

PRESS RELEASE

Aviation: Hamburg and Montréal researching together

Largest industry sites in Germany and Canada launch joint research in quieter aircraft cabins and fireproof composite fibre components

Hamburg, 07 November, 2017: Hamburg and Montréal, two of the world's largest aviation regions, have launched an official cooperative research and development program. Over the next three years, the partners on both sides of the Atlantic will conduct joint research on quieter aircraft cabins and new, fireproof composite fibre components. Plans are also underway for a further joint research project. A total of 20 partners are involved in the transatlantic cooperation, including companies of varying sizes, universities, and research institutions in both countries. The project aims to combine the competencies on both continents in the development of innovative new products. The program is part of the New High-Tech strategy of Germany's Federal Ministry of Education and Research (BMBF) and is receiving government and commercial funding from both Germany and Canada.

Quieter aircraft cabins for tomorrow's travels

Today, the noise level in an aircraft cabin is similar to that on a busy motorway. The engines themselves are getting quieter and quieter, but noise and vibration continue to be transferred to the inside of the aircraft via the outer skin of the fuselage, particularly at take-off. The performance limits of conventional insulating material such as glass wool and foam have long since been reached. As a next step, German and Canadian researchers want to investigate the potential of new sound-absorbing insulation — so-called acoustic metamaterials — as a standard approach to in-flight noise reduction. Test sites will include the Acoustics Lab at Hamburg's ZAL Center of Applied Aeronautical Research; the research infrastructure at this facility amongst the most extensive in Europe. The project is being led by ZAL and Mecanum. Other partners are 3M Canada, Airbus, the École de Technologie Supérieure, the Hamburg University of Applied Sciences, Hutchinson Aerospace GmbH, the National Research Council Canada, and the Université de Sherbrooke. www.acousticmetamaterial.com

New fireproof composite components for the cabin

Modern aircraft are not only quieter than their predecessors; they are also lighter and therefore significantly more cost-efficient. One essential reason for this is the increased deployment of lightweight composite fiber materials to replace the much heavier metals used in aircraft construction. In the second German-Canada research project, current production methods of composite materials for the aircraft cabin are to be further optimized. The transatlantic partners want to test new material combinations for their suitability in production and for flammability. The



goal: to make composite materials used in aircraft even safer, environmentally friendlier, and lighter. The project is being led by the Comprisetec company in Hamburg and Canada's Kruger Biomaterials. Further partners are Exakt Advanced Technologies, the Helmut Schmidt University, Hamburg University of Technology, Pultrusion Technique, Polytechnique Montréal, and the École de Technologie Supérieure Montréal.

Background to the joint research

The aviation research cooperation between Hamburg and Montréal is an element in the New High-Tech strategy of Germany's Federal Ministry of Education and Research (BMBF). A total of 12 million euros in funding is being provided for the program between now and 2021, with each country contributing 50 percent. The money is also being contributed in equal measures by government and commercial sponsors. Hamburg's ZAL Center of Applied Aeronautical Research is coordinating the program from the German side, in cooperation with Canada's CRIAQ research consortium (Consortium de recherche et d'innovation en aérospatiale au Québec). The cluster networks in both regions, Hamburg Aviation and Aéro Montréal, also played a defining role in the development of the partnership.

Links: www.hamburg-aviation.com | www.zal.aero

About Hamburg Aviation

With more than 40,000 highly qualified personnel, Hamburg is one of the biggest locations in the world's civil aviation industry. The two giants of the industry, Airbus and Lufthansa Technik, are joined by Hamburg Airport and more than 300 suppliers, as well as a variety of scientific and technological institutions. Every one of them contributes know-how and expertise. Companies, universities, associations, the economic authority and other partners have come together to form Hamburg Aviation, a cluster dedicated to advancing the city as an aviation location. Together they pursue a common goal: to network research and development, thereby bringing to market high-quality products and services for the aviation of the future – products that are good for passengers and set the standards in terms of resource protection. Hamburg Aviation concentrates on five product areas: the development and construction of aircraft and aircraft systems, the development and construction of cabins and cabin systems, the optimisation of aviation services, improving the efficiency of the air transportation system, and aviation-related information and communications technology. In 2008, Hamburg's aviation cluster was honoured by the Federal Ministry of Education and Research as a Leading-Edge Cluster. In 2014, Hamburg Aviation was honoured with the GOLD Label by the European Commission's ECEI Initiative, recognising it as one of Europe's best managed clusters. In 2016, Hamburg was declared to be one of 100 "Landmarks in the Land of Ideas".



Press contact:

Lukas Kirchner
Head of Marketing, PR and Events
Hamburg Aviation, Wexstrasse 7, 20355 Hamburg
Telephone +49 40 / 22 70 19 87, Mobile +49 171 / 334 19 13
lukas.kirchner@hamburg-aviation.com
www.hamburg-aviation.com | facebook.com/hamburgaviation | twitter.com/HamburgAviation