DIGITAL INDUSTRIES SOFTWARE

Three tips to addressing change management in A&D manufacturing

How to “fail fast” and scale up your smart manufacturing solutions to develop complex, quality products faster

Executive summary

As the aerospace and defense (A&D) manufacturing industry continues to adopt digital transformation, companies need to be thinking about a culture shift. The industry is moving from traditional paper-based, linear processes to embrace digital technologies. Organizational change management emerges as a critical enabler of this transition. While technology plays a pivotal role, the true challenge lies in reshaping the organizational culture and behaviors to harness the benefits of digital transformation. This white paper discusses the complexities of change management within A&D manufacturing, why companies can get stuck in “analysis paralysis” and how to fail fast and learn fast to drive digital transformation.

Introduction

Organizational change management is a multifaceted process that entails preparing, supporting and guiding teams through the adoption of significant changes within an organization. This involves the shift from conventional manual and paper-based workflows to modern digital processes. This transition promises improved efficiency, collaboration and innovation but the success of these technological advancements relies on seamlessly integrating people, processes and tools. According to a 2023 study from Deloitte, '2023 aerospace and defense industry outlook'," …36% of respondents reported their company had not yet started the smart factory journey, and 26% said their company is currently implementing a few initiatives related to smart factory."

Before embarking on this journey, it is critical for companies to gauge their current position in the digital transformation journey. Companies of all sizes are facing this dilemma, from small and medium-sized businesses (SMBs) to large original equipment manufacturers (OEMs). It is imperative for companies to understand some of the issues they face when adopting digital transformation and how to mitigate change management issues for long-term success.

Re-engaging the workforce and overcoming analysis paralysis

While embracing digital transformation and automation within a company can be exciting, it may make experienced engineers feel their value is diminished. Emerging smart technologies have led to the idea that tasks traditionally performed by skilled engineers will be delegated to less experienced engineers or even machines, freeing up the highly skilled engineering staff to drive innovation or focus bigger challenges. It is up to the company's leaders to guide employees through this transition and communicate that these changes are not about replacing talent but about enhancing it.

To successfully navigate this challenge, organizations must prioritize re-engaging the workforce with open communication and transparently to convey the benefits of automation. By showcasing how technology can relieve engineers of mundane tasks, leaders can empower teams to focus on more strategic, creative and value-added endeavors. Leadership must emphasize that technology is a complement to human expertise, ultimately amplifying the capabilities of engineers rather than diminishing them.

Analysis paralysis is another major issue regarding change management today. This occurs when organizations become consumed with the idea of perfection in the manufacturing process – or not knowing where to begin their digital transformation journey, so they get stuck in the same phase of development, leading to extended development cycles and inhibiting innovation. In an industry where precision and reliability are paramount, the desire to develop perfect parts can inadvertently hinder progress and delay the delivery of innovative products to market. Overcoming analysis paralysis demands a shift in mindset – one that values progress over perfection.

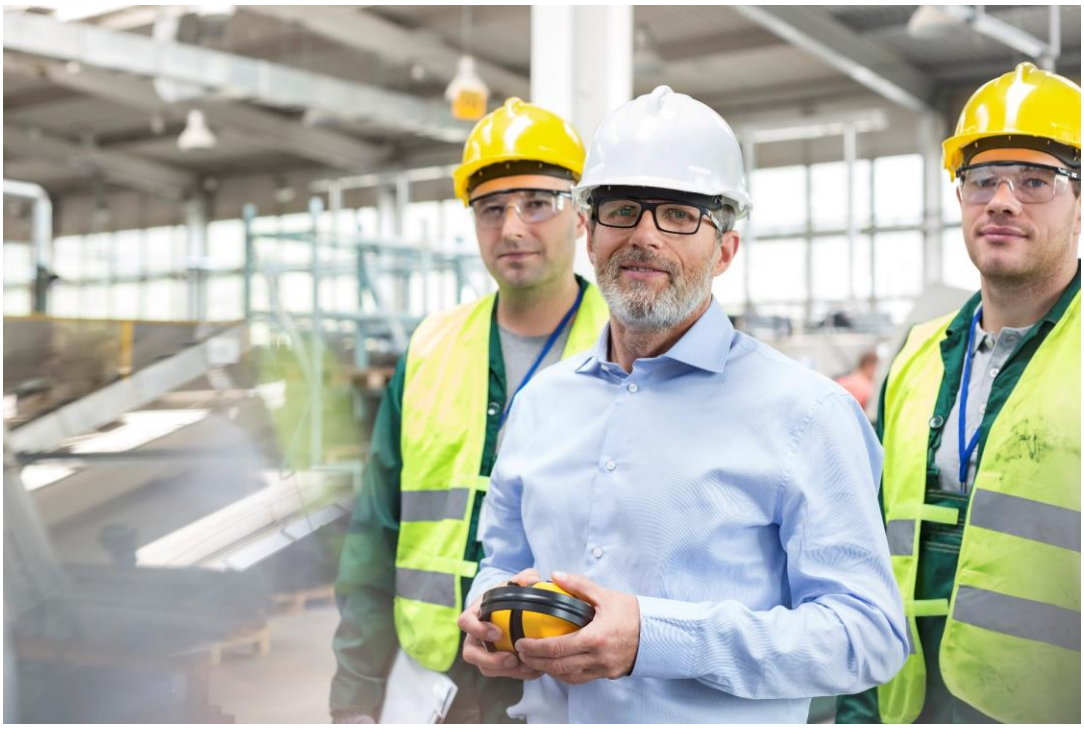
Three Tips for addressing organizational change management

Fail fast to learn fast

Companies need to be willing to fail fast and learn fast. This concept breaks down complex projects into iterative stages. This approach encourages companies to create a minimum viable product (MVP) that they can test and refine rapidly. By embracing this approach, organizations can identify potential issues early in the process to identify timely corrections and foster a culture of continuous improvement.

Failing fast to learn fast is a cornerstone of successful change management within A&D manufacturing. Historically, the industry adhered to the waterfall development process, where issues often remained undetected until the end of the project. This could mean that an engineering team worked on one project for several years and didn't find errors until the end of the project, rather than at the beginning. This approach hinders the ability to address challenges quickly and leads to prolonged development cycles and lack of quality products.

On the other hand, adopting agile methodologies allows engineers to identify problems early in the process by leveraging iterative development cycles. By creating an MVP, an initial version of the product that embodies its core features, engineers can quickly test and verify their assumptions. When issues arise, they can promptly address them, reducing the risk of cascading problems later in the development process. This approach, also known as "leaping left," accelerates digital transformation maturity by facilitating companies to quickly identify



and address mistakes.

Find the low hanging fruit

While the pursuit of ambitious goals is admirable, it is crucial to recognize the importance of quick wins in driving change management success. A quick win should not be confused with a shortcut or a workaround in the development process. A quick win is quite the opposite. The concept of "low hanging fruit" refers to finding smaller, attainable objectives within larger manufacturing goals. These objectives, while modest in scale, contribute significantly to overall progress and can serve as powerful motivators for employees.

Identifying and addressing low hanging fruit enables engineers to experience tangible successes early in the process. These victories help engineers hit production goals, enhance employee engagement and reinforce the notion that any progress on a large project can seem more attainable. These quick wins create a culture that acknowledges achievement, helping employees to be continually motivated to pursue incremental improvements. This approach not only accelerates change management efforts but also fosters an environment of innovation and collaboration.

Bringing people processes, and tools together

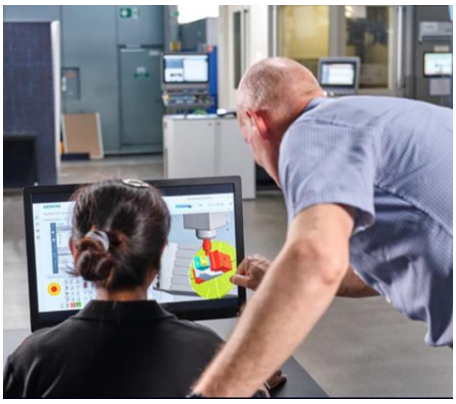
Successful digital transformation extends beyond implementing cutting-edge technologies or solely focusing on culture change. It requires a collaborative approach that brings together people, processes *and* tools. While digital tools are essential enablers of change, the true challenge lies in fostering a cultural shift and instilling a mindset that embraces innovation and change.

Many A&D companies possess the technological capabilities to start their digital transformation journey but struggle with cultural inertia. To overcome this challenge, organizations must recognize that cultural change is a gradual and essential component of the transformation journey.

Successful organizational change also requires collaboration, engagement and buy-in at both the executive level and at the user level of the organization – a “top-down/bottom-up” approach of bringing people, processes and tools together. Organizations must proactively engage employees, fostering a sense of ownership and commitment to the transformation process. Successful change management relies on effectively communicating the benefits of digital transformation, breaking down misconceptions and highlighting the role of technology as an enabler rather than a threat. Companies can do this by breaking the cycle of analysis paralysis and learning to fail fast. By doing this and focusing on the low hanging fruit, this will ultimately help companies bring people, processes and tools together to drive digital transformation.

Organizational change management emerges as a pivotal determinant of success. By embracing agile methodologies, seeking quick wins and fostering cultural change across the organization, A&D companies can navigate the complexities of change management while developing better products faster.

In this transformative industry, those who prioritize and master organizational change management will not only remain competitive but also lead the evolution of A&D manufacturing. To learn more about where to start your digital manufacturing journey, check out these resources.



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