VIPER
VIbroakustisches PassagierERlebnis

Project Execution:

The VIPER project is divided into three main work packages (HAP). Based on defined requirements, HAP1 will develop a modeling of the tonal and flow excitation of an aircraft structure, which will then be checked and validated by measurements with novel measurement methods and novel measurement hardware in HAP2. Additionally, the vibroacoustic impact will be analysed on subcomponent level using novel methods. In HAP3, the effects of changes in the transmitted structure and the combination of various noise reduction measures on the cabin noise will be investigated.

AIRBUS

The essential role of Airbus consists of leading the consortium, providing and generating the requirements from the OEM, and developing methods for efficient noise reduction in the aircraft cabin.

DLR Deutsches Zentrum für Luft- und Raumfahrt German Aerospace Center

Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR)
DLR conducts method and hardware development in ViPEr, which will provide new insights into cabin noise of future aircraft..

HAW HAMBURG

Hochschule für Angewandte Wissenschaften Hamburg (HAW) / Forschungs- und Transferzentrum Future Mobility and Acoustics
Development of a verified method for dynamic substructuring of the passenger cabin for the generation of substructure models in measurement, simulation, and analysis.

Technische Universität Braunschweig

Technische Universität Braunschweig (TUBS) / Institut für Akustik und Dynamik
The Institut für Akustik und Dynamik develops methods in ViPEr that allow for the efficient wave-resolving simulation of vibroacoustic models, as well as their evaluation.