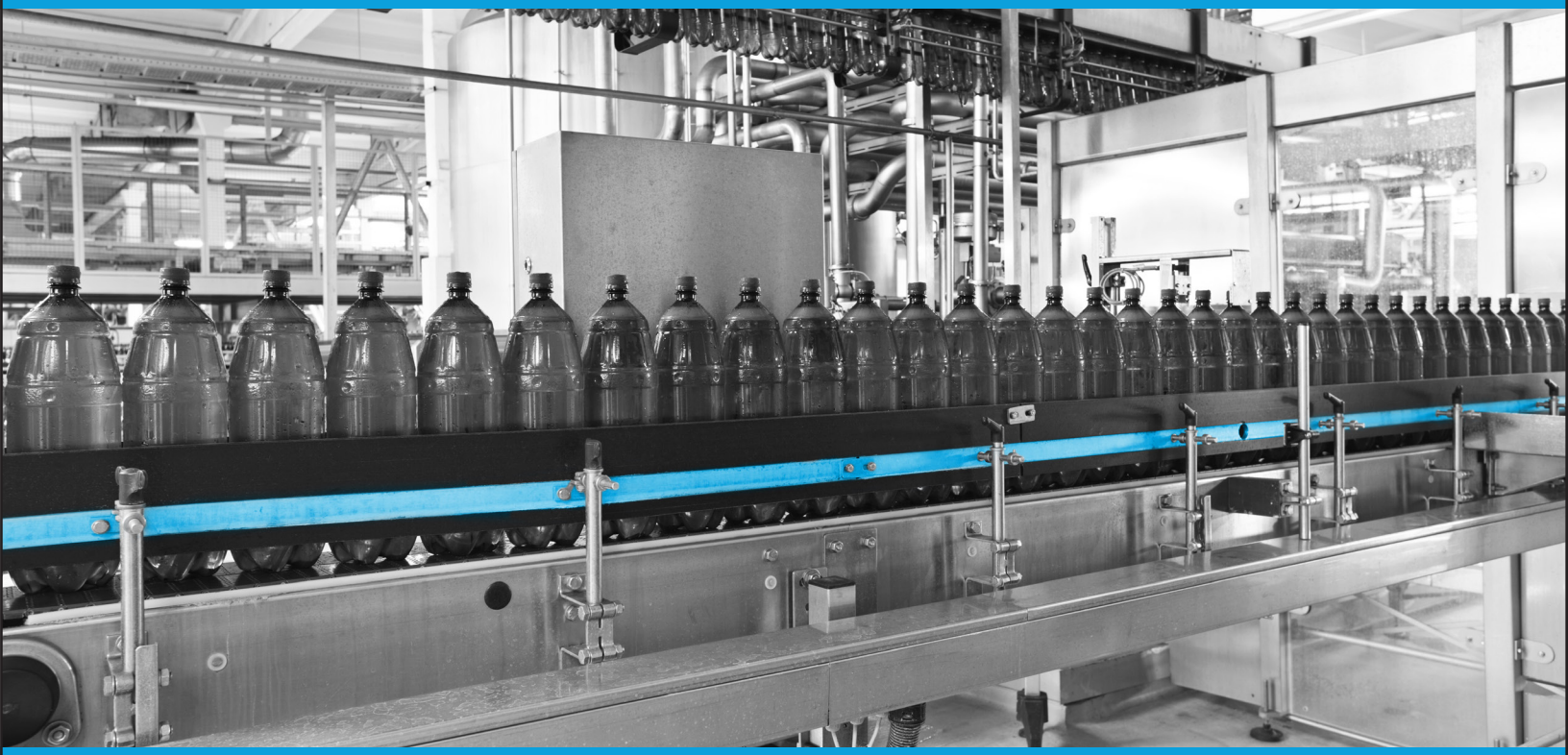
9 Questions Food and Beverage Manufacturers Need to Ask About Their ERP



At a Glance:

- Food and beverage manufacturers need modern ERP systems that reduce the burden on their limited IT staff.
- Often the decision maker is someone more influenced by the “brand” than what the business needs.
- Consider a system that captures real-time production data for precise genealogy and traceability.

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White Paper

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Business Model Fit

1. How does the proposed solution support your business?

There are dozens of types of manufacturing environments, from individual ingredient for sale to another manufacturer to branded product for the store shelves at a retailer. Depending on where you sit in the supply chain, your requirements for manufacturing, packaging, and ingredient traceability may be dramatically different.

For example, manufacturers who produce a single ingredient may only need to manage lots for simple traceability with a certificate of analysis (COA). Producers of finished goods may need a complete solution to manage all ingredient and process data from customer order to shipment in the case of an audit or recall.

When evaluating ERP, ask the vendor if plant floor workers can attend system demonstrations or reference visits. If the system is difficult to use, it will become "shelf-ware" and the ROI will be completely compromised. If workers won't use the software, the company will not get the accurate, timely data it requires to streamline operations and improve quality.

2. Can a non-programmer develop a new business process in the system?

Billion-dollar industries have been created in the follow-on market, where consultants and programmers charge hundreds of dollars per hour to program or integrate to hard-to-use legacy systems that were not designed for food and beverage manufacturers.

Modern, cloud-based systems are now much more flexible than legacy on-premise systems and can be "configured," not "customized" to suit the specific business processes that you need. Through point-and-click and drag-and-drop interfaces, advanced users should be able to create new screens or reports without writing any code.

3. How does the system support the "extended enterprise" from "farm to fork?"

A manufacturing operation doesn't exist as a stand-alone environment; suppliers and customers require direct access to data on all aspects of your manufacturing processes. That data must be both accurate and accessible within the four hour time span specified by the FDA.

For the ultimate flexibility, an ERP system should provide collaboration portals to expose any transaction to a customer or supplier without installing software at the trading partner. Additionally, the interface to the system should be intuitive enough that suppliers and customers will not need training to use it effectively.

Useful reports might include lot attributes such as "Use By" and "Sell By" dates; trace trees to show traceability for each lot of each ingredient in each lot of product shipped to the customer; and quality management reports to track supplier quality.

Reporting and data should be accessible via a simple web browser, via a purpose-built "portal" for manufacturing partners. This not only simplifies access, but it also greatly accelerates your response time in the case of a recall—from hours to just minutes.

4. How is the software licensed?

The enterprise software industry often plays games with software licensing, offering variable feature sets on a "per user" basis.

For example, software vendors convince their customers that only 20 percent of their workforce should be licensed. This keeps the initial price low and acceptable. Once the software is deployed throughout the enterprise, it becomes clear that to get full value from the software, many more people need to use it—and they all need full licenses, as opposed to the restricted functionality of licenses often sold in initial implementations. This results in multiple people using the same license with no way to track back to any one individual and reduces the value of traceability.

The plant floor is where most important data is created. Any system used to run a manufacturing business must treat plant floor workers as knowledge workers, capturing and validating data at the point of origin. This means that any plant floor workers may need access to the software in order to maintain accountability.

A more flexible, unlimited licensing model allows complete deployment throughout the enterprise including suppliers and customers who may need to interact with data being tracked. Everyone can add value to the dataset for each of your products and your business processes can be effectively digitized across your entire enterprise. And as your business changes and grows, your business system can flex without burdensome licensing issues.

Architecture and Development Approach

5. How many different ways can users access the system? Is the user interface consistent throughout the application?

ERP vendors might offer different client applications they have developed or acquired—one for Windows, one for Mac, one for Linux, two for various mobile devices, etc. Each software package must be tested and deployed, perhaps integrated together, and then maintained and upgraded according to its own schedule—and oftentimes features in one client package are not compatible with required functions in another application. The solution is simple: standardization on a web-based user interface, accessible from any web browser on virtually any PC or mobile device with a web connection.

Look for consistency in navigating from screen to screen, in tabbing from field to field, and in how to enter, update, and find information in various parts of the system. A truly consistent interface across all sections of the software reduces training costs and increases adoption—driving faster time to value.

6. Is it a true, cloud-based solution?

Cloud has become the platform of choice for businesses that need flexibility to grow without being burdened by the IT challenges of growth. Food and beverage manufacturers are looking to true cloud for the functionality they need with the flexibility for that system to grow with their needs. That means adding new functionality without requiring production downtime to implement a new version of the software.

True software as a service (SaaS) solutions make deployment easy and inexpensive with the added benefit of not requiring taking your existing system offline for testing. Implementation and configuration can be handled independently from production until it's time to go-live which is much like throwing a switch.

In addition, SaaS solutions are priced on a subscription basis so you can budget it as an operating expense (OPEX) versus a capital asset purchase expense (CAPEX) which must be approved as a big budget item. And with Plex, the subscription includes unlimited licensing so everyone in your organization - plus your suppliers, partners, and customers can use the system as you grow without nickel and diming your IT budget.

Manufacturing Functions

7. How does your system support safety and the Food Safety Modernization Act (FSMA)?

Food safety is critical for food and beverage manufacturers and keeping up on the changing regulatory requirements is a big challenge. But this is even more challenging if your ERP system is not designed with real-time data collection and process flexibility in mind.

In order to respond to a food safety event such as recall, the FDA requires a traceability report within two hours of request. Your data must be available and accurate which is only possible with a database-driven system. All transactions and data collection must be digital—not paper-based—and must be easily pulled without parsing through multiple systems.

A single source of digital data that is accessible at any time from anywhere is the best solution to protect your company from expensive recall activities that could jeopardize your company's brand. And as you change your processes to comply with changes to regulations, your data remains safely in the database forever.

8. Does the system give you complete visibility into the costs and profitability of your business?

These are the very important factors affecting compliance. Profitability and success at a manufacturer—key to survival and growth in the food and beverage industry. If this data is captured and validated as the activities are occurring, virtually everyone in the organization will have accurate, timely information for decision-making. Unfortunately, in too many companies, these are manual, paper-based processes that make it very difficult to leverage the data. Plex recommends that you look for a single, logical portal to capture and validate this information as it is happening from shipping to receiving and throughout the production floor.

Today's manufacturing solutions should provide complete, detailed documentation for every process and activity that can then be referenced in compliance documentation. This makes it much easier to attain certification and makes audits significantly easier to retain and improve certifications.

9. Are inventory records directly tied to physical reality?

Many software solutions treat inventory as a dollar amount or, at best, several dollar amounts. For example, raw material, work in process, or finished goods. They focus on the accounting transactions, but there can be a big disconnect between the physical reality and where all of your inventory investment is at any given time.

Consider a system that tracks inventory in lots at every point in its life cycle from door to door, with additional information and attributes being added to the database. If there is an action in production, there is a transaction in Plex which results in high-resolution traceability that is easy to access in minutes versus the hours mandated by the FDA.

Food quality and safety is your primary concern. It is imperative that you track the genealogy of products to respond quickly if there is a recall. Be sure to see how the traceability function works in any system. Is it automated and streamlined, or does it rely on an operator to key in the lot number of the source material?

The Plex Manufacturing Cloud tracks serialized inventory at the container level, and tracks it at each step of the production process. The traceability features within Plex enable any user to quickly trace a defective product back to its point of origin, and then quickly track forward to any other parts that include the same defective material or incorrect manufacturing step.

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About Plex

Plex is the Manufacturing Cloud, delivering industry-leading ERP and manufacturing automation to more than 450 companies across process and discrete industries. Plex pioneered Cloud solutions for the shop floor, connecting suppliers, machines, people, systems and customers with capabilities that are easy to configure, deliver continuous innovation and reduce IT costs. With insight that starts on the production line, Plex helps companies see and understand every aspect of their business ecosystems, enabling them to lead in an ever-changing market.