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Circular economy, Recycling and disposal, Sustainability, Economy

SABIC & PLASTIC ENERGY ADVANCED RECYCLING UNIT JOINS FORCES WITH SIEMER AND LANDBELL TO DRIVE TOWARD PLASTICS CLOSED LOOP

Lower Saxony/International. Siemer, Landbell and a joint venture between SABIC and Plastic Energy have notarised a strategic collaboration for the advanced recycling of packaging plastics moving toward a more closed loop model. With a new sorting plant in Vechta, Lower Saxony, A. Siemer - Entsorgungs GmbH reprocesses already sorted portions of post-consumer packaging and returns a significant volume of the sorting fraction, which is usually incinerated, to the recycling process. The plant is supplied by Landbell AG, and the newly recovered recyclable materials are processed in SABIC and Plastic Energy's advanced recycling unit in the final stages of construction in Geleen, the Netherlands.

Innovative plant recovers sixty percent of sorting residues for recycling

Siemer's unique processing plant in Vechta is a former sorting plant for light packaging that has been overhauled and redesigned for the pioneering purpose of recovering recyclable materials from previously non-recyclable or hard-to-recycle post-consumer waste. Now it resorts the fraction of packaging waste classified as low-grade using newly combined technologies and prepares it for chemical recycling. It is one of the first sorting plants that can separate dirt, foreign matter and impurities from the remaining plastic fractions. Its input capacity is 25,000 tonnes per year. The reprocessed waste plastic is delivered to SABIC and Plastic Energy's advanced recycling unit, where it will be converted into pyrolysis oil using Plastic Energy's advanced recycling technology. The pyrolysis oil, called TACOIL™, will then be processed by SABIC in a newly built hydrotreater plant to upgrade the pyoil and use it as alternative feedstock by SABIC to produce their flagship certified circular polymers, part of the company's TRUCIRCLE™ portfolio.

Long-term collaboration: "The path to one-hundred-percent recycling"

Chemical recycling promises the raw material recovery of composite plastics. SABIC, Plastic Energy, Siemer and Landbell are among the first players in the circular economy to bring together feedstock streams, technology, and know-how to implement chemical recycling in regular operations. In doing so, they are creating the conditions for a closed loop model for plastic packaging. "By optimally combining our capabilities, we ensure progress in the resource-saving use of plastics," says Manfred Bruns, Managing Director of Siemer - Entsorgungs GmbH. "We are on the way to one hundred percent recycling. Strategic collaborations like this one are necessary to drive this forward-looking development of the circular economy. As a one-hundred-year-old family business, we are proud to contribute a small but fundamental part to this modern process."

Uwe Ehteler, member of the board of Landbell AG and COO of the DACH region, focuses on offering customer-specific recycling options and optimising the cycle for chemical recycling up to a closed product loop: "As a 'first mover', we are faced with the exciting task of finding the optimal composition of material streams for pyrolysis. We want to make a real contribution to resource conservation and with this project we can gain the necessary insights and offer initial product documentation."

The model of this strategic partnership is currently singular in the circular economy. "We have created a unique cooperation from different points in the value chain," says Rutger Bosch, Global Circular Economy Leader at SABIC. "We have demonstrated how to reinvent our business model by bringing together experienced operational partners that historically would not have worked together. Siemer convinced us with its quick action and rapid progress in the technical implementation. And Landbell secures the future expansion of our plant operations. With this new approach, we hope to show that advanced recycling has the potential to capture the value and bring back used plastic into new material streams."

Plastic Energy emphasises the importance of the partnership with Landbell and Siemer for the recycling plant in Geleen. "Through the use of our advanced recycling technology, we are making great strides in building the circular economy in the Netherlands, and globally," says Carlos Monreal, Founder and CEO of Plastic Energy. "This collaboration with Siemer and Landbell is important to the success of our joint recycling plant with SABIC in Geleen, providing optimal feedstock to be used in our recycling process."

Source One - pioneer and connecting force

Both the planning and development of the processing plant in Vechta and the strategic linking of the players involved to create an economically attractive and resource-saving cycle were carried out by the operational consultancy Source One GmbH. Source One was able to contribute its three core competences of consultancy, development and procurement to create added value for each individual company in the new strategic collaboration. "We are very proud to have brought together the players involved and connected them through the development of a technological bridge," says Kai Hoyer, Managing Director of Source One GmbH. "It was exciting to put a new technical concept on top of the conditions of an old LVP plant. The particular challenge was the short time frame in which we upgraded the existing plant. Now we look forward to further advancing the circular economy with similarly effective and sustainable solutions."

About Siemer

A. Siemer - Entsorgungs GmbH has been collecting residual and recyclable waste in the district of Vechta for more than one hundred years. The Lower Saxon family business was founded in 1920 by August Siemer and today operates 70 operational vehicles. In addition to waste disposal and customised waste technology concepts, the services of the third generation also include area and street cleaning as well as sink cleaning, container services and municipal waste collection. A haulage company, the innovative sorting plant and the recyclables trade complete Siemer's modern portfolio of waste disposal and cleanliness

services. The traditional company employs around 90 people in the region. Find out more at www.siemer-vechta.de.

About SABIC

SABIC is a global diversified chemicals company, headquartered in Riyadh, Saudi Arabia. The company has more than 31,000 employees worldwide and operates in around 50 countries. It manufactures on a global scale in the Middle East, Americas, Europe and Asia Pacific, making distinctly different kinds of products: chemicals, commodity and high-performance plastics, agri-nutrients and metals. Fostering innovation and a spirit of ingenuity, SABIC has 9,948 patents and pending applications, and has significant research resources with innovation hubs in key geographies around the world. SABIC supports its customers by identifying and developing opportunities in key end-use applications such as construction, medical devices, packaging, agri-nutrients, electrical and electronics, transportation, and clean energy. Visit www.sabic.com.

About Plastic Energy

Plastic Energy is a global leader in chemical recycling, offering a sustainable solution to help prevent plastic waste, transforming previously unrecyclable plastic waste into a valuable resource. Our patented and proven chemical recycling technology converts end-of-life plastic waste into an optimal feedstock (TACOIL™) for making virgin-quality recycled plastics. Plastic Energy currently has two chemical recycling plants that are in constant operation in Spain and is one of the few companies worldwide that has sold recycled oils from the conversion of end-of-life plastic waste to replace fossil oils in the manufacturing of new plastics. We are leading our field in the transition to a low-carbon circular economy for plastics. Learn more at www.plasticenergy.com.

About Source One

Source One is an operational consulting company in environmental, resource and sustainability issues. With a holistic approach, innovative technologies and measurable results, Source One closes material cycles - with maximum ecological and economic efficiency. Source One thus acts as a global interface between the players along the entire value chain of the circular economy. Since 2019, Source One has been successfully implementing circular economy solutions, waste management and recycling projects for brand manufacturers, producers, retailers, municipalities, governments and consumers in more than 20 countries. Take a look at www.s-one.de. Sustainable and customized: customer-specific recycling options

About Landbell Group

Landbell Group is an international provider of comprehensive take-back, consulting and software solutions for environmental and chemical compliance. Landbell was founded in 1995 as a waste management company in Germany and has since evolved into a global service provider. Today, Landbell operates take-back/collection systems for various waste streams in 15 countries worldwide, supports over 38,000 customers in more than 60 countries in fulfilling extended producer responsibility, and collected over 760,000 tons of batteries, e-waste and packaging in 2020. Landbell AG, specifically in Germany, operates a

certified and independent dual system for manufacturers and retailers to meet their legal requirements.

For more information, please visit: www.landbell-group.com

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Further information

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