

**Project title:** Innovative twisting unit for texturing spun-dyed filament yarns

**Partner:** evico GmbH, Dresden

**Duration:** 11/2018 – 10/2020

**Funding Agency:** AiF ZIM

**Univ.-Prof.**  
**Prof. h.c. (Moscow State Univ.)**  
**Dr.-Ing. Dipl.-Wirt. Ing.**  
**Thomas Gries**  
Director

**Lukasz Debicki**  
**Lisa Papenbreer**  
Scientific Employees

Mission Statement

For spun-dyed yarns, the production speed for false-twist texturing is limited to approx. 700 m/min. This is due to high force peaks during twist insertion into the yarn, which lead to yarn breaks and thus to production downtimes. The false-twist texturing of spun-dyed filament yarn is thus limited in terms of process speed. Compared to undyed yarn, the productivity of the process is reduced by up to 40 %.

The aim of the project is to increase the process speed from currently 700 to 1000 m/min. This goal is to be achieved by the development of a new twisting unit. The effect of force on the yarn is evened out and thus peak forces are minimized. The newly developed twisting unit enables the yarn manufacturer to accelerate its production and thus save costs.

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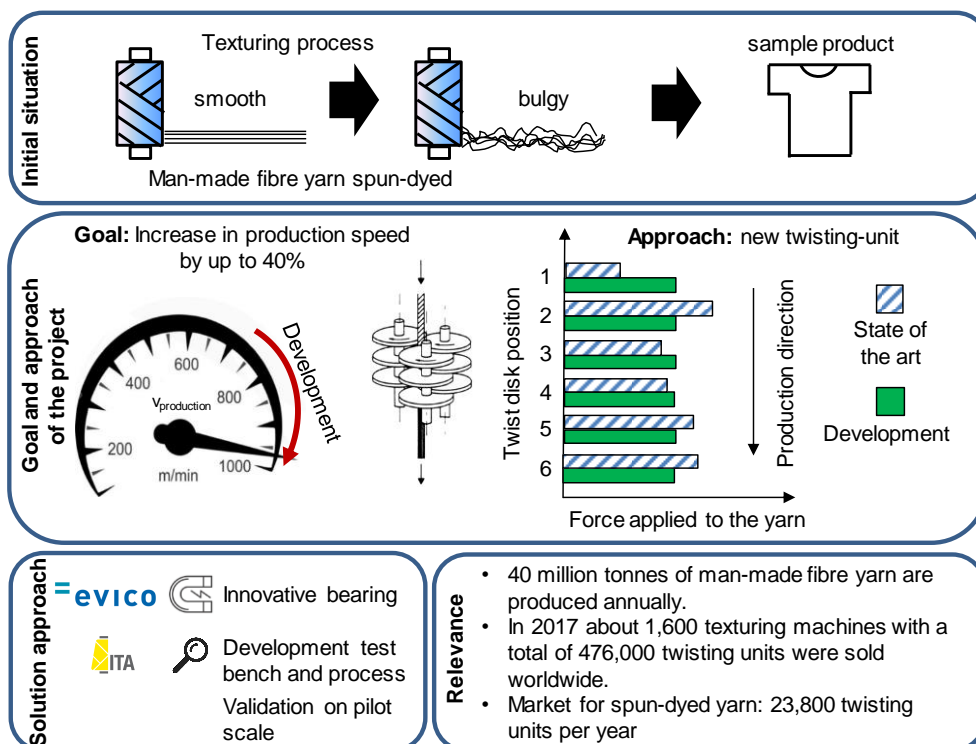


Figure 1: project summary ZIM VariDrill

Within the VariDrill project, evico GmbH, Dresden, will develop a new type of bearing and integrate it into the twisting unit. The Institut für Textiltechnik of the RWTH Aachen University, Aachen, will develop a flexible texturing test bench for the testing of the twisting unit. The test bench will be used to

investigate the effects on the texturing process. The development will be validated on a pilot scale (see Fig. 1).

#### Acknowledgement

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#### Contact

Dipl.-Ing. Lukasz Debicki  
Wissenschaftlicher Mitarbeiter  
Institut für Textiltechnik der RWTH Aachen University  
Otto-Blumenthal-Str. 1  
52074 Aachen  
Tel.: +49/(0)241/80 234 75  
Fax: +49/(0)241 80 22422  
Lukasz.Debicki@ita.rwth-aachen.de  
www.ita.rwth-aachen.de

Lisa Papenbreer, M.Sc.  
Wissenschaftlicher Mitarbeiterin  
Institut für Textiltechnik der RWTH Aachen University  
Otto-Blumenthal-Str. 1  
52074 Aachen  
Tel.: +49/(0)241/80 220 88  
Fax: +49/(0)241 80 22422  
Lisa.Papenbreer@ita.rwth-aachen.de  
www.ita.rwth-aachen.de