

2026 PLM Market & Industry Forum

AI in PLM: Expanding Capabilities Across the Product Lifecycle

For decades, Artificial Intelligence (AI) was deemed the "next big thing." Today, following the disruptive introduction of ChatGPT in November 2022, the era of Generative AI (genAI) is here, spurring unprecedented data center investments and an urgent push to integrate this technology across all sectors. Recognizing this monumental shift, the PLM Economy is actively working to embed genAI and other AI capabilities into its processes.

This Forum will address that urgency by unveiling the results of a new, global CIMdata study on the application of AI in PLM. The research offers a fact-based benchmark of the status, achieved results, and plans of both industrial users and the software and service providers that help them achieve their strategic PLM objectives.

Today, we are at an inflection point where AI has moved from a theoretical concept to a global economic driver. Together, let's see what the future holds.

From Science Fiction to Moore's Law: The AI Foundation

The notion of *artificially intelligent beings* dates back at least to 1872, with Samuel Butler's utopian novel *Erewhon*. His vision, like many in fiction that came after, was that humankind was in danger of being supplanted by self-replicating machines. This foundational thought continued through Alan Turing's 1950 question, "Can computers think?" and

then, in 1956, at the Dartmouth Summer Research Project on Artificial Intelligence, where John McCarthy and his colleagues coined the phrase "artificial intelligence" (AI).

The continuous progression of Moore's Law, the gift that keeps on giving, continues to provide increasing computing, storage, and networking capabilities per unit cost, significant computing power, and has helped build successive generations of AI-based solutions. IBM's successes with Deep Blue in chess and Watson on the TV show Jeopardy showed that computers could beat humans at focused tasks. Google did them one better with AlphaGo, which beat human champions in the famously complex board game Go. Interestingly, AlphaGo was not trained in the traditional way using a human-created database; instead, it used machine learning (ML) and tree search techniques.

It was the release of OpenAI's ChatGPT as a free "research preview" in November 2022 that truly captured the public's attention.¹ According to DemandSage's ChatGPT user metrics from 7 October 2025, usage doubled from 400 million active weekly users in February 2025 to 800 million in October. "ChatGPT processes 2 billion queries daily, averaging 190.6 million daily users, which is 2,206 visits every second. The U.S. leads with 15.1% of traffic, followed by India at 9.42%."²

While ChatGPT and other large language models (LLMs), collectively referred to as generative AI (genAI), are a recent innovation, PLM applications

¹ <https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/>. It was surpassed by Threads in July 2023.

² <https://www.demandsage.com/chatgpt-statistics/>

have leveraged AI for over 30 years. Examples include the introduction of generative design in the 1990s by Altair, which only became more practical in recent years as the unit cost of computing dropped. ML helped analyze usage patterns of mechanical computer-aided design (MCAD) systems to improve the user experience. Also, Autodesk was an early adopter of IBM's Watson to triage customer support calls.

A Match Made in Data Heaven: PLM & Generative AI

genAI and PLM are a match made in data heaven. GenAI searches for meaning and relationships in data that the digital thread can offer, perhaps reducing the "hallucinations" of genAI in other applications. The combination is a *strategic imperative*.

PLM systems, anchored by the Digital Thread, manage the vast, structured, and unstructured engineering data that genAI needs to thrive. This potential integration offers a path to transforming static data into a dynamic "system of intelligence."

But, as with the introduction of other computing and networking technologies, the adoption of genAI in this space is hampered by unique, high-stakes concerns that echo historical anxieties:

- **Intellectual Property (IP):** Utilizing proprietary product data and design knowledge to train AI models raises critical concerns about ownership, attribution, and data security—concerns that previously slowed the adoption of cloud infrastructure.
- **Trust and Accuracy:** While the digital thread can help "ground" genAI models in verified engineering data, ensuring output consistency, accountability, and reliability in critical product development decisions remains paramount.

Scrambling for Clarity: The PLM Economy's Response to AI

The PLM Economy, CIMdata's term for the software and service providers that will help industrial companies achieve their objectives, is, like many other market segments, actively scrambling to embed AI into its offerings and business processes. While users are rapidly experimenting with the technology both personally and professionally, initial results are mixed, reinforcing the need for non-biased, authoritative guidance.

To gain the clarity needed on the rapidly shifting dynamics of the PLM Economy and the industrial companies it serves, CIMdata launched a comprehensive global study on the application of AI in PLM. Our research targeted three crucial communities: industrial users, software providers, and service providers.

Strategic Forum Agenda and Key Takeaways

Since its founding over 40 years ago, CIMdata has helped to moderate these crucial discussions for the betterment of the industry. We have been actively promoting this topic for years, and our theme for the 2026 PLM Market & Industry Forum, "AI in PLM: Expanding Capabilities Across the Product Lifecycle," is a natural follow-up to our 2019 Forum on "Augmented Intelligence."

For the 2026 edition, the day will begin with CIMdata's traditional assessment of the current state of the global PLM market and future trends, setting the stage for the strategic discussions that will follow.

Attendees will gain access to valuable data and insights, including in-depth analyses and forecasts spanning PLM domains, industries, and regions, as well as performance metrics for leading PLM solution providers by revenue and market share.

Much of this information will not be publicly available until the 2026 MAR reports are published in late Spring and Summer.

In the afternoon, the focus will turn to the findings of CIMdata's global study on AI in PLM. This research establishes a crucial fact-based benchmark on the status, achieved results, and plans for AI across the product lifecycle.

The first presentation will provide essential background on the AI-related work to date, clearly defining AI and related topics, and establishing the framework for the two sessions that follow. These presentations will respectively consider AI from the perspectives of industrial clients and members of the PLM Economy. The afternoon will conclude with a discussion on the value potential of digital twins/digital thread, followed by "News from the Field," sharing highlights and actionable learnings from CIMdata's recent industrial consulting work.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design, deliver, and support innovative products and services by identifying and implementing appropriate digital initiatives. For nearly 40 years, CIMdata has provided industrial organizations and technology and service providers with world-class knowledge, expertise, and best-practice methods across a broad set of product lifecycle management (PLM) solutions and the digital transformation they enable. CIMdata also offers research, subscription services, publications, and education through certificate programs and international conferences. To learn more, visit www.CIMdata.com or email info@CIMdata.com.