Sächsisches Textilforschungsinstitut e.V.

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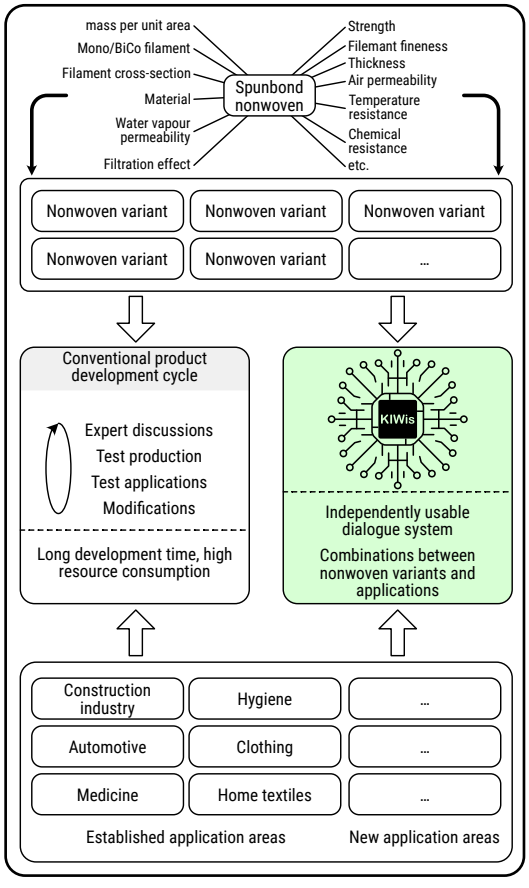
KIWis – AI tool for creating new nonwoven products

Problem / Motivation

- **Trial-and-error development:** Conventional textile development through complex sample production leads to high costs and long development times
- **Parameter prediction hardly possible:** Relationship between material and quality parameters difficult to predict
- **High investment barriers:** Disruptive textile products hardly economically viable to develop
- **Unused digitization:** Multimodal data from production not intelligently connected

SPUNBOND AI



Solution

- **Novel nonwovens**: Development of an AI tool for creative spunbond proposals based on specialized language models
- **Multimodal AI system**: MLLM processes text and image input for spunbond nonwovens
- **Dialogue-driven interaction**: Natural communication between user and AI system
- **Textile-specific data basis**: Connection between language models and textile-specific knowledge for innovative variants
- **Increased efficiency**: Shorten product development cycles and save resources (time, material, energy)

Project Launch

02/2025

INNO-KOM

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