



ASSURED - State of the art

ASSURED/JIVE User Groups Workshop
11 June 2019 - Stockholm

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769850.





Scope

ASSURED is aimed at boosting the electrification of urban commercial vehicles and their integration with high power fast charging infrastructure.

Duration

Oct 2017 – Sept 2021 [48 Months]

Budget

€ 23.64 million supported by € 18.65 million EU funding

Coordinator

Vrije Universiteit Brussel (VUB)

Partners



Project Objectives

- Development of
 - ✓ **interoperable** and **scalable** high-power charging solutions (*up to 600kW*)
 - ✓ **innovative charging management strategies**
 - ✓ **efficient wireless charging solutions**
 - ✓ standardised **conformance and interoperability test protocol**
- Evaluation and improvement of the cost, energy efficiency, impact of grid
- Demonstration of 8 Use Cases distributed in 3 Pillars (e-bus, e-truck, e-van)
- **Support to the standardisation bodies** (*i.e. CEN-CENELEC, ISO, IEC*)

Project phases



Operational specifications & requirements and city needs

PHASE 0

- Standardization support & Development of Conformance/Interoperability Test Framework
- Interoperability and conformance tests of charging solutions

PHASE I

Use cases (6 HD urban buses)

PHASE II

- User Acceptance & Demonstration in Cities
- Evaluation of Use Cases and Demonstration

PHASE III

Generated results

- Specifications of **city and PT stakeholders: strategies and needs**
- Specifications of **grid constraints**
- Specifications of **operational requirements**
- Specifications of charging infrastructure
- Final requirement compilation and KPI's (for the evaluation purposes)
- **Investigation** report on **superfast charging technologies** including test results of implemented laboratory environments

- Standardization support & Development of Conformance/Interoperability Test Framework
- Interoperability and conformance tests of charging solutions

PHASE I

Generated results

ASSURED 1.0 Specifications (**PUBLIC Document**)

- Filling the currently existing gaps in and between the draft standards.
- First guide or reference in the implementation of e-bus systems **also outside the project**, until the standardisation is finalised

Test protocol (hopefully public 😊, tbd)

- Internal review until end of September 2019
- External review until mid/end October 2019

Results in the near future

- Testing interoperability and conformance

Phase II

- On-going with mainly primary preparations and set-up
- Technical activities will start soon

Innovation (Phase II)

1st pillar e-Buses



Iveco
Rorthais



Volvo
Gothenburg



Irizar
Bayonne



VDL
Helmond

Innovation (Phase II)

2nd and 3rd pillars e-truck & e-van



Munich



Gothenburg



Turin

- User Acceptance & Demonstration in Cities
- Evaluation of Use Cases and Demonstration

Phase III

- On-going with mainly primary preparations and set-up
- Demonstrations to start in 2020

Innovation: 3 Demonstrators for User Acceptance (Phase III)

Barcelona
& Osnabruck

- Interoperability between buses and chargers of different brands, on vehicles in real operations

Goteborg

- Interoperability between bus and urban trucks

Eindhoven
& Jaworzno

- Smart charging for fleet upscale



Contact

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