

CU Innovation Day „Sustainable Composites for future Applications“



September 25th - 26th 2024 at **Kordsa Advanced Materials**, Freisinger Landstraße 50, 85748 Garching
Moderation: Sven Blanck, MAI Carbon, Roy Thyroff, CU Bau, Denny Schüppel, Ceramic Composites

This joint event of MAI Carbon, Ceramic Composites and CU BAU of Composites United e. V. brings together the expertise of the various material classes - carbon fiber-reinforced plastics, ceramic matrix composites and fiber reinforced constructions. Special Focus will be within:

Resource-saving materials and the circular economy in bulidings

Innovative fiber types such as basalt, glass fibers, carbon fibers and bio-based matrices contribute to the conservation of resources. Recycling processes and the reuse of composite materials are important topics for the circular economy. In the construction sector, corrosion-resistant and weather-resistant composite materials ensure a long service life for buildings and infrastructure.

Lightweight design in hydrogen storage for mobility and energy technology

Hydrogen as a possible drive concept of the future offers huge opportunities. We want to take a closer look at the potential in transportation, defence technology and aviation.

Fiber-reinforced ceramics enable leap innovations in the energy transition

As time goes on, new fiber suppliers are entering the European market. In addition to military applications, there are also a number of civilian applications where Ox/Ox can be used. Particularly in the area of the energy transition, Ox/Ox enable completely new ways of making production more sustainable and bringing sustainable products to the market.

Agenda on 25.09.2024

11:00 Welcome, Registration, Snacks & Networking

12:00 Welcome and Opening Remarks / Roy Thyroff & Sven Blanck, Composites United e. V.

12:15 Welcome and Opening Remarks
Burak Orhun, President, Sabancı Holding Material Technologies and Ibrahim Ozgur Yildirim, CEO, Kordsa

12:35 Sustainability Approach of Kordsa
Muge Yenmez, CTO & Region General Manager, Composite EMEA Kordsa

12:40 Biobased & Flame Retardancy Materials
Koray Ilhan, Senior Project Leader, Kordsa

13:00 Future Perspective in Composite
Federico Becagli, CTO, Microtex Kordsa

13:20 Political Welcome Remarks
Bernhard Pohl, Deputy Chairman of the Freien Wähler in the Bavarian Parliament, MdL

13:30 Session 1: Sustainable construction solutions

13:30 Innovation in Civil Engineering: The Role of CFRP
Prof. Dr. Alper ILKI, Istanbul Technical University

13:50 Reinforcing Structures with Carbon Fabrics: Case Studies with Kratos
Huseyin Ates, Business Unit Leader, Construction Reinforcement and Compounding, Kordsa

14:10 Sustainable Success today, with CO₂ reduced Carbon Fibers
Dr. Sarah Reiser, Technical Sales Manager Continuous Tow Carbon Fiber, SGL Technologies GmbH

14:30 Possibilities of carbon grid reinforcements with mineral binders under consideration of CO₂ reduction
Dr. Patrick Schäffel, General Manager, PAGEL Spezial-Beton GmbH & Co. KG

14:50 Repair of Bus Lanes using High Performance Fiber Concrete (UHPFRC) as ultrathin whitetopping (UTW)
Oliver Sikorski, Spezialist Carbonbeton & UHFB Deutschland, Implen Civil Engineering GmbH

15:10 Coffee Break & Networking

15:30 Session 2: CFRP for hydrogen applications

15:30 Hydrogen Storage Market, Slitpreg & Towpreg Applications
Elif Erdogan, Sales & Marketing Group Manager, Composites EMEA Kordsa

15:50 Material Design for a Lightweight High Performance Axial Flux Motor Cooled with Cryogenic Hydrogen
Prof. Dr. Andre Baeten, University of Applied Sciences Augsburg

16:10 Thermoplastic winding technologies for hydrogen vessels and tubes – Benefits and challenges
Phillip Müller, AVANCO Composites

16:30 Composite tanks innovation - 15% weight reduction by using dome reinforcements in an industrial process
Dr. Dimitrios Sikoutris, Composites & FPP Technology Expert, Cevotec GmbH

17:00 Finish & Transfer to Oktoberfest via Bus

18:00 Get Together @ Oktoberfest Munich (Hotel transfer around 21:00 o'clock)

Agenda on 26.09.2024

09:00 Session 3: CMC for sustainable applications

09:30 Ceramic Matrix Composites – Manufacturing and Applications
Antonios Tontisakis, VP Technology Materials, Kordsa North America

10:00 Continuous oxide-ceramic fibers „Made in EU
Dr. Marco Hildebrandt, R&D-Scientist, Rath GmbH

10:20 Impact of High Denier Fabrics on Ox-Ox CMC
Stefan Friedrich, Technical Manager, Advanced Materials Division, 3M Deutschland GmbH

10:40 Coffee Break & Networking

11:00 Infusion fabricated oxide CMC – From prototyping to series production
Dr. Michael Welter & Dr. Vito Leisner, DLR-WF

11:20 Ox/Ox Produced by Schunk
Dr. Thomas Wamser, fiber composite material developer, Schunk Kohlenstofftechnik GmbH

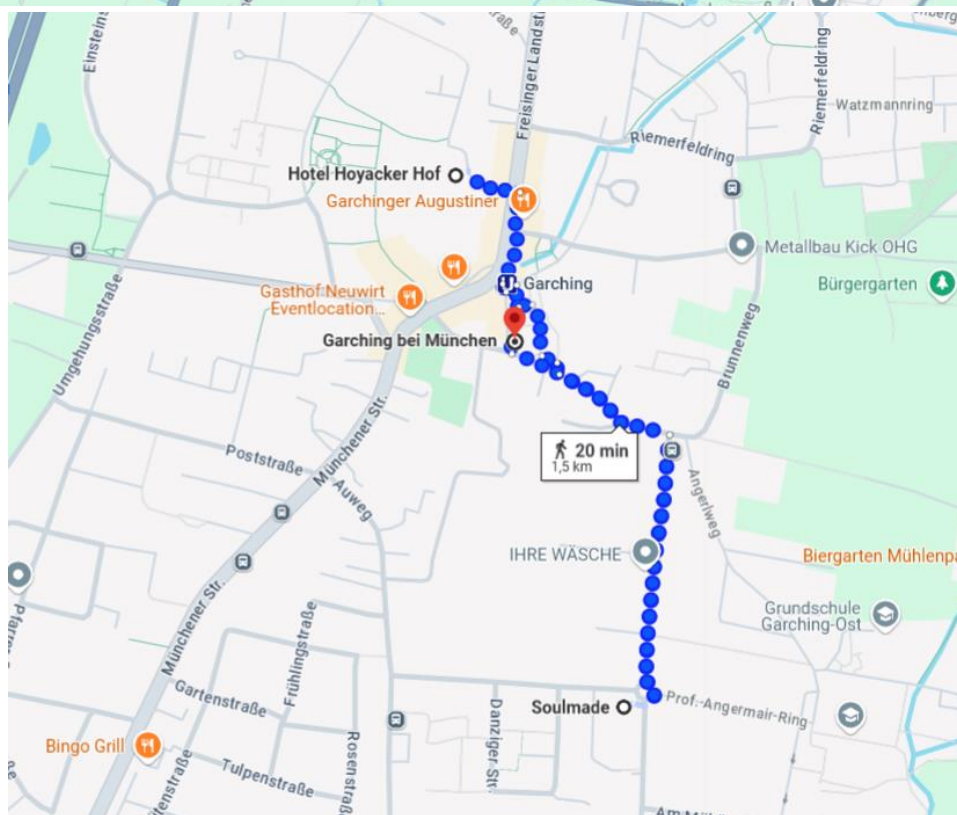
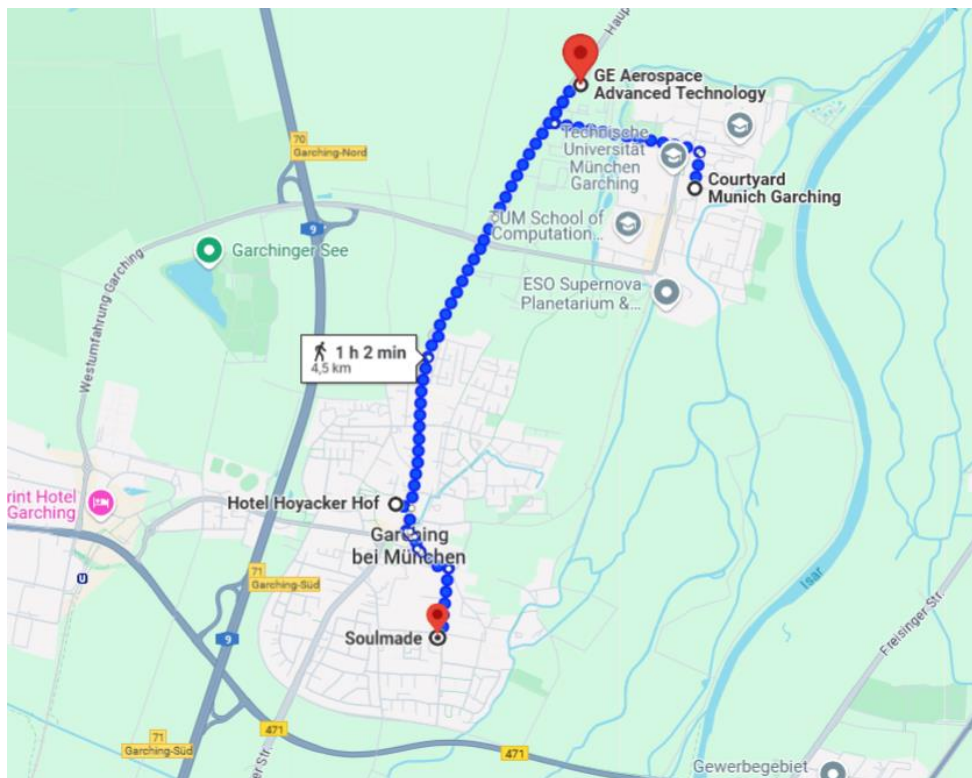
11:40 Ceramic Composites as Gamechangers for Thermal Runaway protection in Electric Vehicles
Dr. Mathias Kunz, CEO of WPX Faserkeramik GmbH

12:00 Application potentials of OCMC in the chemical industry
Dr. Matthias Sentko, High Temperature Reactions, BASF SE

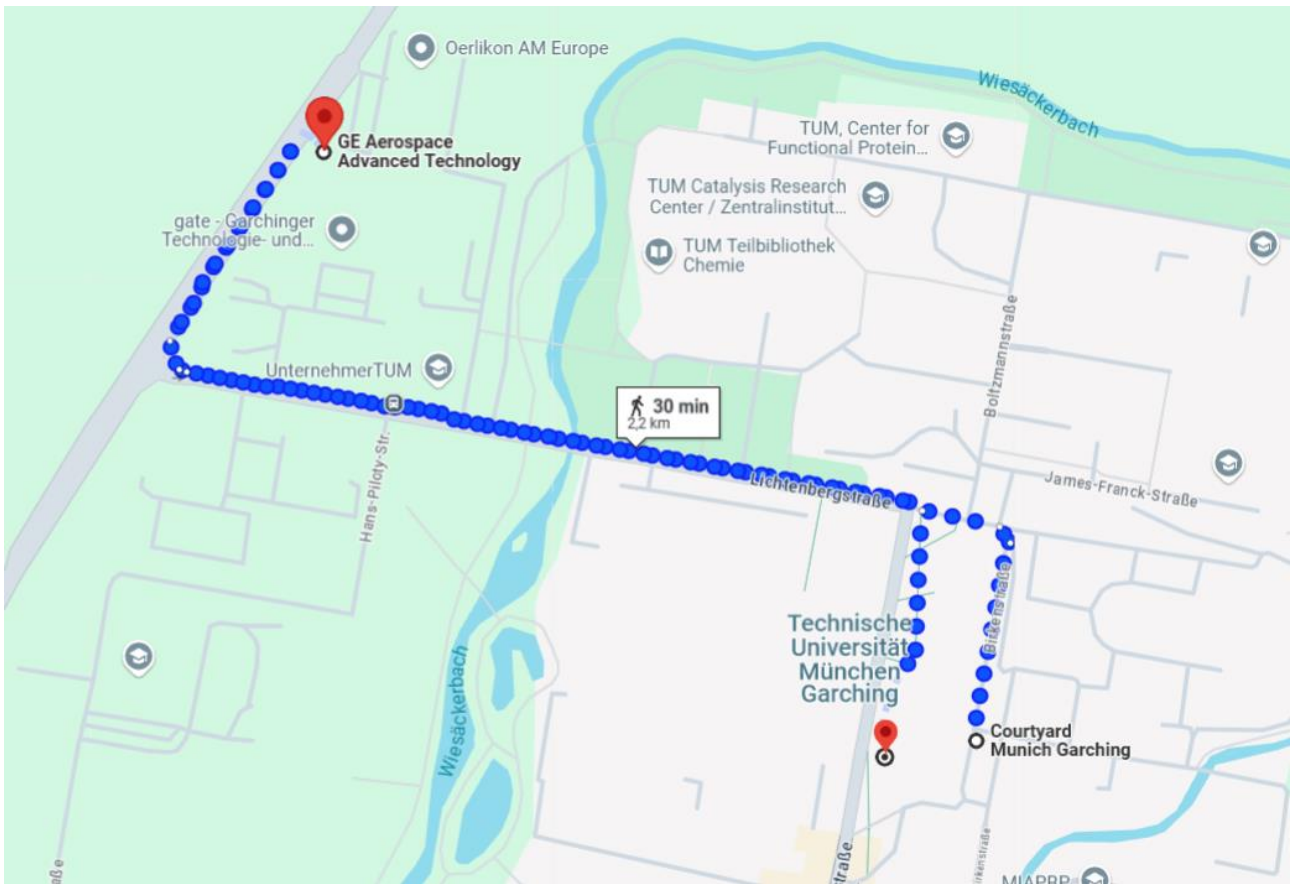
12:20 Wrap-Up & Forecast

12:30 Lunch and Networking

Agenda



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An event of the CU working groups „Lightweight Design for Hydrogen Systems“ and OxiCer organized by MAI Carbon, CU Bau and Ceramic Composites