CELTIC-NEXT Proposers Brokerage Day

30th January 2026, Vienna

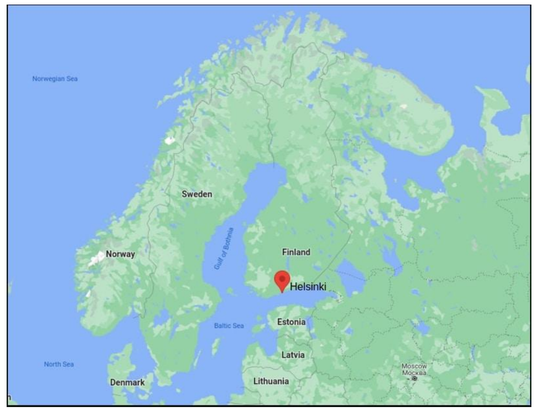
Pitch of the Project Proposal

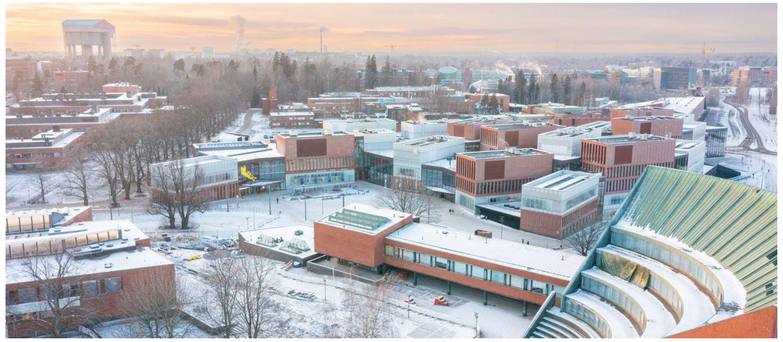
TRENDY - Trusted Industrial AI in Networked Industrial Systems

Aalto University
School of Electrical Engineering

Udayanto Dwi Atmojo, PhD - Staff Scientist, Aalto University
Udayanto.Atmojo@aalto.fi

Organisation Profile





- **Aalto University** is the **2nd largest university in Finland**, located in the capital city of *Helsinki*,
- 2010 merger: Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki. *Helsinki University of Technology is* founded in 1849.
- Very strategic position in Celtic-Next key topics – AI, 5G/6G, Quantum computing
  - Part of EU AI Factory initiative LUMI
  - Part of Finnish AI Region (FAIR) European Digital Innovation Hub
  - Maintain Finnish Quantum Computing Infrastructure (FiQCI)
  - Part of 6G Test Network Finland

Technology

Ranking	Finland	Nordic countries	Europe	World
THE – Engineering 2025	1	5–7	26–32	101–125
NTU – Engineering 2024	1	5	20	263
QS – Engineering & Technology 2025	1	6	53	165
EngiRank 2024	1	4	15	n/a

Status Quo and Challenges

- Industrial systems are increasingly connected and leveraging AI to be competitive
- Dependable shopfloor/field to edge-cloud communication to allow data collection and decision making
- Address explainability, reliability, and cyber-security challenges for dependable/reliable, explainable – trusted AI based services and solutions to comply with emerging regulations (EU AI Act, ISO/IEC 24029 (AI Trustworthiness) and sector-specific standards

Objectives

- TRENDY will develop trusted DevSecMLOps framework and autonomous application-aware network management for ensuring reliability, explainability, and secured cognitive AI enabled services in networked industrial environments.

- Distributed edge native AI models to enable flexible orchestration across edge-cloud for system-level (network and application) reliability and efficiency

Benefits

Industry

- Compliance by design edge-cloud capable AI services
- Adoption of AI-driven automation without disruptive risk
- Reduced Operational Costs with Consistent (stable), Predictable Performance → Lower downtime, Higher throughput, Reduced manual intervention and rework

EU-level

- EU Leadership in trustworthy AI and advanced connectivity
- Accelerating green digital transition
- Industry resilience

Partners & Consortium

Aalto University
School of Electrical
Engineering

ABB

A few unnamed
Finnish companies

Speaking with

Looking for partners from eligible CELTIC NEXT countries

Contact Info

For more information and for interest to participate please contact:

Udayanto Dwi Atmojo (Aalto University)
udayanto.Atmojo@aalto.fi
+358503060335
Maarintie 8, 02150 Espoo, Finland
www.aalto.fi/en/futurefactory

Presentation is available via: