



VTT

Innovation procurement and testbeds

Ville Valovirta
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09/04/2021 VTT – beyond the obvious

FinEst Smart Mobility / Helsinki & Tallinn

Jätkäsaari Mobility Lab

Outbound traffic

- Challenge: traffic jams caused by outbound vehicles
- Innovation partnership
- Prototypes from three companies,
- One of them selected for further development of the service
- Live notifications on arriving ferries and to offer route guidance for the trucks and cars leaving the port
- Deployment by the City of Helsinki



Testing self-driving bus in the city transport

Fabulos PCP

- Pre-commercial procurement (PCP) for a proof-of-concept for the management of autonomous fleets as part of the public transportation
- Three consortia of companies were awarded the contracts to trial the driverless buses
- Tests in Gjesdal, Helmond, Helsinki, Lamia and Tallinn between April and October 2020.



Smart lighting and sensor network

City of Tampere / Smart Tampere

The outdoor lighting control system can be used as an internet of things (IoT) sensor network

Urban environment sensing platform: e.g. air quality, traffic flow, water network, electricity network

- Broad market dialogue and open specification process
- Piloting
- Competitive dialogue 2019
- 10 year contract awarded to Wapice with C2 Smart Light & Digita



Smart Otaniemi 2.0 – Zero-emission mobility

Other charging testbeds



VTT Future hub & Micronova charging testbeds

Company charging hub

5G + Smart lighting poles



Novel autonomous mobility



(Electric) shared transport & micromobility



Electric cargo bikes

Pedestrian & biking routes

5G based situational awareness

ZEM Hub: Charging & refuelling



Multi-operator platform

V2G testbed

Energy system flexibility

Biofuel distribution

Hydrogen distribution?

Energy aggregator business

City

Electric fleet for e.g. logistics, deliveries, social services



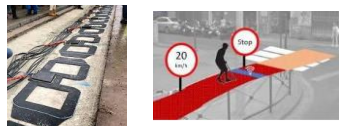
University Campus & Real Estate

Electric fleet for campus & real estate maintenance services



Smart pavements

(charging, safety, condition monitoring)



Mobility services



Vähähiilinen liikkuminen liikennehubeissa

Drones



Electric busses



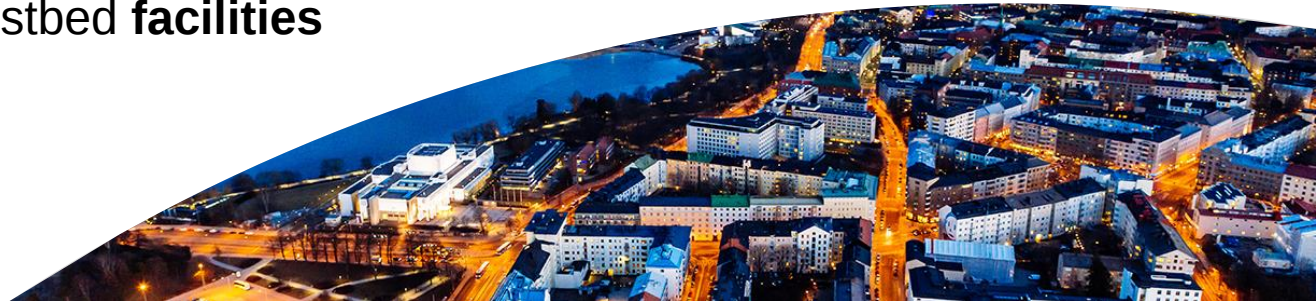
Private & shared electric cars



Innovation procurement & Testbeds

Several roles for procurement:

1. Procurement of innovative solutions to be **piloted** at the testbed
2. Collection of technical **validation** data from R&D projects for procurement specifications (performance-based requirements)
3. Engaging testbed innovation community for **market dialogue**
4. Procurement of testbed **facilities** and infrastructure



Open issues & Challenges

Commitment and
credible intent for
procurement

Progress from
pilots to
deployment

Competition
neutrality vis-a-
vis procurement
law

From project
funding to
continuous
operation

Integration of
knowledge
providers

Effective roles for
procurement in
public-private
collaboration

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the obvious

Ville Valovirta
ville.valovirta@vtt.fi
+358 50 354 3280

@VTTFinland
@VilleValovirta

www.vtt.fi