

Welcome to Afterwork!

16.09.2026 | 16.30-19.30 | Lyhty, Tampere University



TAMPERE FINLAND
AUTOMOTIVE & VEHICLE
TECHNOLOGY CLUSTER



TAMPERE.
FINLAND

BUSINESS
TAMPERE



Co-funded by
the European Union



Afterwork

Wednesday, 16 September 2026
16:30 – 19:30

- Welcome!
- Short introduction round
- Tampere Automotive & Vehicle Technology Cluster in brief
- Business delegations
 - France | U.K. | Canada | Texas, USA
- Joint exhibition booths
 - CES 2027 | Industrial Vehicle Technology Expo 2027
- Events
 - eNativeMachine Open Workshop
 - Cluster's annual meeting
 - Tampere Automotive & Vehicle Technology Cluster's networking pre-event
 - Future Mobile Work Machine
- Cluster development
 - Steering group for activity planning
 - Annual activity calendar
- Physical AI – changing the industrial landscape





TAMPERE FINLAND
AUTOMOTIVE & VEHICLE
TECHNOLOGY CLUSTER

One of the top automotive and vehicle technology hubs in Finland.

+200 Organizations: high-tech companies, academia and research institutes.

- + Promotes Tampere region as one of the top automotive & vehicle development hubs in Finland
- + Arranges networking, partner scouting and matchmaking events & company visits
- + Collaborates with international clusters
- + Helps members in finding new business and collaboration opportunities

Member of



Networking events
Delegation visits
Partner scouting events
Joint exhibition booths
Cluster collaboration
Export support



AUTOMOTIVE & VEHICLE TECHNOLOGY

Cluster's networking event 26.11.2025

Intelligent solutions for Automotive

CONNECTIVITY, ANTENNA TECHNOLOGY



COMPONENTS



EV CHARGING BATTERY MGMT ENERGY SOLUTIONS



SMART MOBILITY SOLUTIONS ADVANCED ENGINEERING



DREAM DEVICES

AUTOMOTIVE GLAZING



SENSORS, ELECTRONICS



AUTONOMOUS DRIVING, ADAS



LIDARS, CAMERA TECHNOLOGIES



DIGITAL COCKPIT INSTRUMENT CLUSTER



AUTOMOTIVE SW, DATA ANALYTICS, AI, CYBER SECURITY



CONTROL SYSTEMS, AIR QUALITY MONITORING, TESTING, SIMULATION



INTELLIGENT TYRES



Top R&D hub for off-road mobile work machines



Home to nine global market leaders in their category:
Sandvik, Metso, John Deere Forestry, Kalmar, Avant Tecno, Bronto Skylift, Ponsse,
Patria, AGCO Power



Intelligent Solutions for Off-Road Vehicles

ADVANCED ENGINEERING



MACHINE CONTROL



INTELLIGENT TYRES



INTELLIGENT MANUFACTURING, AUTOMATION



CONNECTIVITY, POSITIONING, IOT



PRODUCTS & COMPONENTS



ELECTROMOBILITY



DIGITAL SOLUTIONS



ACADEMIA & RESEARCH INSTITUTES



International collaboration & networks

e-mobil BW 

 **electric mobility**
south-west 

 **TELEMATICS** VALLEY

next
move
collaboration is the driver

Caar 
Cluster de Automoci3n de Arag3n

OVIN
AUTONOMOUS • CONNECTED • ELECTRIC

Ontario 


mobilityXlab

 **P3le V3hicule du Futur**[®]
Solutions pour v3hicules & mobilit3s du futur

ciac 
Cl3ster de la Ind3stria d'Automoci3
de Catalunya

EACN
European Automotive Cluster Network

 **Invest**
Durham

Delegation to France

Electromobility & Vehicle Technologies

Date: 29.09.- 01.10.2026

Organizers:

- Tampere Automotive & Vehicle Technology Cluster
- NextMove Cluster, France

Register here by

- <https://businesstamper.com/en/events/business-visits-to-france-29-9-1-10-2026/>

Normandy



PROSPECTIVE VISIT

At the heart of the French Mobility Valley

Paris & Normandy Regions

Electromobility & Vehicle technologies

Delegation to France

Monday 29.9.

- Arrival in Paris

Tuesday 30.9.

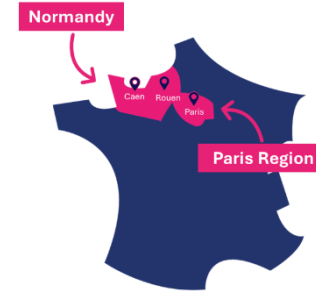
- Enorise, Trappes | FEV's former Software and Testing Solutions division
- Renault Trucks, Blainville-sur-Orne | One of the world leaders in heavy goods vehicles
- Dinner with NextMove Cluster

Wednesday 31.9.

- CETIM, Senlis | French technical center for mechanical industries is one of the largest industrial research organizations in Europe.
- NextMove reception - Introduction of delegation participants
- Round table with leading French company representatives
- Networking cocktail with NextMove ecosystem

Thursday 1.10.

- Up&Charge | Provider of wireless induction charging solution for commercial fleets
- Return to Finland



PROSPECTIVE VISIT

At the heart of the French Mobility Valley

Paris & Normandy Regions

Electromobility & Vehicle technologies

The visit includes:

- Online pre-meeting with NextMove
- Visit program
- Local transportation in France
- Lunch and dinner (on two days)
- Networking reception

Participation fee:

- €1,200 (VAT excluded)
- Can also be covered through de minimis funding

Please note:

- Participants are responsible for their own travel and accommodation arrangements and costs

Physical AI theme Company delegation Dallas–Fort Worthin ja Austinin 19.–23.10.2026.



- **Monday-Wednesday 19.-21.10 Dallas Region, USA**

- Dallas Region Chamber and local Chamber
- Autonomous Driving and Logistics Development Centre
- Companies to visit:

Jacobs Inc, Caterpillar, Texas Instruments, Amazon

Thursday 22.10 Between Dallas and Austin

George H.W. Bush Combat Development Complex at Texas A&M-RELLIS – a major U.S. testing and innovation environment for autonomous systems, robotics and advanced materials

- **AUSTIN Friday 23.10 until thursday 29.10.2026**

- Companies to visit;

Apptronik, John Deere agritech test center, Silicon Labs

- Plug and Play Cedar park: Advanced manufacturing

- AUSTIN Tech Week Thursday 26.-29.10.2026



The next steps info webinar 22.9.



Infowebinaari: Yritysdelegaatio Texasiin, Austin ja Dallas

Powered by Business Tampere

Ajankohta: 22.09.2026 klo 08:30-09:15

Paikka: Teams

Järjestäjä: Business Tampere

Kieli: Suomi

Ilmoittautuminen päättyy: 22.09.2026

Ilmoittaudu



Tule kuulemaan Texasin tarjoamista mahdollisuuksista suomalaisille teknologiayrityksille ja tulevasta yritysdelegaatiosta!

Tiistaina 22.9. järjestettävässä infowebinaarissa käsitellään erityisesti tulevaa yritysdelegaatiomatkaa ja erikseen Dallas ja Austin osuuksia. Esittelemme matkan alustavan ohjelman, tavoiteyritykset sekä mahdollisuudet asiakastapaamisiin, teknologiakumppanuuksiin ja alueen kumppaneihin liittyen Yhdysvaltain markkinoille menemiseen.

Webinaarin ohjelma | 22.9. klo 8.30-9.15

8.30 Puheenvuoro – Pertti Aimonen, COO, Business Tampere

- Texasin liiketoimintaympäristö ja markkinamahdollisuudet
- Dallas-Fort Worthin ja Austinin älykkäiden koneiden, fyysisen tekoälyn ja edistyneen valmistuksen ekosysteemit
- Delegaation ohjelma, tavoiteyritykset ja suunnitellut vierailut
- Miten yritykset voivat hyötyä matkasta ja valmistautua siihen

9.00 Kysymyksiä ja keskustelua

9.15 Webinaari päättyy



John Deere Expands Innovation Footprint with New Austin R&D Center

Delegation to U.K.

Mobile Machinery and Vehicle Technology

When: 20 - 22 October 2026

Who is organising this trip:

- Tampere Automotive & Vehicle Technology Cluster
- Sustainable Industry X (SIX) Mobile Work Machines Cluster

Where we will visit together:

- RICARDO, Birmingham Tech Week, Warwick Manufacturing Group, HORIBA-MIRA, Silverstone Technology Cluster and company sites

Please sign up by 30 September:

<https://businessstampere.com/tapahtumat/business-visit-to-the-uk-mobile-machinery-vehicle-technology-october-2026/>



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Delegation to U.K.

- **RICARDO**
Global engineering and environmental consulting leader.
- **BIRMINGHAM TECH WEEK**
Exclusive international networking reception hosted in conjunction with Birmingham Tech Week by the newly established West Midlands Automotive and Battery Cluster.
- **WMG (Warwick Manufacturing Group)**
Founding member of the UK's High Value Manufacturing (HVM) Catapult, renowned for battery technology, low-carbon mobility, connected/autonomous driving, and electric powertrains.
- **HORIBA-MIRA**
World-class 850-acre automotive technology park featuring comprehensive proving grounds, laboratories, and over 40 specialized testing facilities for electrification, autonomous systems, and off-highway applications.
- **SILVERSTONE TECHNOLOGY CLUSTER**
Premier network situated in the UK's "Motorsport Valley," uniting over 170 advanced engineering, electronics, software, and tech firms across automotive, aerospace, defense, and energy sectors.
- **Targeted OEM Site Visits (*Still Under Confirmation*)**
Outreach currently underway to schedule visits with key OEMs, e.g., JLR, Fortescue Zero, Caterpillar, McLaren, Thwaites, and Williams.



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Delegation to Ontario, Canada

Industrial technology, vehicle technology, electrification & mobility, and intelligent maritime solutions

Date: 26.10.2026-30.10.2026

Organizers:

- Tampere Automotive & Vehicle Technology Cluster
- Business Turku
- Lahti GEM

In collaboration with:

- GRIT Online – Main Coordinator
- Invest Durham, Invest Ontario
- OVIN (Ontario Vehicle Innovation Network)

Register here by Sept 26th

- <https://businesstampere.com/en/events/explore-business-opportunities-in-ontario-canada/>



Delegation to Ontario, Canada

Monday 26.10.

- Ontario market review
- Targeted B2B matchmaking

Tuesday 27.10.

- Durham region company visits
- Energy systems: Ontario Power Generation, Oshava Power & Bluewave AI
- Autonomous Robotics & Industrial AI: Korechi Innovations, Moon Trades Technologies, NuPort Robotics
- International networking reception

Wednesday 28.10.

- Battery technology & electrification: Eletrovaya
- Advanced manufacturing & vehicle technology: ATS Corporation, Linamar

Thursday 29.10.

- Advanced automation & smart manufacturing: Eclipse Automation, Patriot Forge
- Off-road vehicle technology & automotive: Tigercat, Toyota Motor Company, Blackberry

Friday 30.10.

- Shipbuilding & intelligent vessel systems: Ontario Shipyards, Canal Marine & industrial Inc.
- Clean energy & infrastructure: Niagara Parks Power Station & Tunnel



The visit includes:

- Visit program
- Local transportation in Canada
- B2B matchmaking
- Networking reception

Participation fee of charge

Please note:

- Participants are responsible for their own travel and accommodation arrangements and costs

Join exhibition booth – CES 2027

Vehicle Tech & Advanced Mobility

Date: 06.-09.01.2027

Organizers:

- Tampere Automotive & Vehicle Technology Cluster, VAMOS Ecosystem, ITS Finland & Lahti GEM

Including:

- One exhibitor/attendee pass
- Company logo visibility at the stand
- Access to screens for company videos and presentations
- Shared meeting and networking area
- Participation in stand events and activities
- Joint marketing and promotional activities
- Exclusive Riverside Pre-Visit 4-5 January (Optional)

Register here

- <https://businessstampere.com/tapahtumat/ces-2027/>



Participation fee: 1000 €

Please note:

- Participants are responsible for their own travel and accommodation arrangements and costs

Join exhibition booth – iVT Expo 2027

Industrial Vehicle Technology

Date: 09.-10.06.2027

Organizers:

- Tampere Automotive & Vehicle Technology Cluster
- Lahti GEM

Including:

- Company logo visibility at the joint stand
- Access to display screens for company videos and presentations
- Shared meeting and networking facilities
- Joint marketing and promotional activities before and during the event
- Increased visibility as part of a strong Finnish industry presence

Register here

- <https://business tampere.com/tapahtumat/joint-exhibition-stand-at-ivt-expo-2027/>



Participation fee: 2000 € per company

Please note:

- Participants are responsible for their own travel and accommodation arrangements and costs.
- Off-Highway Evolution Conference passes are not included in the exhibition and stand participation fee

Upcoming events

- eNativeMachine Open Workshop
– October 6, 2026
<https://www.six.fi/event-details/enativemachine-open-workshop>
- Cluster's Annual Meeting
– December 16, 2026 (TBC)
- Tampere Automotive & Vehicle Technology Cluster's networking pre-event
– May 11, 2027
- Future Mobile Work Machine
– May 12–13, 2027
<https://www.fmwm.fi/>



SIX : MOBILE
Sustainable Industry X : WORK
: MACHINES

eNativeMachine Open Workshop

Oct 6 | 2026 | Tampere Hall | Tampere

Register by Sep 29



**FUTURE
MOBILE
WORK
MACHINE**

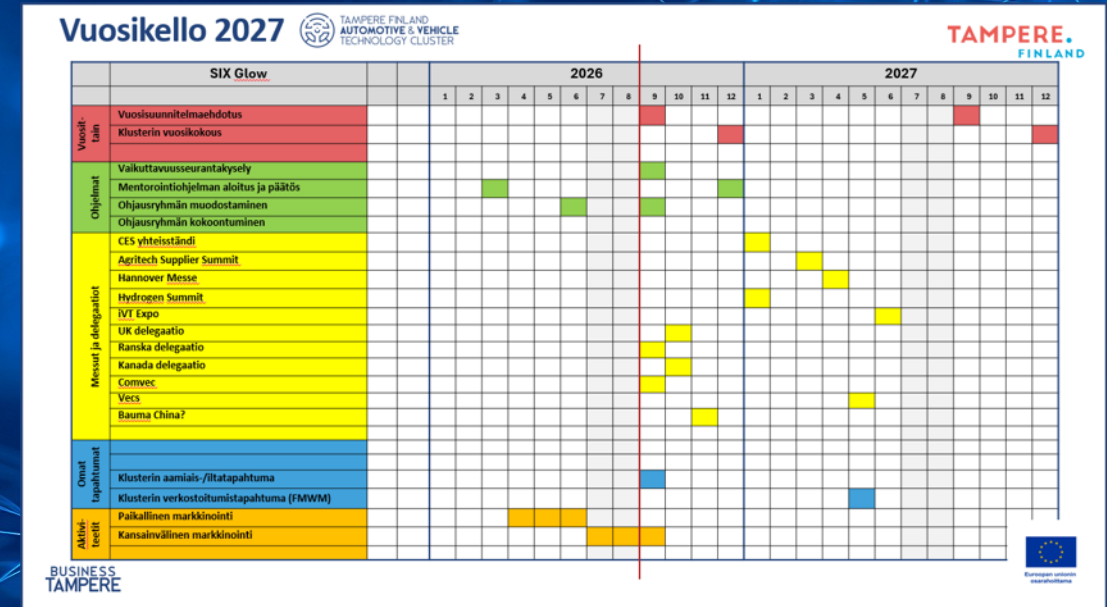
**May 12–13, 2027 AT TAMPERE SPORTS & EXPO
Tampere • Finland**

MEET THE LEADERS IN MOBILE MACHINE INDUSTRY

Forerunner event from the leaders of mobile work machine industry

Cluster development

- Steering group
 - Initial discussions with potentially interested participants
 - Interested in joining? Contact Jarmo Tuorila
- Annual activity calendar
 - For more efficient and predictable planning





Physical AI

The evolution of physical AI



01 HUMAN-IN-THE-LOOP

Remote control

The machine relies on human guidance to function. AI translates human intent and assists execution—it does not make decisions independently.



02 TASK-DRIVEN AUTONOMY

Autonomous

The system executes complex tasks and navigates unpredictable environments without real-time intervention, within a scope defined by humans.



03 LIFECYCLE-INDEPENDENT

Self-sufficient

The AI sustains operations over time—adapting to new domains, managing energy and maintenance, and diagnosing or repairing itself.

Humanoid technologies – made in Finland?

BODY + SENSING

High-torque actuators

Compact motors and gears create joint force.

Dexterous hands

Multi-DoF fingers handle human tools.

Lightweight structures

Composites and titanium reduce weight.

Tactile e-skin

Pressure sensing enables delicate touch.

Proprioception

Joint encoders track limb position.



INTELLIGENCE + ENERGY

VLA models

VLA turns vision and language into action.

Real-time sensor fusion

Fuses cameras, LiDAR, IMUs and force data.

Sim-to-real learning

Simulation trains safe, transferable behaviors.

High-density batteries

More energy extends runtime in less space.

Thermal management

Cooling protects motors and AI processors.

What Physical AI Requires: A Complete Technology Stack

Competitive advantage comes from integrating all layers — not optimising one.



1

Industrial Deployment

Where AI meets operations — factories, autonomous machines, field environments, off-road work machines..



2

Devices, Sensors, Imaging & Robotics

Perception hardware — IoT sensors, cameras, LiDAR, thermal sensors; the eyes and hands of physical AI



3

Connectivity — 5G / 6G / Industrial IoT/ Edge AI

Real-time, ultra-low latency data transport; private networks and mesh at the operational edge



4

AI, Software & Digital Twin

Intelligence layer — models, edge inference, orchestration, simulation and digital twin



5

Silicon, Photonics & Compute

Foundation infrastructure — application-specific chips, photonics, RF front-ends, compute

**SITRA TOTEUTTAA FYYSISEN TEKÖÄLYN
KIIHDYTYSHANKETTA YHDESSÄ LAAJAN
KUMPPANIVERKOSTON KANSSA**

HANKKEELLA ON 3 TAVOITETTA

EKOSYSTEEMI & YRITYKSET

**Vahvistaa ekosysteemin private&private ja private&public -yhteistyötä sekä tuottaa uusia pilotteja, TKI-kumppanuuksia, ja tukea kasvua lyhyellä aikavälillä
--> valmistelee Business Finlandin Ohjelman 2027**

TIEKARTTA & JATKON KASVUTOIMET

Tuottaa selkeä kuvaus Suomen vahvimista kasvun kärjistä fyysisessä tekoälyssä ja määritellä jatkotoimet kasvun takaamiseksi keskipitkällä aikavälillä

YHTEISKUNTA

Auttaa suomalaista yhteiskuntaa ja instituutioita heräämään fyysisen tekoälyn mahdollisuuksiin generatiivisen tekoälyn rinnalla

KIIHDYTYSHANKKEEN AIKAJANA

Q4/26

Q1/27

Q2/27

Physical AI matchmaking & kansallinen tilannekuva

**Tietoaukkojen täydentäminen
tiekarttaa varten**

Physical AI tiekartta Suomelle

**Sitran julkaisu
fyysisestä tekoälystä
laajemmalle yleisölle
tammikuussa**

**Jatkotoimet & toimintamallin
kehitys**



Physical AI in mobile machinery: the barriers are the business

AI that perceives, decides and acts on the machine is moving from pilots to paid work. Adoption hinges on solving five practical barriers.

Barriers to adoption



Safety certification

EU Machinery Regulation applies from 20 Jan 2027: ML-based safety functions need notified-body assessment, while detailed AI guidance still lags.



Scarce, siloed field data

Critical edge cases (snow, dust, darkness, people nearby) are rare and split across OEMs, dealers and fleet owners.



Proving learned behaviour is safe

Verification is hard; the sim-to-real gap demands real test sites alongside digital twins.



Edge compute & connectivity

Remote sites need rugged on-machine compute that copes with vibration, cold and weak networks.



Retrofit, liability & trust

Long product cycles, mixed fleets and "substantial modification" rules slow upgrades; operators must trust the machine.



International proof points

Caterpillar × NVIDIA CES 2026

Edge AI on Jetson Thor and an embedded Cat AI Assistant across construction and mining fleets.

Caterpillar × FieldAI Sep 2026

Robotics foundation models and Omniverse digital twins for autonomous jobsite inspection.

Bedrock Robotics Aug 2026

Operator-free excavators on live US infrastructure sites. Ex-Waymo team, \$350M+ raised, retrofit sensor-and-compute kit.

Komatsu & John Deere Scaling

Autonomous haulage has run in mining for over a decade; driverless tractors are now working in agriculture.

Is there Opportunity for Tampere???

Workshop questions | Työpajan kysymykset

From vision to a concrete next step – discuss in groups, then share one key insight per question.

1

VISION

Mitä fyysinen tekoäly voisi tarkoittaa omalla toimialallasi? Mitä muutoksia on jo tulossa – ja mitä ei vielä ole, mutta voisi olla jonain päivänä?

What could physical AI mean for your industry? What changes are already coming – and what is not yet there but could be one day?

2

REALITY CHECK

Mikä esteistä koskee teitä eniten – ja mikä muu jarruttaa käyttöönottoa juuri teillä?

Which of the barriers hits you hardest – and what else is holding adoption back for you?

3

ASSETS

Mitä dataa, osaamista tai testiympäristöjä teillä jo on – ja mitä olisitte valmiita jakamaan yhteisesti?

What data, expertise or test environments do you already have – and what would you be willing to share?

4

PREPARE

Miten pitäisi varautua? Mitä mahdollisuuksia muutos avaa teille?

How should you prepare? What opportunities does the change open for you?

5

ACT

Kenen kanssa tätä kannattaisi ratkaista – ja mikä olisi yksi yhteinen kokeilu seuraavan 12 kuukauden aikana?

Who should we solve this with – and what is one joint pilot we could run in the next 12 months?

Thank you!



Ari Lylynoja

ari.lylynoja@business tampere.com



Heini Wallander

heini.wallander@business tampere.com



Jarmo Tuorila

jarmo.tuorila@business tampere.com



Pertti Aimonen

pertti.aimonen@business tampere.com



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