Walki® 4E RFID Pantennas are manufactured using the proprietary laser based Walki® 4E technology. It is the first feasible alternative to the traditional way of producing antennas by a wet etching process. The technology brings new dimensions of substrate material choices, exactness, cost efficiency and sustainability to the growing RFID and IoT markets.

**Game changer - Competitive advantage by paper antennas**

Walki® 4E antennas enable RFID inlay manufacturers to introduce a game changer product in their product offering. By having inlayless RFID tags based on Walki® 4E paper based antennas, the RFID inlay manufacturers are able to improve the profitability of their products by lower component costs and improved efficiencies. At the same time they are able to introduce true sustainability to the RFID market. Pure aluminium layer on the Walki® 4E's paper substrates enables superior RF-performance compared to current printed antennas. Paper antennas enable eliminating the expensive and non-sustainable etched PET antennas from the manufacturing process. The end result is a sustainable end product with lower total tagging costs.

**New tag materials and market areas for the RFID industry**

Walki® 4E technology is a dry process based on laser patterning. This allows unprecedented flexibility in the choice of base substrates, ranging from various paper grades to different plastics and non-woven materials. For example, it is now possible to manufacture soft care label -type of RFID antennas in Walki’s high volume manufacturing process.

**Truly ecological solution- responsibility is a part of the pattern -**

No matter what the final product is Walki® 4E makes it 100% recyclable. The demand for full recyclability of consumer products is constantly increasing. No matter this is achieved through the unique, dry production process, which allows for paper or some other monomaterial being used as the substrate and makes aluminium process residue fully recyclable. When the final product has come to the end of its life cycle, aluminium is easily sorted out by metal detectors in the recycling process.