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HAVI Global Solutions | Grow Smarter

LASER Focused

As food and beverage and pharmaceuticals packaging requirements become increasingly stringent, the latest advances in laser coding are helping manufacturers stay ahead. The global beverage packaging market alone is projected to reach an estimated \$125.7 billion by 2018.¹ The combined pressure to boost production efficiency and speed while adapting to evolving regulatory requirements often results in the selection of laser systems to increase output and meet demand.



COST-CUTTING CODERS

Domino Printing Sciences, a global firm with manufacturing facilities in the United Kingdom, China, Germany, India, Sweden, and the United States, has developed technology that increases the effectiveness of a laser used for coding

without increasing its power requirements. Claiming an output more than double that of conventional lasers, Domino's advanced concentration technology delivers more power to the substrate being laser-etched, providing manufacturers with the performance of a higher-powered laser with lower costs, a smaller footprint, and lower energy requirements.²



SEALED TIGHT

The new laser technology behind **LaserSharp FlexPak Service's PrimeVent** packaging enables hermetically sealed packaging for microwaveable packages possible. Laser-scored patterns create a reliable steam-release mechanism that allows consumers to safely microwave food products taken directly from the freezer. A removable adhesive label is manually placed on top of the scoring to maintain packaging integrity and protect the product during potential mishandling. Other advantages of the patent-pending solution include self-venting, leak-proof technology that requires no piercing before cooking, preventing any whistling or exploding packages in the microwave.³

PACKAGING WITH Natural Appeal



The belief that packaging is necessary to protect goods during transport and storage, help increase shelf life, and provide messaging to the end user is widely accepted. However, the companies showcasing innovative products at the **BioBased Packaging 2015** conference in Amsterdam go a step further. Practicing a philosophy that packaging can be created from natural, renewable, environmentally friendly resources, these companies are exploring options such as palm leaves, bagasse, and other plant residues.⁴



HAPPINESS IN A PAPER BAG

Developed for **Unifruitti Japan** and designed by **Nendo**, **Shiawase Bananas** gets its name from the Japanese word “shiwase” which means “happiness.” Grown at 1,000 meters altitude in the Mindanao region of the Philippines using organic fertilizers,⁵ Shiawase bananas are the first to be awarded with an impressive two stars at the International Taste and Quality Institute (iTQi) Superior Taste Awards in Belgium. Packaging for the bananas consists of a double-layered sticker that has a story on its reverse side for consumers. The unique sticker reproduces the textural feel and colors of a banana peel, including lifelike bruises and discoloration. Nendo also designed a paper carrier bag that mimics the shape of a large banana leaf once completely opened.⁶

GOOD-LOOKING & GREEN

Swedish design studio **Tomorrow Machine** believes that innovative and green packaging solutions that cut down on waste can also be attractive. The studio recently debuted a new packaging series, **This Too Shall Pass**, consisting of bio-based packaging for “oil-based products, smoothies, and short lifespan liquids, and dry foods, such as rice.” One of their latest concepts is a wax-coated caramelized sugar for oil-based products that cracks open like an egg for access and dissolves in water when used. The studio also unveiled an agar-agar, seaweed-based gel for smoothie products that begins withering to alert consumers when the product is about to expire.⁷



THE NEW BATTLEGROUND for Business



With 2015 projections falling just short of \$1.5 trillion US dollars, B2C e-commerce growth is exploding.⁸ Efficient supply chain operations have such a critical impact on e-commerce that experts consider it the new battleground where business is won and lost.



WHENEVER, WHEREVER

Amazon has received the lion's share of drone delivery media coverage, even making its patent application public in May 2015. After receiving permission from the FAA for experimental test flights in the United States in March, the release of patent information revealed that Amazon is thinking beyond home delivery—focusing instead on delivery wherever customers are with its GPS-enabled “Bring It to Me” option. Package delivery locations will be updated as customers move around, enabling package deliveries at work, home, or anywhere in between. Amazon proposed the use of drones to help deliver small packages across short distances in the US. Deliveries may arrive in as soon as 30 minutes and could cost around \$1.⁹

FUTURISTIC OPERATIONS

In an era when canceling orders from Company A and buying from Company B only requires a few quick clicks, offering great prices, customer service, and overall value should be coupled with stock visibility and availability. To date, the focus of upgrading warehouse capabilities has been achieved through technological means. However, newer methods of delivery, like Amazon's drone deliveries and Google's driverless cars, are experimenting with futuristic elements.





ROBOT AUTOMATION

Amazon has also been an early adopter of warehouse robotics, buying out warehouse robot maker **Kiva Systems** for \$775 million US dollars in 2012. To date, there are approximately 15,000 robots in Amazon’s facilities—the largest as big as 28 football fields. The robots are able to move large shelving units efficiently and effectively but lack the precision to handle individual items. To address this, the company created the Amazon Picking Challenge, giving mechanical engineering and computer science students worldwide the opportunity to design robots with enough dexterity to remove single objects from shelves and put them in appropriate bins.¹⁰

TECHNOLOGY DRIVEN

Google continues to lead the charge in driverless vehicle technology, powering its vehicles with Google Chauffeur software. Equipped with more than \$150,000 in robotics and advanced remote sensors, Google began testing its 23 driverless cars on



public city streets during the summer of 2015. After nearly six years of testing on private roads and 1.8 million miles driven, the cars have been involved in 13 minor car accidents, though Google reports that its self-driving vehicles did not cause the accidents.¹¹ Despite significant up-front investment hurdles, the potential impact for autonomous vehicles in advancing transportation and distribution systems is unlimited.

POWER PLAY

Technology has also broadened the potential for warehouse locations and how they are powered. **Tesla** recently launched batteries that “can store electricity from either the grid or a renewable energy source, such as solar, to bring ‘living off the grid’ one step closer.” Application of Tesla’s technology to supply chain systems enables warehouses to be less reliant on utility grids, thereby creating flexibility in location choices. In addition to cutting costs, the technology could also be put to use in industrial facilities as a potential revenue source, with any excess power generated through operation being fed back into the utility grid. Both **Walmart** and **Amazon Web Services** currently leverage Tesla’s power wall to help reduce the cost of their power.¹²

Up Close & PERSONAL

Although data on target audiences, campaign performance metrics, social media engagement, and competitive analysis will always be important to marketers, the hottest B2B marketing trend in 2015 is all about becoming more human. Doing so means applying softer B2C marketing tactics (like storytelling, increasing emotional appeal, creating shareable content, and more) in a B2B environment.¹³



BEHIND THE BRAND

Andy Goldberg, global creative director at **General Electric**, shares that one of the company's greatest challenges has been telling the "full GE story in one spot and capturing the wonder and magic of what we do." The result was the 60-second spot "Childlike Imagination" which captured a young girl talking about the work her mother does at GE.

Other B2B companies being praised for their exceptional storytelling include **Cisco**, **Boeing**, **Intel**, and **Deloitte**. As a networking company, Cisco faced the challenge of making complicated concepts simple; they were recognized for successfully doing so via a documentary series titled

The Network Effect. Boeing's marketing efforts rely upon news-style reporting, focusing on aircraft manufacturing history that, naturally, includes Boeing. Boeing's approach is skillful in connecting its brand to critical points in history while also sharing its futuristic technology views (e.g., the first space taxi in the United States).

CONTENT IS KING

Intel's belief that the simplest storytelling is often the most effective came to life in "bite-sized bits" as snackable content that included pieces on how to draw in midair with fingers and the concepts behind 3-D printing. Intel also successfully used employee content curation (i.e., employees share what they find interesting) to build an audience for **iQ**, their online tech-culture machine. Deloitte's content strategy includes a Pinterest-style layout and a variety of message-delivery tools—from videos to podcasts to articles—to engage their audience.¹⁴



TO SORT or NOT TO SORT

An increasing number of cities in the United States are embracing single-stream recycling to process commercial and residential recyclables, with an ultimate goal of zero waste. Despite debates over the quality of its processing and recovery rates, single-stream processing continues to gain popularity due to its advantages in volume and customer convenience.



STATE-OF-THE-ART SYSTEMS

GreenWaste Recovery recently opened a new materials-recovery facility (MRF) designed to process a wide range of materials, with an over 95 percent recovery rate on plastics, metals, cardboard, paper, and glass. The plant is capable of processing more than 40 tons of recyclables per hour using **BHS Bag Breaker** technology to open commercially sourced bags without damaging contents. The facility's technology package also includes a **Nihot Single Drum Separator** to recover glass and **NRT PET Boost** to maximize the recovery of wet or thin-walled PET plastics.¹⁵

In response to growing market demand, **Alpine Waste & Recycling** doubled down on the single-stream recycling capacity in its Denver, Colorado, MRF facility. The \$5 million investment includes new **Machinex** equipment,

material-sorting technology upgrades, and a device that condenses polystyrene foam packaging material (e.g., Styrofoam) into recyclable bricks. The resulting processing rate of 30 tons of material per hour makes **Alpine Waste & Recycling** one of the highest capacity recycling processors in the state.¹⁶

SAVINGS VS. SKEPTICS

Following in the footsteps of systems in Reno, Nevada, and Saint Louis, Missouri, the city of Roanoke, Virginia, plans to switch to a single-stream system later this year. Beyond the environmentally friendly impact, the transition to a single-stream recycling system is expected to cut costs by nearly \$15 per ton of recycled trash.¹⁷ Though the cost savings are promising, skeptics cite that contamination by inappropriate materials and the inability to preserve material integrity present a significant challenge, reducing the overall recovery rates of single-stream systems by an estimated 25 percent.¹⁸



Credits

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