AlphaPX Joins INL-Led Prometheus Project to Advance AI-Assisted Nuclear Supply Chain Readiness

AlphaPX will contribute Operational Intelligence and human-in-the-loop AI capabilities to INL-led Project Prometheus.

NEW YORK, NY, UNITED STATES, September 24, 2026 /EINPresswire.com/ -- AlphaPX today announced its participation as a named industry partner in Project Prometheus, an Idaho National Laboratory-led initiative under the U.S. Department of Energy's Genesis Mission.

> Project Prometheus provides a unique environment to develop trusted, auditable AI that combines human expertise with new capabilities for qualification and operational readiness."
>
> *Nitin Kumar, Co-Founder of AlphaPX*

The U.S. Department of Energy selected Prometheus in July 2026 to receive a $60 million Phase II award over three years, subject to appropriations. The project brings together national laboratories, academia and industry to apply artificial intelligence across nuclear reactor design, licensing, manufacturing, construction and operations.

AlphaPX's planned contribution focuses on a critical challenge in advanced nuclear deployment: helping suppliers, component manufacturers and engineering organizations navigate complex qualification and readiness processes more efficiently.

Working with Idaho National Laboratory subject matter experts, AlphaPX plans to develop human-in-the-loop AI workflows that can structure qualification packages, identify missing evidence and inconsistencies, surface blockers, and prepare materials for expert review while maintaining traceability and human oversight.

The planned work also includes developing structured ontologies and knowledge graphs that make qualification requirements, evidence, revisions, approvals and workflow states machine-readable and reusable. These capabilities are intended to support the broader Prometheus platform and the development of AI-assisted nuclear supply chain qualification workflows.

TURNING ENGINEERING KNOWLEDGE INTO OPERATIONAL INTELLIGENCE

The next generation of nuclear energy will depend on more than advances in reactor technology. Suppliers, engineering organizations and other participants in the nuclear supply chain must also navigate increasingly complex qualification, documentation and readiness requirements.

Many of these processes depend on fragmented documentation, institutional knowledge and labor-intensive expert review.



AlphaPX logo

AlphaPX's work in Prometheus reflects the company's broader approach to Operational Intelligence: transforming fragmented enterprise data, documentation and institutional expertise into structured knowledge and AI-assisted workflows that help people execute complex work more effectively.

"Artificial intelligence creates the greatest value when it enhances, rather than replaces, human expertise. The future of nuclear energy depends not only on designing better reactors, but also on making decades of engineering knowledge operational," said Bernd Strenitz, Co-Founder and President of AlphaPX.

Under the proposed scope, AlphaPX and INL will collaborate on workflows supporting package ingestion and structuring, readiness and gap detection, reviewer briefing and exception routing. Potential performance measures include reducing reviewer preparation time, identifying missing required artifacts before formal review, surfacing requirement-to-evidence gaps and reducing package rework.

"Project Prometheus provides an exceptional environment to develop and validate technologies for AI-assisted qualification and operational readiness. The principles behind this work, trusted and auditable AI combined with human expertise, have the potential to benefit many other complex industrial environments where safety, traceability and expert judgment remain essential," said Nitin Kumar, Co-Founder of AlphaPX.

The framework-level ontology, knowledge graph and workflow templates developed through the collaboration are expected to contribute to the Prometheus platform. AlphaPX also plans to

develop commercial applications built on the resulting framework for nuclear suppliers, component manufacturers and construction contractors.

ABOUT PROJECT PROMETHEUS

Project Prometheus is an Idaho National Laboratory-led initiative under the U.S. Department of Energy's Genesis Mission focused on applying artificial intelligence to accelerate nuclear energy development and deployment.

Prometheus brings together national laboratories, academia and industry to develop AI capabilities spanning nuclear reactor design, licensing, manufacturing, construction and operations, including human-in-the-loop workflows.

More information about Project Prometheus is available at:

https://inl.gov/artificial-intelligence/prometheus/

ABOUT ALPHAPX

AlphaPX develops Operational Intelligence software for industrial and highly regulated organizations.

The AlphaPX Operational Intelligence Layer helps organizations capture, structure and scale operational expertise by connecting enterprise data, documentation and institutional knowledge with trusted, AI-assisted workflows.

By combining structured knowledge, auditable AI and human-centered workflow design, AlphaPX helps organizations improve operational execution, accelerate workforce capability and navigate complex processes across existing systems.

Learn more: https://alphapx.com

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