

CU – Workshop

Disruptive manufacturing of large-scale composites

On **November 03, 2022, 09:30 am – 3:30 pm CET online via Zoom**

Moderation: Dr. Bastian Brenken

Composites United e. V. and the new CU member TPI Composites invite you to join the workshop “Disruptive manufacturing of large-scale composites”. The goal of the day is an open and out-of-the-box brainstorming and discussion around new ways of rotor blade and other large composite parts production, covering the three main areas “Novel manufacturing technologies & processes”, “Tooling and fixtures” and “Innovations in materials”. As a foundation, TPI Composites will share interesting insights in their rotor blade production and the current state of the art. Join us with your creativity and be part of this exciting workshop!

The event is planned in English to allow the participation of international members and guests. In case of an all-German speaking audience, the event will be held in German.

Agenda

09:15 am Log-In and Registration

09:25 am **Welcome**
Dr. Bastian Brenken, Composites United e. V.

09:30 am **Opening from TPI Composites**

- Presentation of TPI Composites
- Overview of today’s blade manufacturing process
- Presentation of Workshop structure
- Goals and expectations of the day

Nicholas Warchol, VP Global Technical Program Management, TPI Composites

10:30 am **Discussion Session No. 1**

3 discussion topics in 3 break-out sessions:

- 1) Next generation Manufacturing technologies & processes
 - a. Which manufacturing technologies and processes enable a paradigm shift to improve safety, quality, cycle time or cost?
 - b. What process or technologies improve process yield and reduce part to part variability?
 - c. How can digitalization, data Capture, and data analytics help to make quality control and documentation more robust, less process intrusive, and ultimately more cost advantageous?
- 2) Tooling and fixtures
 - a. Which technologies enable more flexibility and shorter times to market to adapt to shorter product cycles?
 - b. How can the quality of rotor blades be improved at the same level of cost?
 - c. What features and smart tooling prevents challenges from production and confirm compliance?
- 3) Innovations in materials
 - a. How can alternative materials allow a safer, faster and more cost efficient production at lower costs? What is the barrier to implementing these solutions today?
 - b. What materials supports recyclability and increase sustainability?
 - c. Which material alternatives enable lower cost//performance?

12:00 pm **Lunch break**

AGENDA

1:00 pm Discussion Session No. 2

Continued discussion of Session No.1. Attendees might change the group in the case of interest in multiple topics.

2:00 pm Coffee & Networking Break

2:30 pm Presentation of the Discussion Results

10-minute summaries of the results of each topic, presented by the session moderators

3:00 pm Resume, Closing & Good bye

Nicholas Warchol, VP Global Technical Program Management, TPI Composites

3:30 pm End