



WHITE PAPER

MOVING BEYOND LEGACY

What Chemical Firms Stand to Gain With a Move to Next-Generation ERP

MOVING BEYOND LEGACY SOFTWARE IS A VITAL INVESTMENT FOR YOUR CHEMICAL ENTERPRISE

The chemical industry is marked by rapid innovation and fierce global competition. Legacy business management systems, with their fragmented processes and limited data capabilities, are no longer viable. Next-Generation Enterprise Resource Planning (ERP) solutions are the cornerstone of competitive advantage, providing the robust, integrated capabilities necessary to thrive in today's market.

In our work with chemical manufacturers, we've witnessed the transformative power of technology. The future is bright for those who embrace modern ERP systems as they streamline operations, reduce costs, ensure compliance, and drive innovation. In this white paper, we'll consider the limitations of legacy ERP systems and how those limitations serve as a barrier to innovation and growth. Next, we'll review common industry challenges and how modern ERP solutions effectively overcome those limitations. We'll then go a step further, outlining practical ways Next-Generation ERP can prepare chemical companies for the future.

We hope you take away some actionable ideas for how to propel your chemical company from an industry participant to a market leader.





THE LIMITATIONS OF LEGACY SYSTEMS

Chemical companies are navigating complex terrain, facing evolving supply chains, increased environmental scrutiny, higher costs, and flat demand. The [American Chemistry Council](#) expects that capital spending for the US chemical industry will remain mostly unchanged year over year in 2024 before ramping up modestly during 2025–2026.

In response, many companies have turned their focus to reducing costs and improving efficiencies to offset this reduction. Yet, for many chemical companies, the potential for progress is hindered by the weight of legacy systems.

While manufacturers are [the top adopters of ERP applications overall](#), [70% of chemical organizations](#) rely on operational technology systems between six and 20 years old — with 30% between 11–20 years old. Not only do older systems lack many of the benefits and features of modern technology, but systems over a decade old are disproportionately vulnerable (and attractive targets) for cyberattacks.

KEY BENEFITS OF A NEXT-GENERATION CHEMICAL ERP SOLUTION:



Store details regarding chemical formulations



Generate reports related to chemical compounds instantly



Access relevant data from anywhere, anytime, and through any connected device



Accelerate response to customer inquiries with accurate product info



Track inventory based on status, color, lot number, location, etc



Shorten payment cycles, minimize costs, and optimize cash flow



Automate compliance requirements with audit trails

DIGITAL TRANSFORMATION CREATES A GROWING DIVIDE

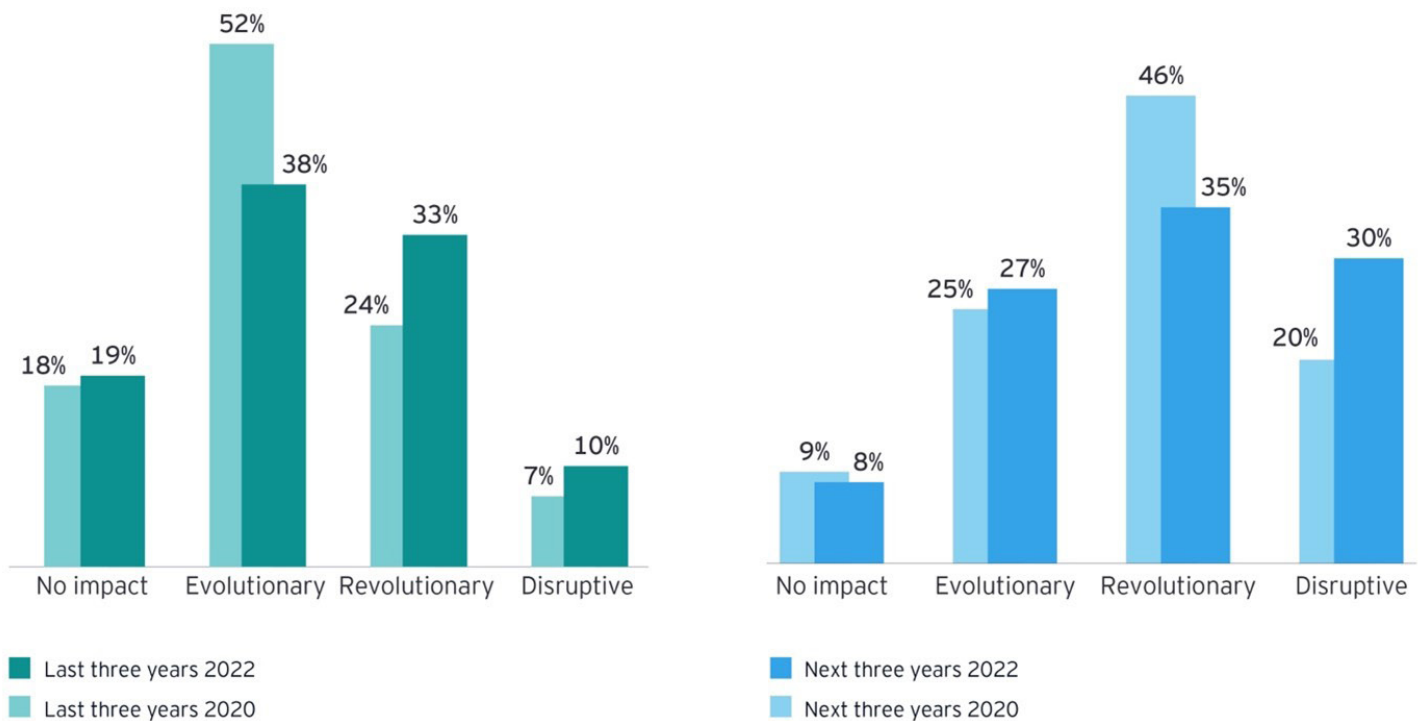
In the manufacturing sector, the divide is becoming increasingly stark between those actively embracing digital transformation and those who do not. When [industry professionals were surveyed](#) to prioritize areas such as digital transformation, smart technology, sustainability, and workforce development — digital transformation emerged as the clear leader. A separate [EY survey](#) identified digitalization as the second-most prominent capital issue for chemical businesses — with 65% expecting it to impact their businesses significantly.

The surveys also reveal a forward-looking stance among manufacturers, with half acknowledging the necessity of adapting to a more virtual operational environment in the future. This acknowledgment

underscores the growing consensus that investment in digital tools is not merely a strategic advantage but a fundamental industry shift essential for future readiness and long-term resilience.

The data paints a clear picture. The chemical industry's future hinges on breaking free from the limitations of legacy systems and embracing Next-Generational ERP solutions that are robust, integrated, secure, and scalable. Such systems are the key to addressing common industry challenges and, just as importantly, positioning a company to effectively compete in an increasingly digital landscape.

What impact has digitalization had on your company in the past three years and what do you expect in the next three years?



Source: EY DigiChem Survey 2022

LEVERAGING MODERN ERP TO OVERCOME INDUSTRY CHALLENGES

Next-Generation ERP systems present a suite of solutions to the multifaceted challenges faced by the chemical industry. Here, we highlight key industry challenges and illustrate how ERP technology can effectively address them.

- 1. Regulatory Compliance and Reporting** – With the chemical industry being one of the most heavily regulated, ERP systems can streamline compliance by providing tools for managing safety data sheets, tracking the use of chemicals, and ensuring proper labeling and reporting. A modern ERP can automate monitoring compliance standards such as REACH, GFSI, and GHS and generate necessary reports, reducing the risk of human error and non-compliance penalties.
- 2. Supply Chain Optimization** – Supply chain complexity is a significant hurdle, especially with the added strain of global disruptions. Modern ERPs incorporate advanced supply chain management modules that enhance visibility from procurement through manufacturing to distribution. Features like real-time inventory tracking, demand forecasting, material requirements planning (MRP), and logistics optimization help companies respond quickly to market changes, manage global logistics more effectively, and reduce overall inventory costs. A well-implemented ERP has been shown to help companies [reduce inventory levels and cycle times](#).
- 3. Operational Efficiency and Cost Reduction** – ERP systems excel at automating routine tasks, thereby improving operational efficiency and helping reduce costs. By centralizing data and automating processes, ERPs minimize manual workloads, optimize manufacturing schedules, and reduce waste, leading to cost savings. [62%](#)

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- 4. Process and Product Quality Control** – Quality control is paramount in the chemical industry. Many ERP systems support quality management processes through batch tracking and traceability, ensuring that products meet industry and customer standards. They allow for better control of production processes and enable rapid response to quality issues, which helps maintain product integrity and customer trust.
- 5. Data-Driven Decision Making** – Chemical companies need to make decisions based on accurate, real-time data. Modern ERP systems offer robust analytics and reporting tools that provide actionable insights into every aspect of the business, from financial performance to production metrics. This real-time data access is crucial for informed decision-making and strategic planning.
- 6. Customer Relationship Management** – ERPs often include integrated Customer Relationship Management (CRM) systems, which help chemical companies efficiently manage sales processes, customer interactions, and after-sales services. These systems ensure customer needs are met promptly and effectively, enhancing customer satisfaction and loyalty.

USING NEXT-GENERATION ERP AS A SPRINGBOARD FOR THE FUTURE

By leveraging the capabilities of modern ERPs, chemical companies can not only overcome industry challenges but also position themselves for sustainable growth and competitive advantage. Some ways in which a Next-Generation ERP can help position you for the future include:

1. Technology Integration and IoT – Many chemical companies are [using Industry 4.0 technologies](#) such as the Internet of Things (IoT), digital twins, and robotics to gather data and automate processes. Modern ERPs integrate seamlessly with other technologies, including IoT devices. This can support real-time monitoring of equipment and processes, predictive maintenance, and even remote control of manufacturing operations, paving the way for the adoption of smart factories.

2. Leveraging Advanced Analytics and Machine Learning

– Modern ERP solutions incorporate advanced analytics and machine learning algorithms to predict trends, optimize operations, and identify inefficiencies. For chemical companies, this can mean predicting equipment failures before they occur, optimizing recipes for production based on real-time input costs, and dynamically adjusting production schedules to meet demand forecasts with greater accuracy.

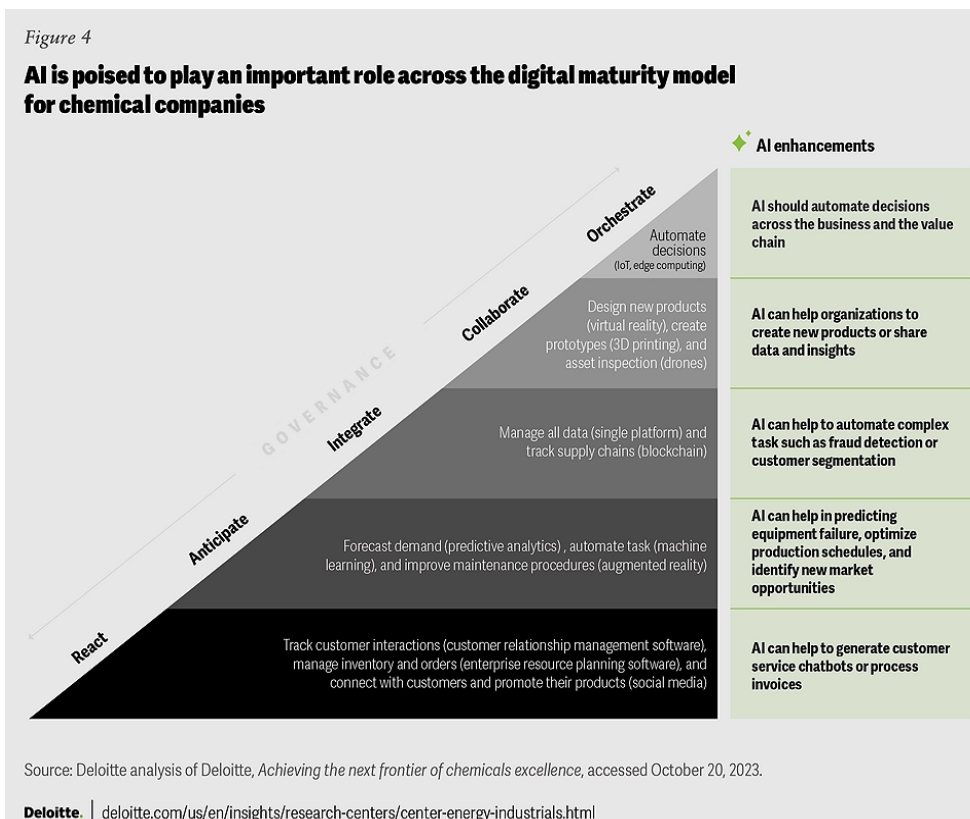
3. Cybersecurity and Data Protection – As digitalization increases, so does the risk of cyber threats. Modern

ERP systems are equipped with advanced cybersecurity features to protect sensitive information, including intellectual property, customer data, and financial records. This is crucial for maintaining trust and complying with data protection regulations.

4. Merger and Acquisition Preparation – M&A activity is expected to accelerate in 2024. A recent [KPMG survey](#) revealed that 65% of C-suite executives expect industrial manufacturing dealmaking to increase. Whether an organization is on the merger or the acquisition side of the deal, a Next-Generation ERP, with its inherent scalability and connectivity, can help unite operations.

5. Cloud Computing for Scalability and Flexibility

– Adopting cloud-based ERP solutions provides chemical companies the scalability to grow and adapt their operations without the need for significant upfront IT infrastructure investments. Cloud ERPs offer flexibility, disaster recovery, and access to the system from anywhere, which is increasingly essential in a globalized and often remote working environment.



FROM REACTION TO ACTION

The adoption of advanced ERP technologies enables chemical companies to address the immediate challenges of regulatory compliance, supply chain optimization, and operational efficiency and strategically position themselves for sustainable growth and innovation.

In embracing digital transformation, chemical companies move beyond merely reacting to market pressures and regulatory demands. They proactively shape their futures, leveraging data-driven insights, cloud scalability, and technological integration to forge deeper connections with customers, innovate with agility, and navigate the complexities of global supply chains with unprecedented clarity and control.

In this era of digital transformation, the choice for chemical companies is clear—invest in the technological capabilities provided by modern ERP systems and seize the opportunity to lead, innovate, and grow.

The future belongs to those who move from reaction to action, leveraging technology to turn today's challenges into tomorrow's successes.



ABOUT NET AT WORK

Net at Work is a full-service technology and business consultancy with a strong specialization in the chemical industry. Combining years of experience and specialized skills, our solutions accelerate growth and deliver a superior digital experience to their clients while improving business efficiencies.

CONNECT WITH US

For more information about moving away from legacy software and how your chemical organization can be best supported through the transformative effects of technology, connect with an expert at Net at Work today:

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