

Jotne Connect Establishes AI Unit to Accelerate Standards-Based Interoperability in Digital Twins, MBSE, and PLM

Oslo, Norway – 18.06.2025 – Jotne Connect, a subsidiary of the Jotne Group and a global leader in standards-based engineering data solutions, is proud to announce the launch of a new **Artificial Intelligence (AI) unit** to drive next-generation innovation in **Model-Based Systems Engineering (MBSE)**, **Product Lifecycle Management (PLM)**, and **Digital Twin**. The division will be led by renowned academic and industrial researcher **Dr. Aditya Gupta**, bringing strategic insight and deep domain expertise to this initiative.

With over three decades of experience delivering robust interoperability solutions based on international standards like **ISO 10303 (STEP)**, Jotne Connect is trusted by aeronautics, space, defence and manufacturing leaders for long-term archiving, data traceability, and digital continuity. The company's software platforms enable organizations to manage complex engineering data from concept through decommissioning—supporting a full **digital thread**.

Revolutionizing PLM and Digital Twin

The AI unit will also embed intelligence into Jotne Connect's PLM and SDM solutions by enabling:

- Automated classification, search, and reuse of engineering and simulation assets
- AI driven LLM models for intuitive querying and analysis of complex data
- Predictive maintenance based on structured operational, simulated or generated data
- Dynamic linking of design, requirements, and analysis data across the lifecycle
- AI-powered validation and verification pipelines that reduce errors and improve compliance

Advancing MBSE Through AI and Open Standards

MBSE is transforming how complex systems are designed, validated, and maintained. Jotne Connect's new AI unit will enhance MBSE practices by:

- Integrating semantic reasoning and machine learning into model-based design environments
- Supporting cross-domain engineering models (mechanical, electrical, software) with consistent data semantics
- Enabling continuous model improvement and its deployment through intelligent model validation, impact analysis, and requirements traceability.
- Leveraging ISO 10303-based data structures for persistent, federated model access

These capabilities will strengthen the digital engineering foundation needed for future aerospace systems, smart infrastructure, and sustainable industrial ecosystems.

By combining AI with open standards, Jotne Connect empowers engineers to make faster, more informed decisions while ensuring long-term interoperability and data integrity.

Expanding the Use of ISO 10303

Already a leader in the implementation of ISO 10303 (STEP), Jotne Connect will now push the boundaries of the standard's applicability into:

- **Digital twin integration** with real-time data feedback loops

- **Autonomous system development**, where multidomain data integration is critical
- **Federated MBSE/PLM environments**, enabling collaborative engineering across supply chains
- **Smart manufacturing diagnostics** and IIoT data contextualization
- **Detection of irregularities** in multidomain data through AI modeling.

“We believe the future of digital engineering lies at the intersection of open standards and intelligent technologies,” said Vilde Marie Sørensen, CEO of Jotne Connect. “By bringing AI into the core of MBSE, PLM, and SDM workflows, we are not only enhancing engineering productivity but also enabling long-term, interoperable digital ecosystems. We are thrilled to have Dr. Aditya Gupta leading this transformative journey.”

About Jotne Connect

Jotne Connect is a Norwegian technology company delivering advanced, standards-based software for data interoperability, model-based engineering, and digital lifecycle management. A pioneer in ISO 10303 (STEP) and trusted partner across aerospace, defence, manufacturing, and energy sectors, Jotne Connect enables secure sharing, long-term preservation, and intelligent use of complex engineering and simulation data.

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