

# Super Yacht Cup-winning high performance Wally class vessel requires composites expertise to complete complex refit

**STRUCTeam was the composites design and engineering partner when the Wally Cento Class yacht the 'Hamilton' won the Cowes 2012 Super Yacht Cup, alongside naval architects Judel Vrolijk, and boat builder Green Marine. Its new owners have turned to STRUCTeam with its specialist expertise for marine design to assist with the complex refit.**

“Our original challenge when building the 'Hamilton' was to create a design that could handle extreme racing yacht loads at the same time as maximising interior space and fit within the Wally Cento class rule,” highlights STRUCTeam Managing Director Julien Sellier.

“The yacht is currently undergoing a major refit to improve its performance. Composites technologies underpin the changes and our challenge is to ensure that the modifications meet the demanding design and performance criteria of the Wally racing yacht class, and that they comply with Germanischer Lloyd's (DNV GL) structural requirements.”

## **Major structural changes require redesign**

According to Julien, the refit requires a significant redesign of the composites-based structural elements.

The structural analysis is demanding and to assist with the design, STRUCTeam used the unique capabilities of composites design solution CompoSIDE. This is an integrated suite of cloud-based design engineering modules and data management tools that significantly reduce development time and cost for composite applications.

“The advanced composites materials used in the design are carbon fibre prepreg with honeycomb lightweight cores,” continues Julien. “Only this combination of materials can deliver the structural integrity alongside the optimal weight, space and performance characteristics. It is a design task that requires specialist knowledge and software.”

## **Extending the life and performance of superyachts**

“It is quite usual for superyachts to undergo major refits that can extend their life, enhance performance and to meet a new owner's requirements,” says Julien. “With an



expert and knowledgeable team designing and completing the refit, yachts that are constructed from composites materials usually benefit from ongoing upgrades.”

With STRUCTeam’s composites expertise, Hamilton’s refit is predicted to be completed on time and to specification. The upgraded yacht will remain within the Wally racing class and feature increased interior space for its crew. Its performance will be enhanced, with the yacht’s complex control systems further optimised.

**END**