

# OPTIMIZING END-TO-END PLANNING IN FOOD MANUFACTURING: 8 KEY FACTORS

In good times and in bad, businesses must navigate disruption, increased interdependencies, and rising costs while meeting customer demands. Technology empowers us with not only the data and analytics to transform how food products and services are managed and optimized today, but also allows for longer-term growth and improved revenue.

The food manufacturing industry must recognize the major challenges that come with end-to-end food planning and address them by optimizing eight key factors.

## Top Five Challenges for Food Manufacturing in 2023



### Unpredictable demand

Product demand often changes according to what consumers believe are important to stock up on. This results in a shortage of some items, while other ingredients that are normally in high demand go unused.

**Companies can expect losses equal to almost 45% of one year's profits over the course of a decade due to supply chain disruptions.**<sup>1</sup>

<sup>1</sup> <https://www.mckinsey.com/capabilities/operations/our-insights/risk-resilience-and-rebalancing-in-global-value-chains>



### Assured supply

It is essential that suppliers are able to fulfil orders for your food manufacturing to operate without interruption. But due to travel restrictions and ever-changing COVID guidelines, there are a limited number of drivers and containers, causing a rise in costs, delays in shipping, and a challenge to meet production targets and SLAs.

**10.6% increase to global import prices if freight rates remain elevated through 2023.**<sup>2</sup>

<sup>2</sup> <https://www.weforum.org/agenda/2022/01/global-shipping-costs-inflation-prices-trade/>



### Labor and production management

Businesses have to plan to have the right people in the right place in production processes. Due to recent changes in employees' working preferences and limited availability of qualified candidates, workforce planning has become more difficult.

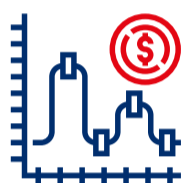
**4.1 million Americans quit their jobs in December 2022 according to the U.S Bureau of Labor Statistics.**<sup>3</sup>

**In the UK, job vacancies remain high at over 1.16 million**

between October to December 2022, as reported by the Office of National Statistics.<sup>4</sup>

<sup>3</sup> <https://www.bls.gov/news.release/jolts.nr0.htm>

<sup>4</sup> <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/jobsandvacanciesintheuk/january2023>



### Cost and quality expectations

Despite disruptions that cause a rise in the cost of raw materials, clients like retailers and supermarkets expect that the price and quality of products to remain the same.

**World food prices hit a record high in 2022, with Food and Agriculture Organization's food price index averaging 143.7 points that year – the highest since the record started in 1990.**<sup>5</sup>

<sup>5</sup> <https://www.reuters.com/markets/world-food-prices-hit-record-high-2022-despite-december-fall-2023-01-06/>



### Managing complexities during disruptive times

A fast-changing business landscape means that a multimillion-dollar enterprise with detailed planning needs require technology that enables the fast evaluation of different optimized scenarios, allowing companies to be "intelligent agile."

**\$1.5 billion projected growth in the capacity management market by 2023 as businesses continue to manage more infrastructure.**<sup>6</sup>

<sup>6</sup> <https://techmonitor.ai/leadership/digital-transformation/capacity-management>

## End-To-End Planning Optimization: 8 Factors to Consider in Food Manufacturing



### Choosing the correct suppliers

- Balance a range of KPIs when choosing a supplier; cost, lead-time and safety stock levels you can even.
- Use your own KPIs such as sustainability or resistance to disruption.

### Optimizing inventory to minimize waste

- Create inventory plans based on complete demand, not just today but across the entire plan, creating synergies and optimizing the use of temporary storage, raw materials, preventing stockouts, and reducing waste.

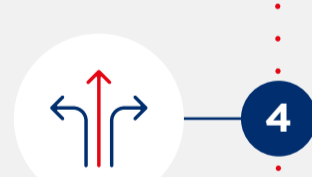


### Production efficiency

- Optimized planning of intermediate operations improves the utilization of bottleneck resources and minimizes labor requirements.
- Balance efficient production batches and volatile customer demand.

### Flexibility

- Be ahead of the curve and minimize the risk of supply volatility with a Master Production Schedule (MPS).
- Don't use fixed production patterns and routes.
- Cycle stock to reduce future bottlenecks caused by peak demand.



### Demand forecasting

- Forecast based on demand trends and changing consumer demands.
- Manage promotions and exceptions efficiently.

### Use visible, unified KPIs

- Lock your corporate KPIs into the DNA of how you plan.
- Include your sustainability and corporate responsibility rules into your MPS.
- Make the KPIs clearly visible during MPS production.
- Measure execution against your MPS.



### Total visibility

- Plan all your products in a single platform.
- Model future changes using scenarios.
- Improve efficiency by understanding the impact of disruption within or across multiple facilities.
- Plan at many levels from global down to line level.

### Meet customer requirements

- Improve on SLA compliance.
- Improve product quality.
- Create plans (ranging from short- to long-term) that efficiently plan for peaks and periods of disruption.



## Intelligent Planning Technology That Delivers Lasting Value in End-To-End Planning

Food manufacturers have experienced dramatic shifts in demands of the food and beverage industry, forcing them to overhaul existing manufacturing processes.

The Logic Factory can help you find new opportunities in a rapidly-changing market. You'll gain a competitive edge by using supply chain planning and optimization solutions that are tailored specifically to the needs of your business. We also have the highest qualified DELMIA Quintiq consultants in the industry that support the entire project life cycle from getting ready, through project execution, and long-term support.

To find out more, get in touch with us at:

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