

# Advanced Modelling Methodology for Bearing Chamber in Hot Environment

## PRESS RELEASE

Kharkiv, May 2018

### Ukraine has Joined Largest European Aviation Research Programme “Clean Sky 2”

For the first time in the 20-year history of Ukraine’s participation in European Framework Programs, a purely Ukrainian consortium will implement an aviation research project funded by the European Joint Undertaking Clean Sky 2 under the Horizon 2020 Programme. The budget of the 3-year project is EUR 1.7 million. This success was achieved by combining the scientific competencies and industrial experience of the consortium members: National Aerospace University "KhAI", SE Ivchenko-Progress and JSC Motor Sich.

The AMBEC project aims to provide high-precision modelling and experimental study of complex physical phenomena occurring in the multiphase environment of an aircraft engine bearing chamber. “Our ultimate goal is to develop a methodology for thermal calculations that will become an effective tool for optimising the design of compact bearing chambers in next-generation aircraft engines,” said Taras Mykhailenko, the AMBEC project leader and associate professor at the National Aerospace University "KhAI”.



Applying this methodology will further allow engine manufacturers to reduce costs and time for developing new design solutions, as well as reduce fuel consumption by aircraft engines and harmful emissions during their operation.

The AMBEC consortium will be led by a team of experts from SAFRAN, a European leader in aircraft engine manufacturing, and will be administered by the Ukrainian Science and Technology Center (STCU).

During the kick-off meeting of the AMBEC project, held on May 24, 2018, in Kyiv, Mykola Lubiv, First Deputy Executive Director of the STCU, said: “We hope that the success of the AMBEC project will create a foundation for further long-term and mutually beneficial cooperation between the European and Ukrainian aviation communities within the framework of the Clean Sky 2 JU and beyond”.



Ukrainian partners and SAFRAN’s representative at the AMBEC kick-off meeting



The AMBEC project has received funding from the Clean Sky 2 Joint Undertaking under the European Union’s Horizon 2020 research and innovation programme under grant agreement No 785493