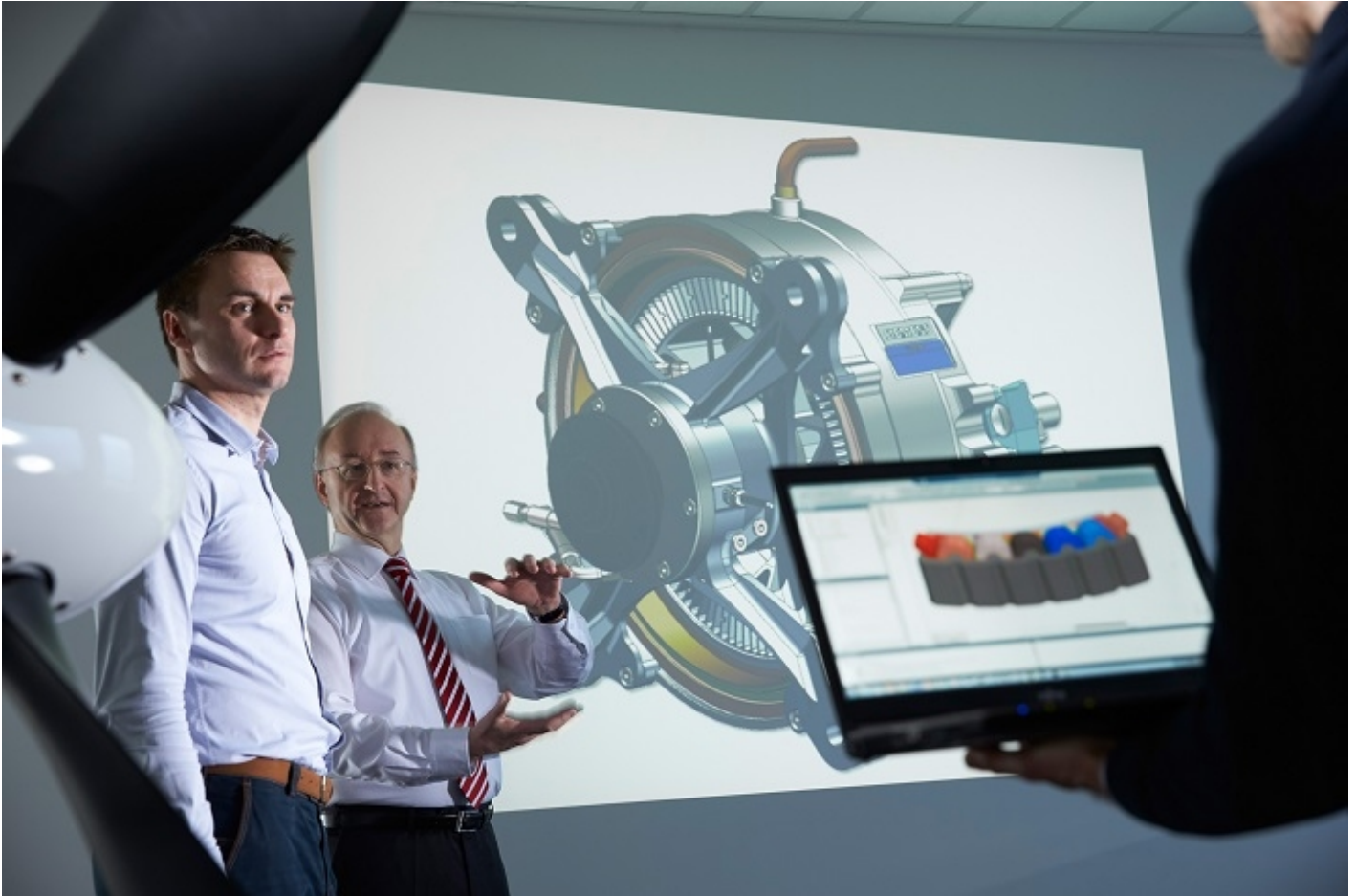




WORLD-RECORD ELECTRIC MOTOR FOR AIRCRAFT

News / Manufacturer



Technical milestone: maiden flight of an electric aircraft with a 260-kilowatt power output
Siemens motor powers Extra 330LE aerobatic airplane in near silence
Technology to be integrated into development of hybrid-electric aircraft in cooperation with Airbus

Siemens researchers have developed a new type of electric motor that, with a weight of just 50 kilograms, delivers a continuous output of about 260 kilowatts – five times more than comparable drive systems. This record-setting propulsion system successfully completed its first public flight today at Schwarze Heide Airport near Dinslaken, Germany, where it – almost silently – powered an Extra 330LE aerobatic airplane. The new drive system had already made its maiden flight on June 24th 2016. This advance means that hybrid-electric aircraft with four or more seats will now be possible.

[The picture shows the electric aircraft plane Extra 330LE.](#)

The first-ever flight of a category CS23 Permit-to-Fly electric plane. The plane is powered by a 260

kilowatt Siemens motor that weighs a mere 50 kg – a record-setting power-to-weight ratio.

"This day will change aviation," said Frank Anton, head of eAircraft at Siemens' central research unit Corporate Technology. "This is the first time that an electric aircraft in the quarter-megawatt performance class has flown." The Extra 330LE, which weighs nearly 1,000 kilograms, serves as a flying test bed for the new propulsion system. As an aerobatic airplane, it's particularly well suited for taking the components to their limits, testing them and enhancing their design.

In addition, the company will be contributing this technology to the cooperative project that Siemens and Airbus agreed to in April 2016 for driving the development of electrically powered flight. Electric drives are scalable, and Siemens and Airbus will be using the record-setting motor as a basis for developing regional airliners powered by hybrid-electric propulsion systems. "By 2030, we expect to see initial aircraft with up to 100 passengers and a range of around 1,000 kilometers," explained Anton.

"The first flight of our propulsion system is a milestone on the road to electrification of aviation," said Siemens Chief Technology Officer Siegfried Russwurm. "To continue this journey successfully, we need disruptive ideas and the courage to take risks. That's why the development of electric propulsion systems for aircraft is also the first project for our new start-up organization, next47." Siemens is determined to establish hybrid-electric propulsion systems for aircraft as a future area of business.

Germany's Aeronautics Research Program (LuFo) supported development of this motor. The Extra 330LE was created in cooperation with Siemens, Extra Aircraft, MT-Propeller and Pipistrel (battery).

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