One stop for Composite Engineering and Consulting
One stop for Composite Innovations | Get the best from one source

COMPOSITE CONSULTING

COMPOSITE ENGINEERING

COMPOSITE MANUFACTURING MACHINES

COMPOSITE SOFTWARE DEVELOPMENT
Some insights in our work
Composite Simulation

Process Simulation
- FE-Forming simulation
- Manufacturability
- Process optimization

Structural Simulation
- Strength and Rigidity
- Structural optimization
- Method development

Material characterisation
- Specification
- Testing
- Material cards
SIMULATIVE PRODUCT DEVELOPMENT
• Process Analysis and Feasibility Studies
• Coupled Structural Analysis
• Determination of Process Induced Defects

COOPERATIVE DEVELOPMENT
• Joint Development of INEOS, ESI and CIKONI
• Demonstration of Simulative State-of the Art and Capabilities

Quelle: INEOS Styrolution / ESI
Some insights in our work | Automation of Composite Manufacturing

- Simple automation
- cycle time < 3 min
- Small investment
- Demonstrated at OEM
Some insights into our work | In-house developed composites software

Composites Requirements Management

- Complex interlinks between geometrical, material-specific and structural requirements require holistic requirement management
- TECHMATCH offers software based assessment and recommendation of manufacturing technologies based on requirements of big teams

Composites Simulation Software

- Software-Automation as enabler for fast variant assessment
- Reduction of project time of over 90%
- Increased project profitability by over 60%

Automated generation of variants | Automated FEA modell generation | Automated analyses and presentation
Some insights in our work | Carbon Fibre Rack for Mercedes-Benz

- Engineered from scratch by CIKONI
- Simulation intensive development
- Overall product development and manufacturing responsibility
Some insights in our work | Carbon Fibre Rack for Mercedes-Benz
Some insights in our work

Engineering and Development for Additive Manufacturing

- AM-centric development methods
- Know-how on functional integration, manufacturability
- From concept to delivered part by CIKONI
Some insights in our work | 3D Reinforced Additive Manufacturing

- Base structure realized by additive manufacturing
- Automated 3D filament winding for stability
- First manufacturing machinery and products realized
- Additional injection moulded base carrier available
Some insights into our work | Innovation is our passion

Innovation awards by team members

- Alumni Price of the TU Dresden 2012
- AVK Innovation Award 2014
- ThinKing Award 2017
- ESAFORM Industrial Prize 2017
Contact

Dr. F. Nezami
nezami@cikoni.com
+49 (0) 176 631 931 10

J. Fuhr
fuhr@cikoni.com
+49 (0) 170 206 26 25