

ASSURED Interoperability Workshop

25 November 2021
11.00-13.00 CET
📍 Online





Welcome!

From the ASSURED Consortium



Etiquette for joint discussion

- **Participants please muted per default**
- **You can use the Chat to place your questions, share interesting info or make us aware of any technical issue**
- **Raise your hand and switch on your camera to ask to have the word**
- **The session will be recorded**

**We count on your valuable contribution
for a successful workshop.
Thank You!**

Agenda

Thursday, 25th November 2021, 11:00 – 13:00		
11:00 – 11:05	Welcome & introduction	Aida Abdulah, UITP
11:05 – 11:25	1. ASSURED pre-normative technology roadmap in electric bus charging	Mehrnaz Farzam, VTT
11:25 – 11:35	2. Overview Standardisation worldwide	Peter Cremers, VDL
11:35 – 11:55	3. Standardisation and interoperability in ASSURED	Joan Carles Artigau & Santi Obiols, IDIADA
11:55 – 12:00	Break ASSURED Video	
12:00 – 12:20	4. Multi-brand electric fleet in practice: Qbuzz system in Groningen-Drenthe Q&As	Michel van der Mark, Qbuzz
12:20 – 12:55	5. TMB experience 6. Stadtwerke Osnabrück experience Q&As	Mario Canet, TMB Joachim Kossow, SWO
12:55 – 13:00	Wrap up & closing	VTT, UITP



The challenges

- **Charging solutions limited up to 450 kW and without interoperable / standardised interfaces**
- **Impact of charging on battery life time not well known**
- **Uncertainty about grid stability**
- **Energy Management and Charging Strategies applied at vehicle level instead of fleet level**



Enabling large fleet upscale

Key innovations

- **Interoperable high-power charging systems**
- **Charger-vehicle interoperability & standardisation**
- **Smart tools for fleet optimisation**
- **Energy storage systems and charging management strategies**



End user acceptance demos

Barcelona
& Osnabruck

- Interoperability between buses and chargers of different brands

Gothenburg

- Interoperability between bus, trucks, and vans

Eindhoven &
Jaworzno

- Smart charging and energy storage systems for fleet upscale



ASSURED video

Introduction to the project

https://www.youtube.com/watch?v=0Z-VB27CtPo&feature=emb_logo

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Conclusions

Mehrnaz Farzam Far, VTT

Aida Abdulah, UITP

Main Key takeaways

- **Interoperability is important for transition towards full EV.**
- **Standards are to ensure full interoperability, but they have to be understandable for the relevant stakeholders.**
- **Beside standards, conformance and interoperability testing is required for full interoperability**
- **We hope the workshop opened up the topic interoperability for the audience, especially the operators and end users, and they would consider interoperability as one of the main criteria when selecting their future charging solutions**

Thank you!

More info:

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<https://assured-project.eu/>

Annexes

TOFAŞ

Wireless charging for light vans

<https://www.youtube.com/watch?v=V5xLdD-ywal>