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HAVI Global Solutions | Grow Smarter

ROBOT Revolution



In today's highly competitive business environment, efficient and nimble supply chains are necessary to stay ahead of escalating customer needs and rising operational costs. As the Internet of Things (IoT) becomes more pervasive—making technologies like machine-to-machine (M2M) connectivity an accessible reality—automation and advanced robotics are helping further level the playing field.



RACE TO THE FUTURE

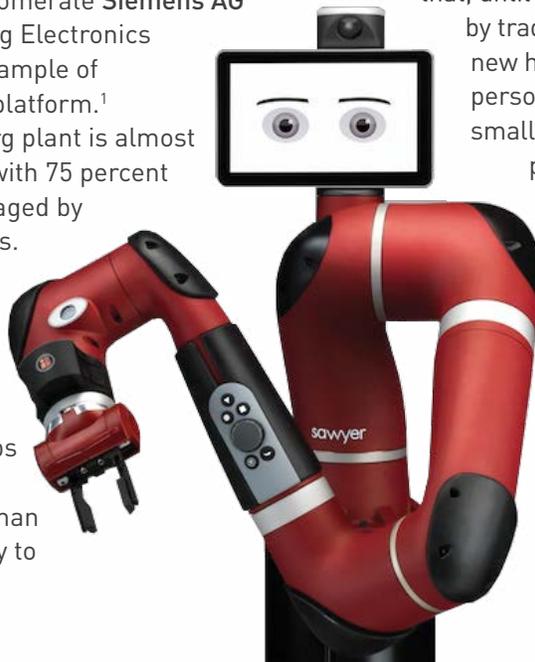
Strong support from their national government has several German companies driving the *Industry 4.0* concept, a vision for a fourth industrial revolution that merges the physical and virtual worlds of manufacturing.

Global electronics conglomerate **Siemens AG** is showcasing its Amberg Electronics Plant as an advanced example of their Digital Enterprise platform.¹ Production in the Amberg plant is almost completely automated, with 75 percent of processes being managed by computers and machines. Products in the plant even control their assembly by directly communicating their specific requirements and next production steps via a product code to the machines! Although human intervention is necessary to

initiate product assembly, develop new products and processes, plan production, and manage unexpected incidents, Siemens believes the production methods in use at Amberg will become the new manufacturing standard in less than a decade.²

A FRIENDLY FACE

Rethink Robotics, Inc. will be releasing its next-gen robot, **Sawyer**, later this year. The single-arm robot is designed to handle high-precision manufacturing tasks like machine tending and circuit board testing that, until now, could not be automated and executed by traditional industrial robots. Advantages of the new high-performance Sawyer robot include its personable "face" screen, embedded sensors, small footprint and a dynamic, adaptable software platform that responds to real-world conditions. The company has a different take on the role of automation in industrial environments. Aiming to create an integrated, collaborative workforce, its Sawyer and Baxter robots are designed to reflect that position. Rethink Robotics also claims that its family of smart, interactive robots can manage many of the manufacturing tasks that cannot be feasibly automated with traditional solutions.³



Simplifying BIG DATA

Successful companies move at the speed of business with proactive, data-driven decisions. However, the overwhelming amount of complex data now available to companies for analysis presents an interesting challenge, leaving some firms struggling with how to gain access to and take action against the insights locked within the data.

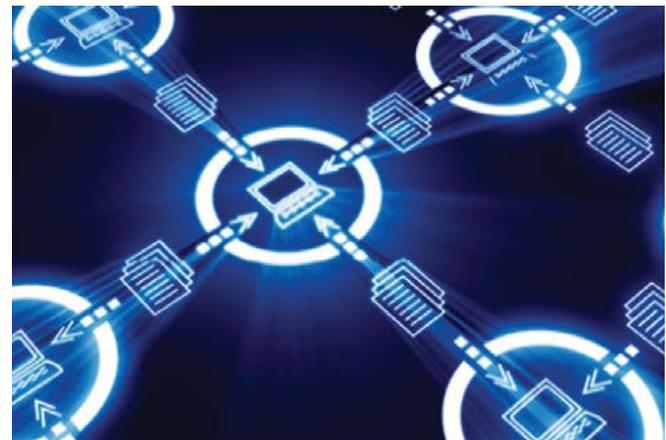


REAL-TIME RESPONSE

California-based **DataTorrent, Inc.** recently released its **DataTorrent RTS 2.0** platform, providing companies the means to leverage real-time streaming, big data analytics applications to gain immediate insight into their business. "DataTorrent RTS allows organizations to harness the full potential of real-time big data and take action by enabling faster data ingestion, data processing and more timely data insights in a high-performance, scalable, highly available manner."⁴ The platform provides end-to-end data pipeline optimization, including data ingestion, transformation, advanced analytics, alerting and automated actions.

BRIDGE TO THE FUTURE

From accelerating legacy business processes to enabling big data and cloud computing, high-speed, reliable information sharing is instrumental to business analytics and intelligence. **Solace Systems** and **HostBridge Technology** recently consolidated their messaging middleware and mainframe integration solutions to link critical mainframe systems with modern applications and architectures.



The integrated solution allows organizations to send and receive large volumes of real-time information without modifying any legacy mainframe code. Russ Teubner, HostBridge CEO, states, "By leveraging the HostBridge integration layer, Solace's powerful messaging solution unlocks information currently available only via batch processes and breathes new life into mainframe systems by giving them the power to receive and send information in real time, as modern computing systems demand."⁵

GOOD FOR YOU Greens

Global trendspotting experts **thefoodpeople** predict hybrid vegetables will be all the rage with consumers this year.⁶ Researchers suspect that as global economies regain strength and consumer confidence grows, consumers are more likely to make food choices that will support long-term health. Topping the list? Fresh takes on familiar favorites expected to move from the specialty foods section into the mainstream produce aisle.



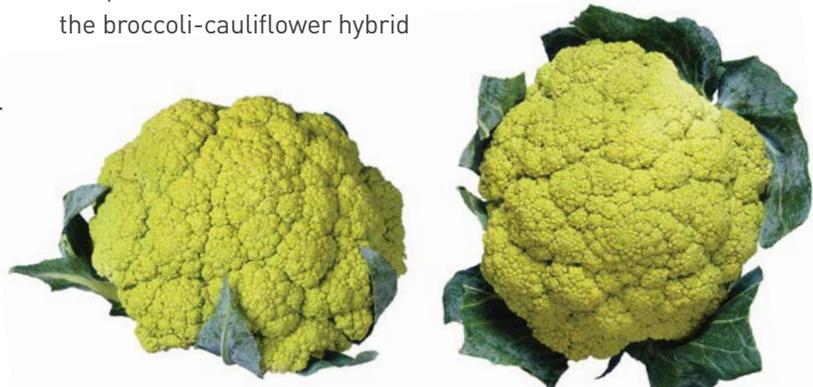
BEST OF BOTH

The result of 15 years of cross-breeding, **Tozer Seeds' Flower Sprouts** vegetable launched in the U.K. in 2010. The recent explosion of consumer interest in kale, however, has prompted a push for global market expansion and rebranding. The **Kalette**, a unique kale and brussel sprout hybrid, has a similar nutritional profile to both kale and brussels sprouts and is a

good source of vitamins A and C.⁷ The vibrant purple-green vegetable is being marketed as a combination of the best flavors from brussels sprouts and kale. Now available at Trader Joe's, select Costco and select Whole Foods stores in the U.S., Tozer hopes the popularity of the "parent" vegetables will create success for the hybrid "child."

BUDDING BEAUTIES

The renewed popularity of cauliflower may have also given rise to a little-known hybrid, the **Broccoflower**. Developed in Holland and grown in the U.S., **Tanimura & Antle** first launched the broccoli-cauliflower hybrid





in 1989. More cauliflower than broccoli, the genetic cross combines the physical features of cauliflower with the chlorophyll of broccoli. A rich source of vitamin C, folic acid and copper, the Broccoflower has a slightly sweeter taste profile similar to cauliflower when raw, but is milder and sweeter when cooked.

SWEET ALTERNATIVE

A cross between traditional broccoli and Chinese broccoli, broccolini was first hybridized in 1993 by Japanese seed company **Sakata Seed Co.** The hybrid resembles its broccoli parent and is often called “baby broccoli” but has longer stalks and smaller florets. Unlike broccoli, the main stalk of the vegetable is discarded for its much tastier stems. Subtly sweet with a bit of pepper, trendspotters believe broccolini’s appeal will soon extend beyond the farmers’ market to a much larger audience.



RAINBOW BRIGHT

Carrots are a familiar staple in most consumer refrigerators. In a bid to improve their nutritional values, **U.S. Department of Agriculture** researchers began breeding carrots in shades of purple, red and yellow with increased levels of beta-carotene and other important nutrients known to guard against heart disease, improve eyesight and provide antioxidant benefits. The project successfully yielded carrots that have 75 percent more beta-carotene than the carrots available

to consumers 25 years ago.⁸ The unique, rainbow-hued carrots could previously be found only at farmers’ markets as a novelty item; however, as consumers become more adventurous, their popularity has grown. The wildly colorful vegetables can now be purchased at specialty food stores like Trader Joe’s.



FIGHTING OFF Fakes

The first line of defense against counterfeit goods lies in secure packaging; however, the rising number of counterfeit products indicates that packaging cannot be the only solution. In an effort to inhibit the spread of counterfeit goods, protecting consumers and minimizing losses, manufacturers and retailers alike must explore other avenues.

HOW TO IDENTIFY A GENUINE MILO PRODUCT ONE: THE PACKAGING

The original MILO packaging is machine packed and cut. As such the edges on the top of the original pack will not have a perfect perforation.

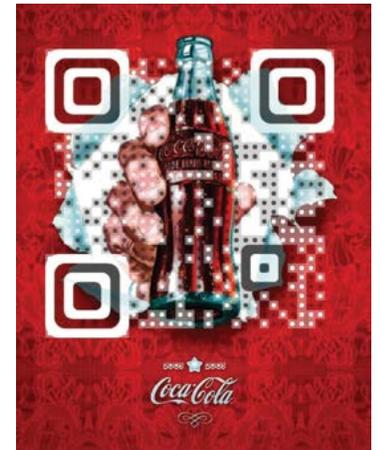


WIDESPREAD WARNING

After a recent, successful raid and seizure of fake MILO chocolate malt drinks by the Domestic Trade, Cooperatives and Consumerism Ministry, food and beverage giant **Nestlé Malaysia** has taken direct action to help its consumers avoid the counterfeit products. In addition to working with local authorities, the company is leveraging its social media assets in a campaign to raise consumer awareness of the issue. One effort on the company Facebook page shares a photo showing consumers how to identify counterfeit MILO packaging based on the perforation of its pack. The company is urging consumers to buy MILO from reputable retailers but also asks them to contact Nestlé customer service if they unintentionally buy fake MILO product.⁹

DOTLESS DEFENSE

Facing a new lawsuit from Paris-based **Kering SA** (owner of luxury fashion brands Gucci and Yves Saint Laurent),¹⁰ Chinese e-commerce giant **Alibaba** is launching a new innovation to combat fake products: a unique QR code-like tag. In partnership with Israeli startup **Visualead**, the dotless visual codes resemble traditional QR



codes with patterns of dots in all four corners. Unlike QR codes, the Alibaba version supports images in the middle of the code, creating opportunities for added visual branding and promotional efforts. Customers scan the codes on the products they receive using Alibaba's Taobao app to confirm their authenticity. Alibaba can then show the customer additional promotions, including information on points, loyalty programs and other rewards. Each single-use code is unique to each product; once scanned the code "burns" to prevent reuse. Alibaba will pilot the program with a limited number of brands, including cosmetics maker L'Oreal and chocolatier Ferrero; however, the long-term goal is to place the code on billions of products sold through the site.¹¹

THE FEUD OVER Foam Packaging

Are single-use polystyrene foam containers recyclable? The answer to that question, and other issues surrounding the economic feasibility and effective environmental impact of recycling polystyrene products, is at the heart of a heated debate that has plastic industry representatives calling foul play.



SHORTSIGHTED SOLUTION?

Joining the ranks of San Francisco, Toronto and Paris, New York City is not the first metropolitan city to ban polystyrene packaging;¹² however, the city's recently announced ban on single-use foam products has ignited a backlash from a coalition of recyclers, foam foodservice manufacturers, individual restaurant owners and the Restaurant Action Alliance of NYC. The coalition recently took legal action, filing a lawsuit in the New York State Supreme Court, claiming the city's ban of expanded polystyrene foam (EPS) foodservice products is illegal and "irrational," given research findings that proved that foam can be recycled.¹³

Opponents of a similar action under consideration by the government of the Australia Capital Territory (ACT) also state that any ban on polystyrene would be "shortsighted." Instead, the Expanded Polystyrene

Australia (EPSA) association is calling for a cooperative approach to resolving the issue, claiming that meaningful solutions to effectively recycle EPS are possible if manufacturers, consumers and local governments work together.¹⁴

ECO-FRIENDLY ALTERNATIVES

Supporters of an EPS ban cite feasibility issues with the economics of recycling polystyrene containers when it is widely known that the material is non-degradable. Like New York's local government, Australian proponents point out that the level of waste associated with single-use products, along with the difficulty of using current technologies to recycle polystyrene, represent a losing argument, especially when better, safer biodegradable alternatives are readily available.¹⁵ New York City officials stand by the ban, stating, "These products cause real environmental harm, and by removing nearly 30,000 tons of expanded polystyrene waste from our landfills, streets and waterways, we are taking a critical step towards a more sustainable New York."¹⁶

Credits

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