# ERP for the Packaging Industry

A white paper for U.S. manufacturers and distributors focusing on business drivers and technology requirements.

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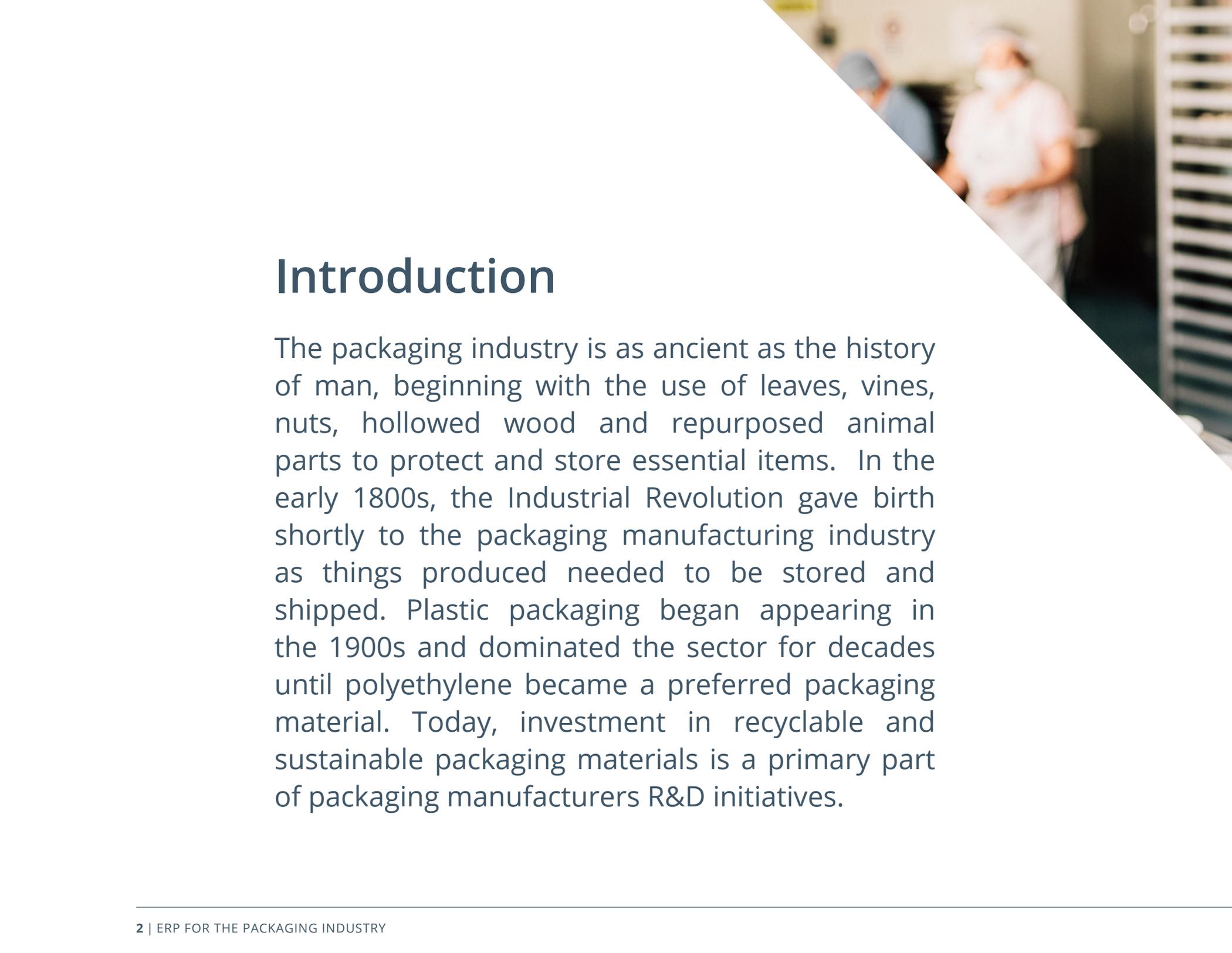
Introduction

The packaging industry is as ancient as the history of man, beginning with the use of leaves, vines, nuts, hollowed wood and repurposed animal parts to protect and store essential items. In the early 1800s, the Industrial Revolution gave birth shortly to the packaging manufacturing industry as things produced needed to be stored and shipped. Plastic packaging began appearing in the 1900s and dominated the sector for decades until polyethylene became a preferred packaging material. Today, investment in recyclable and sustainable packaging materials is a primary part of packaging manufacturers R&D initiatives.

All packaging, regardless of the materials source, has three objectives: protect, preserve and promote. The industry's three largest markets are food and beverage, household goods and pharmaceuticals/health products, all of which are strong-growth industry segments.

The North American packaging industry is a $186 billion sector[1] and is projected to continue good growth despite industry consolidation and supply chain/cost challenges in the folding carton segment. Consumers' growing preference for on-line shopping (ecommerce) is fueling demand for corrugated boxes. Plus, global demands for flexible packaging are projected to reach at least $270 billion by 2020.[2] Stand-up pouches alone are growing at 7% per year, and Campbell's is a great example of a company that is taking advantage of this trend.

Private equity continues to play a role. In 2016, Wellspring Capital consolidated its portfolio of Coating Excellence International and Prolamina to create ProAmpac and become a substantial force in converted flexible packaging. Wellspring then acquired Vitex Packaging Group to support its paper converting business and then sold the combined companies to the Pritzker Group in Chicago.

The global packaging machinery market, of which the U.S. is the dominant player, is also projected to increase at a 2.6% compound annual growth rate (CAGR) to reach $43.7 billion.[3]

Different Sub-Sectors – Similar Issues

According to the Food Manufacturing website, which describes itself as the leading source for food manufacturing and related industry news, market indicators are strong. In the U.S., the pharmaceuticals/healthcare and food and beverage sectors are forecast to grow between 2.4 - 2.9% CAGR through 2020. Organic food sales were $43.5 billion in the U.S. in 2015, up 11% from the prior year, which had also been a record breaker.

Pharmaceuticals / healthcare
Food and beverage
+2.4 - 2.9%
through 2020

Organic food sales
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(11% growth)

However, with its increased exposure to rising costs for raw materials, greater consumer/ legislative influence and growing R&D requirements for packaging innovation, all manufacturers in this sector need strong technology systems to survive. The three key sources of losses are raw product availability, machine downtime and inadequate enterprise resource planning (ERP) capabilities for end to end planning. Additionally, quality losses from scrap or waste materials that are not adequate for sale can be a substantial drag on financial performance.

The best packaging industry performers have automated systems that collect subsystem metrics and feed them into their ERP systems for swift and responsive decision-making. For example, increases in scrap when tied to increases in specific orders that yield more scrap, can promote executive actions to re-route order taking and product production mixes. Or, working capital metrics on days sales outstanding (DSO), days payable outstanding (DPO) and days inventory outstanding (DIO) merit fast response to correct what can be significant bottom-line drag.

Key Industry Drivers

The top five packaging trends to watch include:

More expertise, graphics and printing capabilities for nutrition label-centric requirements. Companies with over $10 million in annual revenues have only until July 26, 2018 to implement new labels on their packaging. An accompanying consumer-led trend here is packaging transparency.

5

Anti-counterfeiting actions in the consumer product group (CPG) sector. Counterfeit goods pose serious threats to brand loyalty and safety risks (pharmaceuticals in particular). The anti-counterfeit packaging market size is projected to grow from $82 billion in 2015 to almost $154 billion by 2020, according to a new report from Markets and Markets.

1

4

New, more standardized and quality-built shipping packaging options. The Amazon-led ecommerce phenomenon has transferred requirements from packaging needed for physically present shoppers, to shipping-worthy containers for virtual shoppers.

3

Growing focus on digital printing and interactive, intelligent packing technologies. Shoppers' behavior is now transitioning as a result of mobile devices and social media that provide information on pricing, availability, trending and personal preferences.

2

Cost-effective sustainable packaging. Government agencies and consumer group advocates are pressuring the food and beverage industry in particular to create environmentally friendly packaging. This is one of the top drivers for flexible packaging as empty pouches are 26 times less bulky to transport and store than unfilled glass jars, according to industry research.

Areas for Operational Improvements

Today's packaging manufacturers are pursuing the goals of continuous operational improvement, plus innovation. Clearly the leaner the manufacturing facilities can run (without compromising quality), the more money is available to pursue transformative packaging breakthrough products.

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These operational items are at the top of mind for packaging industry manufacturers:

Focusing in on the RIGHT key performance indicators (and not ALL indicators).

Some packaging industry decision-makers are reporting that their source systems have voluminous information available to them, but much of it is not in useful formats, important points can't be culled quickly enough by the right employees role for handling, and historical comparative data isn't always available to spot useful trends. A drive to improve the collection, forwarding, presentation, access and analysis of useful decisionmaking data in a timely manner is a top priority.

Better machinery utilization.

There is a growing understanding of the negative financial impact of having available but unused machine time (i.e. in plants that are not run 24x7). A drive towards a more productive use of assets is fueling mergers, company expansion and driving change into operational activites.

Investment in new capital equipment.

Competitive differentiation is requiring packaging manufacturers to be able to deliver new shapes, materials, colors and sizes for better-margin, but shorter-run products. This requirement is part of the mass luxury trend, sometimes called the "masstige" category that is exempliefied by "hot" new cosmetics or consumer gadgets. It's also part of the resizing drive towards more trial-size and super-sized packaging.
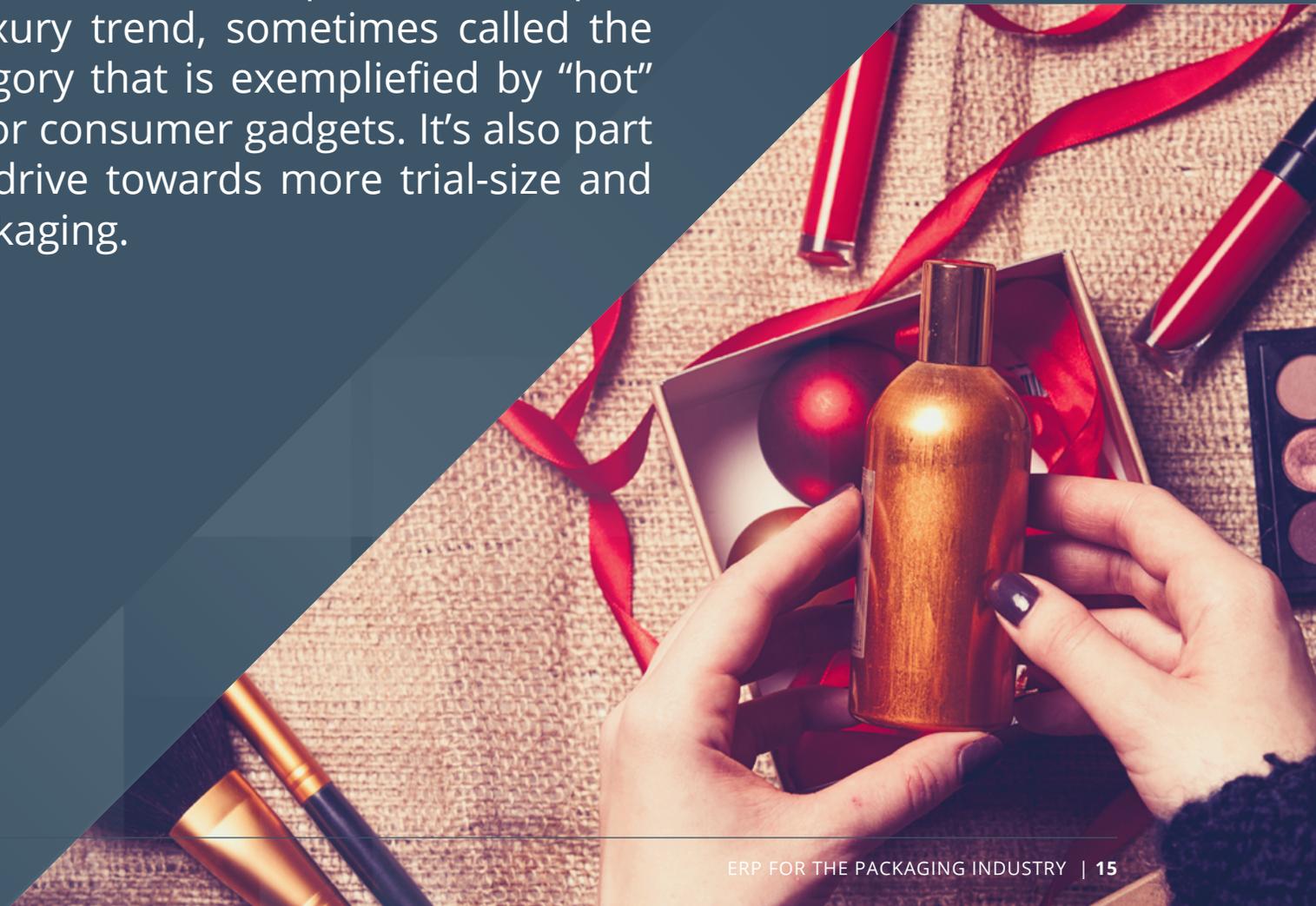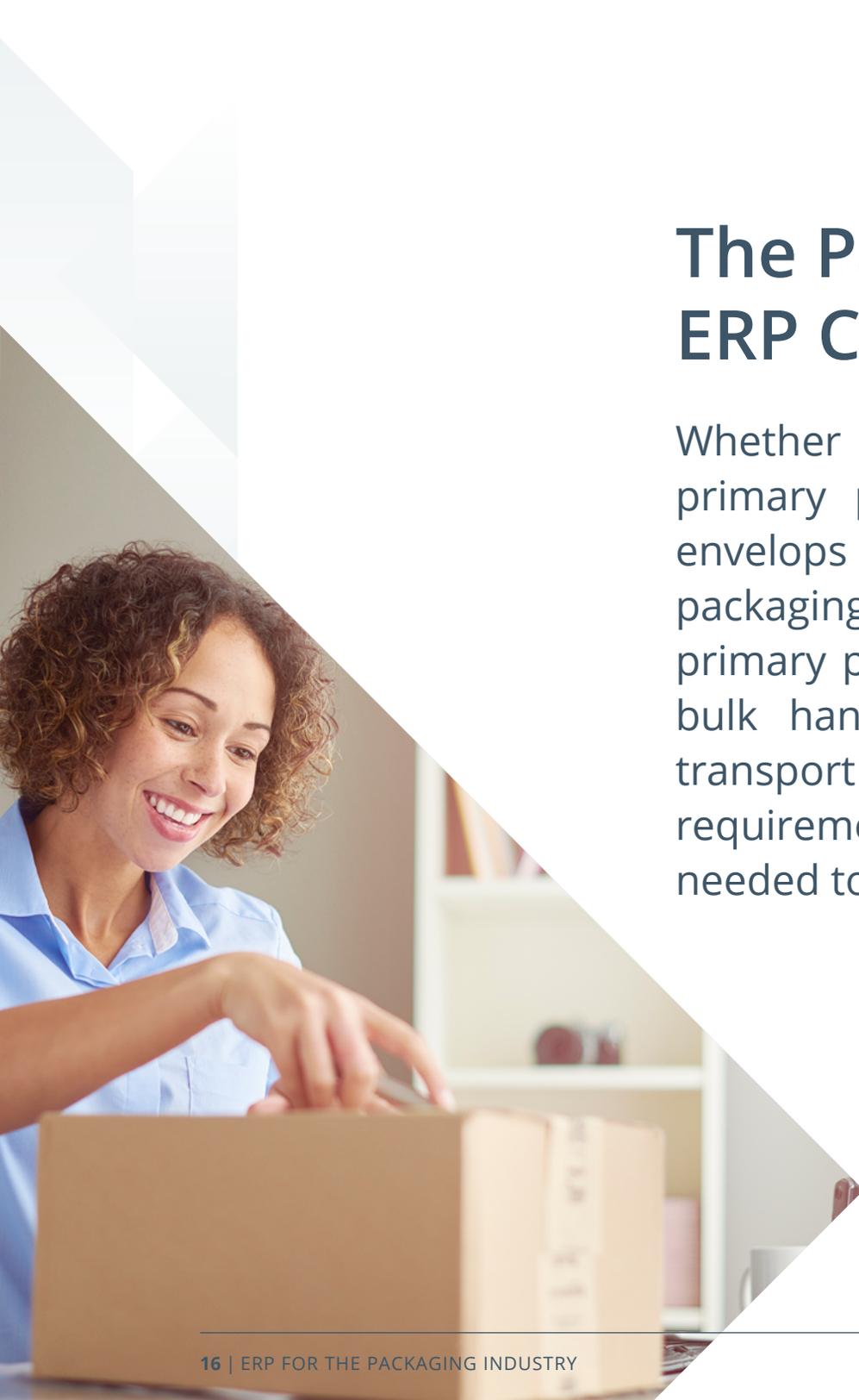
The Packaging Industry ERP Checklist

Whether a manufacturer is engaged in primary packaging (the material that first envelops a product and holds it), secondary packaging (to prevent pilferage or to group primary packages), or tertiary packaging (for bulk handling, warehouse storage and/or transport shipping), there are universal ERP requirements. Here are some key capabilities needed today:

Supply Chain and Materials Management

Two key priorities here: cost optimized procurement of needed raw materials and the reduction of waste. By improving visibility into buying and supplier trends, automating both bills of material and engineering change controls, and implementing a powerful materials requirements planning solution, manufacturers can optimize critical control factors.

Serialization, Tracking Controls for Safety, Recalls and Anti-Counterfeit Purposes

While the integration of tracking capabilities for raw materials and end products is not new, the urgency has changed. The proliferation of law suits against counterfeiting operations has made this function more important than ever.

## Production Management and Integrated Workflow Processes

By eliminating inefficiencies, streamlining advance planning capabilities and more closely tying orders to customer requirements, packaging manufacturers can improve margins and customer satisfaction simultaneously.

Strategic Financial Planning

The option to continue business as usual disappeared forever with the advent of powerful global competitors, industry consolidation, sustainability concerns and changing labeling requirements. Today's manufacturers need to perform continual analysis of business and financial data across the entire operational spectrum.
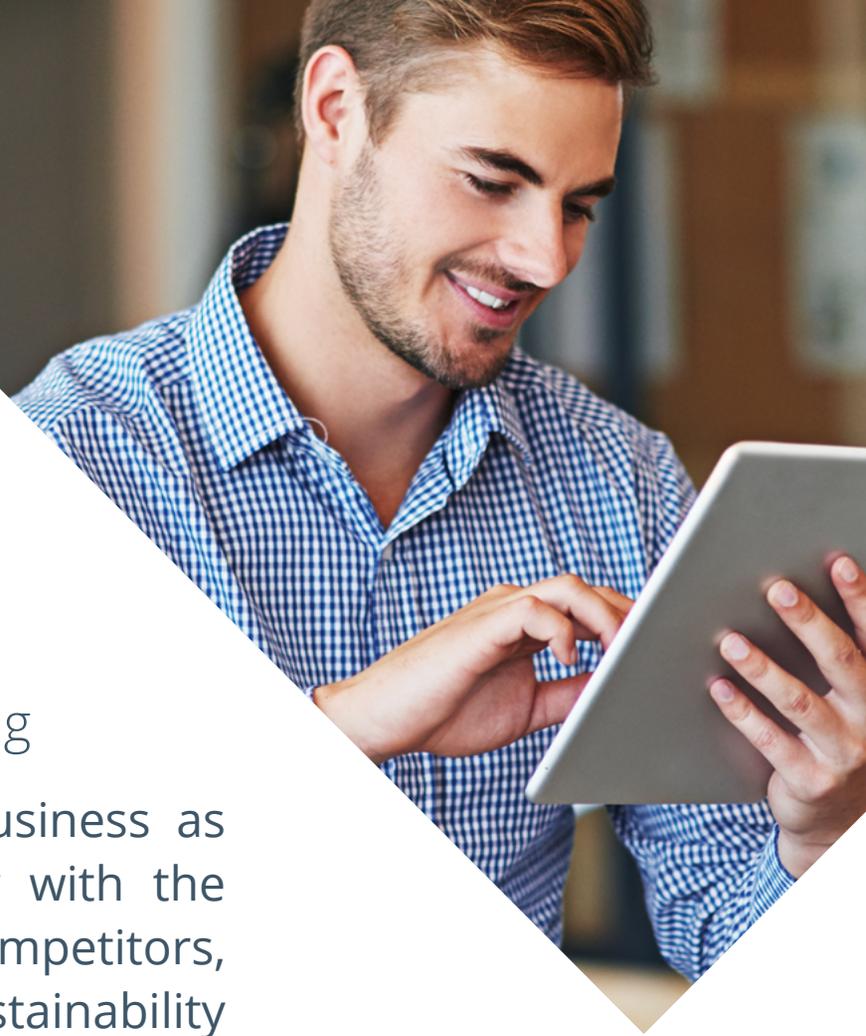
Additionally, the integration of technologies to support the internet of things (IoT) and remote monitoring capabilities is gaining traction to support a wide spectrum of needs. Shorter product runs, modular components, "clean in place" attributes and environmental/energy trends are all part of the packaging industry evolution.

Click here to learn more about how SYSPRO addresses the needs of the packaging industry.

References

[1] Smithers Pira website, 2017

[2] Packaging Strategies Magazine, Packaging Strategies Outlook 2017

[3] Food Manufacturing website, 5/1/17 "Breaking Down the US Packaging Market

About SYSPRO

SYSPRO is a highly scalable, industry-built Enterprise Resource Planning (ERP) software solution that can be deployed in the cloud, on-premise, or accessed via any mobile device. SYSPRO is designed to simplify business complexity for manufacturers and distributors by providing actionable insight that supports effective decision-making, strong cost control, streamlined processes and improved productivity.

For more information, visit **www.syspro.com**.

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