Meeting the Global Sustainability Challenge
Central to PTC's Strategy

CIMdata Commentary

Key takeaways:

- *CIMdata believes that product lifecycle management (PLM) is central to meeting the sustainability challenges faced by companies around the globe.*
- *PTC is a leading provider in the PLM Economy, CIMdata's term for the software, services, and investors for whom enabling PLM strategies is central to their business.*
- *CIMdata had the opportunity to speak with Mr. Mark Lobo, PTC's Vice President for PLM Product Management, about how PTC is helping their customers meet their sustainability objectives.*

Sustainability has gone from one of many topics in corporate social responsibility (CSR) programs to a global imperative. Combustion and release of greenhouse gases has raised global CO2 levels and recent commitments to reduce them will fall short of the mark. Ever growing floating islands of plastic bottles and other waste clog shipping lanes around the world, slowly degrading into microplastics that are ever-present in our water and, increasingly, air. Much of this degradation results from product creation, logistics, use, and disposal. Thus, PLM is essential to a systemic response. Leading PLM software and service providers are defining the needed metrics, measurement approaches, and enabling technologies for their industrial clients. CIMdata had a chance to speak with Mr. Mark Lobo, Vice President for PLM Product Management, about their efforts on this globally critical topic.[1] PTCs PLM offerings include Windchill, Arena, ThingWorx Navigate, Creo View, and FlexPLM.

Q: How important is sustainability to the strategy of your company?

"Top importance. As a leading provider of digital transformation solutions in the manufacturing sector, PTC is becoming increasingly aware of our role and responsibilities to support sustainability strategies. Not only due to PTC's responsibility for nature and society but also because PTC's position, products, and strategy are an enormous lever to turn the industry and economy toward addressing sustainability. It's about replacing resource consumption with information.

"These strategies must support our customers' goals and ambitions together with our own internal initiatives to position PTC as a leader in Sustainability."

Q: Please describe the ecosystem of infrastructure, applications, and partners that are part of your offerings/approach?

"Product creation: on our own.

"Product delivery: by our own salesforce and services teams, implementation partners and resellers, and hosting and infrastructure partners. Two of our key partners supporting our efforts are Rockwell Automation and Microsoft. We additionally partner with Ascent for product analytics such as material compliance.

"PTC's technology solutions enable companies to reduce their greenhouse gas emissions and promote circular economy principles within their products. Examples include:

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[1] Research for this commentary was partially supported by PTC.

- "CAD—Digital defines Physical—reducing waste by using our simulation tools (powered by our partner Ansys) to minimize material usage.
- "PLM—Digital Manages Physical—embedding re-manufacturing and/or re-cycling data in the Model-Based Definition/Bill of Materials which powers the digital thread. Additionally, PLM supports integration and collaboration with strategic sourcing solutions that enable sustainability goal attainment.
- "IoT—Reducing waste with more customer-focused products—enabled by insights delivered by the connected product and connected assets. Reducing scrap, rework, and carbon footprint within the connected factory. Using partners such as Capula who built their PowerShift energy management offering around ThingWorx.
- "AR—Using Remote Service to reduce the number of truck rolls. Improved First Time Fix Rates through the use of AR-driven service procedures."

Q. How would you describe your primary target customers (e.g., large companies, their suppliers, small to medium sized enterprises)?

"PTC believes companies of all sizes should be focused on minimizing their environmental impact. We see larger organizations taking a lead role in Sustainability initiatives and driving their supply chains to support them. Suppliers want to ensure compliance as a competitive edge, for example by providing their customers a 'green certificate.'"

Q: What has PTC learned from helping its customers achieve their sustainability objectives?

"Sustainability projects are a business driver and part of our customers' commercial strategies.

"The approach to replace resource consumption by information is a simple and strong lever for sustainability. Design and engineering data are combined with real data coming from the physical world via IoT to create a digital thread along the entire value chain. Connectivity during the usage phase is of utmost importance.

"Technology providers have an essential role to 'record and report' on carbon debt to empower product development professionals to make informed decisions on the use of materials and their associated manufacturing processes. Providing this information will deliver the long-term reduction in carbon footprint."

Q: How are your offerings/approaches going to evolve in the short to medium term (1-3 years)—what are the primary themes/strategies on your roadmap?

"To enable this sustainability transformation, we are supporting PLM as a global software-as-a-service (SaaS) platform including the necessary governance, cybersecurity, and open architecture. By leveraging product data more broadly, we can help our customers automate and standardize sustainable processes and provide insights in real-time. In the future, we intend to provide sustainability dashboards to visualize relevant product materials, manufacturing, and supply chain insights.

"Start with efficiency in product generation and operations and then turn to 'as-a-service' business models that consequently reward resource savings in product definition, operation, and reuse."

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 forty years, CIMdata has provided industrial organizations and providers of technologies and services with world-class knowledge, expertise, and best-practice methods on 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.