

Projekttitel: **AluGestrick** - Development of fine metallic filter meshes with a filter class of F9 or finer based on aluminum-coated basalt fibers with a diameter below 20 μm

Partner: FibreCoat GmbH, Aachen
DHD Technology GmbH & Co. KG, Spalt
Inn-puls GmbH, München (proposal support)

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Förderträger: ZIM

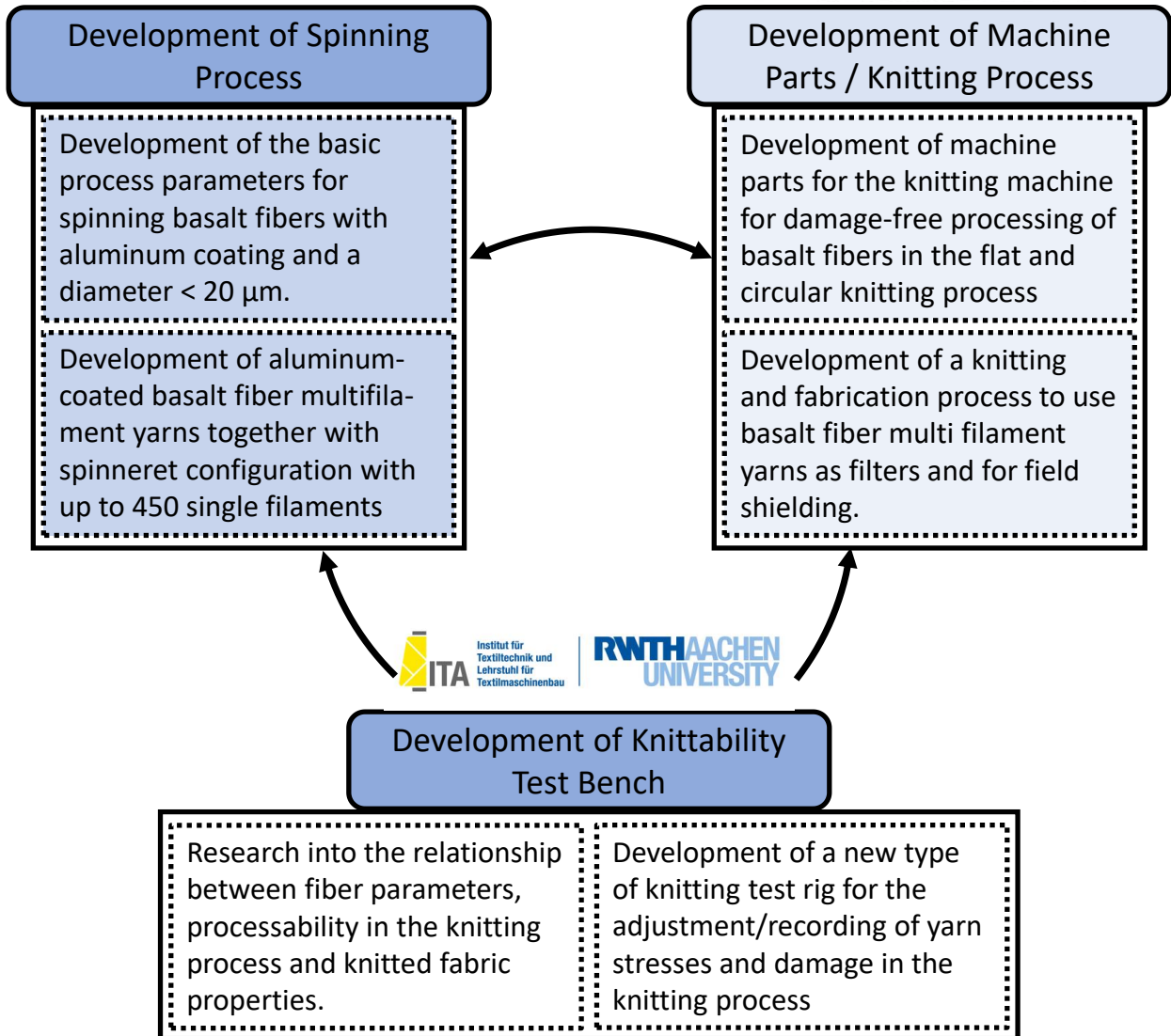
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Mission Statement

Development of a novel fiber spinning process for coating of basalt fibers with aluminum at a single filament diameter of approx. 20 μm . The aim is to produce multifilament yarns with up to 500 individual filaments that are suitable for processing in the knitting process for the first time. This leads to the necessity of a new development of the underlying fiber spinning process, since previous development work only covered filament counts of up to 30 individual filaments, with filament diameters well above 20 μm . Research and development issues are in particular the process parameters in the basalt fiber spinning process, the cooling of the yarn, the new development of a suitable spinneret as well as the coating parameters with the aluminum. In cooperation with the research partner, the spinning process parameters will be developed in such a way that subsequent processing in the knitting process is possible without breaks in the individual filaments or abrasion marks in the yarn or on the aluminum coating. In addition, a sizing system is being developed by means of which the yarns can be processed in the further knitting process without the aluminum coating being rubbed off on the machine components of the knitting machine.



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