CORNET Call for Proposals: International Collective Research

--- Organisation profile ---

Organisation:	**Deutsche Institute für Textil- und Faserforschung Denkendorf (DITF)**
Website address:	www.ditf.de
Organisation typology:	□ SME Association □ University x Research Centre □ Other (please specify)
Sector:	x Materials x Process Engineering, Energy Technology and Environment x Business Management and Organisation x Construction and Production x Chemistry, Textile, Food, Health and Medical x Measurement and Information
Field of specialisation:	Three research areas, Textile Chemistry, Textile and Process Engineering and Management Research, cover the entire textile value chain from molecule to product. Research fields: - New Materials - Lightweight Construction - Sustainability - Digitalisation - Health
Expertise offered:	Polymer Synthesis: - Polymers for fibres and matrices - Precursors for carbon fibres (PAN, polyolefin, cellulose, lignin,…) - Ceramic fibres, cellulose processing and cellulose fibers, biopolymers (chitin, chitosan, flax,…) Fibres and Yarns: - Wet spinning technology, dry spinning technology - Melt spinning technology - Bicomponent spinning technology - Texturizing and drawing - Nonwoven technologies - Staple fiber technology - Winding technology Fabrics and Structures: - Spacer technologies - Weaving, braiding, knitting, joining technologies

	- tissue engineering - membranes - braiding pultrusion - structure winding Functionalisation: - Sol-Gel Technology - Dyeing and finishing - Printing technologies - Nanotechnologies - Physical and chemical methods - Coating, minimal application technologies - Integration of electronic components - Development of sensory and actuatory properties Industry 4.0: - Modeling and virtualisation - Value-added systems, business models - Digital Engineering, intelligent and sustainable production - E-learning, blended learning Circular Economy: - Recycling - Product Carbon Footprint - Microfactory - AI, Digital Twin Testing and analyses
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