Sumitomo Riko Leverages Ansys AI Technology to Accelerate Simulation Over 10x for Automotive Component Design and Manufacturing

Ansys SimAI helps engineers swiftly predict physics-based behavior — including mechanical, thermal, and chemical — across product design and manufacturing

/ **Key Highlights**

- Part of the Synopsys portfolio of simulation & analysis solutions, theAnsys SimAI™ platform enables Sumitomo Riko to accelerate simulation speed over 10x when compared to traditional simulation methods
- Sumitomo Riko is using SimAI to rapidly generate high-fidelity models that are easily accessible to experts and non-experts, creating a comprehensive design-to-manufacturing workflow that strengthens product lifecycle management (PLM) processes

PITTSBURGH, Oct. 8, 2025 /PRNewswire/ -- Sumitomo Riko is implementing Ansys, part of Synopsys, Inc. (NASDAQ: SNPS) AI technology to accelerate time-to-solution and improve efficiency during the design and manufacturing of automotive components. SimAI rapidly analyzes new or legacy simulation data to generate high-fidelity AI models capable of quickly predicting performance. Sumitomo Riko is using SimAI to accelerate computation-heavy tasks like anti-vibration design and exploration, battery cooling, magnetic field analysis, and mixing heat transfer analysis.

Sumitomo Riko is a leading global manufacturer of high-performance rubber automotive components. To ensure a safe and smooth ride, engineers must understand how the various components within the system behave under extreme loads and stressors. This requires running hundreds of multiphysics simulations where pre-processing tasks, like defining geometric parameters for the model, require extensive time and simulation expertise.

To accelerate product development, Sumitomo Riko is using SimAI and previously generated data to train AI models of high-performance rubber products, such as vibration isolators and hoses, without having to parametrize the geometry. This approach delivers AI models capable of making performance predictions under five minutes — over one hour of time savings for each new design — with accuracy comparable to high-fidelity simulation.

For example, initial testing revealed that SimAI could accelerate simulation cycles over 10x when predicting the mechanical performance of certain rubber bushes — components that play a key role in reducing shock and vibration within suspension systems. This significant speedup enables faster design iterations and more efficient workflows.

"To remain at the forefront of polymer and comprehensive evaluation technology innovation, we are working to implement workflow automation capabilities across the entire product lifecycle" said Noritaka Matsuoka, head of analysis and experiment division, advanced systems R&D Center at Sumitomo Riko. "The first challenge is to promote the adoption of AI across our product development cycles. SimAI is an ideal platform to start this journey due to its robust capabilities that eliminate the need for parametrized geometries, making it easier for multiple teams to collaborate on one project."

Sumitomo Riko is also working with Ansys to implement workflow automation capabilities across product design, manufacturing, and retirement processes.

"Modern product development begins with quality data and leading simulation solutions," saidWalt Hearn, senior vice president of worldwide sales and customer excellence at Ansys, part of Synopsys. "One of the biggest challenges in R&D is balancing speed and accuracy during the early design phase. Ansys AI capabilities enable lightning-fast predictions, regardless of how large or complex the computation is, so that customers can make data-driven decisions before prototyping begins."

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the leader in engineering solutions from silicon to systems, enabling customers to rapidly innovate AI-powered products. We deliver industry-leading silicon design, IP, simulation and analysis solutions, and design services. We partner closely with our customers across a wide range of industries to maximize their R&D capability and productivity, powering innovation today that ignites the ingenuity of tomorrow. Learn more at www.synopsys.com.

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Contacts

Media Pete Smith
pete.smith@synopsys.com
corp-pr@synopsys.com

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