BioPhenom

About INVENT

INVENT GmbH has been developing, implementing and marketing customised, innovative fibre composite technologies for high-quality technical components "Made in Germany" since 1996. As an internationally orientated, medium-sized company with around 140 employees, INVENT GmbH offers complete concepts along the whole process chain for product development. The experts at INVENT will manage the material selection, structural design, calculation and simulation, as well as the manufacturing processes necessary for the first prototype and the following series production. The customers are mainly in the aerospace and general industry sectors (mechanical engineering, automotive engineering, automation technology). Our team consists of 40% skilled workers and 40% engineers who will find a solution to every task. The high standards in quality assurance of lightweight fibre-reinforced composite structures are fundamental for our client's success. INVENT takes pride in being a Tier 1 Supplier for various series production activities. To further increase our knowledge for potential customers, we participate in many national and international projects for process development and application of innovative polymer materials. Since 2005, our product portfolio has been extended by piezoelectric actuators, which can be used for structural health monitoring.
For the BioPhenom Project, we have decided to use a young professional, Fabian Wunderle as project manager and expert in manufacturing technologies with fiber reinforced composites. Fabian will be supported by our experienced project manager Alessandra Kummerow, who is very well versed within the composite industry sectors of aviation, space and automotive.

How will the BioPhenom project make Europe more sustainable?

The BioPhenom project has the potential to influence the future of relevant industry sectors by supplying a solution for bio-based resins. Replacing conventional resins with bio-based alternatives could lead to a decrease in the carbon footprint of these resins, hence allowing for a more sustainable Europe in the process. Important factors for the successful implementation of bio-phenolic resins into the industry are the mechanical values, the flame-retardant characteristics and the processing properties.

Fabian Wunderle
Young Professional
Project Manager
Manufacturing Expert
INVENT

Alessandra Kummerow
Project Manager (deputy)
Material Science Expert
INVENT

What will be the role of your organisation in the project?

Invent will support the project partners in Workpackage 3 in the development and testing of the first upscaled resin batches. Furthermore, we will provide industry knowledge and help the partners with the requirement analysis, dissemination and exploitation work of the final product. As a final task in Workpackage 4, Invent will work with the consortium to determine a suitable application for the BioPhenom thermosetting resin and produce a corresponding demonstrator. We look forward to achieving great things together with our partners!

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