

ITA Group

Our Mission Statement

ITA Group is an international research and training service provider with 350 employees working towards the development of fiber-based high-performance semi-finished products and their manufacturing processes.

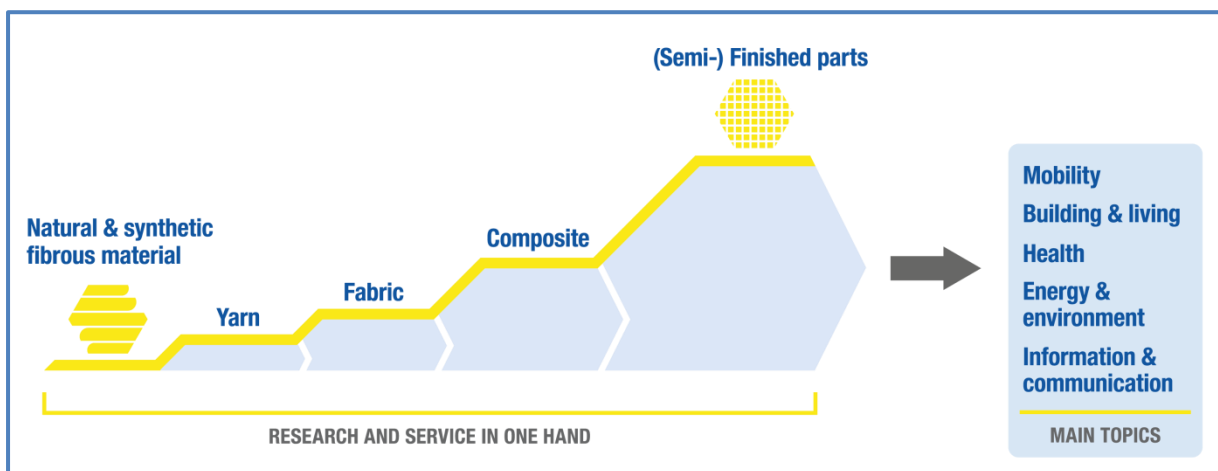
The core of the ITA Group, located in Aachen, comprises of the research and teaching institution Institut für Textiltechnik of RWTH Aachen University and the ITA Technology Transfer GmbH.

Our Goals

- We develop people concerning relevant innovation topics.
- With the help of structured methods and creativity, we design innovative and economic solutions.

The benefit of our research partners, customers, students and employees results of:

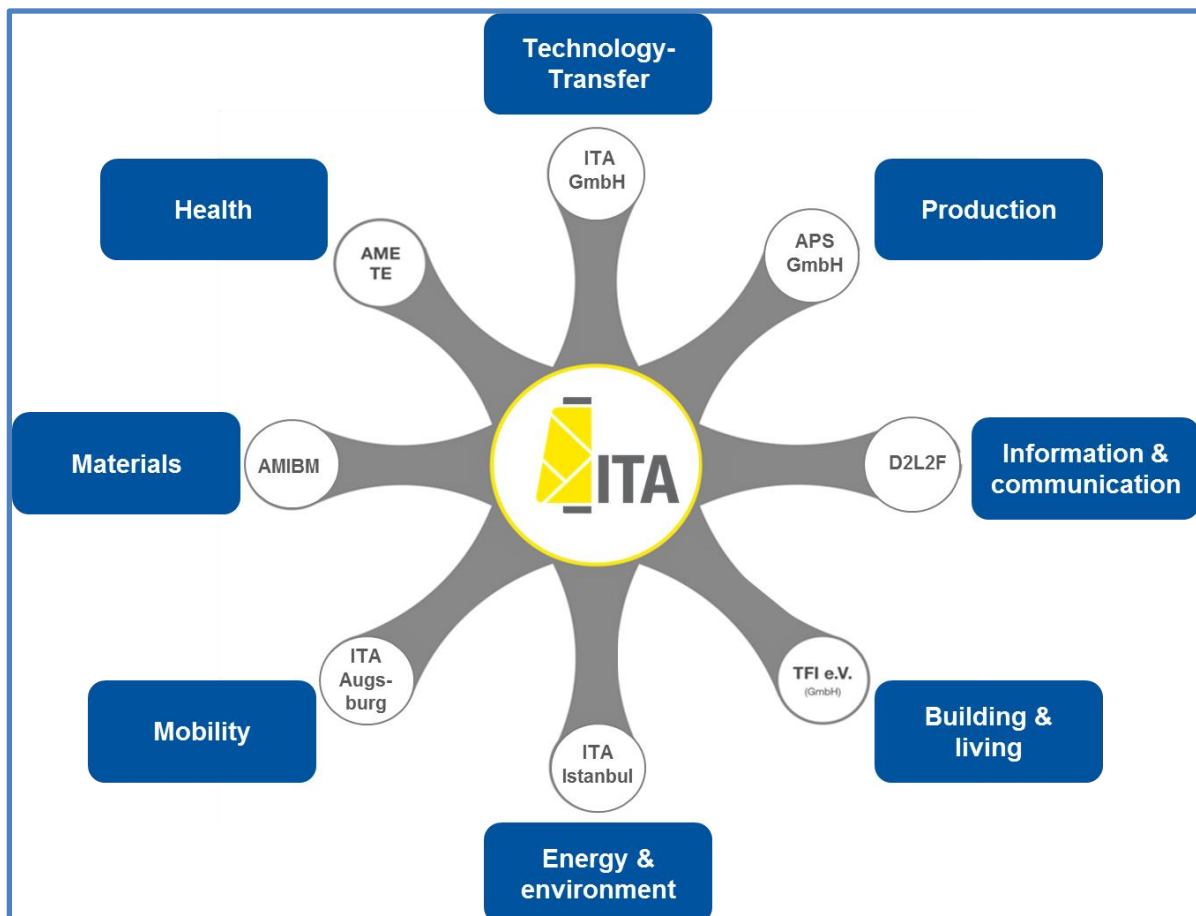
- Cradle to grave textile process chain solutions:
From fiber raw material to textile semi-finished products and integrated components
- Meeting both Research and Industrial Needs:
Bridging the gap between basic research and industrial applications,
- International visibility and excellent networking in:
Interdisciplinary research fields, international markets, diverse industries.



Profile of the ITA Group:

- Our key focus areas are based on social megatrends and challenges: mobility, health, energy, building and living, information and communication technology, materials, production, qualification
- We combine the breadth of technical knowledge through complete process chains with a thematic depth in selected technologies and areas of competence
- We use integrated engineering competencies: quality management, project management and process control, material analytics, modelling and simulation of processes and materials, manufacturing engineering, construction, product development
- We work on technology-exceeding, holistic questions: human-machine interaction, qualification, design and assessment of technology impact, industrial engineering and value chain management

Structure of the ITA Group



Institut für Textiltechnik of RWTH Aachen University (ITA) is the technological center for Textile Engineering of RWTH Aachen University. The chair of Textile Engineering is a part of the faculty of Mechanical Engineering of RWTH. The institute is led by the director Prof. Thomas Gries. In addition to its four core research areas of chemical fiber technology, textile engineering, fiber composite materials and biohybrid and medical textiles, the institute also focuses on academic teaching, scientific training and the development of executives during and after the doctorate.

ITA Technologietransfer GmbH (ITA GmbH) in Aachen, led by Markus Beckmann, is the technology transfer partner of the ITA Group. ITA GmbH is an industrial service provider and commercialization group of the ITA group aligned with the previously mentioned research focus of the institute. ITA GmbH offers the industry comprehensive solutions along the textile chain, accompanies the innovation processes from the inception of idea to a commercially viable product launch, and supports the innovation process in diverse secondary industrial sectors. In addition to ITA GmbH, two additional companies of the ITA Group support the transfer of technology and know-how through personnel and small business development:

ITA Academy GmbH is an educational service provider, comprising of three main groups: the *Digital Model Factory*, located in the *Digital Capacity Center (DCC) Aachen*, (a cooperation of McKinsey Company with the ITA GmbH), offers training towards the digital transformation of shop floor operations. This training is offered through a textile production process for smart wristbands, which is currently being carried out at the DCC facility in Aachen. In the *Textile Training* sector, both basic training courses for basic textile knowledge as well as customer-specific training courses are provided. In the *remote training* sector, APS GmbH transfers mechatronic know-how through distance learning in real time across different continents worldwide.

The **ITA Inkubator GmbH** in Aachen is the technology commercialization center of the ITA Group for start-ups which are technologically, organizationally and structurally supported by the ITA.

The **APS GmbH Europäisches Centrum für Mechatronik (APS)** is active in the field of robotics, sensor technology, information and communication technology. Engineers and technicians from different disciplines develop and implement interdisciplinary concepts and solutions in cooperation with national and international industrial partners, contracting authorities and researchers.

The **Institut für Textiltechnik Augsburg gGmbH (ITA Augsburg)**, ITA's textile research facility in Bavaria, develops the recycling of secondary raw materials of the composite indus-

try and the development of thermoplastic tape-based composite systems. ITA Augsburg actively collaborates with the top research clusters in the field of composites situated in the Augsburg region through cooperation with the University of Augsburg. Professor Stefan Schlichter, Managing Director of ITA Augsburg, holds a chair of Mechanical Engineering at the Institute of Materials Resource Management.

An important bridge to medicine and the natural sciences is the **NRW Schwerpunktprofessur Biohybrid and Medical Textiles (BioMed)** by Prof. Stefan Jockenhövel. Prof. Jockenhövel heads the Research Area Biohybrid and Medical Textiles at the ITA and in parallel the Research Group on Tissue Engineering and Biomaterials at the Helmholtz Institute for Applied Medical Technology (AME-TE). Different sciences co-operate here with their different working methods and thus enrich the scientific landscape of both institutions and the RWTH as a whole.

Prof. Stefan Jockenhövel also serves as the Scientific Director of the **Aachen-Maastricht Institute for Biobased Materials (AMIBM)**, which was inaugurated in 2016. Through cutting edge research, AMIBM realizes the development and implementation of complete research and process chains from the biological starting materials to products close to the market in technical and medical applications. AMIBM aims at providing solutions through excellent applied and transnational research by leveraging synergies through intensive co-operation between industry and academia. The Maastricht University and RWTH Aachen University have jointly set up this European "cross-border" research institute.

ITA Istanbul A. Ş., led by Dr. Bayram Aslan, is a textile research and development center in partnership with leading Turkish industrial associations and Marmara University, Istanbul. Turkey's growing textile market is of an enormous strategic importance since it serves as an interface between Europe and Asia. ITA Istanbul's active presence in Turkey is aimed at further fostering the growth of German companies in this region by promoting and carrying out advanced research and development activities. With excellence in university teaching, vocational training and industrial research & development, ITA is a holistic solution provider for technical innovations. We offer service across the complete value chain for the production and use of fiber-based materials and semi-finished textiles.

TFI-Institut für Bodensysteme an der RWTH Aachen e.V. is a partner for research, testing and certification in the field of floor and wall systems, as well as, other interior design products. The TFI has an accredited test laboratory according to ISO 17025 and offers tests in the fields of safety, health and quality. In its research, the institute mainly develops solutions to address current day challenges like development, production, marketing, and utilization of floor coverings and systems. TFI also offers selected teaching modules at the Institute for Textile Technology.

Dream2Lab2Fab (D2L2F) develops economic production technologies for the manufacturing of smart textiles for small and medium-sized enterprises within a bilateral cooperation between South Korea and Germany. The goal is to combine different knowledge databases of the relevant sectors of these two economically strong nations to develop smart and efficient products. ITA Group's partners are the Institute of Industrial Technology (KITECH) and the Sungkyunkwan University (SKKU). Both in Korea and in Germany, the corresponding research centers are under construction.

ITA Group: Our Value Proposition

Providing our customers with advanced, competitive, state of the art solutions through our 4 I's

- **Integrated Approach:** ITA is a 'One Stop Shop' for all Textile based Solutions. ITA strengthens its customers' market position by providing advanced state of the art solutions.
- **Interdisciplinary:** All disciplines of a technical elite university are represented at ITA
- **Industry Oriented:** Approx. 30 % of all ITA projects are direct industrial projects, while a further 40% are co-operation projects with the industry. ITA is an extended, direct R&D team for industrial partners and an innovative service provider.
- **International:** Worldwide co-operation with prestigious universities and companies, focus point regions are Turkey, Asia (Japan, South Korea, and India), Russia, Europe, North America

