MAXCarbon for the Hydrogen Economy – ITA Spin-off TERNAfil Takes Third Place at KUER.NRW 2026



3rd place: TERNAfil from Aachen. Photo: Susanne Lindner

The Aachen-based ITA spin-off TERNAfil GmbH has secured third place in the KUER.NRW Business Plan Competition 2026. North Rhine-Westphalia's Environment and Transport Minister Oliver Krischer presented the award to the founding team in Düsseldorf on 3 November.

TERNAfil impressed the jury with MAXCarbon, a novel carbon-ceramic hybrid fibre that combines the mechanical performance of carbon fibres with the thermal and corrosion resistance of ceramic materials. The technology is the result of several years of research by the founding team at RWTH Aachen University.

The business plan focuses on using MAXCarbon as a functional textile for the hydrogen economy, particularly in gas diffusion layers for fuel cells and porous transport layers for electrolysers. These components are critical to the performance and durability of electrochemical cells.

Fabian Jung, TERNAfil founder and ITA PhD student, commented:

> ***"With MAXCarbon, we aim to unlock the potential of textile materials for the hydrogen economy. This award encourages us to take the technology towards industrial applications together with our partners."***
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> *— Fabian Jung, TERNAfil founder and ITA PhD student*