



DIGITAL TRANSFORMATION IN THE **FOOD & BEVERAGE** INDUSTRY

How a New Generation of ERP can Help Respond to Accelerated Change and Deliver Customer Experience at Scale

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Why read this InfoBrief?



To understand how legacy IT infrastructure is holding back food & beverage manufacturers from responding to accelerated change on the market and in consumer demands

To discover how a new generation of ERP can become central to food & beverage processes, helping manufacturers to respond efficiently to the complex changes they are facing and to achieve their digital goals.

To review Case Studies and receive IDC's recommendations for food & beverage manufacturers that want to succeed in the digital economy.

Creating engaging new consumer experiences at scale is at the heart of today's food & beverage industry

Consumers constantly drive new trends



The food & beverage industry is dealing with accelerated and complex change

Consumers today are ubiquitously connected, crave individuality and personalization, and are intolerant of complexity and latency. The rapidly changing nature of what consumers want is a food & beverage company's worst nightmare — but also its greatest opportunity. Successful food & beverage producers must be prepared to forecast and meet these fast-changing demands, including a proliferation of healthier, more personalized, and environmentally conscious choices.

What keeps the C-suite awake at night?

- Understanding the “threat” of disruption and digital transformation — the risk of losing share to digitally native, emerging competitors
- Continuing pressures on new product development and introduction as revenues increasingly depend on innovation
- Omni-channel consumers and increasingly demanding customers
- Connecting supply and demand signals to enable both B2B and B2C and frictionless fulfillment
- Sustainability and the assurance of supply in a business environment replete with threats
- Pressure from governments and consumers driving the need for transparent and sustainable supply chains and products

“A product is easy to copy, but experiences are hard to replicate.” Clayton Christensen, former Harvard Business School academic

Being in a highly controlled and consumer-facing market, food & beverage manufacturers are focusing on balancing growth, performance, and cost

To deal with a multitude of challenges, ranging from reducing waste to accelerating compliance, **U.S. companies** are strategically focusing on cost, growth, and operational performance as their top 3 business priorities. The **European market** echoes this*, while food & beverage manufacturers in **Asia/Pacific****, though overall aligned, see **demand variability** as another key priority.

These business priorities are driving IT investments and digital transformation initiatives.

Food & beverage manufacturers' key challenges:

-  Minimize waste
-  Reduce costs
-  Minimize risks
-  Accelerate compliance
-  Adapt quickly to the marketplace



How the market is responding to these challenges:

Q. Which of the following initiatives will be significant in driving IT investments at your organization?



* IDC European Tech and Industry Pulse Survey 2019–2020, brand-oriented value chain companies = 73
 ** IDC Manufacturing Insights Asia/Pacific Annual Survey, 2019, brand-oriented value chain companies = 242

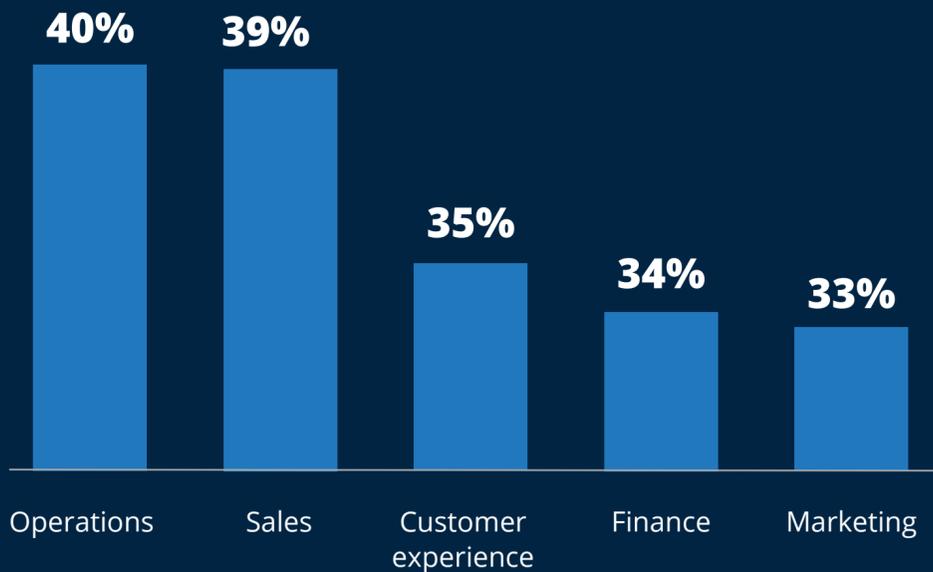
Source: IDC EMEA, U.S. Vertical Survey, June 2019; total n = 3,607, brand-oriented value chain companies = 247
Note: Top 3 ranked responses shown

Digital investments are improving productivity and cost efficiency

Food & beverage manufacturers have started their digital transformation journeys with an **operations** (including supply chain and distribution) and **customer-centric view**. Those that have made digital investments have so far seen the biggest impact on **productivity** and **cost efficiencies**, providing the desired return on investment based on their strategic business priorities.

DX transforms the following functions ...

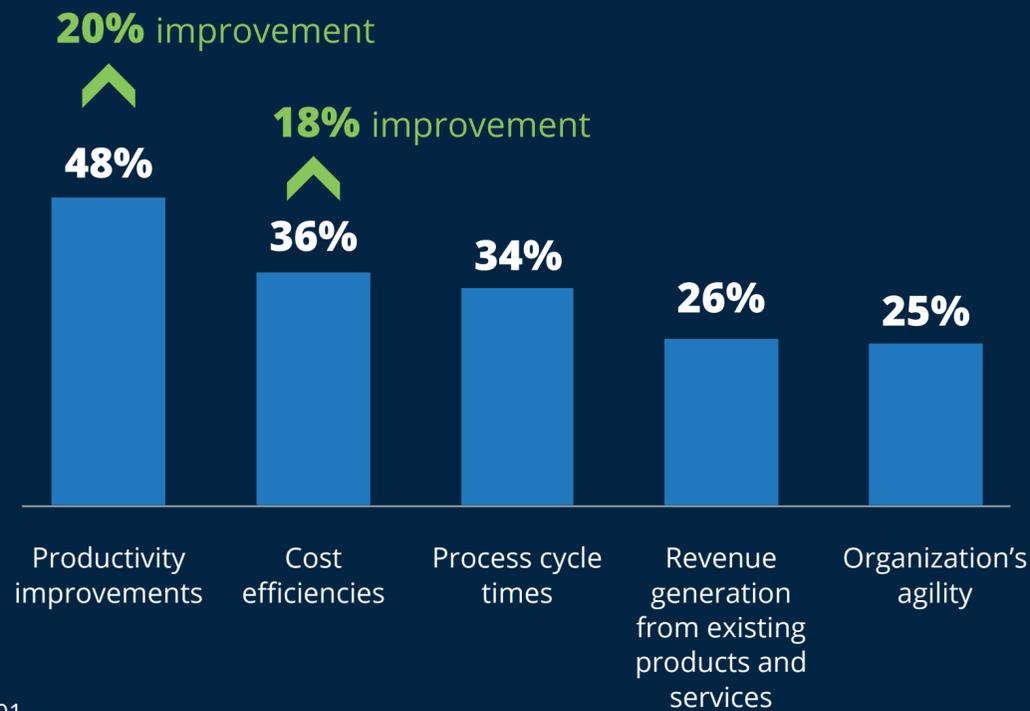
Q. Which business support functions are being digitally transformed?



Note: Top 5 answers shown; information technology was deliberately removed
Source: Digital Transformation (DX) Executive Sentiment Survey 2019, IDC, August 2019, CPG n = 101

... and brings these benefits:

Q. Where have you achieved the biggest benefits from your current DX programs/projects?



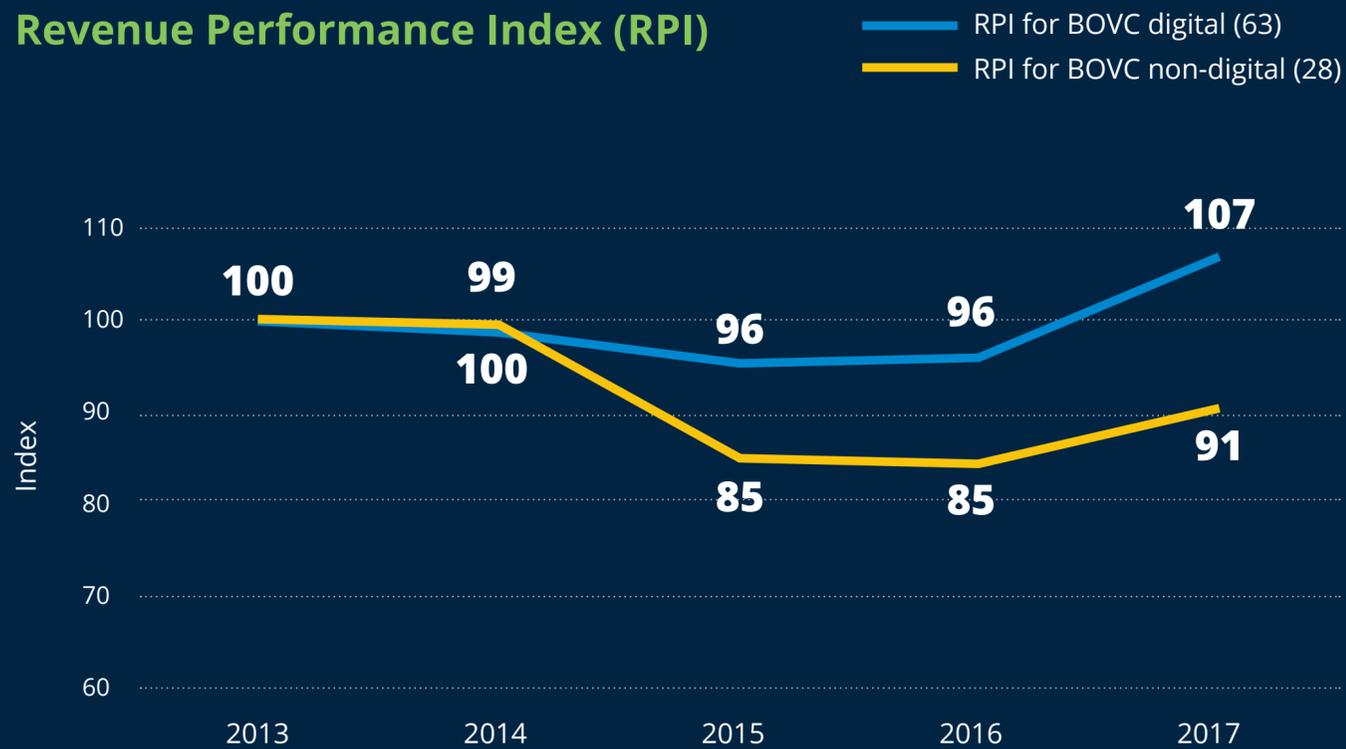
Operational excellence (production/creation of offerings) is the first target the industry is trying to tackle with its digital transformation strategy.

The most common digital success metric is **new revenue "value"/process/margin improvement**, tracked by **49%** of food & beverage manufacturers.

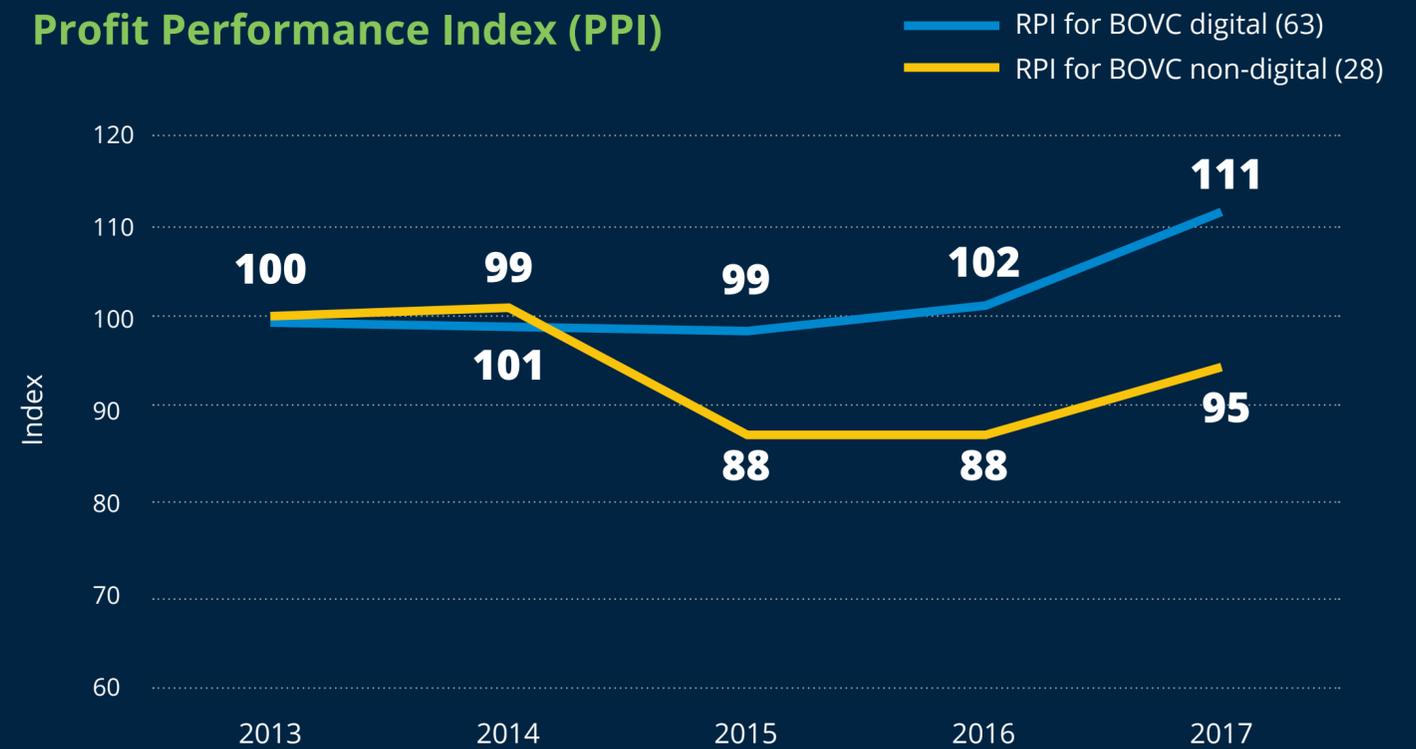
Digital transformation has a direct impact on revenue and profit performance, causing polarization in the market

Digital investments have a positive impact on both the revenue and profit performance of food & beverage manufacturers. The best-performing companies — armed with digital-native culture, tools, and processes — are racing away from the rest due to closer customer connection and higher productivity overall. This creates a digital divide, where laggards struggle to sustain their businesses and remain relevant in today's digital economy. What is holding these companies back?

Revenue Performance Index (RPI)



Profit Performance Index (PPI)



Methodology:

The IDC Manufacturing Insights Global Performance Index (GPI) tracks growth metrics from 800+ publicly traded global firms in the manufacturing and retail industries based on the performance of a sample of companies from those subindustries. Estimates by Reuters.

Source: IDC Manufacturing Insights' Global Performance Index analysis, 2013–2017

The impact of digital on BOVC (brand-oriented value chain) organizations:

BOVC organizations are volume based and operate on lower margins, and the digital impact will lead to improved demand/supply balancing, better customer visibility, alignment driven by point-of-sale metrics, etc., with a greater impact on the top line.

Hampered by their ERP heritage, how can food & beverage manufacturers compete successfully in the digital economy?

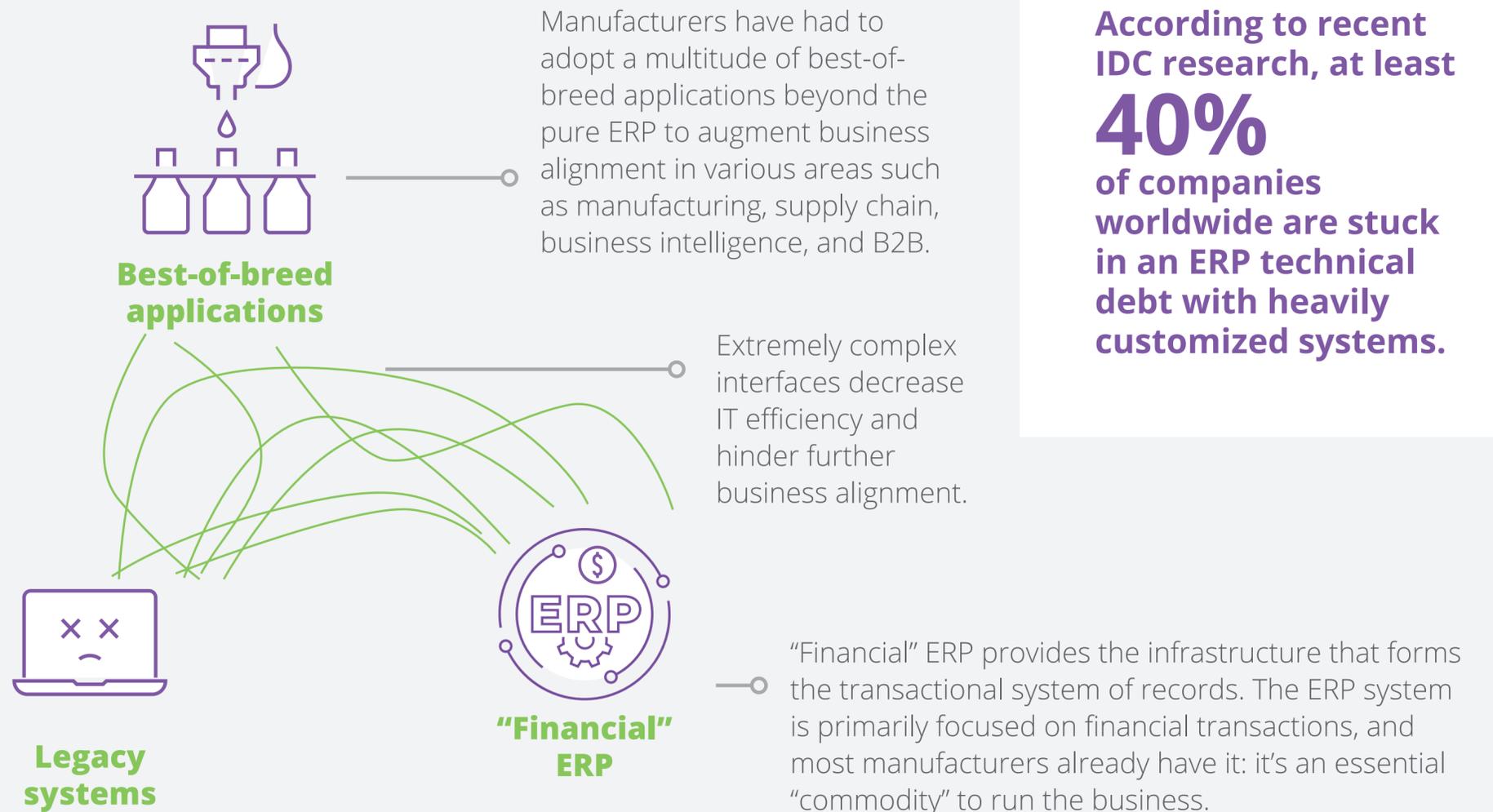
Over decades, food & beverage manufacturers have invested in outdated legacy systems, heavily customized applications, and “financial” ERPs, creating a technical debt that is a nightmare to untangle. This archaic ERP heritage, along with the ongoing use of spreadsheets, is what prevents companies from moving forward in their digital transformation journeys — and is one of the key challenges they need to solve.

In a 2018/2019 IDC study of food & beverage manufacturers in the U.K.:

Only **10%** admitted their ERP is used the way it was intended

The top 3 ERP weaknesses mentioned were:

- The system is transactional and does not offer real-time information.
- It does not support the company’s growth strategy.
- It lacks collaborative features, and this hinders productivity.

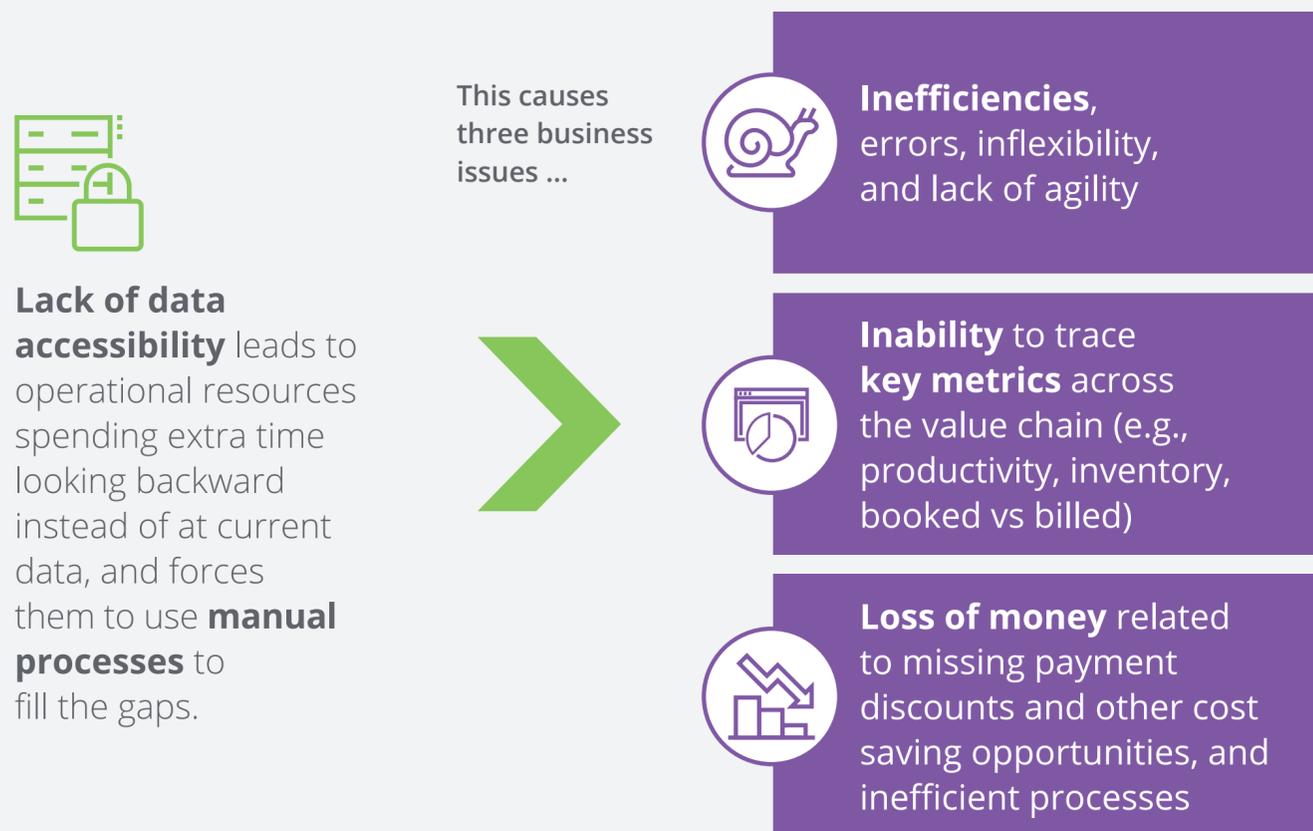


According to recent IDC research, at least **40%** of companies worldwide are stuck in an ERP technical debt with heavily customized systems.

ERP chaos causes a lack of information accessibility, preventing business leaders from achieving their targets

The food & beverage industry is consuming more information than ever before. Being able to get access to data in real time and applying it intelligently in the context of business processes will drastically improve the value delivered to customers, with a positive impact on market share and share price. This is only possible with the right ERP system.

Key C-suite and end-user challenges:



Industry issues:

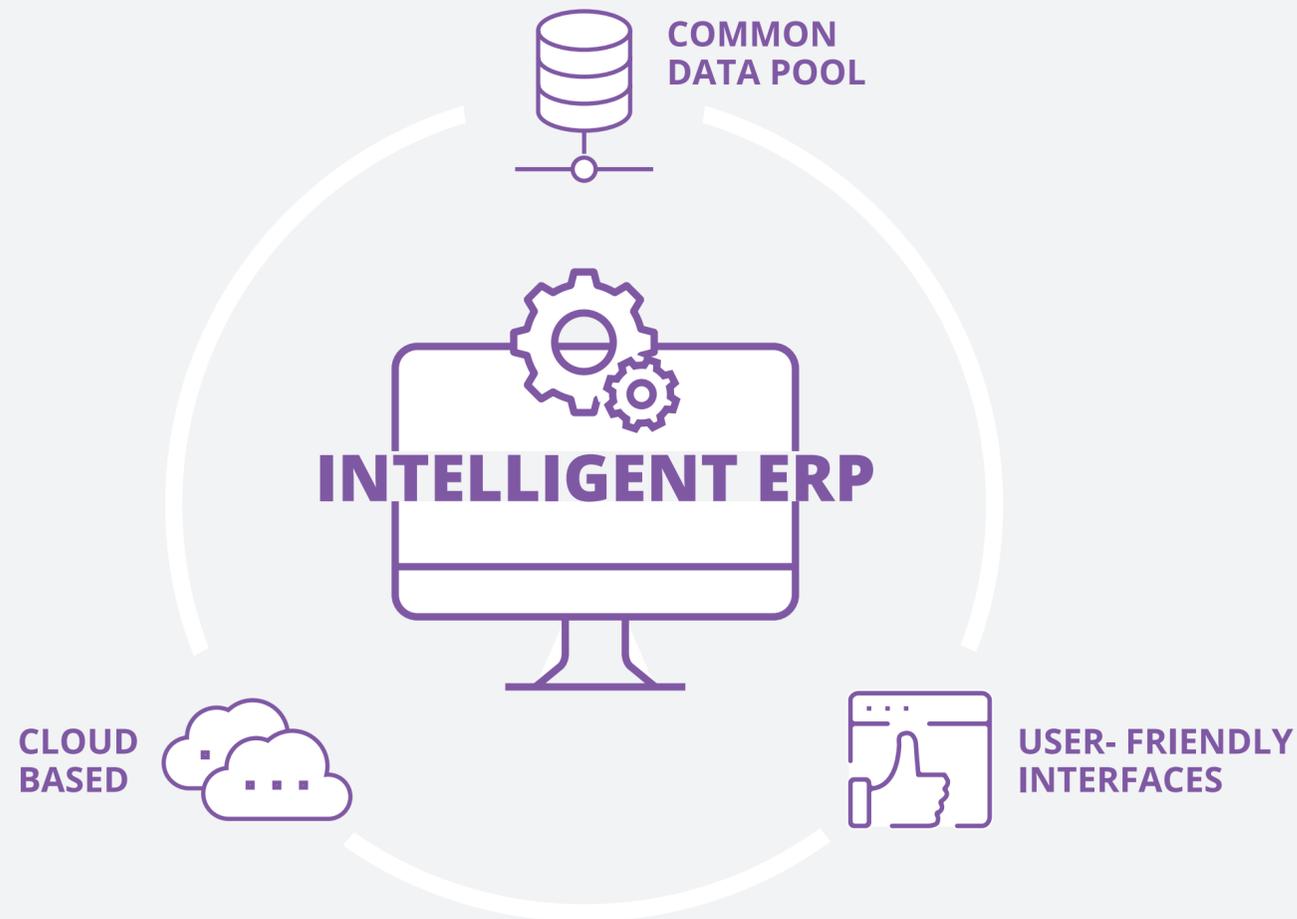


Source: IDC MarketScape Worldwide SaaS and Cloud-Enabled Operational ERP Applications 2019 Vendor Assessment

A new generation of ERP is here to help

The ERP market is shifting

Food & beverage manufacturers must stop investing in antiquated legacy ERP solutions and instead start looking into more robust, innovative, responsive, and intelligent ERP systems. This new generation of intelligent ERP — i-ERP — is the future of the business enterprise. The intelligence comes from more information/data, in-context learnings, and the application of the knowledge obtained to deliver better business outcomes.



Source: IDC, 2020

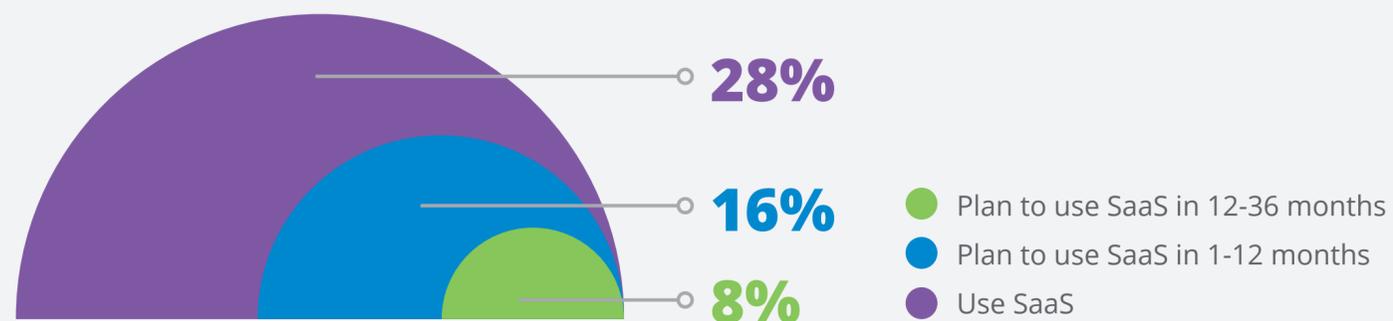
Characteristics of intelligent ERP:

- i-ERP and intelligent enterprise applications can process, analyze, and act on large volumes of data generated by the **Internet of Things (IoT)** in real time. This turns ERP into a **strategic decision-making tool**.
- **Machine learning (ML)**, artificial intelligence (AI), and advanced analytics built on a large, curated data set to forecast, track, learn, route, analyze, predict, report, and manage enterprise assets and business processes.
- Intelligent ERP and intelligent enterprise applications offer an **assistive** and **conversational user experience** and free users' time for higher-value tasks by automating high-volume repeatable tasks and augmenting (via human-machine interaction) the performance of less frequent, more novel tasks.
- As systems that learn, i-ERP and intelligent enterprise applications must allow for **ongoing reconfiguration** to enable process refinements and **user experience (UX)** adaption.

There is no “one size fits all” ERP deployment approach

The industry is still conservative toward cloud adoption ...

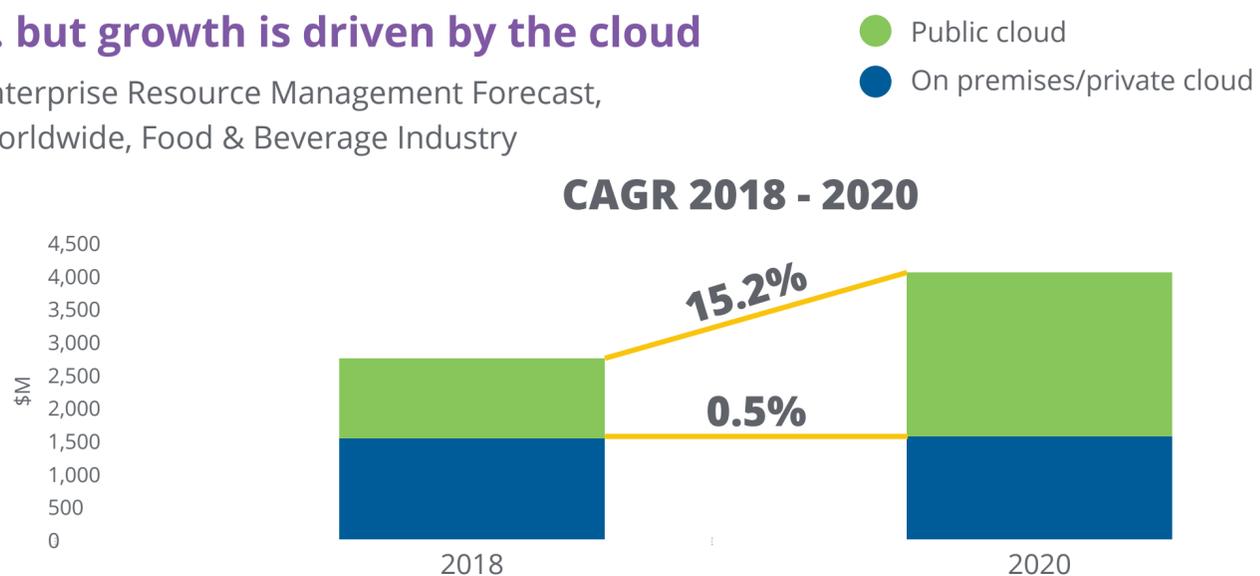
Q. Does your company use a SaaS application for ERP?



Source: IDC SaaS Cloud Survey, January 2020; food & beverage n = 155

... but growth is driven by the cloud

Enterprise Resource Management Forecast, Worldwide, Food & Beverage Industry

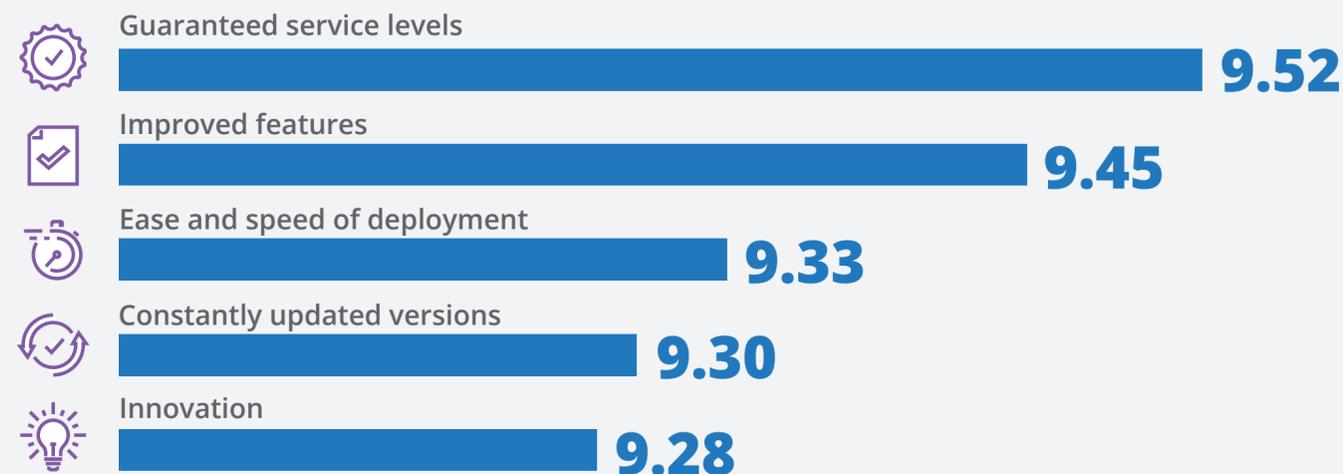


Source: Worldwide Manufacturing IT Spending Guide, January 2020

Cloud ready in your own time:

- Each business has its unique processes and workflows, and some workloads come with their unique challenges as well, all of which affect ERP deployment choices.
- Some companies have already invested in cloud ERP. IDC predicts that, driven by factors such as cost effectiveness and improved functionality, cloud is what will drive ERP growth in the years to come.
- But this is not to say that cloud is the best option for everyone today. Some companies are already enjoying the benefits of having a hybrid cloud approach, enabling them to keep data-sensitive or mission-critical applications on-prem.
- Cloud adoption is a journey; companies should decide the pace of their cloud adoption based on their organizational requirements.

Top 5 reasons for moving into the cloud



Source: IDC SaaS Cloud Survey, January 2020; food & beverage n = 155

Note: 0 = not important at all, 10 = extremely important

ERP becomes the pivot and organizer of processes in the food & beverage industry, helping manufacturers to achieve their digital mission

The role of ERP in the food & beverage industry is pivotal in managing processes and creating transparency in the supply chain.

Other manufacturing technologies can benefit from the data that ERP handles. Management execution systems (MES), traceability software, and BI are just some examples.

This is amplified by the fact that there are supporting technologies that enable seamless collaboration and foster decision making such as artificial intelligence and cloud.

Targets for food & beverage manufacturers	ERP	Surrounding business applications			Supporting technologies			
100% traceability over production and supply chain	ERP	MES	Trac		ClD	IoT/E	BC	API
Production planning: smaller batches means higher flexibility	ERP	MES			ClD	AI		API
Supply chain planning and forecasting — data visibility and transparency in SC	ERP			S&OP	ClD	AI		API
Optimized production planning	ERP	MES		PM		AI	IT/OT	IoT/E
Assurance of health and safety — automatized testing	ERP	MES	His.			AI	IoT/E	R
Data transparency: insights instead of tons of data	ERP		His.	BI			IT/OT	API
Uncompromised quality	ERP			Trac		AI	IoT/E	R

Source: IDC, 2020

ERP No ERP per se in place, but works with information recorded from ERP
 MES Manufacturing execution system
 His. Historian
 Trac Traceability SW
 S&OP Sales and operations planning
 PM Predictive maintenance
 CMMS Maintenance management system
 AI Artificial intelligence/machine learning
 BI Business intelligence
 ClD Cloud
 IT/OT IT/OT integration
 IoT/E IoT/edge
 R Robotics
 BC Blockchain
 API Application programming interface

Case study 1 Darling Romery

Leveraging ERP to create visibility and automate processes up and down the supply chain



Company Overview

Company name:

Darling Romery



Geographic footprint:

Western Cape, South Africa



Core business:

Family-owned processor, manufacturer, and distributor of dairy and beverage products; portfolio contains over 300 product lines

Background, Key Challenges, and Objectives

- Over the past 28 years, Darling Romery has grown from a family farm to a successful dairy supplier, serving multiple national retailers.
- The distribution network is operated by 45 Darling Romery-owned delivery vehicles and a number of depots, enabling coverage across the country.
- The company first used the Darling brand to sell milk products before expanding to other dairy offerings and fruit juices. Then sister company Darling Olives was created, which today sells a wide range of products including jams, chocolate, olive oil, and soap.
- The company operated on a legacy ERP system, and even though it was purpose-built, it did not supply the business intelligence required to make key business decisions in real time. As a result, Darling Romery relied on a significant number of manual processes and could not leverage end-to-end business insight.

Actions/Solution

- To support this growth, the company needed to move away from its legacy ERP system.
- After careful evaluation, it chose Sage X3. The implementation took six months, covering finance, distribution, sales, and marketing.
- On top of that, Sage partner Times 3 Technologies developed an EDI interface to connect the supply chain.
- The interface pulls in data from the various suppliers and automatically prices it — a key benefit in an industry where pricing can change daily.
- Given the short shelf-life of dairy products, speed of order was also paramount. To address this, Times 3 Technologies used Sage's development framework to set up a delivery manifest to determine the routing process for products and vehicles.
- An e-invoicing capability was added, meaning that from order intake through to delivery, invoicing, and any potential pricing claims, the entire process is automated through a single EDI interface.

Results and Benefits

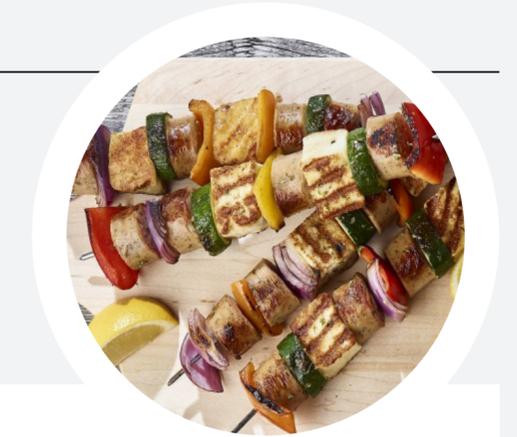
- Darling Romery can now deliver more than 1,500 orders a day, and does not require people to manually capture those orders.
- Automation has resulted in significant cost savings; having a fully connected supply chain that utilizes EDI means the company can receive, process, deliver, and invoice in tight timeframes.
- Executives have better visibility into the business; for example, they can see stock availability nationally in real time and understand future delivery shortages.
- The software has enabled Darling Romery to automate various workflows, including reporting and procurement. Real-time KPIs can now be viewed on dashboards across devices.

The Future

The operational improvements have put Darling Romery in a good position to deal with future expansion in terms of both customer reach and new product launches.

Case study 2 Lesters Foods

Improving business decision making while delivering consistent quality every step of the production process



Company Overview

Company name:
Lesters Foods



Geographic footprint:
Montreal,
Canada



Core business:
One of Canada's largest meat processing companies — supplying more than 250 types of meat products

Background, Key Challenges, and Objectives

- As Lesters Foods started growing over the past few years, it realized it was hampered by the lack of access to timely and accurate information about the business. This meant not being able to forecast accurately and not being able to spot problems until it was too late.
- As investment funds were needed elsewhere, the company's legacy systems had outgrown themselves and were incapable of supporting fast-moving innovation.
- The company's executives said they had to work in silos due to the reliance on paperwork and manual processes. Access to real-time data was limited.

Actions/Solution

- Lesters considered eight vendors before it selected Sage X3. The software was in line with what the meat processor was looking for: a solution right out of the box, and easy to integrate with other systems.
- Lesters worked with Tangerine Software, a local Sage partner, to design and implement Sage X3. The solution included features for sales order entry, distribution, and inventory.
- The aim was to tackle the overall complexity of Lesters' business and reduce cost, all while providing business users with a faster, simpler, and more flexible way of running their business.

Results and Benefits

- The Sage X3 implementation has created full visibility across the production process, and Lesters can now track every single element.
- This has improved regulatory compliance and adherence to food safety standards. It has also strengthened overall management control as the different parts of the business no longer work in silos.
- Decision makers are now working with real-time data rather than historical data, which has led to greater agility in making faster and more informed business decisions.

The Future

Sage X3 will help Lesters sustain consistent quality, which is key in achieving future growth and maintaining customer loyalty, especially at a time when product recalls can easily create brand damage.

Sage X3 — faster, intuitive, tailored

Sage X3 addresses the complex requirements in the food & beverage industry. It helps companies to respond faster to customer demands and market fluctuations, and helps to **minimize waste and reduce the risk** of product call-outs, ensuring the quality, **traceability, and safety** of all material and ingredients. It helps enterprises to quickly adapt procedures to changing regulations and **compliance** requirements.



Cloud service offerings



Customer first experiences



Connected ecosystem



Global compliance & finance



Enablers of the Food & Beverage Industry



Location management



Quality control



Compliance & governance



Ingredients & recipe management



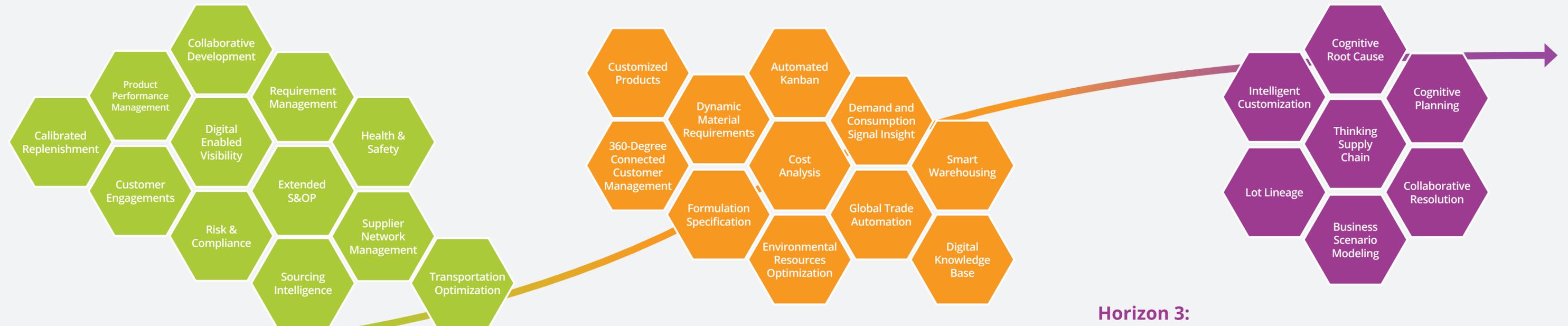
Product traceability



Planning & forecasting

IDC recommendations

IDC recommends that food & beverage manufacturers consider breaking their ERP-driven digital transformation journey into three horizons. This will enable them to get started quickly and execute their strategic mid- to long-term plans in conjunction with the right use cases.



Horizon 1: Understand where you are today

- Take inventory of your technology landscape and plan your IT architecture holistically
- Start preparing to move beyond legacy systems to **new intelligent applications**
- Look for a **scalable ERP** solution that integrates seamlessly with other enterprise systems, while aligning with your overall enterprise strategy

Horizon 2: Be ready for tomorrow's challenges

- Meet the **ever-changing compliance requirements** that your manufacturing environment and supply chain are facing
- Ensure you have **transparent quality** at any moment; with your intelligent ERP, you should be able to adapt and process data to continuously track and evaluate the quality of the product, down to the ingredient level and across the whole supply chain
- Have one source of truth for recipe management — all enterprise systems have to work with **one set of master recipe formula data**

Horizon 3: Transform your business model for the future

- Understand how **IT/OT convergence** empowers you with **real-time data** from the production environment; ensure that relevant ERP modules are fully integrated with **quality control and manufacturing execution systems, receiving trustworthy production and quality data**
- Work with a **partner** that brings together business and IT expertise to ensure you achieve the integration that works best for your business environment and partner ecosystem

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