

Airbus UCT partnership takes off

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Cape Town - South Africans stand to benefit from a research partnership between Airbus and UCT in Cape Town.

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The aircraft manufacturer has initiated the partnership to access ideas that might help give it more flexibility and a business edge in the aerospace industry.

"The big picture is that this is a global industry and we have engineering centres around the world," Dale King, Airbus senior manager for research and technology partnerships, told News24 after his presentation at UCT.

The research and technology partnership will give Airbus the ability to exploit research that may be commercially viable and also benefits South African engineers who will have access to collaborative efforts with the company.

"We don't have a monopoly of ideas at Airbus - not even in Europe. This will extend our research programme beyond European boundaries. South Africa has an opportunity for training and there may opportunities as well for commercial prospects," said King.

Finite resource

One of the areas being investigated is formation flying, where aircraft will fly in formation over long-haul flights, similar to migrating geese.

"Large birds benefit from co-operative flying to save energy, giving them increased range," said Professor Christiaan Redelinghuys, head of the department of mechanical engineering, which is undertaking the two-part study.

"If we could safely harness those benefits, we could reduce the aviation industry's consumption of fossil fuels," he added.

"Oil is a finite resource and energy is a major challenge. We're worried about that," said King.

He said that the company was looking to alternate fuel solutions and there were a range of plans for the inevitable "end of fossil fuel".

"We're looking to bio-sourcing. One of the ideas is that it could come from algae because we don't want it to compete with food farm lands. So algae looks to be more attractive. It's a sustainability issue."

Redelinghuys said that the partnership would benefit South Africa's aerospace industry.

Local opportunities

"It's a tremendously exciting and stimulating opportunity to work with Airbus. It calibrates us; keeps us in contact with what the best in the world are doing."

He said that the partnership would expand local opportunities, but conceded that the number of students was small and that an immediate spike in engineers was not desirable.

"There's a limited capacity in the industry - we only have two (masters students - Nic Bizinos and Drewan Sanders) here at UCT. Lots of expertise in the field has been lost. We'd like to see the number of students increase but not at a drastic pace; it has to be in synch with the industry," Redelinghuys said.

The Airbus partnership would probably result in more South African companies supplying sub-systems to Airbus, and King said that as firms made themselves more attractive to Airbus, they would also become more attractive to other aerospace companies.

"Every supplier is trying to get on a big programme. We're trying to be in a better position to take advantage of that attractiveness. We're bringing in options and dynamism."

Redelinghuys agreed that South African companies could differentiate themselves by becoming technologically better.

Select bunch

"There are smaller companies that produce the black boxes for the industry. We will bolster these capabilities."

Redelinghuys is the supervisor of masters students Nic Bizinos and Drewan Sanders and said that while aeronautics was a growing industry, it was challenging.

"Masters students are a pretty select bunch, but we are stimulating the youth and creating an awareness of aeronautics."

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