



Downsizing in Commercial Aviation

It was a bang that marked the beginning of 2019 for the European aviation industry: Airbus announced that the A380 would be phased out as early as 2021. This was due to too many cancelled orders for the wide-body aircraft.

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The story of the largest commercial aircraft with a capacity for more than 800 passengers ends after only 14 years. The [first A380 was delivered to Singapore Airlines](#) in 2007 and [Emirates](#) received its first aircraft just a short time later. In the following years, the airline developed into a major customer for the aircraft, which currently has 110 A380s in service and is expecting 13 more. Originally the Saudis had placed 169 orders with the aircraft manufacturer, which they reduced about 46 aircraft at the beginning of this year.

The aircraft thus shares the fate of the [Boeing 747](#), built over half of a century, which, with a maximum of 600 passengers, had to give up its status as the largest airliner to the A380. The departure of these two giant aircraft marks a turnaround in international commercial aviation. With their cancellation, the Saudis had switched to the A350 - and not to the four-engined A340! The imminent end of the largest Airbus does not only mean the end of such super planes, it also marks the end of the four-engined aircraft.

Airlines change strategy

There are many reasons for this - the strongest is a noticeable change in the airlines' strategy. The aircraft manufacturers in Toulouse and Seattle were constantly interested in serving their strategies with the development of new models in the best possible way. Suppliers such as Emirates have been using the A380 on the Düsseldorf-Dubai route since 2014. But Düsseldorf was not designed to handle the A380 passenger capacity for one flight until the connection was opened. The airport in the state capital of North Rhine-Westphalia had to be rebuilt first. Although the runways there were no problem for an A380, the passenger bridges were. They had not been designed to fill aircrafts of this size with people within the usual time periods. The rest of the airport's operations also had to adapt to handle the A380 flights. A destiny that the airport shared with some other German airports

that are not among the major hubs of the German airports.

But they were a key element of the major international airlines. In order to operate such large and heavy aircraft economically, they have to be used to a reasonably high capacity. Their operations have therefore always been geared to intercontinental connections between the airports of large metropolises. The number of passengers required was based on feeder and connecting flights from these airports. This strategy is also known in expert circles as [Hub and Spoke](#). But it seems from today's perspective that exactly this strategy has not worked out, forcing the major airlines to change their economic strategy.

Low-cost carriers led the way

Low-cost carriers have increased the economic pressure on the major commercial carriers. With their low-cost offers of countless direct flights in smaller aircrafts, they have met the needs of air travellers in the market and made a significant contribution to the ever-increasing number of passengers and thus to the growth of the industry as a whole. Whoever wants to travel comfortably has to fly - connecting flights, a key element of the hub-and-spoke system, naturally oppose this desire for comfort. If the major providers want to maintain their market segments against the pressure of low-cost carriers, they will have to change their strategy from hub and spoke to point-to-point connections. Although the Emirates connection from Düsseldorf to Dubai is such a direct connection, the fact remains that this alone does not solve the problem of regularly getting an A380 sold out at both airports. Smaller planes are therefore needed if deficits on such intercontinental direct connections are to be avoided.



Low-cost carriers put pressure on the market. Direct flights in the point-to-point system meet travellers' convenience requirements.

Technology provides the solutions

In addition to the long-distance giants, there are, of course, those that have been around for a long time, such as the A320 or the Boeing 737. However, they are used for short- and medium-distance flights. A change of strategy also on long-distance flights, the domain of the big renowned airlines, requires two things: smaller aircraft with a long range. This is exactly what the two competitor models A350 and Boeing's "Triple seven" offer. Depending on the fuselage length and seating, these mid-size jets typically have between 300 and 400 seats and can also be used on a long distance flight at significantly lower load factors. The Saudis' switch from the A380 to the A350 was an example of this change in strategy, which other airlines are also following. This change is forcing manufacturers to do the same; they now have to focus much more on midsize jets in their product portfolio, and they are doing so - the A321 XLR is one example.

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Because they're only twin-beam. The development of more powerful and yet more economical engines in recent years has enabled them to be used in larger aircraft than short- and medium range jets on long-haul routes. The younger the development of today's turbofan engines, the better their bypass ratio, which leads to lower kerosene consumption at comparable performance levels. For intercontinental route providers, this offers twofold potential savings, since two engines naturally consume less fuel than four.

Entire industry on the rise

However, this development has long not only spurred on aircraft manufacturers, it also poses a major challenge to maintenance. If more and more passengers, especially on long-haul flights, have to be served with smaller aircraft in the future, the fleets will have to be expanded for further growth. This means more aircraft that have to be maintained during operation. At the same time, capacity and flexibility must also be increased there. In addition to factory maintenance and large stationary maintenance operations, external service providers were already represented here in the past.

ARTS is looking forward to these changes with excitement - especially against the background of the Airbus success against the competitor from Seattle. Because one thing is clear: In terms of maintenance, external service providers who already have extensive experience with a manufacturer and its samples are most likely to be considered. The ARTS experts can demonstrate this expertise not only in the manufacture of parts for Airbus, but also in their maintenance. Among other things, the **Mobile Aircraft Maintenance Crew** was involved in the **Door Modification of the A380**, which was triggered by airworthiness directives as a result of technical problems that occurred during

operation. Especially since the growing fleet capacity of the large airlines could also shift the market somewhat from supply to demand. The development of the aviation market could therefore make the work of the ARTS acquisition team somewhat easier in the future.

Sources: [emirates.com](https://www.emirates.com) | [airliners.de](https://www.airliners.de) | [aero.de](https://www.aero.de) | [rp-online.de](https://www.rp-online.de) | [welt.de](https://www.welt.de) | [airlines.de](https://www.airlines.de) | [flugrevue.de](https://www.flugrevue.de) | [aerotelegraph.com](https://www.aerotelegraph.com) | [airbus.com](https://www.airbus.com) | [n-tv.de](https://www.n-tv.de)



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