

**ASSESS YOUR
DIGITAL MATURITY:**

**A CHECKLIST FOR PROCESS
MANUFACTURERS**

IN OUR NEW DIGITAL ERA, DIGITAL TRANSFORMATION IS ON EVERY PROCESS MANUFACTURER'S WISHLIST

Artificial intelligence, the Internet of Things, digital twins, machine learning, and other smart manufacturing innovations are no longer futuristic dreams but tools that are increasingly necessary to compete in a fast-moving marketplace.

THE PROBLEM?

Digital transformation can be complex and overwhelming, freezing many asset-intensive manufacturers in analysis paralysis.

Industrial operations encompass a vast and multifaceted territory, making assessing one's maturity difficult. This is a familiar story in pharmaceuticals, petroleum, chemicals, utilities, and other manufacturing organizations. Confusion and ambiguity prevent them from orchestrating a cost-effective yet powerful digital journey.

While that journey may look different for each business, it always begins with a digital asset transformation strategy – and an accurate understanding of each organization's digital maturity, as indicated by the following seven criteria.



A photograph of a male worker in an orange jumpsuit, white hard hat, and safety glasses, holding a black tablet. He is standing in an industrial facility with large white pipes and yellow railings. The image is split diagonally, with the top-left portion being a solid brown color containing text.

COMING OF DIGITAL AGE

7

**SIGNPOSTS
OF MATURITY
IN PROCESS
MANUFACTURING**

YOUR TEAMS HAVE ACCURATE, CURRENT DATA AT THEIR FINGERTIPS

SIGNS OF STRUGGLE

Data silos are common with one process manufacturer. A field team, a maintenance worker, and an engineer in a refinery need the same information but have different access levels. The engineer can find the information in two systems, but the maintenance worker uses a different system with outdated information, and the field team uses yet another. The maintenance worker is frustrated when he realizes he's looking at an old asset history that doesn't reflect the latest repairs – and the field team can't act because they're unable to locate the correct work order.

SIGNS OF DIGITAL SUCCESS

A competitor provides **a unified view of data and documents across disparate systems – eliminating silos, lost documents, and poor version control**. All teams work from the same accurate data in the field, the plant, and the office. Leaders have **complete visibility into all data across all assets and facilities**, which helps them make more informed decisions in the moment rather than waiting days for reports and spreadsheets. Because everyone – from plant managers to engineers to technicians – can access the right content at the right time, the teams radically reduce costly errors and accelerate productivity.



YOU CAN EXTRACT THE MOST VALUABLE INSIGHTS FROM YOUR DATA INSTEAD OF BEING LOST IN INFORMATION CHAOS.

SIGNS OF STRUGGLE

One chemical manufacturer struggles with the amount of data pouring into its systems. Arriving from different channels, internal systems, and third-party sources, the sheer volume becomes impossible to manage usefully. The team doesn't have the time to sift through it, separate signal from noise, or organize it to find nuggets of value. Soon, the organization is lost in information chaos.

SIGNS OF DIGITAL SUCCESS

Another manufacturer can **expertly manage its data, extracting the mission-critical data, contextualizing it quickly and efficiently, and identifying valuable insights to share with the right people.** Even high volumes of unstructured data aren't a problem – the correct data is integrated into the ecosystem appropriately, even when the sources are kept in different systems. These insights drive new strategies and optimize plant operations – leading to considerable cost savings.



YOU CAN EASILY IDENTIFY ALL REQUIRED ASSET DOCUMENTATION AND IDENTIFY ANY MISSING DATA

SIGNS OF STRUGGLE

A utility leader is working to modernize its grid – and has just acquired another facility with thousands of pieces of much-needed equipment. Only months later, when some of the equipment malfunctions, do they realize the required documentation is missing. When checking the other assets, they recognize that many are missing spec sheets, certifications, and other materials needed to operate the equipment safely. They are forced to reproduce the information – putting them months behind schedule.

SIGNS OF DIGITAL SUCCESS

Another public utility is also acquiring new assets, but they **use AI to identify missing critical information and components. Mapping relationships between assets and identifying documentation challenges** before the owner signs off on the sale helps the team **bring new assets online much faster** – because they're automatically notified of any missing components and don't have to spend hours in manual verification.



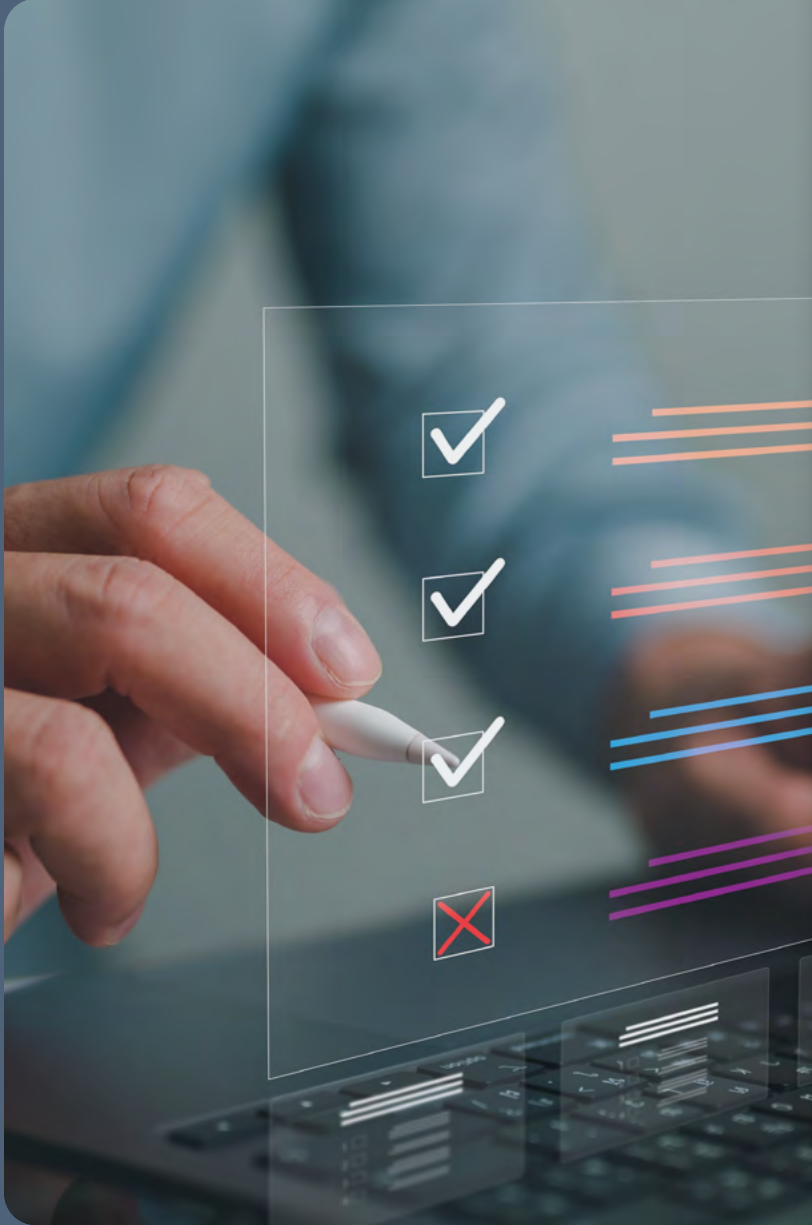
YOUR TEAMS CAN MEET VARIOUS COMPLIANCE REGULATIONS AND PREPARE SUCCESSFULLY FOR AUDITS

SIGNS OF STRUGGLE

Compliance is a colossal headache for one pharmaceutical leader who must have a validated system to ensure the safety, accuracy, and reliability of their substances. This means the entire organization must be aligned to meet complex FDA regulations, particularly CFR 11 FDA compliance rules. These complex regulatory codes include standards for product storage temperature, equipment calibration, clean area classifications, document audit trails, electronic signatures, workflows, and more. However, their different contractors, suppliers, and internal teams all use different systems and processes – making it almost impossible to ensure they can comply with FDA regulations.

SIGNS OF DIGITAL SUCCESS

Another pharmaceutical leader faces the same regulatory complexity as their competitors but is able to **ensure controlled processes and controlled workflows**. Software helps them **centralize documentation so that every team can access accurate and approved information**. These tools help them establish audit trails and expertly manage maintenance information while monitoring capabilities empower them to correct all anomalies and process deviations swiftly. Every department – from engineering, maintenance, and operations to capital projects and IT – is aligned and standardized to ensure their system is validated.



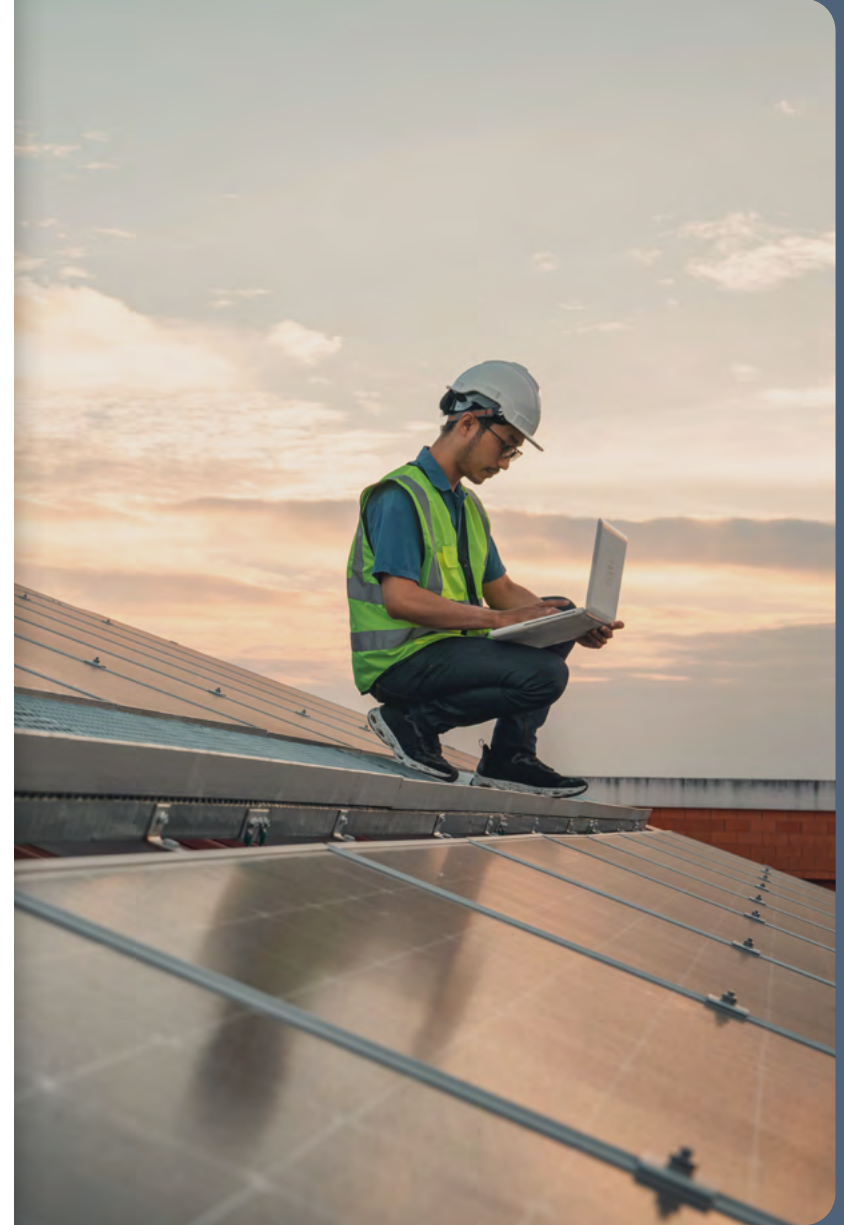
DECARBONIZATION INITIATIVES ARE ON TRACK TO MEET YOUR LONG-TERM GOALS

SIGNS OF STRUGGLE

One oil and gas company is anxious about meeting its deadlines to comply with environmental and compliance regulations. Their sustainability leaders know they need to adopt environmentally friendly tools, but transitioning out of non-sustainable legacy technologies is difficult – changing assets is just too lengthy and cumbersome a process.

SIGNS OF DIGITAL SUCCESS

A year later, the same sustainability team is **making smarter energy and consumption decisions**. Because they can get new production asset information in place faster and at a lower cost, they quickly complete asset transitions that **meet their decarbonization goals**. Their new document and data management processes have **improved the quality of their designs and helped them create more energy-efficient and sustainable assets**.



YOUR TEAM HAS TIME TO INNOVATE AND EXPLORE INDUSTRY 4.0 TOOLS

SIGNS OF STRUGGLE

A process manufacturing team nervously watches competitors use AI and machine learning to leverage the insights of good data and accelerate time to market. They'd like to do the same but don't know how those tools would integrate with their current tech stack or how badly the implementation would disrupt operations. The new generation of workers expects innovative technologies at work – and when they find manual processes and old legacy tech instead, some resign.

SIGNS OF DIGITAL SUCCESS

Another team **capitalizes on tools such as data analytics, artificial intelligence, and machine learning, using them to accelerate the release of new products and services and create day-to-day efficiencies.** Analytics helps them **avoid asset downtime and emergency maintenance**; automation reduces tedious manual work and allows staff to focus on the more creative work they actually enjoy. Profits are up – and leadership feels confident about competing in an increasingly technological future.

YOUR ORGANIZATION CAN SCALE WITHOUT DISRUPTION

SIGNS OF STRUGGLE

In one biotechnology organization, leaders want to expand the number of facilities and introduce new product lines. But that will mean new processes, worker safety protections, research into additional regulations, and a general wave of change management projects. Given their inconsistent processes and poor history of managing change, they suspect that any attempt to scale will unleash chaos.

SIGNS OF DIGITAL SUCCESS

Two years later, the organization has built a new facility and added new production lines. This means frequent asset changes, but that's not a problem because **standardized change management processes have minimized disruption across the extended organization**. With everyone working from the same information, **teams stay organized in rapidly changing environments**, even when multiple change projects require master documentation simultaneously. The organization meets its projected growth milestones with minimal abrasion.



ACHIEVING **DIGITAL WISDOM** WITH DATM

Kinsmen Group helps process manufacturers take their digital sophistication to a more efficient level through Digital Asset Transformation Model (DATM) engagements. By capitalizing on Industry 4.0 advances, asset-intensive organizations across the pharmaceuticals, petroleum, chemical, utilities, and other manufacturing industries are empowered to transform their technology, people, processes, and data in three steps:

STRATEGY

Assess business processes, organizational structure, systems, and technology infrastructure to formulate a targeted action plan that effectively tackles information chaos, resulting in newfound insights and increased ROI derived from your data.

SOLUTION

Deploy innovative solutions to streamline data accessibility throughout the asset lifecycle, ensuring the right information is available to operate assets safely and reliably. Create a digital ecosystem based on Industry 4.0 that transforms your data into your greatest asset.

SUCCESS

Elevate your digital readiness by ensuring adoption through comprehensive training, onboarding, system support, and effective change management services. Stand by your side from the outset of your digital journey, guiding you toward success.

Each DATM engagement enhanced asset efficiency by improving uptime, more intelligent decision-making, and better reliability. Expert technological, process, and compliance guidance helps teams maximize the benefits of digital transformation without disruption, elevating performance, and profitability – and leading process manufacturers to a more dominant position in the marketplace of tomorrow. **We are with you every step of the way.**



EVERY DIGITAL TRANSFORMATION BEGINS WITH A ROBUST ASSESSMENT

To reach your full organizational potential and accelerate smart manufacturing success, schedule a DATM assessment today.

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