

## Shape memory material for high-performance elastic wingsail casing for wind-assisted naval propulsion

**Sector:** Marine energy/ Other - Marine structures/ Green energies (wind)

### Short description of the needs:

Openfactory designs and prototypes technological solutions for the naval sector. In particular, through the Sailfoil project, it creates wind-assisted auxiliary propulsion systems (wingsails). The need for innovation concerns the identification of an advanced shape memory material for the outer shell of the wingsail, capable of working in a marine environment with cyclic loads. The material must have controlled elasticity (maximum elastic strain 10–12%), high mechanical strength during elongation and performance stability over time, so as to ensure elastic deformation and improve efficiency, reliability and durability. Industrial and technological partners are sought for the formulation and characterisation of SMP/engineered elastomers or hybrid systems, as well as for fatigue and durability testing and validation on prototypes under operating conditions.

**More info:** For more information apply to [eccentric@imast.it](mailto:eccentric@imast.it)

**Company:** Openfactory S.r.l. (Sailfoil project)

**Point of contact for the brief/challenge:** IMAST - High Tech District on Engineering of Composite Materials and Polymers

**Company position in the value chain:** Tier 1 supplier