



# SUSTAINABILITY IN PACKAGING

Spring 2021 Market Review presented by Mazzone & Associates





## INTRODUCTION

In this summary, we highlight trends, developments and M&A activity within the sustainable packaging market. We define "sustainable" packaging as contributing to one or multiple of the below materials:



Recycled Packaging (recyclable or made with recycled content) – paper, plastic, metal, glass



**Biodegradable Packaging (including renewable/bio-based)** – wood pulp derived from wood-based raw materials, biodegradable plastics and resins from plant-based raw materials

Within this update, we evaluate certain dynamics in sustainable packaging including:





Key Trends in the Supply Chain and in Regulation

Mergers & Acquisitions Activity



Select Case Studies in Mergers & Acquisitions Activity



Investment & Development Opportunities in the Sustainable Ecosystem



Although sustainability has recently taken a back seat to COVID-19-related concerns, it remains the key industry-shaping trend. Packaging sustainability goals have not been abandoned but rather accelerated by leading fast-moving consumer goods (FMCG) companies and retailers, which remain committed to achieving more sustainability across their packaging portfolio over the long term. Our observations:



#### **Consumers are Motivated**

As environmental consciousness increases and public opinion shifts against single use packaging waste, consumers are more motivated than ever to purchase sustainable brands. Contrary to the last 20+ years, consumers are willing to pay premium price points for sustainable packaging products, putting less cost pressures on the packaging supply chain.



### The Consumer Perception Gap

While consumer awareness of plastic waste is at an all time high, knowledge of its recycling process and overall sustainability is limited. In a recent McKinsey poll, **~55 percent** of U.S. consumers rank recyclable or compostable plastics as very sustainable. This percentage is only slightly lower than consumers who rank glass, paperboard, and paper the same, despite a significantly higher recovery rate for these substrates. Major FMCG brands understand that consumer perception is the primary driving factor of the sustainability trend and are responding in turn by focusing a majority of their commitments toward recycling and increasing recyclable content.



# KEY MARKET TRENDS (CONTINUED)



## **Plastics is Playing Catch Up**

All four packaging substrates (metal, paper, glass, plastics) continue the push for a circular economy through investment in new products and technologies that meet customer demands and increase efficiency, but infrastructure for plastics re-use and recycling lags that of metal and paper, which have much further evolved sustainability profiles. While Europe's infrastructure for recycling plastics is more developed than that of the United States, critical gaps remain in both the US and Europe for sourcing consistent, reliable PIR/PCR for packaging producers.



### Multi-substrate Recyclability Unresolved

Multi-substrate products (poly/paper/foil structures) provide overall value by addressing
 challenges such as shelf-life, but a complex process of separating, cleaning and recycling continues to pose a significant challenge to their sustainability.



## Food Service: The Tip of the Sustainability Spear

The sector is uniquely positioned at the leading edge of sustainability movement with:

- No long-shelf-life barrier to simple, single-use packaging which sacrifices sustainability for other advantages to the sector
- High visibility of the sector to increasingly eco-conscious consumers and regulating bodies who are demanding recycling-focused sustainable commitments from companies



# KEY MARKET TRENDS (CONTINUED)



#### **Companies Held Accountable**

Sustainability efforts are heightening as consumer packaged goods (CPG) producers continue their efforts to align with aggressive, publicly-outlined sustainability targets. Companies have historically paid lip service to sustainability, but empowered consumers are beginning to demand real change. It remains to be seen if companies can follow through on their bold commitments.



#### A Patchwork of Regulations

Governments have responded to increased public demand for sustainability initiatives with new and stronger regulations aimed at reducing environmental waste and enhancing waste management processes. However, varying standards for environmentally acceptable packaging and differences in state and local law continue to create confusion for all participants in the marketplace.



#### **Companies Pursue Packaging Partnerships**

Growing consumer demand and increasingly complex regulation around waste management and recyclability are taking FMCG companies and retailers into new and unfamiliar territory. Companies are looking to packaging vendors to help them navigate unfamiliar processes, assist in managing sustainability programs, and provide key metrics to consumer and regulatory bodies.



# In 2020, the global packaging M&A market remained strong, exceeding prior years volumes.

- Packaging deals that included a sustainability motivation made up ~25% of global packaging M&A transactions in 2020. With a strong rebound of M&A activity in Q4 2020, this foreshadows overall packaging M&A to increase further.
- Mazzone expects the percentage of transactions with sustainable motivations to increase as brand owners respond to consumer demand for packaging solutions that fit current eco-conscious trends.

#### Sustainable deals were highly fragmented when categorized by material or company type, thus proving sustainability interests lie across the material spectrum.

- Acquisition targets specializing in fiber, flexibles, and rigid plastic comprised of ~66% of total sustainable deals.
- Fiber represented 26% of overall transactions. Paper's overall activity has remained strong in its long-standing sustainable position as a renewable resource.
- On a combined basis, plastics (flexible and rigid) transactions represented 41% of all sustainable packaging transactions. We foresee continued advancements in plastics on regulations, recovery systems and technologies to continue to drive a large piece of the overall activity within flexibles and rigid packaging.



2020 Global Packaging M&A Deals

■ Sustainable Packaging Deals ■ Other Packaging Deals



Sustainable M&A Deals by Type of Packaging



In comparison to the general packaging M&A market in 2020, transactions with sustainability motivations garnered a premium valuation and remained more prevalent outside of North America.

- In 2020, Companies with sustainability models or approaches traded at an approximate 10%-20% premium valuation above companies without sustainability models.
- These premiums can be attributed to the acquiring company's willingness to invest more in an on-trend market and brand push versus legacy models and applications. Furthermore, many of these sustainable companies are attractive for their know-how, technologies and alignment with new regulations.
- For M&A transactions with sustainable motivations, North American Targets represented 42% of M&A transactions, over 10% lower than the remaining population of M&A transactions.
- With expectations of increasing infrastructure and regulation supporting sustainability in the U.S., this data foreshadows North America activity to catch up to levels seen outside of North America.







Where sustainable motivations existed in 2020 packaging M&A transactions, we annotated individual or multiple primary drivers for each transaction. A summary of these results are presented below:

- 39% of deals were made by sustainable companies achieving geographic expansion into a new region and gaining additional scale. This was the single largest driver to M&A.
- **30%** of deals were motivated by the acquisition of a new technology or "know-how".
- 29% of deals were done with the intention of vertically integrating. 2020 data showed that packaging companies were more inclined to moved upwards in the supply chain by acquiring a recycling company or its technology than the other way around.
- 27% of deals were motivated by buyers' intentions to find alternative or extensions to the existing portfolio.
- 27% of deals were motivated by private equity groups ("new entrants") looking to make a platform investment in a sustainable packaging company.



#### 2020 Sustainable Packaging M&A Deals by Buyer Motivation



PreZero US Inc. acquires Roplast Industries Inc.

**Overview:** Mar 2, 2021, Schwarz Group subsidiary PreZero US Inc. acquired Roplast Industries Inc., securing a downstream converter and end user of its recycled material/resin.

**Buyer Profile:** PreZero US Inc. (Los Angeles, CA) provides end market solutions to waste generators and collectors by building and operating facilities that convert plastic and organic waste into valuable commodities through closed-loop solutions.

**Target Profile:** Roplast Industries (Oroville, CA) is a sustainable custom PE film and bag manufacturer founded in 1990. Its markets include retail stores, grocery stores, direct mail merchandisers and food delivery services.

**Deal Rationale:** Roplast adds to PreZero's recent expansion into the U.S. recycling plastics industry. With over \$100M invested in recycling plants coast to coast, PreZero has the means to supply resins that can serve as the PCR feedstock for the Roplast production line. These efforts point to the primary business goal of PreZero which is vertically integrating to deliver closed loop solutions that support the circular economy.

TC Transcontinental acquires assets of Enviroplast Inc.

**Overview:** June 16, 2020 TC Transcontinental acquired the assets of Enviroplast Inc. which will be used towards the circular economy.

**Buyer Profile:** TC Transcontinental (Montreal, Canada) is a publicly traded company that is a leader in flexible packaging in North America and Canada's largest printer. TC Transcontinental Packaging offers a variety of flexible plastic products including rollstock, bags and pouches, coextruded films, shrink films and coatings.

**Target Profile:** Enviroplast (Montreal, Canada) is a Canadian film recycler that converts plastic scrap recovered from sorting facilities and other commercial, industrial, and agricultural sources into recycled plastic granules for downstream consumption by producers.

**Deal Rationale:** TC Transcontinental intends to use Enviroplast as an upstream supplier of converted plastic into its products. This deal is the first step towards the company's goal of vertically integrating the recycling of plastics in its packaging production chain in North America.

Vertical integration to secure the right recycled product is key for many operators. It is also equally important to have a home for the materials which don't fit into the supply chain.



## M&A CASE STUDIES: EXPANDING SCALE & REACH

#### Faerch Group acquires Sirap Group

**Overview:** Feb 1, 2021 Faerch acquired Sirap food packaging business in Italy, Poland, and Spain from parent company Italmobiliare.

**Buyer Profile:** Faerch Group (Holsteboro, Denmark), which was also acquired by AP Moller in 2020, is the leading European supplier of trays for the global food industry and claims to be the world's first integrated tray recycler. It has taken the lead in the rigid food packaging circular economy.

**Target Profile:** Sirap (Italy) is a food packaging producer that develops innovative solutions for all fresh food packaging requirements: containers XPS in polystyrene foam, rigid containers in OPS, PET and PP for all food applications.

**Deal Rationale:** The acquisition will enable Faerch to grow its geographic presence and provide local customers with direct access to its packaging solutions such as recyclable food grade trays. The deal also accelerates Faerch's circularity agenda and the implementation of its sustainability strategy across Europe.

#### **Revolution acquires Jadcore**

**Overview:** Feb 17, 2021 Revolution (portfolio company of Arsenal Capital since 2019) completed strategic acquisition of Jadcore LLC to expand closed-loop manufacturing capabilities.

**Buyer Profile:** Revolution (Little Rock, AR) is recycler of PE film and manufacturer of film products for agricultural, industrial and commercial and consumer products. Its brands include Delta Plastics, Revolution Bag, Revolution Ag, Rodeo Plastics, Command Packaging and Polar Plastics. Its focus is to create sustainable circular solutions and use as much post-consumer resin as possible in all products.

**Target Profile:** Jadcore (Terre Haute, IN) is one of the largest post-industrial recycling operations in the Midwest. It serves both large and small plastic manufacturers, processing more than 100M pounds of plastic material each year.

**Deal Rationale:** This strategic acquisition is intended to expand Revolution's closed-loop manufacturing capabilities as well as expand its PIR sourcing capabilities. By expanding its PIR manufacturing capabilities, Revolution will expand its know-how to service additional markets with its recycled materials.

Manufacturers of sustainable packaging seek additional scale and geographic expansion to leverage sustainable technologies over a broader market and the cost-effectiveness of moving recycled product around the world.



#### XN Invests in AMP Robotics

**Overview:** Dec 29, 2020 XN, Valor Equity Partners, Closed Loop Partners, and GV (Alphabet), raised \$55 million of Series B funding of AMP Robotics.

**Buyer Profile:** Series B investors span corporate venturing (GV/Alphabet), Hedge fund (XN), Venture Capital (CLP), and growth Private Equity (Valor). As a group, these investors seek investments in leading technology and cleantech; total raised to date is \$78 million.

**Target Profile:** AMP (Louisville, CO) is a developer of recycling robots designed to economically reclaim raw materials for the global supply chain. The company's products are a high-speed robotics system that automates the identification and sorting of recyclables from mixed material streams.

**Deal Rationale:** Investment in AMP Robotics will allow the Company to move from pilot facility to MRFs; technology will allow MRFs to automate sortation to where a location can economically process the 30,000 tpy necessary to make a location viable.

Waterland Private Equity acquires Joh. Leupold

**Overview:** Waterland Private Equity is acquiring all shares of Germany-based packaging and folding carton producer Joh. Leupold Gmbh & Co. Kg and its subsidiary Schneller.

**Buyer Profile:** Waterland Private Equity Investments (Antwerp, Belgium) seeks investments in growth stage companies and currently holds seven sustainability-focused investments while also realizing several other investments in the previous few years.

**Target Profile:** Joh. Leupold GmbH & Co KG (Schwabach, Germany) is one of Germany's leading manufacturers of folding cartons and display products. The company makes use of a wide range of recycled papers and cartons and keeps their printing plates free of chemicals.

**Deal Rationale:** As a new entrant to sustainable packaging, Waterland was attracted to Leupold's technologies and processes, which allow it to produce paper packaging products which are environmentally friendly and sustainable.

Investors and traditional operators are eagerly seeking investments to play into sustainability trends and are finding ways to invest in companies with differentiated technologies, processes or know-how.



The disparity between virgin and recycled material is a hindrance towards future application of sustainable, renewable packaging solutions.

- During Spring 2020, while COVID-19 was in full swing, the premium price of recycled plastics rose significantly from levels seen pre-COVID-19 which highly impacted the market. A large driver to the expanding premium is due to low pricing for virgin resin seen through 2020.
- Old corrugated containers (OCC) pricing was at all-time lows in 2019 and early 2020. Due to waste streams becoming disrupted during Spring 2020, OCC pricing jumped but has normalized since then. Mill operators are concerned around future supply of office paper and other recovery streams over the longterm which may impact fiber pricing.
- Driven by increased demand from the newly signed plastic tax and buyers rushing to secure supply, the U.S. markets saw price increases in Q4 2020 for R-PET and other recycled plastics.
- As demand is expected to increase across plastic and paper into 2021 and buyers intend to meet their voluntary sustainability commitments, recycled material prices are expected to rise.







## **RECENT MARKET DYNAMICS (CONTINUED)**

Certain recent market dynamics (early 2021) have been positive for the sustainable packaging markets. Higher virgin material pricing and import price increases make sustainable alternatives competitive.

- Q4 2020 and Q1 2021 pricing of PP exceeded levels seen pre-COVID-19 and was a sharp increase over levels seen in Q2 and Q3 2020.
- U.S. markets have seen the sharpest increases which are most recently over 50% higher than any level seen over the last year.
- Although Asia PP pricing is starting to soften, the elevated pricing across all markets in PP is creating more pressures to move towards alternative materials or increased recycled PP use.



- Operators anticipate strong demand for corrugated packaging will continue to drive up prices (estimating \$15-\$20 increases) for recovered fiber in 2021.
- As recovered fiber market normalizes post-COVID-19, the elevated pricing levels seen today and expected in the near future will create opportunities for alternatives to more readily compete (where alternatives exist).





OCC II Mixed Paper (54); Wverage U.S. dollars per ton for open market purchases by mills, FOB seller's dock, for delivery in January as reported by Fastmarkets RISI's PAP Pulp &
Paper Week Jan. 6. Prices used with permission from PAP Pulp & Paper Week. Visit www.cisi.com/ppw for more information.

#### ASIAN POLYPROPYLENE (PP) MARKET PRICING



## EVOLVING REGULATORY ENVIRONMENT

U.S. regulations on packaging are still an ad hoc patchwork of local and state efforts, which creates confusion and inefficiency across sectors. This is likely to increase in the near-term. For example, consider Single-Use Plastic Bags. Currently, eight states have adopted statewide bans on single-use plastic bags for grocery and other retailers; four states expect to adopt similar bans in full effect in the next two years. Over the last couple of years there have been 100+ state legislature bills related to plastic bags where most of these bills would ban or place a fee on plastic bags and some improving bag recycling programs.



#### **U.S. Regulatory Trends**

- Since 2016, concurrent with a singleuse bag ban at retail stores, California required that all reusable plastic bags be made with 20% post-consumer plastic at a minimum thickness of 2.25 mil. In 2020, these requirements increased to 40%.
- Having PCR audited and certified will be important long-term across regulated markets; with early-stage states setting this standard.
- Beyond these initial regulations on bag bans, extended producer responsibility programs are forming to mandate recycling and corporate / brand stewardship.

With increasing statewide and local bans of single use plastic bags, U.S. regulations are catching up to other more sustainable markets globally. The U.S. market is ripe for investment and acquisition of sustainable packaging solutions.



Below we examine paper's sustainable supply chain in the U.S. and the nature of investment opportunities (greenfield or M&A) to meet challenges of today's marketplace.





Below we examine plastic's sustainable supply chain in the U.S. and the nature of investment opportunities (greenfield or M&A) to meet challenges of today's marketplace.



Opportunities within geography and consolidation

are creating closed loop systems.



Sustainability is an evolving concept worldwide, and the velocity of developments in North America is expected to continue to accelerate.



**Niche Advantages:** There is no universal solution to sustainability in packaging. In certain segments, consumers (and thus brand owners) rank fiber-based packaging higher and others post-consumer recycled (PCR) or compostable film higher.



<u>Market Positioning</u>: Packaging converters need to take a holistic approach to sustainability as consumers and brand owners value environmental consciousness across the supply chain. In partnering with brand owners, clear labeling and providing more sustainable alternatives will allow the sustainability narrative to proliferate.



**Gaining an Edge:** Investment or licensing of emerging technologies and equipment are integral to expanding the recyclable material base, automation for making these models cost effective and integrating more sustainable components into packaging.



<u>**Closed Loop Edge:**</u> For less efficient recycled materials, closed loop processes and partnerships will be key for manufacturing converters and brand owners. These structures provide methods for constituents to enact transparency, ability to certify and operating efficiencies and gain margin at scale.



**COVID-19 Impacts:** In the age of COVID-19, there has been a strong emergence of the hygiene megatrend which has become an important facet to sustainability. Companies will have to rethink materials and design requirements of sustainable packaging to meet these needs.



Technological advancements in sustainable packaging are arising to meet increasing demand and expand sustainable packaging capabilities. Below are a few examples:



<u>Sustainable Barrier Solutions</u>: There is increasing demand and development for sustainable barrier solutions which coincide with recycling assets in North America. One example is ProActive Recycle Ready Retort RT-3000 pouch consisting of a recycle ready mono-material. This product is EU and FDA compliant and well suited for pet and human food. Also, Braskem has developed a bio-polymer barrier product via "I'm Green Polytheylene" used as a barrier attribute in pet food and other bags in the U.S. Braskem now annually produces over 200,000 tons of bio-polymers via sugarcane, a sustainable resource.

Plastic Wash Line Systems: Based in Spain, Cadel Deinking has started to distribute its systems into North America. Cadel's system provides deinking capability for LDPE, HDPE, PP and PET. The systems remove water-based, solvent-based, UV and electron-beam inks from various substrates. Cadel is also developing a delaminating line which will separate plastic layers and remove ink in between. By expanding the definition and usage of recyclable materials, Cadel and similar technologies allow packaging manufacturers to increase their recycled content in their products and relationship with brand owners.

Sustainable Ink Solutions: In 2019 Wikoff Color released Gelflex, a flexo ink system suitable for central impression presses that cures via electron beam technology. Gelflex undergoes a rapid phase change once applied to a substrate, allowing for wet-trapping of flexo inks at higher print quality. This system has many sustainability bifactors including a reduction in solvent emissions, less ink consumption and a surface print option which promotes less plastic and higher recyclability.

Multi-Substrate Recycle Solutions via Chemical Recycling: BASF has committed to chemical recycling on an industrial scale via pyrolysis through its ChemCycling project which was launched in 2018 and commercialized for the German market in 2020. This capability transforms plastic waste into pyrolysis oil which replaces fossil feedstock in production. Early applications include dairy packaging, transparent refrigerator components and insulation boxes for sensitive applications.

# As Companies seek to enhance their sustainable offerings in packaging, operators must seek to partner, license or acquire various technologies in order to grow or stay on the leading edge of sustainability.



## SUMMARY

**Mazzone and Associates** understands key trends and pitfalls in the sustainable packaging market with recent deal experience as well as long-standing industry knowledge.

We are well equipped to facilitate operators and investors who are looking to take advantage of market positions to grow or harvest respective businesses. Our firm assists clients in the following practices:

- Sell-Side Advisory Services: Advise clients who are looking to sell a majority or 100% of the business and related assets.
- Buy-Side Advisory Services: Advise clients through direct transactions or outsourced corporate development role (strategy, sourcing and execution).
- Capital Raising Services: Advise clients in recapitalizing businesses with debt and/or equity capital to grow through additional investment, consolidate ownership, reduce cost of capital and/or finance an acquisition.

## AWAVirtual<sup>™</sup> M&A Forum (June 7<sup>th</sup>, 2021)

Mazzone and Associates will be leading a panel involving Sustainability Impact on M&A

For additional information or discussion materials on our services please contact our professionals:

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