

## On-board Additive Manufacturing for spare parts in cruise shipping and for timelapse reduce

**Sector:** Marine infrastructures

### Short description of the needs:

In order to reduce cruise ship maintenance downtime, reduce logistics costs and decrease dependence on external supply chains, the company aims to design a rapid on-board production architecture for spare parts through the use of additive manufacturing (AM), based on component surveying through qualified digital processes and support provided by onshore engineering centres. Research centres and partners are sought to provide the most suitable materials and workflows to meet the need for thermofluidic and mechanical components in general, contributing to structuring the innovation offering for end customers. These components must have mechanical properties of durability and suitability for marine use. Design solutions must address the main constraints on board, including limited space and vibrations, while complying with safety requirements and integrating with existing maintenance workflows, which include material storage, handling and 3D printing operations. The company will consider setting up spin-offs or specific activities to be shared with partners who demonstrate suitability and relevance to the research.

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

**Company:** De Palma Thermofluid S.r.l.

**Point of contact for the brief/challenge:** IMAST - Distretto Tecnologico per l'Ingegneria dei Materiali Polimerici e Compositi e Strutture

**Company position in the value chain:** OEM