



Sir

Measurement of inner shoe volume for optimized shoe pre-selection

Project information:

INNO-KOM-Project

Duration: 01.06.2023 – 30.11.2024

Motivation:

- To date, purchasing decisions for shoes with regard to fit can only be made on the basis of shoe length or, in the best case, on the basis of the width of the shoe.

Goal:

- Development of a measurement method that captures the interior of the shoe
- Creating an AI-based, fit-oriented pre-selection for retail and online store customers based on their individual foot shape

Project description:

The aim of the project is to develop a new method that enables the measurement of the interior volume of different footwear. A system is to be created by processing parameters describing the interior of the shoe and the foot via AI-based methods, which will pre-select a shoe for its potential buyer (customer in a retail store or customer in an online store) in a fit-oriented manner depending on the individual foot shape.

Insufficiently fitting footwear can lead to serious foot deformations (e.g. hallux valgus, hammer toes, claw toes), which have to be treated with medical aids and remedies and consequently cause enormous costs for health insurance companies. If buyers are given a tool with which they can select their footwear according to their individual foot shape, there is a high potential for savings in this area. However, the targeted pre-selection of suitable footwear for the customer not only reduces the costs that arise as a result of unsuitable footwear due to foot deformations, but also the costs that arise for companies and their customers due to returned goods and is therefore also a sensible improvement from a sustainability point of view compared to the "trial and error" procedure that has prevailed to date when buying shoes.

Projektleiter:

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