

# Industrial AI, Virtual Twins, and Digital Sovereignty

Insights from the 3DEXPERIENCE Forum EuroWest 2026

## Key Takeaways

Dassault Systèmes is positioning Virtual Twins as the foundation for Industrial AI. Through its Industry Renaissance strategy, the company aims to combine enterprise knowledge, simulation, scientific models, and AI-powered Virtual Companions within a common Virtual Twin framework.

Digital continuity is becoming a strategic requirement. Customer presentations demonstrated growing demand for connected processes spanning systems engineering, software, manufacturing, construction, operations, and long-term asset management.

Digital sovereignty and knowledge preservation are emerging as major business drivers. Organizations in critical industries increasingly view trusted platforms, secure collaboration, and retention of engineering expertise as strategic necessities.

AI adoption is moving from experimentation toward operational deployment. The emphasis has shifted from generic AI tools to industrial AI grounded in enterprise data, engineering context, and scientific principles.

## Introduction

At the 3DEXPERIENCE Forum EuroWest 2026, Dassault Systèmes and its customers focused less on software features and more on how digital technologies can address industrial challenges such as competitiveness, sustainability, workforce transformation, and geopolitical uncertainty. Across presentations from leaders in energy, infrastructure, transportation, and manufacturing, a consistent message emerged: industrial organizations need trusted digital environments that connect people, processes, and knowledge across increasingly complex ecosystems. This resonates very well with the “People, Process, and Technology” focused PLM Maturity Assessment framework promoted by CIMdata for several years.<sup>1</sup>

## From Digital Transformation to Industry Renaissance

A recurring theme throughout the event was the evolution from digital transformation initiatives toward what Dassault Systèmes describes as an “Industry Renaissance.” Ms. Florence Verzelen, Executive Vice President, described the 3DEXPERIENCE platform as the “nervous system” of enterprise transformation,

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<sup>1</sup> Research for this paper was partially supported by Dassault Systèmes

enabling organizations to connect data, processes, and stakeholders across the lifecycle. She highlighted examples from automotive, infrastructure, and energy sectors where digital platforms are becoming strategic business assets rather than engineering tools.

Ms. Verzelen argued that Virtual Twins are evolving into enterprise assets capable of capturing institutional knowledge and supporting decision-making. She suggested that organizations without Virtual Twins in the future may face disadvantages like companies operating today without robust financial systems.

## **Industry World Models and Industrial AI**

Mr. Morgan Zimmermann, CEO of Dassault Systèmes' latest brand, 3DEXPERIENCE, outlined the company's vision for Industrial AI through the concept of Industry World Models. According to Mr. Zimmermann, competitive advantage increasingly depends on capturing decades of engineering and operational knowledge and making it accessible through AI-driven systems. He emphasized that industrial AI must combine enterprise knowledge with scientific principles and simulation, rather than relying solely on probabilistic AI models.

To support this vision, Dassault Systèmes introduced AI-powered "Virtual Companions" designed to assist engineers, analysts, and domain experts within the context of enterprise Virtual Twins. The objective is to augment decision-making while maintaining engineering rigor and traceability.

## **Digital Continuity in Practice**

The strongest validation of Dassault Systèmes' strategy came from customer presentations demonstrating how digital continuity is being applied to address real-world industrial challenges. While the industries represented at the forum varied significantly—from nuclear energy and infrastructure to hydrogen fuel cells and software-intensive systems, the common theme was the need to manage growing complexity through connected data, processes, and stakeholders.

### **Nuclear Industry: Managing Multi-Decade Digital Assets**

EDF and Orano provided perhaps the most compelling examples of digital continuity operating at scale. Both organizations are supporting major investments associated with France's nuclear expansion and modernization efforts, programs that involve thousands of participants, long asset lifecycles, strict regulatory requirements, and substantial volumes of engineering information.

Mr. Bruno Lièvre, CIO Engineering and Nuclear Projects at EDF, highlighted the scale of the challenge. A single reactor may involve 100,000 component types and millions of associated data objects. Looking ahead, future reactor programs will require managing hundreds of millions of digital objects across engineering, construction, operation, and maintenance activities. Under these conditions, digital continuity is not simply a productivity initiative; it becomes a prerequisite for maintaining configuration control, traceability, and operational integrity.

Representatives from Orano described similar challenges associated with facilities expected to operate for more than eighty years. They emphasized the importance of preserving engineering knowledge and ensuring that information generated during design and construction remains accessible and usable throughout operations and eventual decommissioning. The speakers noted that future productivity gains will increasingly depend on the ability to leverage trusted digital information and AI-enabled insights across the facility lifecycle.

A recurring theme throughout the discussion was sovereignty. Both EDF and Orano stressed the importance of trusted digital platforms, secure collaboration environments, and long-term control over industrial knowledge and intellectual property. These concerns increasingly influence platform strategy decisions, particularly in critical infrastructure industries where operational resilience and national interests are closely linked.

## **Manufacturing and Construction: Connecting Engineering to Execution**

Eiffage Métal described its transition from traditional engineering practices toward fully digital processes capable of supporting increasingly complex projects. Company representatives noted that the growing architectural and engineering complexity of modern projects would be difficult to manage using disconnected tools and document-centric processes. By connecting engineering, manufacturing, and field activities through a common platform, the organization has improved collaboration while enabling greater use of digital models throughout project execution.

The company also highlighted an often-overlooked benefit of digital transformation: knowledge transfer between generations of workers. Digital tools help experienced employees share expertise with newer workers while simultaneously allowing younger employees to introduce digital working methods into traditional production environments.

Hydrogen fuel cell manufacturer Symbio presented a different perspective, reflecting the challenges of scaling a rapidly growing industrial business. As the company evolved from a startup into a large-scale manufacturing operation, it needed to establish a common digital foundation capable of connecting engineering, manufacturing, and operations while supporting aggressive product and factory development schedules. Symbio executives described how a unified platform helped establish a common source of information across the organization and accelerated collaboration among previously disconnected teams.

Collectively, these examples reinforced the idea that digital continuity is no longer confined to engineering departments. Instead, it increasingly spans the entire value chain, connecting product development, manufacturing, construction, operations, and maintenance activities.

## **Extending Digital Continuity into Software and Systems Engineering**

Another important theme at the forum was the growing role of software within modern products and industrial systems. As products become increasingly software-defined, organizations must establish continuity not only across mechanical and electrical disciplines but also across software engineering processes.

The acquisition and integration of Tuleap (<https://www.tuleap.com/>) reflects Dassault Systèmes' effort to address this challenge. Forum presentations demonstrated how Tuleap extends lifecycle management capabilities into software development through support for requirements management, agile planning, testing, quality management, compliance, and traceability.

Particularly noteworthy was the emphasis on connecting software development with model-based systems engineering (MBSE) environments such as CATIA Magic. The integration supports traceability from business requirements and system architectures through software requirements, source code, testing activities, and validation results. This capability is increasingly important for organizations developing software-intensive products in regulated industries where certification and compliance requirements demand end-to-end traceability.

The broader significance of this strategy extends beyond software lifecycle management itself. It reflects an industry-wide shift toward integrating mechanical, electrical, electronic, software, and systems

engineering activities within a common digital environment. As products continue to evolve into connected, intelligent systems, maintaining continuity across these domains will become increasingly important for managing complexity, assessing change impacts, and supporting regulatory compliance.

## Looking Beyond Traditional Engineering

One of the more distinctive presentations came from Bionnov, which explored biomimicry as a source of innovation. The company demonstrated how biological systems can inspire engineering solutions, citing examples such as whale-inspired turbine designs that improve aerodynamic performance. Bionnov also discussed the use of AI to identify biological analogies applicable to engineering challenges, potentially accelerating innovation and sustainability efforts.

In a separate discussion, economist Mr. Jacques Attali suggested that Virtual Twins may eventually extend beyond industrial assets to encompass individuals, organizations, and broader economic systems. He also emphasized the growing importance of preserving human expertise as experienced workers retire, a challenge echoed by several industrial speakers throughout the event.

## Conclusion

The 3DEXPERIENCE Forum EuroWest 2026 held in Paris demonstrated Dassault Systèmes' continued evolution from a traditional PLM supplier toward a provider of Virtual Twin-based business platforms that combine engineering knowledge, simulation, AI, and lifecycle management.

Customer presentations reinforced the importance of digital continuity as organizations seek to manage increasingly complex products, facilities, and industrial ecosystems. The discussions also highlighted emerging priorities beyond technology itself, including sovereignty, workforce transformation, knowledge preservation, and long-term resilience.

CIMdata believes the event reflected a broader industry shift toward integrating AI, Virtual Twins, systems engineering, simulation, and software lifecycle management into a common operational framework. Organizations that successfully establish trusted data foundations and connect these capabilities across their value chains will be best positioned to capitalize on the next phase of industrial digital transformation.

## About CIMdata

CIMdata, a global strategic management consulting firm, provides services designed to maximize an enterprise's ability to design, deliver, and support innovative products and services. For more than forty years, CIMdata has provided industrial organizations, providers of digital technologies and services, and investment firms with world-class insight, expertise, and best-practice methods on a broad set of product lifecycle management (PLM) topics 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](http://www.CIMdata.com) or email [info@CIMdata.com](mailto:info@CIMdata.com).