## Aircraft Engine Valves Thermal Management with Advanced Loop Heat Pipe

## **PRESS RELEASE**

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## **Ukrainian-Latvian Consortium Launches Innovative Aircraft Thermal Management Project**

A pioneering collaboration between academy and business is set to revolutionise aircraft thermal management systems. The EVAL project – funded by the Clean Sky 2 Joint Undertaking – aims to develop a demonstrator of a passive cooling system utilising loop heat pipe (LHP) technology. This cutting-edge cooling solution will be used to manage the thermal conditions of the UHBR engine bleed system valves exposed to harsh temperature environment. The EVAL cooling system boasts several innovative features, including specialised working fluids meeting aeronautical standards, Allatherm's patented evaporator-reservoir modular unit (ALTOM) technology, and an innovative on-site LHP charging technology.

The EVAL innovative passive cooling system will enable reliable and efficient long-term operation of the UHBR engine within the next generation of European passenger aircraft. By demonstrating the efficacy of this solution, EVAL aims to make a contribution to the advancement of aerospace technology.

## **Key Partners:**



National Aerospace University "KhAI," Ukraine: Renowned for its expertise in thermal engineering, modelling and designing of complex thermal engineering systems, KhAI will lead the technical aspects of the EVAL project, including the design and testing of the LHP-based demonstrator.



<u>Allatherm SIA</u>, Latvia: Latvian-based SME specializing in two-phase heat transfer technology and devices. With a focus on research, development, and production of innovative thermal management solutions, Allatherm will design and manufacture high-temperature LHPs crucial for the EVAL project's success.

The EVAL consortium will be supervised by a team of experts from <u>LIEBHERR-AEROSPACE TOULOUSE SAS</u>, a European leader in the development, supplies and servicing innovative air management systems for the aerospace industry. The project will be administered by the <u>Ukrainian Science and Technology Center</u> (STCU).





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