

PRESS RELEASE

ElringKlinger builds on high power density of its fuel cell technology to target aviation market

- **Development of hydrogen propulsion system including fuel cells for aircraft in a strategic partnership with Airbus**
- **ElringKlinger with non-controlling interest in a newly established company, majority stake held by Airbus**
- **ElringKlinger provides access to technology and receives compensation in the low to mid double-digit million euro range**
- **Joint goal of significant reduction in aviation emissions**

Dettingen/Erms (Germany), October 14, 2020 +++ In view of the finite nature of fossil fuels and the consequences of global climate change, the aviation industry is also faced with the challenge of having to make mobility as climate-neutral as possible. With this in mind, ElringKlinger AG has entered into an agreement with Airbus for a long-term partnership within the area of fuel cell technology. Following the delivery of stacks and a customized test rig this summer, the agreement will see ElringKlinger and Airbus work together to initially develop and validate aviation-compatible fuel cell stacks in the coming years.

ElringKlinger will provide the newly established company with access to technology relevant to hydrogen-powered fuel cells, while in turn receiving compensation in the low to mid double-digit million euro range. A major part of the aforementioned compensation is payable as of closing scheduled for the end of 2020. Additionally, ElringKlinger will supply the newly established joint company with certain components needed for development activities. Relevant financial details will be included in ElringKlinger's 2020 financial statements.

This Partnership Agreement follows the recent unveiling of Airbus' ZEROe concept aircraft. Hydrogen technology is key to Airbus' ambition to develop the world's first zero-emission commercial aircraft by 2035. Airbus is exploring a variety of configurations and hydrogen technologies including the use of hydrogen fuel cells to create electrical power.

Airbus conducted an extensive analysis of the fuel cell stack market prior to the agreement. As part of the international selection process, ElringKlinger's best-in-class performance proved decisive. The high power density of its stacks and its extensive expertise with regard to industrialization processes, proved key differentiators.

ElringKlinger will hold a non-controlling interest in the newly established company, while the majority stake will be held by Airbus. Both parties have agreed not to disclose further details of the Partnership Agreement. The closing of the transaction and the creation of the joint company is subject to customary regulatory clearances in various jurisdictions.

Dr. Stefan Wolf, CEO of ElringKlinger AG, commented: "The fact that Airbus opted in favor of ElringKlinger as a technology partner points to the performance capabilities of our fuel cell technology. In the aviation industry, in particular, the power density of stacks is of primary importance. At the same time, other high-tech performance criteria such as service life or operational parameters such as operating temperature or operating humidity must be met in an aviation-specific manner."

A power output was defined as the target for the fuel cell stacks supplied by ElringKlinger during a pre-contractual stage. As part of extensive tests, this target was exceeded by an impressive 15 %. At the heart of the high power density of the ElringKlinger stack is the use of metallic bipolar plates as well as specially designed membrane electrode assembly (MEA) sealing solutions.

New power generation technologies for the aviation sector

A pure battery-powered propulsion unit quickly reaches its limits for certain applications in the aviation sector, such as over longer distances or for larger aircraft, due to the limited power capacity at a given weight. Fuel cells, on the other hand, represent a powerful alternative because they generate the required energy efficiently on board. "All in all, fuel cells can reduce emissions in aviation by a considerable margin. This is just one of the reasons why there is significant market potential for our technology, which confirms our strategic path of the last two decades. We as a Group will of course continue to pursue the route charted so far," Dr. Wolf continued.

Fuel cell technology at ElringKlinger

ElringKlinger has been actively pursuing research and development in the area of fuel cell technology for around 20 years and serves the market as both a system and a component supplier. The compact stacks are based on proton-exchange membrane (PEM) technology and convert chemical energy into electrical energy using hydrogen and oxygen. A completely climate-neutral drive is possible with fuel cells if the required hydrogen is produced by wind, solar or hydro power.

Fuel cell stacks are suitable above all for mobile applications with a long range and cyclical operation. Apart from vehicles such as buses and cars, PEMFC stacks can also be used for mobile industrial applications, e.g., in commercial vehicles and fork lift trucks. In addition, the hydrogen-based propulsion unit is also suitable for trains, ships, or aircraft.

ElringKlinger stacks can be integrated within customer systems and, as an option, they can be equipped with peripheral components and system functionalities integrated into the media module. These features enable considerable simplification and cost reduction with regard to the fuel cell system.

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About ElringKlinger AG

As an automotive supplier, ElringKlinger has become a trusted partner to its customers – with a firm commitment to shaping the future of mobility. Whether optimized combustion engines, high-performance hybrids, or environmentally-friendly battery and fuel cell technology, ElringKlinger provides innovative solutions for all types of drive system. ElringKlinger's lightweighting concepts help to reduce the overall weight of vehicles. As a result, vehicles powered by combustion engines consume less fuel and emit less CO₂, while those equipped with alternative propulsion systems benefit from an extended range. In response to increasingly complex combustion engine technology, the Group also continues to refine and evolve its offering within the area of seals and gaskets in order to meet the highest possible standards. This is complemented by solutions centered around thermal and acoustic shielding technology. Additionally, the Group's portfolio includes products made of the high-performance plastic PTFE, which is also marketed to industries beyond the automotive sector. These efforts are supported by a dedicated workforce of around 10,000 people at 45 ElringKlinger Group locations around the globe.

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2019, it generated revenues of € 70 billion and employed a workforce of around 135,000. Airbus offers the most comprehensive range of passenger airliners. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world's leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.