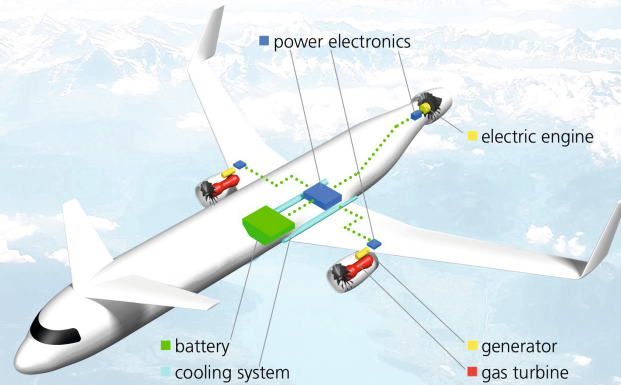


# ASSOCIATION OF TEST CENTERS FOR AN EMISSION-FREE AVIATION



Brandenburg is one of the most important aviation regions in Germany. Major international corporations, SMEs, universities and DLR research, develop and produce in our region for an low-emission aviation. In this context, **extensive test facilities** are a necessary prerequisite to verify the results of research and development and to certify them on their way to market maturity and application. The test centers of the **BTU Cottbus-Senftenberg, CHESCO** (Center for Hybrid Electric Systems Cottbus) and of the **DLR, HepCo** (Hybrid Electric Drive Test Stands Cottbus of DLR) as well as the **ZE<sup>2</sup>FA** (Center for the Development of Low-Emission Aviation Propulsion Systems) in Schönhagen build on each other in their task spectrums and thus complement each other ideally.

The association of test centers of DLR and CHESCO in Cottbus focus on component and system tests. The orientation of the respective test capacities on site is closely coordinated, so that the test capabilities complement each other and duplications are avoided. Therefore High-precision and technologically complex test and inspection facilities are being created including large-scale facilities, which cover all areas of safety-relevant tests for fundamental research and product development for low- and zero-emission aviation engines over a wide range of technologies and technology readiness levels (TRLs). Furthermore, the verification required for product approval, especially at component and (sub)system level is made possible.

The range of these components and (sub)systems extends from aircraft sizes for general to commercial aviation with up to 70 passengers, or even more in the long-term depending on technical feasibility.

The planned ZE<sup>2</sup>FA technology center at the Schönhagen airfield, on the other hand, will concentrate on general aviation with aircraft sizes up to 19 passengers. The test services range from the testing of integration aspects starting with the so-called Iron-Bird, the test stand for the integrated powertrain, till the main focus, experiments in the aircraft. For this purpose, for example, a dedicated ground test stand for testing complete flight systems will be set up outside the test hangar. The necessary infrastructure is available, to ensure the supply of electric power or alternative energy carriers such as hydrogen or synthetic fuels. The primary purpose of the test facilities is to provide evidence for the acquisition of flight licenses as part of further testing and therefore focus on rapid set-up and availability rather than the highest precision.

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