

Breakthrough in Organizational AI: Novogain's RL-AI Motor Creates Digital Twin of Teams to Boost Human Productivity

Novogain unveils the first RL-AI system that models team dynamics, predicts outcomes, and drives measurable ROI in real time.

OULU, FINLAND, October 16, 2025 /EINPresswire.com/ -- A new Al innovation developed by Novogain, in collaboration with researchers from the University of Lapland, marks a significant scientific and technological breakthrough in how organizations can enhance productivity through human-centric artificial intelligence.

The innovation utilizes reinforcement learning and <u>digital twin</u> technology to model and optimize real-world team dynamics. This new approach allows

How Novogain's RL-AI Motor Enhances Team Performance and Development **Digital Twin** Reinforcement Output Input Novogain Simulation **Learning Loop** AI Coach ROI Improve rhythm Strengthen belonging Data-driven Adjust workload improvement in Simulates. both well-being **Team Experience** Digital Twin and productivity Learns, Improves & Performance Data of the Team · QWL survey results, HR metrics, sick leave, turnover, etc. Simulates, Learns Improves All data pseudonymized, no LLMs - fully internal and GDPR-compliant

The RL-Al Motor is built on the Quality of Working Life (QWL) model and the digital twin RL-Al technology—both peer-reviewed scientific frameworks validated in scientific articles.

organizations to analyze how leadership practices, motivation, and work-life quality interact to influence productivity and financial results.



We have created a learning AI that mirrors human organizations — a true digital twin of a team powered by reinforcement learning."

Marko Kesti

Based on an extensive scan of academic literature, patents, and HR technology vendor portfolios (as of October 2025), no other publicly available AI system matches Novogain's combination of reinforcement learning, team-level digital twin modeling, and quantifiable HRD ROI analysis. Novogain's RL-AI Motor represents the first-in-category breakthrough at the intersection of AI, leadership development, and human capital analytics.

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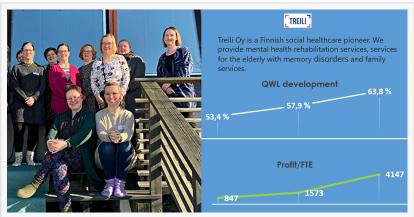
organizations - a true digital twin of a team," says Dr. Marko Kesti, founder of Novogain and

Playgain. "It predicts the impact of management decisions, helping supervisors make smarter, peoplecentered choices that improve both well-being and profit."

Peer-Reviewed Science Behind the Innovation

The RL-Al Motor is built on the <u>Quality</u> of <u>Working Life</u> (QWL) model and the digital twin RL-Al technology—both peer-reviewed scientific frameworks validated in scientific articles.

The research demonstrates that traditional employee surveys often overestimate actual performance, while the QWL model identifies the true relationship between employee experience and productivity. In empirical cases—such as Treili Oy and the SafeInLog project—increasing the QWL index by 10 points led to over 400 % growth in Operating Profit (EBITDA), proving the strong correlation between human experience and sustainable profitability.



Treili Inc improved Quality of Working Life by 10 percentage points which led to fivefold increase in profit.



Welcome to Novogain Al assistant

From Research to Application

Building on this validated foundation, Novogain developed the RL-Al Motor, which:

- Creates a digital twin of each team to simulate real-time organizational behaviour
- Uses reinforcement learning algorithms to identify optimal management actions
- · Simulates the effects of leadership practices on productivity, engagement, and well-being
- Provides supervisors with actionable, evidence-based recommendations via the Novogain Al digital coach

The RL-Al continuously learns by comparing predicted and actual outcomes, refining its understanding of how leadership decisions influence results. It provides immediate insights into which development actions yield measurable improvement—turning leadership into a continuous learning system.

Strong Focus on Data Security

Because AI systems often raise legitimate concerns about data privacy, Novogain has taken data protection as a top priority in the RL-AI design.

The system follows strict European GDPR standards, and all data is pseudonymized and

processed inside a secure internal statistical environment.

The Novogain RL-Al Motor is a completely proprietary system, developed and operated independently without any integration to large language models (LLMs) or external Al engines. This ensures that all processing remains confidential, isolated, and under full organizational control—a crucial factor for clients operating in healthcare, public administration, or other sectors handling sensitive employee data.

"Our AI is fully internal," Kesti emphasizes. "It is not connected to any cloud-based LLMs. The reinforcement learning engine runs on our own infrastructure and uses only the organization's internal statistical database. That's why we can guarantee complete data security and reliability."

Fast Implementation and Immediate Results

In addition to security, Novogain has designed the RL-Al system for efficiency and ease of deployment.

Because it relies on a ready internal statistical database rather than external integrations, organizations can begin using the system within hours—without a heavy IT project or complex onboarding.

Supervisors simply provide initial data inputs, and the RL-Al Motor begins generating personalized analyses and recommendations.

This rapid setup allows teams to see measurable impact almost immediately, often within the first weeks of use.

"We've seen that organizations can start gaining productivity benefits on the same day," Kesti adds. "It's plug-and-play AI for leadership — quick to implement yet deeply grounded in science."

A New Era for Human-Centric Al

The innovation aligns with Finland's and Europe's strategic goals of sustainable digital transformation and responsible AI.

By merging scientific motivation theory, reinforcement learning, and digital twin simulation, Novogain has created an AI that does not just analyze numbers — it understands people. "This is not about automating management," Kesti explains. "It's about augmenting human leadership. The AI helps managers focus on what truly matters — human experience, purpose, and learning — while ensuring that every action contributes to measurable, long-term productivity."

The combination of academic rigor, data ethics, and practical usability makes Novogain's RL-Al Motor one of the first Al systems capable of driving sustainable productivity through organizational learning.

About Novogain

Novogain is a Finnish AI company specializing in leadership development and sustainable productivity improvement. Its flagship solutions include the Novogain AI coach, the Playgain leadership simulation game, and advanced digital twin analytics. The company's innovations are grounded in over 20 years of research on human capital productivity, motivation theory, and the

Quality of Working Life method.

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