



CIRCULARISE Press Release



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Building up material cycles across value chains

Domo, Circularise and Covestro partner on full plastics traceability

Transparency achieved through blockchain technology

DOMO, a leading polyamides solutions provider, Covestro, a major supplier of high-tech polymer materials and Circularise, an innovative transparency start-up, have announced a new collaborative project for circularity in the plastic industry through the use of blockchain technology. The newly formed Circularise PLASTICS project group aims to set up an open standard for sustainability and transparency in the plastics industry. At K 2019 (Düsseldorf, October 16-23), DOMO (hall 5, booth A43) and Covestro (hall 6, booth A75) will discuss the project with customers and look for new partners to join them on this pathway towards full circularity.

“Transparency and the notion of a circular economy are strongly in the spotlight, but there are mixed messages when it comes to traceability in plastics.

Achieving a single standard for traceability to origin would enable the industry to communicate regarding sustainable practices and attach proof of origin to materials,” says Thomas Nuyts at DOMO.

The partners believe that achieving traceability and transparency in the plastics supply chain enabled by blockchain will make it more authentic and transparent.

There are three main objectives:

- *Choose Circular:* Make it easier for suppliers, processors, manufacturers, moulders and brand owners to choose traceable, sustainable and circular materials.

- *Produce Circular:* Create incentives for suppliers and manufacturers to produce traceable, sustainable and circular materials and products.
- *Make Circular:* Provide critical information for reversed logistics and take back of products, materials and components.

The compatibility of blockchains has been a hot topic, including in the plastic space, where the benefits of this new technology can serve all parts of the supply chain. “For material suppliers & processors, as well as moulders, Circularise PLASTICS participation means increased material value and trust in your production, by adding material passports to plastic resin, additives colorants and any other materials produced. For OEMs & brand owners, it helps on the road to achieving sustainability targets and a strengthened brand position, by revealing a product’s origin and transparency on its environmental impact,” says Dr. Burkhard Zimmermann, Head of Strategy, Sustainability and Digital at Covestro’s Polycarbonates segment.

The value of blockchain is it avoids a central powerful authority and gives equal rights to all participants.

Netherlands-headquartered tech innovator Circularise is making transparency and communication in global value chains possible by utilising blockchain and zero-knowledge proofs. Their protocol enables trusted data exchange in fragmented supply chains without public disclosure of datasets or supply chain partners. Unlike other blockchain transparency solutions Circularise’s technology called “smart questioning” protects a company’s privacy and sensitive information.

This means that confidentiality and competitive advantage are always maintained. It also eliminates the need to trust a centralised party. “Because all of the verification is done by the system itself, the idea is that users do not need to rely on a central point of control. Instead, trust is transferred from one centralised authority (such as a verifying party) to many decentralised, anonymous participants,” says Mesbah Sabur at Circularise.

The Circularise PLASTICS concept involves a seven-step process whereby the source material can be followed through a blockchain pathway, ensuring end-to-end product traceability and provenance. If ultimately accepted by the original information holder (plastic producer/moulder), the OEM can access important information and make statements accordingly. This solution has two basic main strengths over other initiatives. The open protocol will enable an industry standard (on any blockchain) and avoid monopoly. The Smart Questioning technology safeguards privacy, while still allowing for transparency.

The Circularise PLASTICS project is still at a very early stage and the objective at K 2019 is to raise interest among value chain partners, that are willing to join the consortium in the ideation and testing phase. New members will become sustainable innovators in the plastics industry, having access to the latest information and resources, and getting an opportunity to co-create an industry-wide communication standard for circular economy.

www.circularise.com/plastics.

About DOMO Chemicals:

DOMO Chemicals is a leading producer of high-quality engineering materials for a diverse range of markets, including the automotive, food, medical, pharmaceutical, chemicals and electronics industries. The company offers a complete portfolio of integrated nylon 6 products, including intermediates, resins, engineering plastics and packaging film and distribution of petrochemical products. Headquartered in Germany, the family-owned company leverages advanced technology and consumer insights to deliver sustainable & innovative solutions. DOMO generated 2018 sales over EUR 900 million and employs approximately 1,100 employees worldwide.

www.domochemicals.com

About Circularise:

Circularise is a blockchain technology start-up offering an open-source protocol and decentralised platform to bring transparency to global supply chains and empower businesses to move towards a circular economy. Circularise enables brands, suppliers, and manufacturers to choose sustainable and circular materials and present information about products and their supply chains in a transparent way without risking privacy.

www.circularise.com

About Covestro:

With 2018 sales of EUR 14.6 billion, Covestro is among the world's largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites worldwide and employs approximately 16,800 people (calculated as full-time equivalents) at the end of 2018.

This press release is available for download from the Covestro press server at www.covestro.com. A photo is available there for download as well. Please acknowledge the source of any pictures used.

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