### **LUFTHANSA GROUP**

### Lufthansa Technik

## RESEARCH FOR HYDROGEN

On the way to climate-neutral air transport, green hydrogen is one of the most important energy sources of the future. However, many questions are still unresolved: How can aircraft be refuelled quickly and safely? How do maintenance and servicing work?

Since the end of October, Lufthansa Technik has been working on answers in cooperation with the German Aerospace Centre (DLR), among others. In the coming months, the partners will equip a decommissioned Airbus A320 – previously in service for the Lufthansa Group – as a hydrogen "stationary laboratory" to clarify key questions. With the current

state of the art, refuelling with liquid hydrogen, for example, takes several hours per long-haul flight – a real problem in view of the tightly scheduled operating procedures. Now, new options are to be tested The hydrogen "stationary laboratory" is good for the climate and good for Germany as an aviation location of the future: Airbus wants to launch a market-ready passenger aircraft with hydrogen propulsion by 2035 – decisive know-how for global use will then come from Hamburg.

## CO₂-efficient "Shark" skin WORLD PREMIERE AT SWISS

Since mid-October 2022, SWISS has been the first passenger airline globally to use the new AeroShark technology developed by Lufthansa Technik and BASF. The transparent film, which is attached to the fuselage and engines, imitates the flow-optimising properties of sharkskin, thus optimising the aerodynamics of the aircraft at flow-relevant points. Fuel consumption is noticeably reduced, and annual  $CO_2$  emissions can be cut by several hundred tonnes per aircraft. SWISS will retrofit its entire Boeing 777 fleet with AeroShark technology in the coming months.

#### **Globally available**

# CO<sub>2</sub> COMPENSATION ON BOARD

Since the start of November, Lufthansa passengers can offset the  $CO_2$  emissions of their flight directly on board. Passengers decide for themselves how they want to offset the emissions: with sustainable aviation fuel from biogenic residues or via carbon offset projects of the non-profit

organisation myclimate. A combination of both options is also possible. Those who use the on-board compensation option can also see how many passengers have already offset the  $CO_2$  emissions of their individual flight on that day – and thus become part of a growing community.

