

INTAKE – Development and testing of intelligent insertion technology for data cores in underwear manufacturing

Problem / Motivation

- In order to make leasing models for flat linen economically viable, customer-specific sorting and linen processing is required
- Unique labelling and identification of laundry can currently be achieved by the laundry itself attaching suitable RFID transponders to ready-made textiles, such as hotel and hospital items
- Due to major differences in the size, shape, design and material of household laundry, a subsequent, standardised, automatic RFID equipment is not possible
- The project aim is the development of an AI-driven process that inserts RFID antenna threads and chips into the laundry during the manufacturing process, eliminating the need for subsequent patching
- The laundry itself becomes a customised RFID transponder

Solution

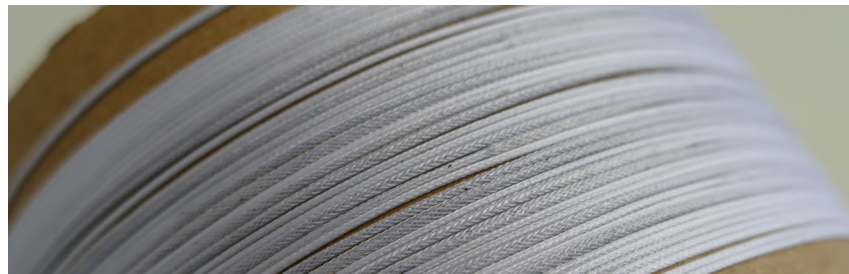
- Development of an insertion process for RFID data cores (RFID chip, RFID antenna, RFID identifier, AI information) in strand-shaped cleaning-resistant continuous constructions in the form of threads based on AI
- Development of a leasing concept based on the motto “using instead of owning” for the flat linen assortment of private households in the laundry and service sector

Project Partner

Technische Universität Berlin
Textilreinigung Güstrow
Brändl Textil GmbH
Provitec GmbH
Quadus GmbH

Project Launch

10/2022



Strand-shaped RFID thread construction developed at STFI

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