

Where is AIKO heading now?

Status update and Oulu's contribution
Workshop 6 · Tampere, 7 October 2026



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AIKO in brief

We strengthen SMEs' ability to use AI and machine learning in automation solutions – through public demos, workshops, a guide and a network.



Four demos of AI in automation



Process automation: water process demo and AI-based quality control for Oulun Vesi



An operating model for data management and model adaptation

Duration

1 Jan 2025 – 31 Dec 2026

Funding

EAKR, ELY Centre for South Savo

Target group

Automation and IT companies, universities, students



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Oamk's role in AIKO

WP2 · State of the art

AI methods for optimising and continuously controlling industrial processes

WP3 · Demo

Water process demo and simulator for Oulun Vesi

WP4 · Workshops

Workshop 1 together with TAMK, workshop 4 at Oamk in Oulu

WP5 · Guide

A chapter on AI-based process optimisation and energy management

WP6 · Network

Preparing the AI in Automation committee and international connections

In short

Oamk is involved in every work package



Oamk's team

Electrical and automation engineering and digital solutions expertise in one team



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Oamk's work: on the home stretch

Jan–Jun 2025

Groundwork and data

The big picture of AI, process data and first solution sketches.

Jul–Dec 2025

First models

Soft sensor models and a water process simulator for Oulun Vesi.

Jan–Jun 2026

Tests at a real plant

Step response tests at Oulun Vesi, Hannover Messe and writing the guide.

Jul–Dec 2026 · we are here

Finishing and continuity

Committee founded on 9 Sept, demo validation and the guide.

12 weeks to go – the project ends on 31 December 2026



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AIKO workshops

I · 21 May 2025 · Oamk, Oulu and TAMK

AI status review and company experiences

II · 16 Dec 2025 · Nokia Arena, Tampere

Applying AI in companies' automation solutions

III · 15 Jan 2026 · TAMK, Tampere

Tutorial day: getting to know the tools

IV · 20 May 2026 · Oamk, Oulu

Smart automation – managed risk

V–VII · autumn 2026

Today workshop VI in Tampere, the last one later this year



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Teknol. automaatioissa
AIKO

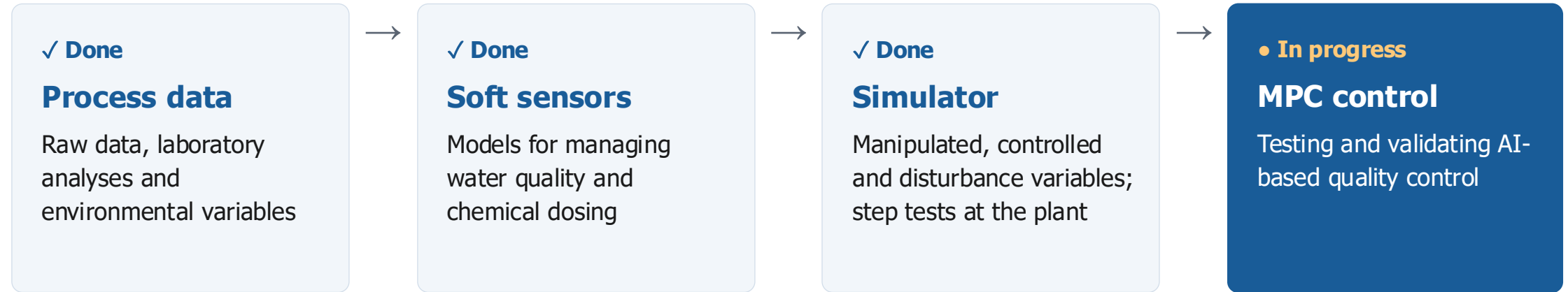
Tampereen yliopisto
Tampere University

Tampereen
ammattikorkeakoulu

OAMK
OULUN AMMATTIKORKEAKOULU

Oamk's demo for Oulun Vesi

Goal: minimise coagulant dosing in flocculation and optimise water quality



Clean water production is at the heart of security of supply. With the simulator, AI control can be tested without risk to the real process.



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The demo in practice



Flocculation basins, Oulun Vesi – the demo runs on a real process

DNAuse G101/storage/Simulaattori päänäyttö

Simulaattori päänäyttö 1:MPC_VESI

Vesiprosessi - Simulaattori Master ON SAADOLLA 10 s 59 s

TOIMISUUREET		Mittaus	As.arvo	MPC as.arvo	Min	Max	Ennuste	Muutos
Kalkkiannos	M L	60.0 g/m3	60.0 g/m3	60.1	42	80	60.1	0.0000
- Kalkki offset		0.0 g/m3						
Ferrosulf. annos	A C	99.5 g/m3	99.4 g/m3	99.4	64	136	99.1	-0.148
- Ferros. offset		0.0 g/m3						

SÄÄTÖSUUREET		On/Off	Mittaus	MPC mitt. arvo	Min	Max	Ennuste	Saturaatio
Flotaatio pH	On	4.48 pH	4.47 pH		4.6	4.7	4.48	Mat.&Kor.
- Flot. pH offset			0.00 pH					
Flotaatio sameus	On	0.65 NTU	0.65 NTU		0.7	1.1	0.69	Ei
- Flot. sameus offset			0.00 NTU					

HÄIRIÖSUUREET		On/Off	Mittaus (simuloitava)
Raakavesi UVA	On	50.0	1/m
Raakavesi sameus	On	3.5	FTU
Raakavesi pH	On	6.5	pH
Raakavesi lämpötila	On	16.0	C
Dispersiovesisuhte	Off	12.0	%
Flotaation pinta	Off	11.0	%

Simulaattorin käyttöohjeet
MyCommunity-linkki

RESETOINTI
Kesaolosuhde
Resetointivalinta 0 s

Water process simulator: manipulated, controlled and disturbance variables



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Oulu's contribution in figures

1

demo at a real water plant – Oulun Vesi as validation partner

2

AIKO workshops held in Oulu

9

organisations in the Oulu region backed the project from the start

1

water process simulator for testing quality control

Oulun Vesi, Ouman, Jukkola Systems, PCS-Engineering, ELVAK, Ambit, Teollisuuskopla, IO Automation, Enmac

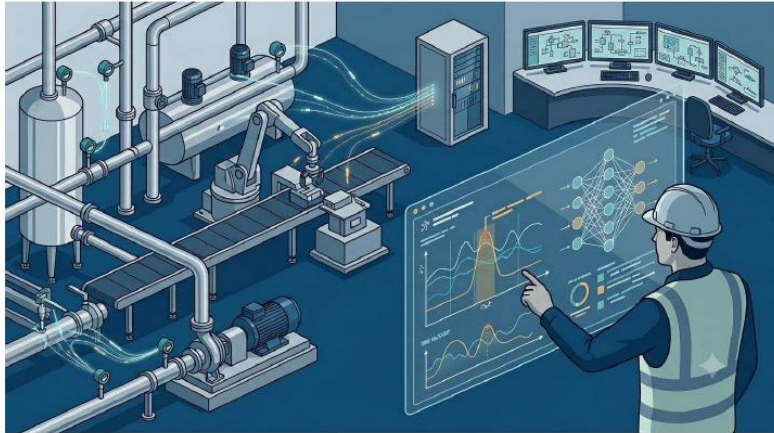


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Oamk for the rest of 2026

Tekoäly kone- ja prosessiautomaatiossa

Käytännön opas ammattilaisille



Coming up: AI guide – Oamk's chapter covers process optimisation and energy management.

Finishing

Testing MPC-based quality control in the simulator and validating results with Oulun Vesi

Sharing

The AI guide, workshop 7 and the closing event with the consortium, publications and reporting

Continuity

The committee carries on as the network's home. AIKO Agents follow-up project in preparation: agent-based AI in automation.



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Contents of the AI guide

AI in machine and process automation – a practical guide for professionals (in Finnish)

CHAPTERS

- 1** The role of AI in machine and process automation
- 2** Areas of AI: machine learning, language models and agents
- 3** Data – the fuel of AI
- 4** Machine learning in practice: from training environment to deployment
- 5** AI agents in practice: from design to deployment

APPENDICES

- A** Information security, regulation and the EU AI Act
- B** Business perspective and ROI
- C** Deployment roadmap for organisations
- D** MLOps and lifecycle management
- E** Tool comparison – cloud platforms, open source and ready-made industrial solutions
- F** Case studies
- G** Prompt engineering – language models as an engineer's tool
- H** Glossary and list of standards



The project ends. **The network lives on.**



1

Join the AI in Automation committee

2

Bring your own case: a process, data or a question

3

Put the AI guide to use once it is published



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Thank you! Let's stay in touch.



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