

CIMdata



# Maximizing PLM Success: The Critical Role of Organizational Change Management



PTC



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# Takeaways

PLM is much more than just a software tool—it drives business, organizational, and process transformation—this makes PLM different from many other enterprise software solutions.

Organizational change management (OCM) is an indispensable element of successful PLM transformation.

Successful OCM programs tend to be programmatic and enable continuous improvement well after the initial implementation—backed by defined activities and an associated support team that is not just an implementation function.

A successful OCM program addresses different audiences throughout the organization, proactively when and where needed—it isn't just training the users on how to use the solution, it answers the question, Why change?

PTC's OCM methodology blends deep PLM expertise with structured support, scalable tools, and an expanded Customer Success team to help clients embrace change and accelerate transformation.



# Introduction



Technology is never **the** answer! While technology can transform processes, it is rarely the most critical element—people are, as John Kotter of Harvard Business School observed, “70% of large-scale transformations fail, primarily because the organizations do not take a holistic approach to change and neglect the people side.” For more than forty years, CIMdata has been helping companies take advantage of product lifecycle management (PLM) enabling software solutions. During that time, it has become apparent that technology alone is only one small step necessary to successfully complete a business and process transformation. Ultimately, an organization’s ability to adopt new technologies, strategies, and business approaches is limited by its ability to make the necessary process and organizational changes. As a result, the managed execution of a well-defined and comprehensive organizational change management (OCM) program is critical to ensuring change acceptance and benefit maximization by those impacted.

A comprehensive OCM program is one that explains the objectives and rationale of the expected change to those who will be impacted (i.e., each targeted community). It emphasizes the benefits of changing and the cost of not changing, all at the appropriate level of detail for each impacted community. It focuses on the external factors that are driving the change in the organization, and it describes why key stakeholders personally believe in the change. It generally includes training, but training isn’t its focus—the acceptance of change is. Finally, a successful OCM program is specific about what will and what won’t change for each target community (i.e., persona) by providing insight using an appropriate frame of reference that can be understood and internalized.

Unlike many technology-based business solutions, PLM seeks to transform processes and organizations—to succeed, change is necessary. If implemented correctly, PLM solutions can provide significant business improvement by driving process and product innovation. It isn’t about automation of current processes, but rather the enablement of new and improved ways of working—working in new ways that leverage technology in ways not possible without it. Most enterprise software solutions automate well-known and standard transactional processes, whereas PLM provides a framework designed to enable innovative thinking—the innovation that only takes place when people are intimately involved while creating, capturing, and managing product- and process-related data. This means things will change, and change makes people uncomfortable if they don’t understand why.

# Why OCM is Critical for PLM Success

CIMdata's research consistently shows that PLM transformations rarely fail because of technology gaps; rather, they falter when the "Why change?" question is left unanswered for leaders, stakeholders, and users. According to W. Edwards Deming, who was famous for his views on total quality management and other business topics, "It is not necessary to change. Survival is not mandatory." This statement clearly and succinctly summarizes why OCM is critical for successful PLM enablement. Without change, PLM deployment will just be another technology that isn't operating to its peak potential—not able to deliver the changes that will drive the necessary level of process and product innovation that is required to survive in the competitive and increasing complex world of business. Benjamin Franklin was partially correct when he stated, "In this world nothing can be said to be certain, except death and taxes." He missed the third certainty, and that is change. Without change, individuals stop learning, businesses grow stagnant, and organizations are bypassed by new and more innovative ones. History books are filled with examples of civilizations, as well as companies that have once ruled much of the world, who were once on top, only to be toppled by

the forces change—change that was harnessed or created by another organization. Dr. Stephen Robbins, Professor Emeritus of Management at San Diego State University, put it this way, "Healthy organizations change; only dying organizations are static." So, you should ask yourself, can your company afford to be static?

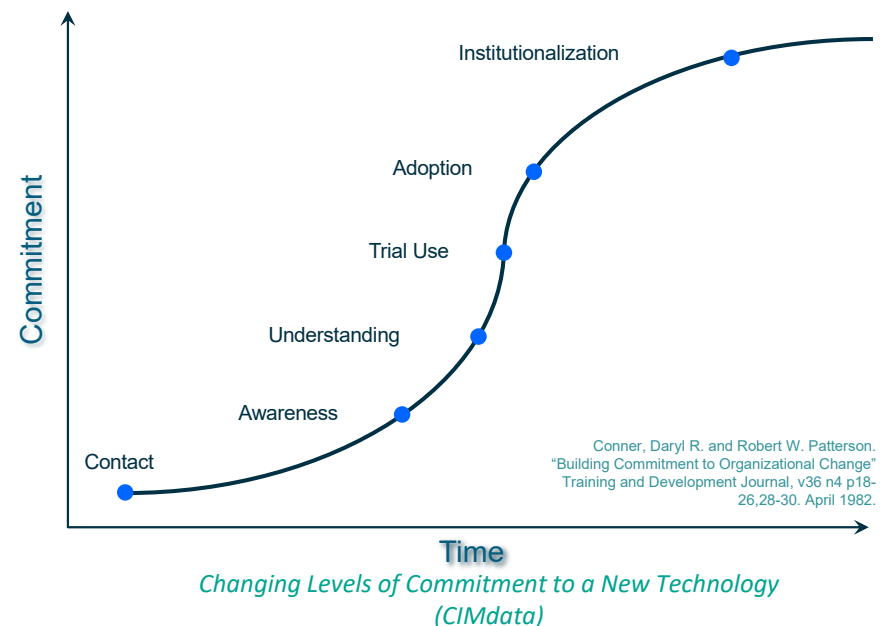


# Change is Continual and Needs to be Accommodated

To understand OCM's criticality for PLM success, one also needs to understand that change isn't something that is accomplished overnight. While rapid and significant change is possible, it generally requires some type of significant emotional event to precede it, such as a bankruptcy, but by that point it might be too late. Change (i.e., organizational transformation) is typically gradual—often two steps forward and one step back. This is because change goes through multiple steps (see figure). According to Conner and Patterson, in their article entitled, "Building Commitment to Organizational Change," change is a process that takes multiple steps, from first contact through to institutionalization.\* Such a transformation is required for PLM to be truly embraced by an organization. Without institutionalization, PLM, like other transformational activities, will slide down the difficult and slippery slope of adoption. And worse, even upon reaching institutionalization, individuals and organizations need continuous reminders of what needs to be done and why. Without doing so, things (i.e., processes, use of tools, etc.) will most likely revert to the way they were before—back to what people think is easier and safer to do.

As defined by CIMdata, PLM is a strategic business approach powered by a consistent set of solutions, which form a product innovation platform that supports the extended enterprise. An approach that spans the full lifecycle, from idea through life.

This means that getting PLM right (i.e., maximizing its benefits) requires spanning systems, processes, departments, and enterprises. PLM is more than just a software tool—it enables a business transformation. Ultimately, a successful PLM program enables a set of evolving functional domains orchestrated by an extended enterprise-level "systems of systems" approach. PLM provides significant value if you get it right, but if you get it wrong (i.e., don't make the appropriate changes required to maximize its potential benefits), then you are likely to add cost and complexity—not getting much better performance out of your business.



\* Conner, Daryl R. and Robert W. Patterson. "Building Commitment to Organizational Change." Training and Development Journal, v36 n4 p18-26,28-30. April 1982.

# Practical OCM Advice

Fundamentally, OCM includes continuous communication, learning, training, and education that provides support to the organization throughout its transformation. This is not one and done, but rather an ongoing process—OCM should never end. Remember, static organizations die. This means the cost of not defining and executing a well-defined OCM program (i.e., doing nothing) risks failure, but by doing it right can yield significant positive results, especially in the areas of time to value, risk mitigation, and return on investment. What company wants to spend hundreds of thousands or millions of dollars on a PLM transformation only to **not** get the most out of it? CIMdata's consulting experience indicates too many, but it doesn't have to be that way.

According to John Kotter and Holger Rathgeber in their best-selling book entitled, *Our Iceberg is Melting*,\* successful change starts with creating a sense of urgency (i.e., identifying a "burning platform"). This is because, for humans, the greatest change happens on the edge of chaos. The term "edge of chaos" was devised by Norman Packard in the late 1980s. It describes a region of dynamic behavior situated between complete order and complete disorder, where systems are sensitive to initial

conditions but also exhibit evolving properties and adaptability. As quoted by Katrina Schwartz, Dr. Robert Bilder, a psychiatry and psychology professor at UCLA's Semel Institute for Neuroscience and Human Behavior, "The truly creative changes and the big shifts occur right at the edge of chaos."\*\* This is what OCM must manage, and in fact, exploit. Without it, the organization risks further decline. OCM enables organizations to not only strive but to thrive.

Going back to *Our Iceberg is Melting*, the authors list seven additional steps that can be executed once a sense of urgency has been identified and communicated. These steps start with forming a guiding OCM team and finish with the creation of a new and better culture (see callout).

## 7 Steps to Thrive

People and organizations resist change, and moving to cloud is another big change, one with its own mythology.

1. Pull together the guiding team
2. Develop the change vision and strategy
3. Communication for understanding and buy in
4. Empower others to act
5. Produce short-term wins
6. Don't let up
7. Create a new culture

\* Kotter, John and Holger Rathgeber. "Our Iceberg is Melting" St. Martin's Press. New York. 2005.

\*\* Schwartz, Katrina. "On the Edge of Chaos: Where Creativity Flourishes." KQED. 6 May 2014 (see <https://www.kqed.org/mindshift/35462/on-the-edge-of-chaos-where-creativity-flourishes>).

# OCM is Based on Communication and Education (1/2)

To achieve the best results, an OCM program should leverage multiple mechanisms to communicate and educate the various organizational roles on why they should care. This is a core process within an OCM strategy and critical to success. Without individuals understanding why they should care, they are not likely to make the necessary changes to the way they work. This usually results in them reverting to their previous way of working or creating manual or semiautomated workarounds.

Programmatic (i.e., repeatable) approaches that leverage OCM best practices can be very helpful. ADKAR, for example, is a goal-oriented model that focuses on individual transitions. It includes five key building blocks for successful change: Awareness, Desire, Knowledge, Ability, and Reinforcement.

The ADKAR Model is a proven change model used by many organizations. Founded by Prosci founder Jeff Hiatt in 1996, he comments that ADKAR “focuses on guiding individuals through the change journey by helping them realize the need for change, equipping them with the skills and knowledge they need to adapt to it, and motivating them to embrace it fully.” This approach deals with one of the biggest issues related to acceptance of change, the organization and/or individuals don’t understand the **why** (i.e., they don’t understand why it’s occurring). Hiatt continues: “This may be due to a lack of trust, poor change management strategies, or not enabling employees with the proper training and support to navigate the change.” For CIMdata, these all play a critical role in the acceptance of

change and successful PLM adoption. At the core of change are the people who will be impacted, along with the **what**, and the **why**. As a result, getting the people to care is foundational to successful OCM.

CIMdata’s experience and research related to getting people to care can be summarized in the following seven points:

- Educate and communicate
- Listen to the stakeholders and users
- Get people involved
- Seek to break down organizational silos
- Adapt plans when needed
- Symbolic gestures by sponsor
- Educate and train



# OCM is Based on Communication and Education (2/2)

Each of these need to be integral components of an OCM program. The activities defined to deliver the necessary messages, education, training, and communication to the right people, at the right time, all have to be structured into an organization's OCM plan and linked to the overall transformation program's plan. The OCM plan should also define some elements that can be executed in an ad-hoc manner, as and when required. This way, the plan is proactive and aligned with the PLM program's implementation and its desired outcomes, but with an ad-hoc and reactive ability since unforeseen circumstances and events will occur. Additionally, since OCM isn't optional, it's critical to stress that it can't be cut from a PLM implementation program. It isn't just a support function—it is core to sustainable change.



# A Checklist to Support Sustainable Change

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For a change to be sustainable, OCM has to be supported consistently and proactively. Ultimately, OCM is a dynamic process that requires a multifaceted approach to succeed. Critical success factors include:

- Clearly articulate why the change is necessary—without doing so no action is likely.
- Define and articulate a clear vision of the expected future state—there will be no clear direction without it.
- Seek and gain management commitment—leadership support from appropriate levels of the organization is critical, and leaders need to be focused on breaking down any organizational silos that exist.
- Conduct an Organizational Readiness Assessment—evaluating leadership, stakeholder, and end-user readiness ensures risks and resistance are identified early and addressed proactively.
- Identify and gain commitment from key individuals at different levels and areas of the organization to participate in key OCM activities—without doing so there will be no ownership or accountability.
- Define and utilize a well-structured OCM approach—ad-hoc-only support will result in inconsistent adoption of the newly enabled processes and tools.
- Define and refine key performance measures—without doing so the achievement of identified targets and areas for improvement will be missed and accountability will be nonexistent.

It is important to note that these key elements are interconnected and mutually supportive, forming a holistic and comprehensive framework for effective OCM. By focusing on these key aspects, organizations can increase the likelihood of successfully implementing transformational initiatives, such as PLM, and fully achieving their intended outcomes. It also means that if one or more of them are ignored, the likely result will be poor performance and failure to achieve sustainable change.

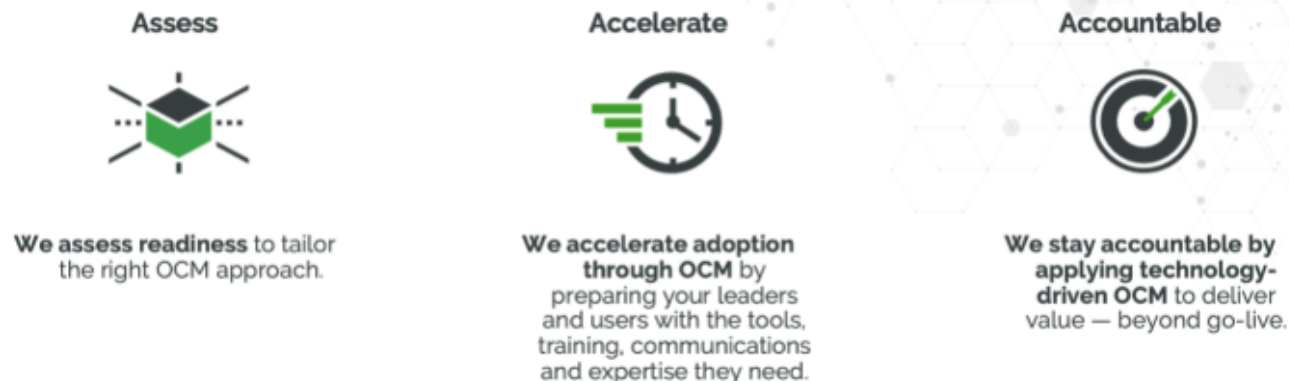
# PTC's OCM Methodology

For over 40 years, PTC has supported industrial innovation—always seeking to transform how organizations design, manufacture, and service their products. Their investment in OCM is a strategic imperative that connects vision to execution and accelerates PLM value realization. Grounded in PTC's identity as a transformation partner, this approach ensures that change is embraced—not resisted—as customers unlock the full potential of digital transformation. What makes this different from other PLM solution providers is the combination of deep PLM domain expertise and a disciplined, measurable approach to OCM. PTC's OCM approach, as illustrated, focuses on three key stages:

- **Assess:** Assess readiness to tailor the right OCM approach—here PTC assesses their client's organizational and employee readiness to adopt PTC's change initiative, as well as seeks to identify risks and

resistance early, and proactively focusing on addressing these issues before they affect momentum.

- **Accelerate:** Accelerate adoption by preparing leaders and users with the tools, training, communications, and expertise needed—here PTC defines and executes strategies and tactics to implement, manage, and sustain change that should result in reducing time to proficiency and limiting costly late-stage workarounds.
- **Accountability:** Stay accountable by applying technology-driven OCM to deliver value—here the focus is on enabling long-term change management and sustainability through a structured and repeatable OCM approach focused on value delivery. These governance mechanisms seek to ensure adoption is sustained and directly tied to results (e.g., faster time-to-value and reduced risk).



*Key Stages of OCM  
(Courtesy of PTC)*

# PTC: Committed to Customer OCM Success

All of the previously described stages are critical to successful OCM and should result in PTC's clients reaching their objectives faster by connecting strategy to action and avoiding costly delays. PTC's OCM approach has been designed to help their clients understand why change is necessary and the value PLM-enabled enterprise transformation can provide.

PTC's OCM methodology is much more than words on paper. PTC's executive team has taken OCM to heart and has expanded the company's Customer Success Management (CSM) organization and challenged them to be client partners and accountable for their clients' success. To help accomplish this, PTC has positioned OCM as a core differentiator that drives client success and accelerates PLM value realization. PTC's OCM team has developed a scalable execution process and an enabling set of OCM tools. Additionally, PTC is providing guided support and is in the process of defining and expanding a certification framework of PTC OCM-certified partners who will deliver scalable, domain-specific support that accelerate transformations. These investments illustrate PTC's commitment to the long-term success of its clients, as well as its understanding that it isn't all about technology.

Lack of accountability is another failure point that PTC's OCM approach addresses. Here PTC helps its clients define clear

change team roles and responsibilities early in the transformation process, to ensure that accountability is embedded into their client's transformation journey. PTC also delivers ongoing OCM expertise and support, either directly or through certified partners. These services focus on continuous coaching and strategy execution designed to foster accountability and ownership throughout the organization.

As mentioned earlier, training is also part of a well-defined OCM approach. Here PTC helps define and execute tailored training strategies that focus on real-world scenarios and hands-on learning through the delivery of role-based training. In addition, PTC supports client-focused "train-the-trainer" initiatives so that knowledge transfer to the client is maximized.



*Keys to Eliminating OCM Challenges  
(Courtesy of PTC)*

# PTC's OCM Resources Support Business Transformation

PTC's OCM practice brings together cross-functional experts—especially those in marketing and communications—to ensure every aspect of a PLM transformation is tied back to relevant adoption outcomes. These experts help humanize, amplify, and elevate the most impactful aspects of successful transformation. They bring storytelling, design, and strategic messaging that make change relatable, visible, and inspiring. In parallel, OCM connects with training teams, professional services, and product leadership to embed adoption into every phase of the customer journey. At the strategic level, executive governance and sponsorship from PTC's leadership team ensure the OCM practice has the visibility, authority, and resources needed to measure progress and sustain momentum. Together, this integrated approach turns OCM from a supporting function into a driver of lasting business impact.

As with other well-defined and comprehensive OCM methodologies, PTC's methodology includes support that seeks to overcome resistance and drive adoption. This is supported using a programmatic and repeatable user advocacy approach that involves key users, change agents, and champions early in the process, as well as ongoing. This results in an enhanced feeling of ownership by the client as

PTC's delivered solutions are shaped and implemented. PTC also encourages value demonstrations that highlight success stories to capture attention and drive excitement. PTC's approach also includes community engagement where users share best practices and experiences improving productivity and comradery.

Finally, PTC's OCM methodology helps organizations and individuals adopt new ways of working, while replacing old habits. In today's business environment, where AI capabilities and digital innovations are being introduced faster than ever, future-readiness (i.e., quick and easy adoption and incorporation of new technologies and trends) is critical. PTC's OCM methodology is built to help customers rapidly integrate emerging technologies without business disruption, turning change from a hurdle into a competitive advantage. This is accomplished through the delivery of education on new processes, and by providing expert guidance on how to best implement PTC's solutions in support of a client's desired future state, and targeted areas of improvement.

# OCM Enhances Partnership and Success

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While this is just a short summary of PTC's new and enhanced OCM approach, it clearly illustrates that PTC is more than a technology provider, it is a business partner that seeks to help its clients through a PLM transformation while achieving expected business value as quickly as possible. Their carefully constructed OCM methodology can be a game changer and should be seen as an indispensable digital transformation element, as well as a win-win-win proposition. As a client, you win by maximizing your investment, your users win by being better positioned to be successful, and PTC wins by having its solutions used in the most optimum and valuable manner possible.

A comprehensive OCM program explains objectives and rationale to those impacted by the change. It focuses on external driving factors, and describes why key stakeholders believe in the change, and most importantly, it emphasizes the benefits of changing and the costs of not changing. It also includes training, but its primary focus is increasing the speed of change acceptance, adoption, and time to value. Additionally, it clarifies what will and won't change for each impacted community. With regards to PLM, it seeks transformation of processes and organizations, not just automation. Without OCM, PLM is unlikely to operate to its peak potential, hindering process and product innovation. And in the business world, this type of change is essential for survival and growth because static organizations decline and often die.

Fundamentally, PLM implemented without OCM will not come close to delivering promised benefits, and all PLM solution providers should recognize this and be willing to communicate and educate their clients of this fact. This is because PLM is more than just a software solution. It is a strategic business approach powered by a consistent set of solutions that form a product innovation platform. A platform that supports the extended enterprise and seeks to enable new iterative processes designed to drive innovative thinking. As a result, PLM requires business, organizational, and process change, and it is this that makes PLM different from many other enterprise software solutions. Ultimately, PLM is a transformational business approach that requires technological and organizational change to deliver product and process innovation that maximize a company's return on investment.

# Leidos OCM Case Study

Leidos is a US-based defense, aviation, information technology, and biomedical research company headquartered in Reston, Virginia. They are an industry and technology leader serving government and commercial customers with smarter, more efficient digital and mission innovations. Founded as Science Applications International Corporation (SAIC), Leidos merged with Lockheed Martin's IT sector, Information Systems & Global Solutions (Lockheed Martin IS&GS), in August 2016 to create the defense industry's largest IT services provider.

In a recent discussion with Mr. Richard "Ricky" Jordan, Director of Configuration and Data Management at Leidos, Ricky discussed Leidos' leverage of PTC's organizational change management (OCM) practice. Leidos focuses on technologies that are engineered for hypersonics, space, intelligence, defense, avionics, cybersecurity, and other national security and critical infrastructure needs. Ricky is not only a Director at Leidos, but he is also the Chief PLM Architect for all of Leidos. Ricky's organization manages PLM at the CIO level for the defense systems sector of the business.

In Ricky's role at Leidos, he has been overseeing a major PLM solution replacement and expansion project. It is complex enough to move the data from multiple data management solutions that have been used for many years, and it is even more complex to introduce a single new solution and associated way of working, especially for 1,600 users—half of whom are heavy users. Ricky's team is deploying this new PLM environment, based on Windchill, that is enabling an extensive set of capabilities, including general document management, CAD data management, approved

manufacturer lists (AMLs), eBOMs, CAD structures, change management, and an ERP integration. Overall, a fairly extensive scope for a system replacement, without even considering training and educating the user community. Fortunately, as a well-seasoned PLM veteran, Ricky and his team also knew that they needed to take on the critical OCM aspects of the program with its technology partner, PTC.

According to Ricky, PTC helped them identify and refine the training, education, and communication required to prepare the large user community for the pending change. As their advisor, PTC provided access to their OCM methodology and extensive knowledge base, as well as valuable video training material, a communication plan that included the targeted audiences and associated messaging, and content for their internet program web pages. Each of these helped Ricky's team stay focused on the most critical aspects of solution adoption.

Since Leidos' June 2025 Windchill go live, they have been able to move the full user community to the new and enhanced Windchill environment. While they can't share any specific metrics for solution adoption, Ricky stated that the added confidence that PTC's OCM methodology and supporting team gave them was extremely helpful and that he could count on PTC's team knowing what was going to happen and how OCM was best defined and used to minimize possible pitfalls before they became problematic. This should all lead to the quicker adoption and more complete usage of Leidos' new PLM solution.

# Conclusions



To maximize the benefits delivered by PLM, as well as to sustain change, organizations must drive organizational change through a well-defined and executed OCM program. Successful OCM programs tend to be programmatic and enable continuous improvement well after the initial implementation. OCM programs must be aligned with their associated PLM implementation and deployment plans, as well as supported by the required development, execution, and long-term sustainment staff. Additionally, a successful OCM program must address the different audiences throughout the organization who will be impacted by PLM, proactively when and where needed—it isn't just about training the users on how to use the solution, it must answer the question, *Why change?* From the top of the organization to the bottom, each individual impacted by PLM needs to understand how the solution and the required changes will impact their working environment.

PTC's PLM-related OCM methodology is refreshing. Its three stages—assess readiness, accelerate adoption, and stay accountable—demonstrate a well-defined approach that supports all the key requirements for OCM success. Unlike many software providers, PTC clearly understands that

technology is not the sole answer. While technology enables processes, people are the most critical component. Their willingness and ability to change and accept new ways of working will make or break a PLM implementation. PTC's OCM approach demonstrates that they fully understand that successful PLM-driven business transformations depend on an organization's ability to adopt new technology and methods through the necessary process and organizational changes. PTC's focus on OCM illustrates that it isn't just a technology provider, it's a business partner that seeks to help its clients through their PLM transformation. CIMdata believes that PTC's carefully crafted OCM methodology is a game changer, and their OCM approach should be considered alongside their software solution offering.

Remember, a good OCM program will answer the question, *Why change?*, for each impacted individual in a manner that is sustainable and leads to PLM's maximum adoption and benefit. This must be at the core of a successful PLM transformation.

## About PTC

PTC is a global software company that enables manufacturers and product companies to digitally transform how they design, manufacture, and service the physical products that the world relies on. Headquartered in Boston, Massachusetts, PTC employs over 7,000 people and supports more than 30,000 customers globally. For more information, please visit [www.ptc.com](http://www.ptc.com).



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