CHEMICAL INDUSTRY ERP BUYER'S GUIDE

What Growth-Oriented Chemical Businesses Should Consider When Buying ERP Software

Net@Work®

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Introduction
INNOVATION AND TECHNOLOGY DRIVE THE CHEMICAL INDUSTRY

Chemical industry executives are known for their dedication to innovation and ability to navigate complex, ever-changing market landscapes. The community consistently demonstrates a talent for pushing boundaries and a commitment to embracing new scientific developments and business practices to stay ahead.

Technology serves as a catalyst in an industry that thrives on meticulous innovation and strategic foresight. For example, modern Enterprise Resource Planning (ERP) systems foster an environment where new ideas flourish and operational efficiencies are realized. In this fast-paced climate, many chemical companies are recognizing that their legacy systems are no longer fit for the task. They could inadvertently be limiting the pace at which your company innovates and grows.

The question you now face isn't about your ability to innovate — that's a given — but whether your operational tools are flexible and robust enough to support and enhance your vision. An older ERP might once have been the industry standard, but with the advent of smarter, more agile solutions, sticking with the familiar might mean missing out on valuable opportunities.

Modern ERP solutions are designed to integrate with the latest technologies, adapt to new business models, and provide actionable insights — all essential components for companies looking to be leaders in their space. If your current ERP system feels more like an archive of what was rather than a blueprint for what could be, it might be time for a change.

This guide is your invitation to a strategic journey that will lead to an informed choice of an ERP system — an option that aligns with your vision for growth, caters to the nuances of chemical manufacturing and distribution, and enables you to deliver value consistently, even in the most challenging of markets.

Chapter 1
IDENTIFYING THE CATALYSTS FOR CHANGE

The chemical industry operates within a dynamic environment where market forces and internal pressures demand constant adaptation. A combination of external industry factors and internal organizational signals often sparks the decision to invest in or upgrade an ERP system. Here's how to recognize that your company is primed for a change:

- **End of Vendor Support**
  When vendors announce the end of support for existing systems, it creates a vulnerability in your IT infrastructure that can only be mitigated by moving to a system with ongoing support.

- **Cost-Prohibitive Upgrades**
  If upgrading your current system is almost as costly as implementing a new ERP system, it indicates that a change could be more beneficial.

- **Supplementary Software Requirements**
  The need to purchase additional software to fill gaps in your current system can lead to increased complexity and inefficiency.

- **Vendor Product and Service Dissatisfaction**
  Consistent issues with your current vendor's product, support, or service quality are signs that it's time to explore better options.

- **Talent Acquisition Difficulties**
  Struggling to find qualified candidates who can manage or support your existing system suggests a shift to a more modern, user-friendly ERP may be necessary.

- **Manual Workarounds and Data Silos**
  If your team spends significant time on manual workarounds or if data is spread across disconnected systems, it's a signal that your processes could be streamlined with an updated ERP system.

- **Compliance and Functional Shortfalls**
  New regulatory demands or company needs not supported by your current system warrant an upgrade to ensure ongoing compliance and functionality.
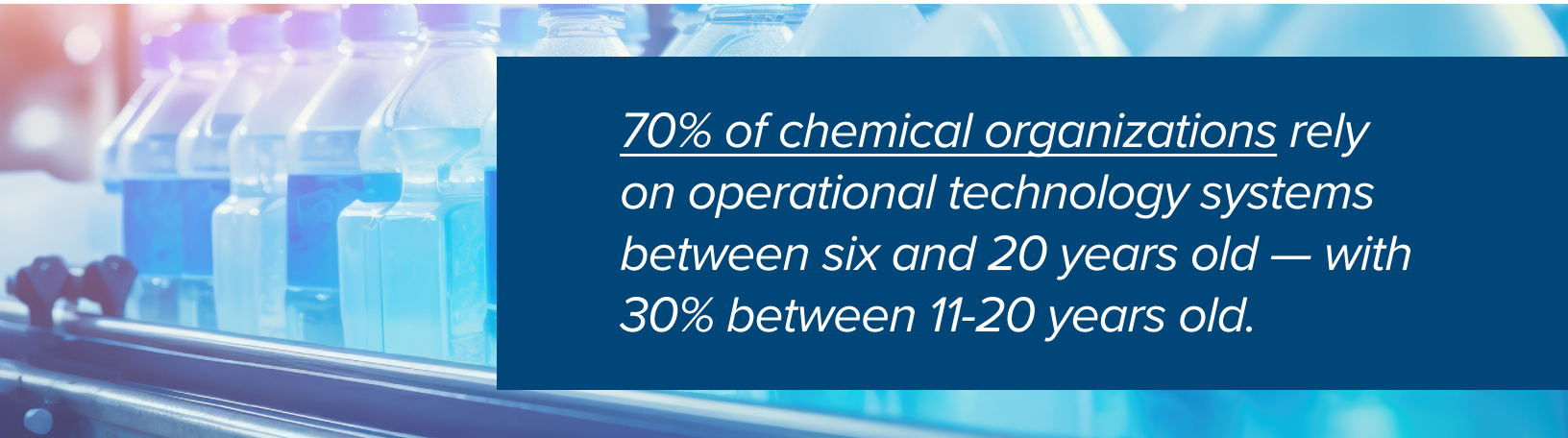
- **M&A Considerations:**
  Companies positioning themselves for acquisition or a merger need an ERP that can easily integrate and streamline operations with other entities.

- **Operational Inefficiencies**
  Painful recalls or operational setbacks due to system limitations are clear indicators that your ERP system needs an overhaul.

Recognizing one or more of these signs can indicate that now is the time to modernize your ERP system. A proactive approach to ERP modernization safeguards your operations and empowers your business to leverage the latest technologies, optimize processes, and stay ahead of the competition.

In the following sections, we will explore trends in the industry that further justify the need for a modern ERP solution and how such a system can align with the strategic goals of chemical manufacturing and distribution companies.

70% of chemical organizations rely on operational technology systems between six and 20 years old — with 30% between 11-20 years old.

Chapter 2
TRENDS DRIVING THE NEED FOR ADVANCED ERP SOLUTIONS IN THE CHEMICAL INDUSTRY

The chemical industry is subject to many trends that directly impact operational efficiency and customer engagement. Recognizing these trends is crucial for understanding the role of an advanced ERP solution in meeting current demands and setting the stage for future success.

1. Margin Pressure and Operational Efficiency

Chemical companies operate in a mature market with numerous competitors, often leading to significant pressure on pricing and margins. A viable strategy to combat this pressure is through enhanced operational efficiency. An advanced ERP solution contributes significantly to operational agility and improved margins by enabling:

- Elimination of repetitive data entry and reduction of paper-based processes.

- Access to real-time pricing and availability within the supply chain.

- Optimization of logistics and product deliveries.

- Proactive identification of customer payment trends.

- Efficient integration of acquisitions.

- Real-time data synchronization from other systems, including CRM, HR, and eCommerce platforms.

Leveraging modern ERP systems, chemical companies can improve asset utilization, enhance yields, and increase employee productivity, directly contributing to the bottom line.

2. Managing Expanding Customer Expectations

As digital natives become key decision-makers in the purchasing process, customer expectations in B2B transactions mirror those in the B2C domain. These buyers expect:

- Digital and Mobile Experiences: Seamless integration of systems to facilitate intelligent responses and access to information anytime, anywhere.

- Complete Information Access: Insight into quantities, order histories, and detailed product information at their fingertips.

65% of chemical players expect digitalization to impact their business in a more revolutionary or disruptive way.

- Personalized Interactions: Customization of information delivery, particularly in terms of units of measure and detailed product specifications.

A modern ERP system can address these expectations, offering a competitive advantage by aligning with the purchasing habits and requirements of the new generation of customers.

3. Regulatory Compliance

Regulatory compliance is a critical and evolving challenge in the chemical industry. ERP systems that are purpose-built for the sector can streamline reporting processes and ensure adherence to regulations, from OSHA standards to international trade compliance. These systems offer a centralized data repository, ensuring companies can react swiftly to regulatory changes and maintain compliance with minimal disruption to their operations.

While not an exhaustive list, the trends outlined here represent some critical areas where an advanced ERP system can make a significant difference. In the subsequent sections, we will outline the strategic advantages these systems offer, how to leverage data for decision-making, and ways to mitigate risk, ultimately providing a framework for selecting and implementing the ERP solution that best fits your organization's needs.

Chapter 3
GAINING STRATEGIC ADVANTAGE WITH MODERN ERP SYSTEMS

In the chemical industry, maintaining your competitive edge requires adhering to best practices and actively seeking out and implementing innovations that can propel the business forward. Modern ERP systems offer a suite of tools and insights that enable companies to transform operations, drive growth, and outpace competitors.

How an ERP System Can Help
A robust ERP system offers a cohesive and integrated platform that allows chemical companies to:

- **Unify Data Streams:** Integrate disparate data sources, providing a single source of truth for all stakeholders.

- **Enhance Visibility:** Gain real-time visibility into every facet of the operation, from manufacturing and quality to inventory and sales.

- **Drive Efficiency:** Automate and streamline business processes, reducing the likelihood of errors and freeing up resources for strategic tasks.

- **Facilitate Decision-Making:** Provide advanced analytics and reporting capabilities that support informed decision-making at all organizational levels.

- **Support Growth:** Scale operations smoothly to accommodate growth, new product lines, or changes in production without compromising on quality or compliance.

What to Look for in an ERP System
When assessing ERP systems, consider prioritizing the following attributes:

- **Industry-Specific Features:** Look for systems that offer functionality tailored to the chemical industry, such as formula management, compliance modules, and lot tracking.

- **Flexibility and Scalability:** Ensure the system can adapt to changing business needs and scale up as the company grows.

- **User Experience:** A user-friendly interface that improves adoption and minimizes extensive training needs.

- **Integration Capabilities:** Seamless integration with existing systems and the ability to incorporate new technologies and processes.

- **Support and Maintenance:** Ongoing vendor support and a clear roadmap for system updates and maintenance.

- **Cloud Computing:** A cloud-based or hosted ERP provides a scalable and cost-effective platform for storing and processing data. This can help chemical companies to reduce costs and improve efficiency.

Leveraging the right ERP system addresses current operational challenges and sets the stage for future innovation and growth. As we delve into the specifics of ERP functionalities and the selection process, remember that the goal is to choose a system and partner that align with your strategic vision and can evolve with your business.

> _62% of organizations report that their ERP system has reduced costs—including a 30% cost savings surrounding purchasing and inventory control._

Chapter 4
CHEMICAL INDUSTRY SPECIFIC FUNCTIONALITY TO LOOK FOR

The chemical manufacturing industry has distinctive operational requirements that demand specific functionalities from an ERP system. To meet these unique needs, your ERP must go beyond the one-size-fits-all solution and offer specialized features that can handle the nuances of chemical production.

Key ERP Functionalities for the Chemical Industry

- **Formula and Recipe Management**
  The heart of any chemical manufacturing process lies in its formulas and recipes. An ERP must provide robust formula management capabilities, allowing for precise control over ingredient proportions, quality management, and adjustments for batch scaling. Version control and audit trails are essential for tracking formulation changes over time.

- **Compliance and Regulatory Reporting**
  Given the strict regulatory environment, an ERP for chemical manufacturing must ensure compliance with global standards like GHS, REACH, and OSHA. It should facilitate the generation of Safety Data Sheets (SDS), handle proper labeling, and maintain audit trails for compliance reporting.

- **Quality Control and Lot Traceability**
  High-quality standards and the ability to trace every ingredient from supplier to customer are non-negotiable. The ERP should support quality checks at multiple points in the production process and provide end-to-end lot traceability to quickly manage recalls if required.

- **Inventory Management with Hazardous Material Handling**
  Managing hazardous materials requires special attention. An ERP must offer inventory management capabilities that address safe storage, handling, and transportation of hazardous chemicals, including the ability to monitor shelf life and expiration dates.

- **Waste Management**
  Tracking and minimizing waste is a requirement for many chemical companies. The ERP should help manage by-products and waste materials efficiently, ensuring environmental compliance and helping to reduce costs and liabilities.

"While the industry has pursued operational excellence for decades, there's one key ingredient available today that many companies are underutilizing: the power of digital technologies."

McKinsey, 2023

- **Integrated Supply Chain Management**
  An agile supply chain is critical to respond to market demands and manage raw material availability. The ERP should offer advanced planning and scheduling tools, including demand forecasting, procurement planning, and logistics management.

- **Production Scheduling and Capacity Planning**
  Chemical manufacturers need dynamic production scheduling tools to handle complex processes and adjust to changing production variables, ensuring optimal use of resources and timely order fulfillment.

- **Business Intelligence and Analytics**
  Real-time data analysis and reporting are vital for making informed decisions. The ERP should provide comprehensive business intelligence tools that offer insights into operations, financials, and customer trends.

- **Integration with Advanced Technologies**
  To stay at the forefront of innovation, the ERP must integrate with advanced technologies such as IoT for equipment monitoring, AI for predictive maintenance, and even blockchain for supply chain transparency.

Investing in an ERP system that offers these specialized functionalities ensures you have the tools to manage the industry's complexities, maintain competitive advantage, and deliver products that meet the highest quality and compliance standards.

Chapter 5
FUTURE-PROOFING YOUR INVESTMENT

In a rapidly evolving technology landscape, you should consider present and future needs when adopting a new ERP system. Future-proofing your ERP investment means ensuring the system remains relevant and capable of adapting to emerging technologies and business practices.

Considerations for a Future-Proof ERP System:

- **Adaptability:** The chosen ERP should be adaptable to evolving business models, industry practices, and customer needs without requiring a complete overhaul.

- **Technology Updates:** It should be built on a platform that receives regular updates, incorporating the latest technological advancements.

- **Expandability:** The system should be able to integrate additional modules or functionalities as your business grows and changes.

Scalability and Underlying Technology

The technology underlying your ERP system is the foundation for your company's operations and should support sustainable scaling.

- **Comprehensive and Configurable:** A system that is comprehensive enough to cover all aspects of your operations yet configurable to align with your specific processes.

- **Modern Platform:** Choosing a platform based on newer technology can provide more longevity and make for a better investment.

- **Integration Capabilities:** An innovative ERP system that can easily integrate with other business systems is crucial for minimal disruption.

> *"If chemical companies fall behind in the race to deliver more innovation on more fronts, they may miss tomorrow's major growth opportunities."*
>
> *Accenture Research Report*

Chapter 6
SELECTING THE RIGHT TECHNOLOGY SERVICES PARTNER

The success of an ERP implementation hinges not only on the software chosen but also, perhaps more critically, on the capabilities and approach of the services partner responsible for its deployment and ongoing support. This partner is pivotal in translating complex software capabilities into practical, usable business tools that align with your company's strategic objectives.

Identifying a Partner with Proven Expertise:
This partner is pivotal in translating complex software capabilities into practical, usable business tools that align with your company's strategic objectives.

Expectations from an Exceptional Services Partner
Many elements combine to form an exception partner. We encourage you to consider:

- **Cultural Compatibility**
  The right partner operates in sync with your organization's ethos, ensuring a collaborative relationship where mutual respect drives collective success.

- **Robust Methodology**
  They should possess a structured, tried-and-tested approach to implementation that includes comprehensive planning, realistic timelines, and risk management strategies.

- **Clear Communication and Transparency**
  Expect regular, clear communication, with transparency about the project's progress, challenges, and solutions at each stage.

- **Adaptability and Flexibility**
  While structured methodology is essential, your partner should also be adaptable— quickly responding to your business's unique and evolving demands and the wider industry.

- **Empowerment Through Training and Knowledge Transfer**
  An excellent services partner empowers your team by prioritizing knowledge transfer and providing thorough training to ensure your staff can fully leverage the ERP system.

- **Long-term Support and Evolution**
  Beyond initial implementation, they should offer ongoing support and advice, helping your business evolve and adapt the ERP system as it grows and its needs change.

- **Innovation and Continuous Improvement**
  The ideal partner constantly seeks innovative ways to enhance system functionality and improve your business processes.

Chapter 6 (continued)
SELECTING THE RIGHT TECHNOLOGY SERVICES PARTNER

A Checklist for Partner Selection

As you interview and consider a technology partner, here's a brief checklist to help you form comparisons:

✔ Review the partner's track record and ask for specific references.

✔ Assess the depth of their talent pool, ensuring they have the necessary skills and expertise.

✔ Understand their approach to project management and delivery.

✔ Evaluate their commitment to your industry and familiarity with chemical sector-specific challenges.

✔ Confirm their availability for post-implementation support and the robustness of their service level agreements (SLAs).

Choosing the right services partner for your ERP implementation is a critical decision that requires careful consideration of their industry experience, cultural fit, technical prowess, and commitment to your business's long-term success.

This partner is your guide through the complex digital transformation journey, offering technical expertise and strategic business insights that ensure your ERP investment delivers its intended value, both today and well into the future.

Chapter 7
MOVING FROM REACTION TO ACTION

The path forward for the chemical industry is irrevocably aligned with technological advancement. The conversations we've engaged in, the insights we've shared, and the strategies we've examined all converge on a singular truth: the adoption of modern ERP solutions is not merely an upgrade — it is a reinvention of how chemical companies operate.

We encourage you to use the insights from this eBook as a compass for action. Assess your current ERP system, recognize the catalysts for change, and take informed strides toward a solution that propels your business forward. By investing in a modern ERP platform, you ensure that your company doesn't just keep up — but sets the pace for innovation and efficiency.

About Net at Work

This selection guide is brought to you by Net at Work. in-depth knowledge of the chemical industry expertise combined with the proven foundation of our ERP business management software specifically designed to deliver the functionality and insights this industry requires.

Our seasoned team has a combined 50+ years of experience in the chemical industry. With Net at Work, you'll gain a partner to help navigate the new system implementation and process improvement learning curve.

For more information on how Net at Work can help your chemical company take the proper steps toward ERP transformation, visit ChemAtWork.com or contact us at 800.719.3307 or info@netatwork.com.

"Digital transformation requires changes to processes and thinking – changes that span your internal organizational silos."

*George Westerman,
MIT Research Scientist*

CONNECT WITH US

For more information on how Net at Work can help your chemical company take the proper steps toward ERP transformation, connect with an expert at Net at Work today:

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