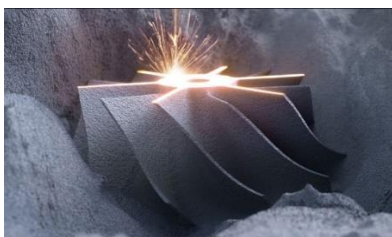


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Launching of the ADD-HUB project: the first Cypriot metallic 3D printer installed at UCY

The Department of Mechanical and Manufacturing Engineering at the *University of Cyprus* (UCY) in collaboration with the Department of Mechanical Engineering and Materials Science at the Cyprus University of Technology (CUT) and the Department of Mechanical Engineering at University of Southampton (UK) have launched a new research project entitled “Additive Manufacturing of Metal Matrix Composites for structural applications in the marine industry” with the acronym: *ADD-HUB*. The consortium of ADD-HUB has secured funding of €250,000 by the European commission and the Cypriot Government through the Research and Innovation Foundation under the Excellence Hubs call (EXCELLENCE/0918/0260).

The aim of ADD-HUB is to introduce advanced manufacturing concepts such as metal 3D printing to the Cypriot Research Technology, Development and Innovation (RTDI) system by building upon existing capabilities of the two main public Cypriot Academic/Research Institutions (UCY and CUT). Through this funding, the first ever, Cypriot metallic 3D printing research laboratory was set up at the University of Cyprus. The ORLAS CREATOR RA printer (see picture on the right) from COHERENT & OR Laser has been installed at the Latsia campus of UCY since the beginning of January. Researchers from ADD HUB and technical staff from the university have already completed a week-long training on how to operate and maintain the machine. Currently trial runs and optimization processes are being run. The official kick off meeting for the project is expected to take place at mid-March with researchers from all three partners participating.



The main research and technological objective of the project is to address the need of the marine and offshore industries for economic, reliable and on-demand components and to validate the manufacturing viability of mechanically alloyed powder materials using additive manufacturing. In particular the project will comprise of three phases: a) Powder preparation of metal matrix composite (MMC) materials synthesised via high energy ball milling, b) Additive manufacturing (i.e. 3D printed) by selective laser melting (SLM) of samples and small components and c) Mechanical and microstructural characterisation of the samples in marine-relevant environments.