



## **Title: New Sorting Technology for Fractions to improve Advanced Recycling Output**

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In Germany are developed essential marker technologies and can make important positive contributions to the success of the Green Deal with a major contribution for EU member states which have to establish higher standards (e.g. in sorting plants). As part of the Green Deal, the EU is expected to introduce quota for minimum usage of recycled content in new plastic products, which will break through this vicious circle. High(er) quality recycled plastics is required to meet these quotas, which are highly scarce and expected to lead to significant price increases (s. revision of packaging regulation). Sorting and recycling companies will need to invest in both capacity and technology in order to meet the increasing demand for high-quality recycled plastics (like food-grade material, more fractions like sub-classes) and capture the opportunity of higher prices and returns. SORT4CIRCLE® (S4C) is developed for packaging and other plastic products. S4C is a new technology that is based on different innovations: More singulation of waste, combined detection and sorting of marked plastics. This opens up entirely new options in the development of recycling cycles. S4C can be used to sort plastic waste for (advanced) recycling efficiently and reliably. This creates transparency and dedicated take-back cycles can be established with customers. Using fluorescent markers developed by Polysecure in or on packaging, items and materials can be reliably sorted according to predefined criteria (food/non-food). A successful S4C market launch has already taken place. Polysecure has industrially validated the separation of PVC flakes containing glass fibres. For this purpose, Polysecure developed the world's first S4C sorting machine. It has already been confirmed that the patented S4C process works efficiently.

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