



What Role Do You Play in the Sustainable Packaging Loop?

Due to an increasing population and demands for convenience such as on-the-go food, the packaging industry is rapidly growing¹. According to the consultant group Smithers-Pira, by 2021, the market is set to reach \$1 trillion and to continue to grow at 5–7% annually².

According to the U.S. Environmental Protection Agency (EPA), packaging makes up about 30% of all municipal solid waste — 77.9 million tons in 2015 alone. Just over half (53%) was recycled, and landfills received 29.4 tons of packaging. Clearly, there is much work to be done to improve behaviors all throughout this supply chain³.

Two organizations — the Association of Plastic Recyclers (APR) and Printpack — have been leading the way when it comes to sustainable packaging initiatives. Not only do they reduce waste produced and increase recyclability of products, the organizations encourage other groups to do the same and ensure their customers are aware of why these improvements are important.

However, it's not enough to simply

follow in the footsteps of sustainable leaders. Companies will take different paths to thrive: Sustainability does not have a one-size-fits-all solution. To reach sustainability across the entire market, the fundamentals of what we are trying to accomplish must be defined so they can be applied to and used by each individual company.

Sustainability occurs when economic prosperity (profits), social harmony (people) and environmental resilience (planet) are all equally considered and prioritized. This concept is applied to the packaging industry in a closed loop system in which:

- Materials are sourced and transported responsibly
- Packages are designed to be safe, durable, cost-effective and easily recyclable so that those working throughout the supply chain are treated equitably, and
- Future generations are not burdened with resource depletion or excessive waste.

The Sustainable Packaging Coalition

According to the U.S. Environmental Protection Agency, packaging makes up about 30% of all municipal solid waste — 77.9 million tons in 2015 alone.



By Heather Nortz, Government & Business Affairs Assistant, SGIA

A package made from sustainable materials that does not protect its contents is not sustainable.

(SPC), a membership-based collaborative that believes in the power of industry to make packaging more sustainable, has created guidelines for corporations of all kinds to follow to ensure a sustainable packaging system⁴. The following are four criteria inspired by these guidelines.

Beneficial & safe for communities

Individuals at the very beginning of a package's life cycle are often forgotten. Low wages, poor working conditions and living environments degraded by deforestation and pollution are all seen at the raw material extraction stage for the sake of mass production. More efficient designs for packages and the use of recycled material can reduce the pressure put on those working at the bottom of the supply chain. Negative environmental and social impacts on these workers can also be avoided by companies staying in compliance with extraction regulations, safety standards and material bans. These regulations are put in place to minimize safety and health hazards. Publishing business practices for the public can help you hold your company accountable for regulation compliance.

Upholds performance standards and is cost-effective

A package made from sustainable materials that does not protect its contents is not sustainable. The unprotected product becomes waste, striking the "profit" part of the people/planet/profit sustainability equation.

SPC notes suggest the following to ensure sustainability: "improved package design, resource optimization, informed material selection, design for recovery and source reduction."⁴ Investments in these practices can yield cost reductions

in environmental management, regulatory and tipping fees.

Completes the closed loop system by sourcing renewable or recycled materials and effectively recovering end-of-life materials

Available land for resource extraction is scarce. Already too much environmentally productive and biodiverse land has been taken up due to growth in production. To sustainably keep up with rising demand for packaging and conserve resources that are becoming scarce, we must come up with new resources to use. Bio-based materials are becoming an increasingly popular alternative. Compostable and recyclable plastics created from sugarcane, starch, woodchips or food waste are all options that may require a different production process but are more viable in the long term. Recycled materials also have large potential in contributing to a cyclical system. The first step in making this a commercially feasible option is to invest in more recycling facilities in the United States. Again, the recycling rate of packaging is only 53%³. The United States' insufficient recycling regulations and facilities contribute to this.

Once the infrastructure is available and practices are regulated, packages that are designed to be more easily recyclable will more effectively contribute to the secondary market of repurposing recycled or composted materials. Effective recovery involves cooperation and coordination of the entire supply chain. Extractors must source easily recyclable materials such as glass, aluminum, paper products or bio-based plastics. Manufacturers must design and build a package that minimizes waste and utilizes best practices. End users such as brand owners, retailers, consumers and

Act Today, Be Rewarded Tomorrow

SGIA's Sustainable Business Recognition Program awards companies who have implemented business practices that:

- Improve employee safety and health
- Reduce environmental impact
- Increase business efficiency

Visit SGIA.org to see what actions you can take throughout 2019 to get recognized in 2020.





Climate change could alter growing seasons and affect paper supply, which makes up 36% of overall packaging material.

municipalities must properly dispose of the package. Finally, recycling facilities must collect the package at its end-of-life stage and create a secondary use for it through composting, recycling or waste-to-energy. The new product that is created can then be purchased by other companies⁴.

Utilizes clean technology and best practices

Clean production, including conserving raw materials, water and energy; minimizing toxicity and hazards of materials, technology and practices; and preventing waste generation can be accomplished by switching to cleaner technologies that reduce or eliminate emissions. Or, by altering or reconstructing the product's design and manufacturing processes to reduce inputs by ensuring it is made with responsible, efficient materials to decrease overuse in the production phase. This is accomplished by ensuring it fits the product it is carrying to avoid overstuffing, and that it is as light as possible to decrease transportation costs.

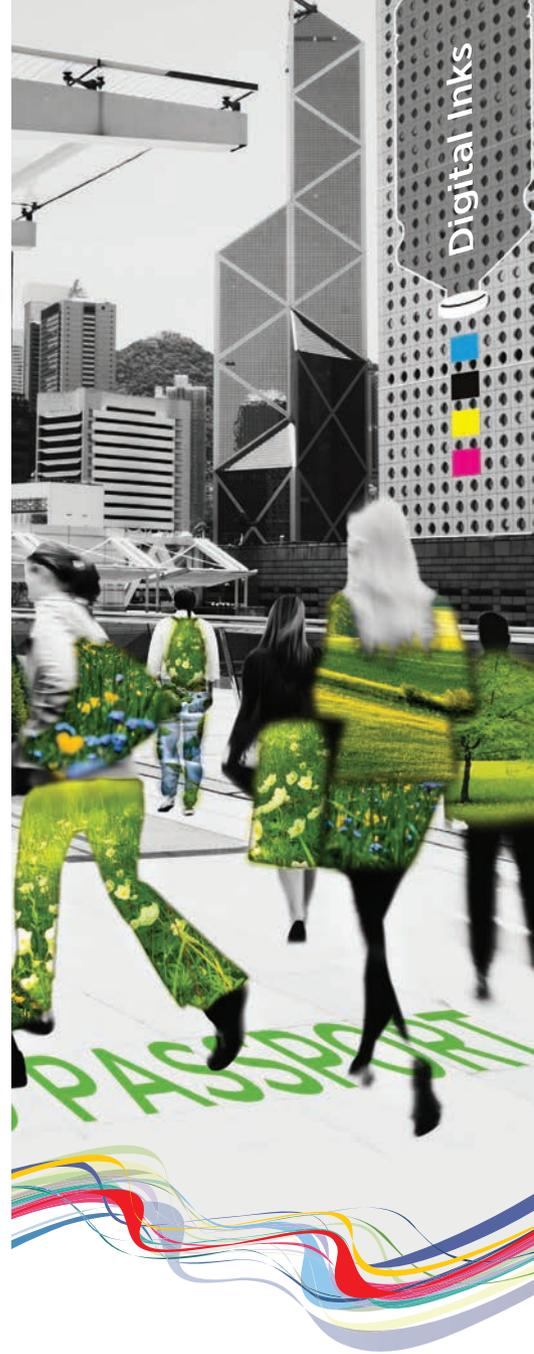
It is especially important to consider sources of energy production when assessing clean technology and best practice. The manufacturing industry, second to agriculture, contributes the most to greenhouse gases worldwide. Climate change could alter growing seasons and affect paper supply, which makes up 36% of overall packaging material¹. It also causes severe weather conditions which can be detrimental to relevant sourcing operations including aluminum, metal or glass. Utilizing renewable energy all throughout the supply chain — including

material extraction, transportation, production and recycling — can also lessen the impacts of drilling and mining for fossil fuels and emission pollution for energy production.

As mentioned earlier, organizations such as APR and Printpack have consistently shown their commitment to sustainable packaging through the implementation of internal initiatives as well as external encouragement of sustainable practices.

APR is a national trade association representing companies who acquire, reprocess and sell post-consumer plastics. Through developing guidelines for packaging design to improve quality and recyclability, fostering relationships with end-user markets, awarding the companies that exceed expectations, and educating key stakeholders in the plastic recycling industry, they urge everyone in the packaging supply chain to be an advocate for recycling. They acknowledge the importance of improving package design to be lightweight, bio-based, sourced sustainably and using renewable energy as a way of “integrated waste management”⁵. This type of thinking obligates everyone in the supply chain to consider how their actions will impact the end recycling process. However, they also point out that if there is insufficient infrastructure available for recycling or a lack of public will to recycle, the secondary market of purchasing recycled material does not exist⁶. This end of product life cycle action is the missing link to creating a closed loop system within the packaging industry.

Printpack is a flexible and rigid packaging company that caters to the food,



Choose to be Zero-Impact

Choose Kiian Digital inks certified by ECO PASSPORT by OEKO-TEX®

There is a competitive and performing way to print that satisfies sustainability criteria: choosing DIGISTAR HI-PRO and DIGISTAR K-ONE. The best performing digital sublimation inks on the market certified ECO PASSPORT which can be used in the sustainable textile and clothing productions.



beverage, pharmaceutical and agricultural industries. They specialize in flexography, rotogravure, extrusion lamination, adhesive lamination, blown and cast film, co-extruded sheet and thermoforming. Similar to APR, they are dedicated to helping companies “reduce emissions, minimize waste and consume fewer natural resources”⁷. They do this by supplying companies with sustainably sourced and easily recyclable packaging products. They realize that brands and consumers alike are beginning to exclusively do business with those with sustainable interests and are invested in contributing to the success of this sustainable supply chain. In order to further grow this trend on both ends, Printpack is working with SPC through Dave McLain, their Market Development Manager, who serves on the Executive Committee of SPC⁸. The efforts of SPC and Printpack are to improve transparency of recyclable packaging to consumers by homogenizing recycle labeling in order to teach the public how to responsibly recycle and why their actions are important. Integrating and coordinating everyone involved in the package’s life cycle is vital.

The success of the recycling system is in the hands of governments to enforce the existence of recycling infrastructure, of companies to create products that are easily recyclable and encourage their customers to dispose responsibly, and of the consumer to follow through with recycling responsibly. The loop is then closed when products are recycled into useful material for companies to buy back as supplies for new products. Whatever role you, as an individual, or a company, play in the packaging supply chain, make sure you are using these guidelines to think and act for a closed loop system.

CIRCULAR ECONOMY



References

- ¹<https://brandongaille.com/35-packaging-industry-statistics-and-trends/>
- ²<https://www.smitherspira.com/resources/2018/january/value-estimations-for-packaging-in-2018-and-beyond>
- ³<https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/containers-and-packaging-product-specific-data>
- ⁴<https://sustainablepackaging.org/wp-content/uploads/2017/09/Definition-of-Sustainable-Packaging.pdf>
- ⁵<https://www.plasticsrecycling.org/news-and-media/861-november-14-2018-plastics-recycling-update>
- ⁶<https://www.plasticsrecycling.org/recycling-demand-champions/demand-champion-news/859-november-2-2018-packaging-digest>

⁷<http://www.printpack.com/brand-enhancements>

⁸<http://www.printpack.com/printpack-to-debut-two-flexible-packaging-formats-prequalified-for-how2recycle-labeling>

Heather Nortz, Government and Business Affairs Assistant, SGIA, is an accelerated master’s student at George Mason University, simultaneously working on her bachelor’s degree in Environmental Science with a concentration in Human and Ecosystems Response to Climate Change and her master’s degree in Energy and Sustainability.



shapes speak. shapes sell.

SEE
**INSIGNIA
LIVE** AT
Dscoop Edge
ORLANDO, FL
MARCH 24-27

KISS-CUT AND DIE-CUT WITH INSIGNIA!

Now offer your customers flexible, affordable, high-quality, custom die-cutting. Insignia’s unique flexo-magnetic rotary design means easy operation and fast changeovers for short to long runs with a wealth of capabilities. Kiss-cut and die-cut PSA stickers or labels with easy depth-of-cut adjustments for various stock weights. Ideal for packaging, labels, tags and industrial name plates.

Affordable, endless die-cut possibilities—the shape of things to come.

rollemusa.com | 800-272-4381
youtube.com/rolleminternational

