

# High performance structural parts for sustainable sailing



## Motivation

For quite some time sailing becomes faster and faster and with this it's getting more and more popular. Maybe you know the AmericasCup, Sail GP or the Vendee Globe. We at Impetus are addicted to sailing at highest speed but on the other hand sustainability lays to our hearts.

## Problem Definition

As sustainable components made of composite material have not yet been developed to the edge of what's possible, parts are often too heavy, too weak, or too flexible. In this project the LCC and Impetus want to give you the opportunity to develop a high-performance structural part for sustainable sailing.

## Project Work

In the time of the project, you will be part of the TUM student club Impetus Sailing Team and develop structural parts of our latest boat. Depending on the size of the group you will develop one or several parts of the hull or the rigg:

### Foils

The foils are the components with the highest requirements in terms of strength, lightness, and the desired flexibility. Almost everyone has known them since the start of the e-hydrofoils.

### Mast & Boom

The mast and the boom are parts which are currently produced out of carbon fiber or aluminum. In our upcoming challenges we think about replacing the material with flax fiber.

### Ruder & Daggerboard

The ruder and the daggerboard have high requirements to create the uplifting moment after a capsizing. In these parts the production is a key point. For the best components you need an RTM mold which has to be developed with highest precision.

### Application

For application, please send your CV and a short description of your experiences in a project you worked on. If you could add the structural part, you are most interested in for the project your application is perfect.

After that you'll get more information from us.

### Contact

Benjamin Wittmann  
b.wittmann@impetussailing  
01575/4062071

