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ABB and Zume to accelerate transition away from single use plastics

- Agreement for creation of 100 percent compostable packaging made from plant-based agricultural material
- ABB robots will automate production, enabling the scale and speed required to make Zume's packaging a cost-effective alternative to single-use plastics
- Under 10 percent¹ of 380 million tons of plastic produced globally every year is recycled. Plant-based packaging can significantly reduce plastic going to landfill and our oceans

ABB Robotics has signed an agreement to collaborate with California-based Zume, a global provider of innovative, compostable packaging. ABB will supply robotic cells that will enable Zume's production of sustainable packaging on a global scale, helping to reduce reliance on single-use plastics.

ABB will integrate and install more than 1,000 molded fiber manufacturing cells (MFC) - including up to 2,000 robots at Zume customer's sites worldwide over the next five years. ABB will leverage its program management capabilities and automation experts in its network of Global Solution Centers to enable the scale, modularity and speed required to launch the solutions, which have the potential to produce millions of pieces of sustainable packaging annually. Financial details were not disclosed.

Manufacturers face increasing pressure from consumers and policymakers to find alternatives to single use plastic packaging. New packaging needs to be sustainable, while being easy to mold and as cost effective as plastic. Zume's packaging material is made from sustainably harvested plant material left over from agricultural production, including bamboo, wheat and straw. Plant material uses significantly less water and energy and reduces CO₂ emissions when compared to the production and disposal of plastic packaging. Unlike plastic, plant-based material is 100 percent biodegradable and simply breaks down after use.

"Automating production of Zume's sustainable packaging with ABB robots makes this a viable and economic alternative to single-use plastics. With Zume, we have the potential to remove trillions of pieces of plastic from the global marketplace, preserving scarce resources and supporting a low carbon world," said Sami Atiya, President of ABB Robotics & Discrete Automation. "Today, robotic automation is expanding possibilities, making the world more sustainable through more efficient production that reduces energy use, emissions and production waste. Our collaboration showcases what is possible when organizations that are committed to pursuing a low-carbon society work together."

Zume has developed and patented an innovative manufacturing process to make compostable packaging for anything from food and groceries to cosmetics and consumer goods. Containers are molded from the plant material by Zume's molded fiber cells integrated with two ABB IRB 6700 robots,

with each cell processing up to two tons of agriculture material every day, creating 80,000 pieces of sustainable packaging. Working with ABB, Zume expects to equip factories with up to 100 robotic cells each. With the automation, speed and scalability provided by the MFC, each site would have the potential to process 71,000 tons of agriculture material annually, potentially producing up to two billion pieces of packaging each year.

“By 2050, we estimate that the world’s oceans will have more plastic than fish, so it is critical that we move everyone away from single-use plastics,” said Alex Garden, Chairman and CEO of Zume. “Using ABB’s global automation experts to develop and integrate automation solutions for our customers will revolutionize packaging and demonstrate what sustainable manufacturing can look like. The flexibility and scalability of ABB’s robots enables an efficient automated manufacturing process. This means we can offer a viable, cost effective, compostable alternative to plastic, and help manufacturers to become more environmentally-friendly.”

A pilot project has been installed by Zume and ABB at Satia Industries Limited, one of India’s largest wood and agro-based paper manufacturers, creating a facility of 10 manufacturing cells that will process 20 tons of wheat straw daily creating 100 percent compostable packaging for a range of industries.

“Our work with Zume and ABB enables Satia Industries to meet and exceed the expectations of our clients for high-performing, affordable and reliable products that are sustainably manufactured and easily composted,” said Dr. Ajay Satia, CMD Satia Industries. “Besides adding significant value to the company, we are able to support the planet by providing sustainable solutions to help our customers transition to more modern, reliable, and customized products compared to those they use today.”

Other planned pilot installations include Parason Group, a leading global pulp and paper machinery supplier, also based in India and Jefferson Enterprise Energy, the first 100 percent renewable energy powered compostable packaging factory, based in Texas, USA.

¹ [United Nations Environment Program \(UNEP\)](#)

ABB (ABBN: SIX Swiss Ex) is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. With a history of excellence stretching back more than 130 years, ABB’s success is driven by about 105,000 talented employees in over 100 countries. www.abb.com

About Zume: Founded in 2015 and HQ in Camarillo, California, Zume is actively reducing the world's plastic waste with economically viable substitutes for plastic packaging. As creators of the world's most advanced molded-fiber manufacturing system, Zume is a global provider of sustainability solutions and offers a growing range of sustainable manufactured solutions and services across the food, beverage, healthcare, and CPG categories. For more information visit www.zume.com.

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