

Research to make flying more environmentally friendly

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Europe's airplane engine manufacturers are now pooling their resources to make flying more environmentally friendly. In collaboration with some select universities and university colleges they are using millions in financial support from the EU to set up a major research project aiming to reduce noise, fuel use, and emissions. University of Trollhättan/Uddevalla, HTU is one of the project participants in Sweden.

This is the first time the university college has taken part as a full member of a research project under the EU's Sixth Framework Program, where the EU has concentrated its funding for research, technological development, and innovation.

"It is important for a university college to be part of the Framework Program, not least for economic reasons. This stamps a seal of approval on our research, which opens new avenues in terms of science and financing," says President Lars Ekedahl.

The research project now being launched is called Vital (for Environmentally Friendly Aero Engine). For HTU this is a direct continuation of the research on industrial processes that has been developed with funding from, primarily, the Swedish Knowledge Foundation and the EU's European Structural Funds. The objective is to make airplane engines more environmentally friendly by reducing noise, fuel use, and emissions from aircraft. The task assigned to HTU is to develop automation concepts and a new production method for titanium, with an eye to replacing the forged materials used in today's airplane



engines with welded components-reducing the size and weight of the motors.

The project involves 53 partners, including the entire European airplane engine industry as well as a number of university colleges and universities with cutting-edge expertise in this field. Swedish partners, besides HTU, comprise Volvo Aero Corporation, Chalmers University of Technology, and the Swedish Defense Research Agency. The project is large not only in terms of the number of participants but also in terms of its budget. The four years of the project will turn over more than SEK 800 million, with SEK 450 million provided by the EU. The HTU component is considerably smaller, about SEK 3 million.

"I see this primarily as a membership ticket for HTU. To be part of the Framework Program enhances our visibility and raises our status in the international arena," says Associate Professor Per Nylén, who is in charge of the Project Vital at HTU.

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