Greenet

The network of Horizon Europe
Cluster 5 National Contact Point.

Aalto University (Finland)

GREENET Brokerage Event

6th May 2025

Dr Udayanto Atmojo, Staff Scientist, Aalto University
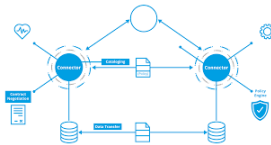
Aalto University

- **Aalto University** is a public research university located in Helsinki region (*Espoo*, Finland.), we are the 2nd biggest University in Finland.

- 100+ years old. Initially **Helsinki University of Technology**, in 2010 merged with the **Helsinki School of Economics** and the **University of Art and Design Helsinki**.

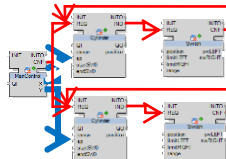- The University has a Long track record in EU funded activities → 485 signed EU funded grants

Information Technology in Industrial Automation group – research area relevant to CL5 calls
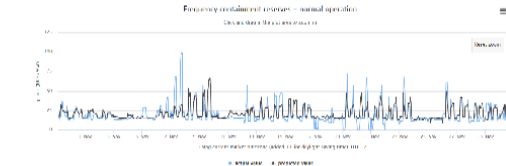

AI, Data Science, machine learning

Data Space

IoT, Robotics, Digital Twin, Automation

Life Cycle Assessment

Energy system modelling – prediction, optimization

https://www.aalto.fi/en/department-of-electrical-engineering-and-automation/information-technologies-in-industrial-automation

Call topics of interest

- Cluster 5 and others where our expertise can apply, we often fit well to many calls, it all depends on the project scope and contributions needed

Highlighted Experience

Efficient Energy Use : Co-Simulation of smart heating grid and Combined Heat Power (CHP) plant

Business Finland **Predictricity** : AI to develop predictive capabilities in connection with virtual power plants and to support making profitable business decisions.

Academy of Finland, "**Multi Energy Virtual Power Plant** - Adaptive Multi-Energy Virtual Power Plant for a Complex of Buildings " 2022-2026

Business Finland **INDECS**– **Integration of design and operation of cruise ship energy systems** - reduce the fuel use and carbon on cruise ships (hotel, propulsion and engine)

Business Finland **SmartGrid 2.0** (2022-2025) – Next generation electricity distribution grid.

Academy of Finland "**Flexible customer**" : FLEXIBLE AND SMART CONSUMERS AS PART OF FUTURE SUSTAINABLE ENERGY SYSTEMS

Business Finland **Engineering Rulez** : Improve process and power plant efficiency and quality

Business Finland **AncillaryAI** - AI Based Electricity Demand Response Market Predictor

Business Finland **BatteryMonetizer** – Applying combination of modeling and artificial intelligence to optimize the next-day usage plan for battery energy storage

EU Chips JU **Arrowhead fPVN**– Secured data exchange and information interoperability across industrial value chain

EU **SEASHINE** – Safe intelligent agent to optimize ship energy management

Contact Us

Dr Udayanto Dwi Atmojo

Staff Scientist

udayanto.atmojo(at)aalto.fi

https://www.linkedin.com/in/udayanto-dwi-atmojo/

Prof. Valeriy Vyatkin

IEEE Fellow, Professor

valeriy.vyatkin(at)aalto.fi

https://www.Vyatkin.org