A holistic approach for public transport ... and beyond

Manuel Quinting
Director Research & Product Strategy
INIT Group



Accessible mobility information for all

Wouldn't it be great if ...

- ... not a blind person got on the wrong line at a crowded bus station anymore?
- ... not a single elderly person with hearing aid missed their connecting train due to a platform change?
- ... the bus driver welcomed the wheelchair user with the ramp already unfolded?
- ... the elderly and people with disabilities were just as well informed as everyone else throughout their door-to-door journey?
- ... innovative technologies and interconnectedness allowed us to achieve all this?





Pilot project “MAVIS”

- Pilot project „MAVIS“ in Singapore from 2017 to 2019
- Collaboration between INIT, Land Transport Authority Singapore, SG Enable
- Goal: Providing impaired passengers with enhanced information and communication abilities to better **plan and manage their journey**, and **enable journeys that otherwise wouldn't be possible** without help of an accompanying person
- Focus on passengers who are either
 - 1) Visually Impaired
 - 2) People with hearing loss or
 - 3) Wheelchair users

→ MAVIS project set the basis for INIT's ASSISTIVetravel solution



Multiple award-winning



UITP Mobility Awards
2019



UITP Asia-Pacific
Special Recognition



Focus on user needs

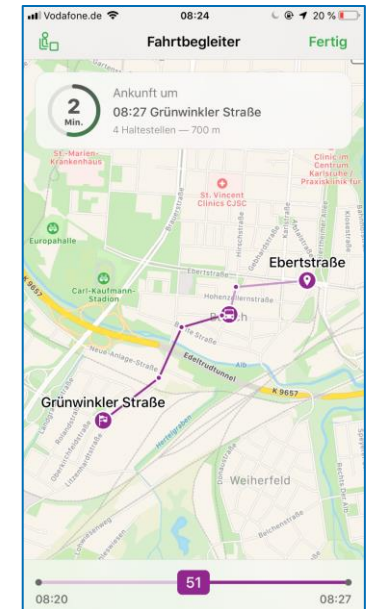
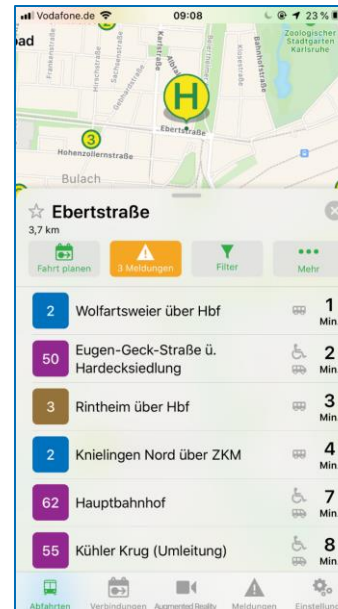
- Networking with representatives for impaired persons, e. g. SG Enable in Singapore or DBSV in Germany
- Testing opportunities at trade fairs or workshops (e. g. REHAB 2022)
- Collaboration with visually impaired and rehabilitation teachers (Open Smart Mobility Network)



ASSISTIVetravel – a holistic approach

Passenger app

- Trip planner
- Travel companion
 - offers „virtual hailing“ functionality,
 - shows real-time position of the vehicle,
 - predicts estimated time of arrival,
 - notifies passengers before exit stop
- Passengers can rate the trip and provide feedback
- Optimised user experience based on user profile (e.g. Text-to-Speech)



ASSISTIVetravel – a holistic approach

In-vehicle infrastructure

- Driver is informed about
 - type of impairment,
 - need for assistance,
 - „virtual hailing“ from app
- Location „clack“ and line/ destination announcements on outside loudspeakers
- Principle: „the object speaks“
- T-Loop amplifier delivers announcements directly to telecoil-enabled hearing aids of hearing-impaired passengers



Public transport ... and beyond



- OSM network was initiated in 2021 under the umbrella of the DBSV
- Meanwhile 15 partners from associations for people with disabilities, municipalities, public transport, indoor navigation, traffic signal systems, ...
- **Idea:** Connecting assistance solutions for people with disabilities by means of an app
- **Vision:** Unrestricted and independent mobility for people with disabilities in public spaces without particular difficulty and, by design, without outside help
- Allowing for accessible travel chains like this:





**Thank you for
your attention!**



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For more information:

Manuel Quinting
Director Research & Product Strategy
INIT Group
T +49 172 6181 481 | M mquinting@initse.com

Visit us at **Karlsruhe Mobility Lab**
(dm Arena, **Booth 35**)



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