

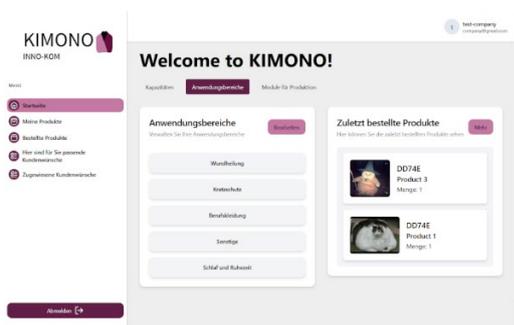
KIMONO – Customised modelling of neurodermatitis textiles

Objective

Neurodermatitis clothing is currently only available in standard sizes, without adaptation to individual body measurements or specific skin needs. However, customer interest in individual, tailored neurodermatitis textiles is growing. Implementing this requires customer-specific planning of functional textiles and clothing designs. Manufacturers are aiming to combine customer requirements with data preparation for production planning by means of configuration. This type of modelling enables targeted atopic dermatitis applications and helps those affected.

Approach and results

A customer- and patient-specific modelling method was developed for the purpose of product creation and configuration of neurodermatitis textiles. The resulting tool enables the matching of customer requirements and manufacturer capabilities, particularly with regard to new textile surfaces as potential preliminary products and mass customisation-based manufacturing of neurodermatitis clothing as a new process. The modular components, both in terms of information technology and organisation, were combined to form an assistance tool with an intuitive front end for customers and manufacturers. Existing skills, capacities and manufacturing requirements of the producers are considered. The basic data recorded in the tool (medical, measurements, contact) form an essential basis for precisely tailoring the atopic dermatitis textile to current customer requirements. An algorithm automatically compares this data with the manufacturing capabilities of suitable manufacturers and suggests suitable product variants.



Assistance-tool (manufacturer's view)



Custom-made top (tunic)

INNO-KOM

Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages

Acknowledgement

We would like to thank the Federal Ministry for Economic Affairs and Energy for funding the research project KIMONO (Reg. No. 49MF220082) within the funding program "FuE-Förderung gemeinnütziger externer Industrieforschungseinrichtungen – Innovationskompetenz (INNO-KOM) – Marktorientierte Forschung und Entwicklung (MF)".

The final report on this project is available on request.

Contact: Dipl.-Geogr. Marco Barteld

Phone: +49 371 5274-188

Email: marco.barteld@stfi.de

Dipl.-Betriebswirt (BA) Sven Reichel

Phone: +49 371 5274-283

Email: sven.reichel@stfi.de

www.stfi.de

26/11/2025