# Joint Press Release

## BASF and Security Matters collaborate to accelerate progress towards a circular economy for plastics

- **BASF plastic additives business leverages on its expertise as a global market leader**
- **Proprietary technology from Security Matters to improve the traceability and sorting of plastics in the value chain**
- **Create new value for plastics to tackle global challenge**

**Ludwigshafen, Germany / Melbourne, Australia, April 20, 2020** – Security Matters, Ltd and BASF sign a binding joint development agreement to develop solutions for plastics traceability and circularity. Plastics, with unique characteristics and when used properly, contribute to a more sustainable and resource efficient future. However, to move towards a circular economy, more plastic waste needs to be recovered and reused. Though there is great progress towards chemical recycling, the more common method is to mechanically recycle plastic. Currently, recycled plastic loses its mechanical performance properties and quality compared to virgin plastic due to polymer degradation and residual impurities. The recycling infrastructure is also expensive and complicated, and simply does not exist in many parts of the world.

In their cooperation, Security Matters and BASF aim to offer a solution for this. Security Matters will contribute its technology to enable physical and digital tracking of closed loop recycling, authenticate sustainability claims and improve sorting of plastic waste. The partnership leverages BASF's extensive experience in plastic additives, regulatory know-how, and understanding of the plastics value chain. Both companies will also combine

their research & development capabilities and required resources as part of the agreement.

Security Matters will provide its track and trace solution that marks physical objects with a unique and unalterable chemical-based barcode and connects them to a digital twin. The barcode withstands manufacturing and recycling processes, without altering the appearance or performance of the object. Using proprietary technology, the barcode captures a wide variety of information embedded in the plastic and can be used for closing the plastic loop.

“To tackle the global challenge, we have to rethink plastic applications with their end of life in mind. It is essential to progress towards a circular economy approach that closes the loop on end-of-life resources and allows us to recover and recycle plastics as efficiently as possible,” said Achim Sties, Senior Vice President, Performance Chemicals Europe, BASF SE. “We are jointly developing this game-changing technology that could capture information of the polymer and how the plastic moves through the entire production and distribution process. We will be able to devise an appropriate additive package for our customers and other players in the value chain using recycled material to capture more material value and increase resource productivity.”

“We are honored to be working with BASF as the global leader in Plastic Additives. This collaboration is the first step in demonstrating how our technology can be used in a circular application. By providing transparency of product lifecycles, we can create an entire technology-driven ecosystem that promotes circularity and sustainability for plastics. Together we can accelerate the progress of the plastic industry towards a more innovative, resilient and productive economy,” said Haggai Alon, Founder and Chief Executive Officer, Security Matters, Ltd.

**About BASF Plastic Additives**

BASF is a leading supplier, manufacturer and innovation partner of plastic additives. Its comprehensive and innovative product portfolio includes stabilizers which provide ease in processing, heat and light resistance to a variety of polymers and applications including molded articles, films, fibers, sheets and extruded

profiles. More information about plastic additives: www.plasticadditives.basf.com.

BASF Plastic Additives is part of BASF's Performance Chemicals division. The division's portfolio also includes Fuel and Lubricant Solutions, Kaolin Minerals, as well as Oilfield and Mining Solutions. Customers from a variety of industries including Chemicals, Plastics, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions. To learn more, visit http://www.performancechemicals.basf.com.

**About Security Matters Ltd**

Security Matters Limited (ASX: SMX), a company focused on digitizing physical objects on the blockchain to enable a circular and closed loop economy.

Security Matters has commenced the commercialization of its unique, patented technology that uses a hidden chemical-based 'barcode' to permanently and irrevocably 'mark' any object, be it solid, liquid or gas. The barcode is read using the company's unique 'reader' to access the corresponding stored data, recorded and protected using blockchain technology.

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