SBE VISION

The Data Fabric for the Modern Digital Thread

CIMdata PLM Road Map – Thought Leadership Vignette

PLM Road Map™ & PDT North America 2026

AI in PLM: A Disruptive Opportunity and Challenge

Turning AI disruption into enterprise value:
Strategic insights for the PLM professional

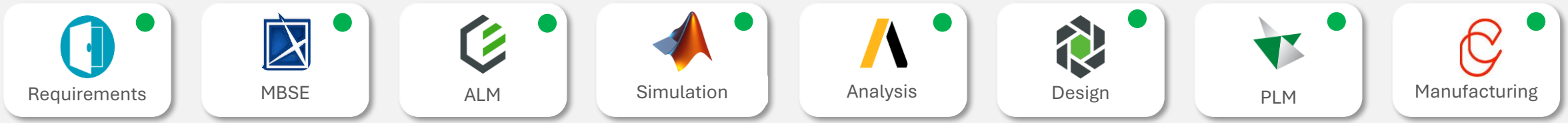
CIMdata®

6-7 May 2026

www.CIMdata.com

Where AI is Taking Digital Engineering

AI: System-Level, Enterprise-Scale, End-to-End



Why Semantic Interoperability?

Cross domain relationships don’t exist and cannot be inferred “after the fact.”

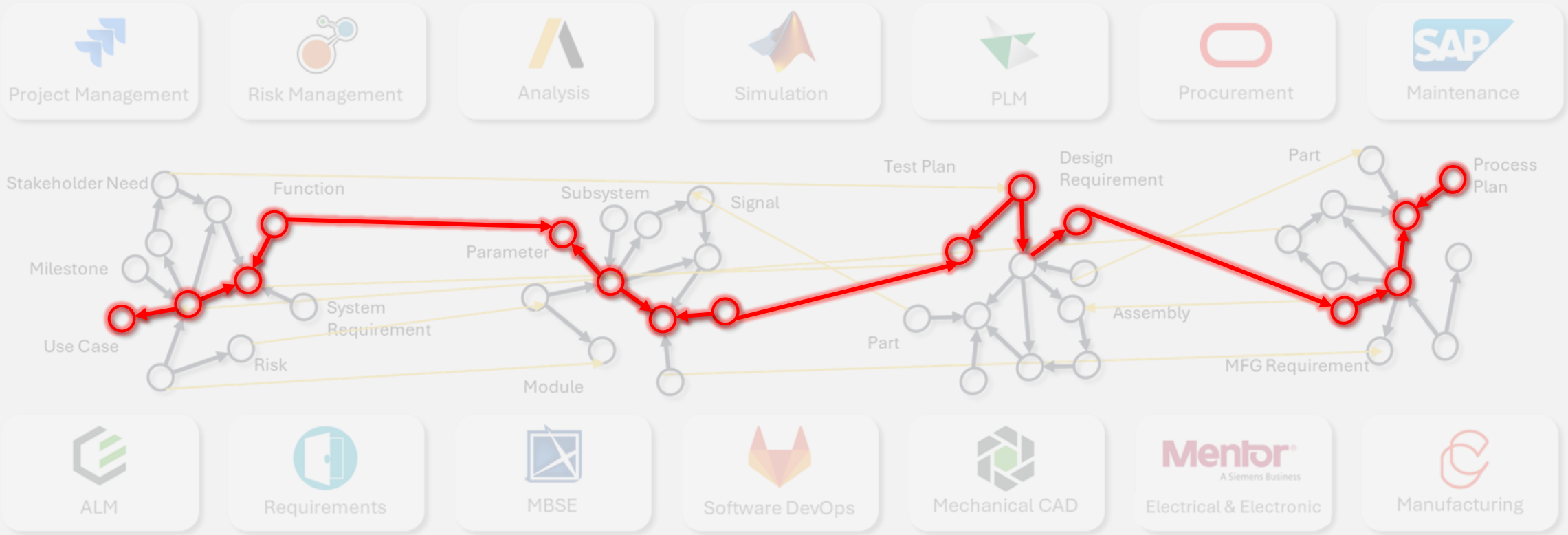
Each tool has a different data schema, and they are changing all the time.

Data is duplicated through re-entry and import/export causing confusion.

No two tools have the same configuration management paradigm.

An Evolution: Semantic Digital Threads Within Existing Ecosystems

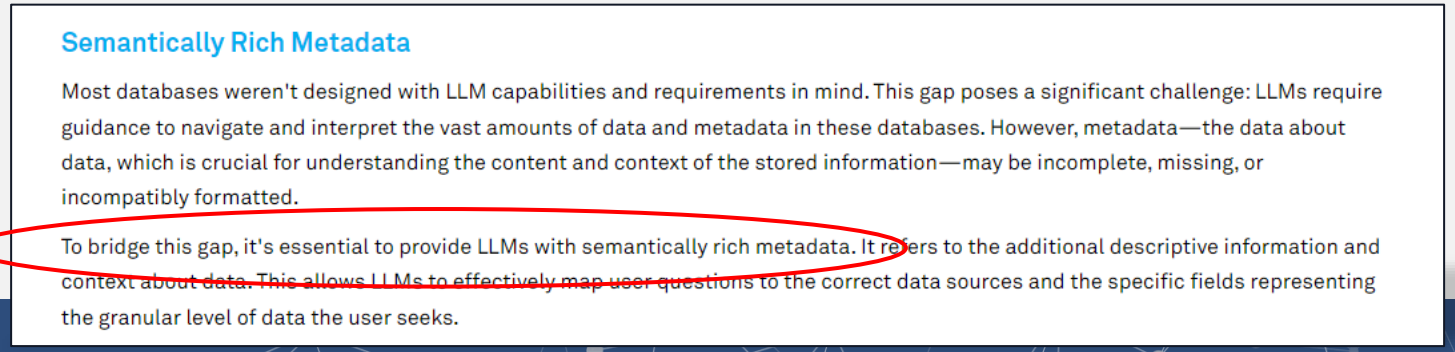
A Digital Thread connects every stage of a product's lifecycle into a single, cohesive set of data across all engineering teams -- while capitalizing on investments in PLM. **The right people have access to the right information at the right time.**



Digital Threads Enable High-Confidence AI

Ontological digital threads are THE critical ingredient for system level AI

- **Semantics:** Digital Threads hold models transformed into an ontology which is a natural language representation of the (otherwise semantically unintelligible) raw engineering data allowing for maximum AI results relevance and accuracy.
- **Interconnections:** Digital threads provide the cross-domain linkages necessary for AI to make system-wide, powerful, and well-grounded inferences.
- **Configuration Context:** Digital threads are organized into configuration contexts which enable AI assistance to be confined to specific configurations.
- **Provenance:** Digital threads have the provenance information needed to provide AI with key facts such as where data came from, who it is shared with, and where it is being used.



Semantically Rich Metadata

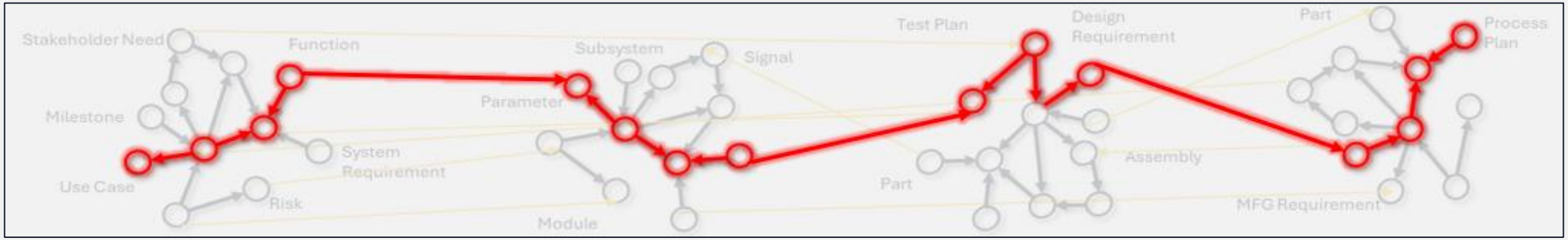
Most databases weren't designed with LLM capabilities and requirements in mind. This gap poses a significant challenge: LLMs require guidance to navigate and interpret the vast amounts of data and metadata in these databases. However, metadata—the data about data, which is crucial for understanding the content and context of the stored information—may be incomplete, missing, or incompatibly formatted.

To bridge this gap, it's essential to provide LLMs with semantically rich metadata. It refers to the additional descriptive information and context about data. This allows LLMs to effectively map user questions to the correct data sources and the specific fields representing the granular level of data the user seeks.

https://insight.factset.com/using-large-language-models-to-converse-with-your-data

Where AI is Taking Digital Engineering

Enterprise-Scale, System-Level, End-to-End AI



Requirements · MBSE · ALM · Simulation · Analysis · Design · PLM · Manufacturing

Summary

SCAN THE QR CODE!
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If you want system-level AI you can trust –
you need semantic digital threads.

…and if you don’t build them during engineering --
you will never have them.

SBE Vision Inc.

Founded: 2017

Headquarters: Boston, MA, USA

Mission

Empower teams to deliver better systems, faster.

Industry Focus

- Aerospace & Defense
- Automotive
- Manufacturing
- Medical Devices

Key Strengths

- Proven interoperability across enterprise tools
- Built to align with DoDI 5000.97
- Designed for secure, large-scale deployments

Technology Partnerships