STUDY: NEW CHAIN FOR AVIATION

GROWTH WITHOUT GROWING

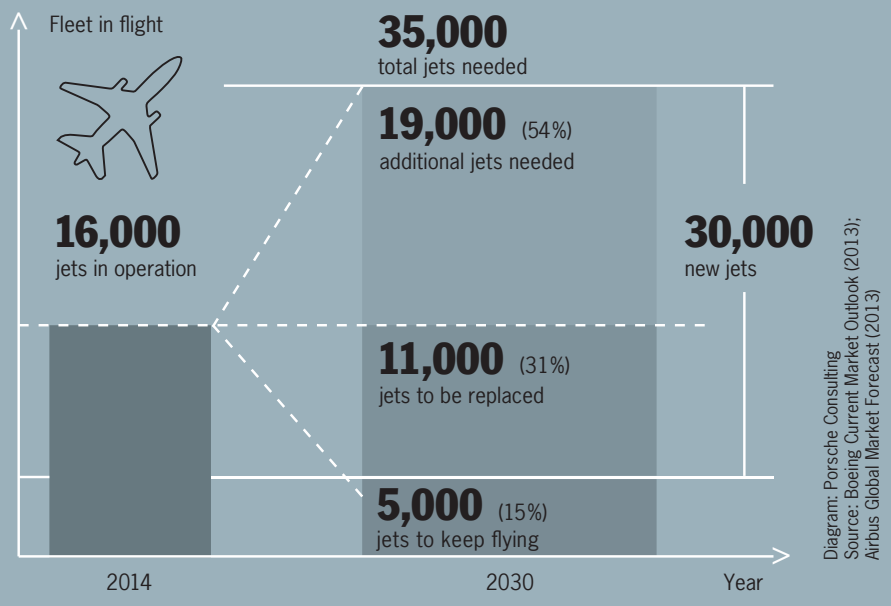
The aviation industry is booming, but the high number of orders is exposing the limits of the existing supply chain. A new, partner-based type of cooperation is the only way to achieve the requisite level of performance.

ANDREAS SPAETH

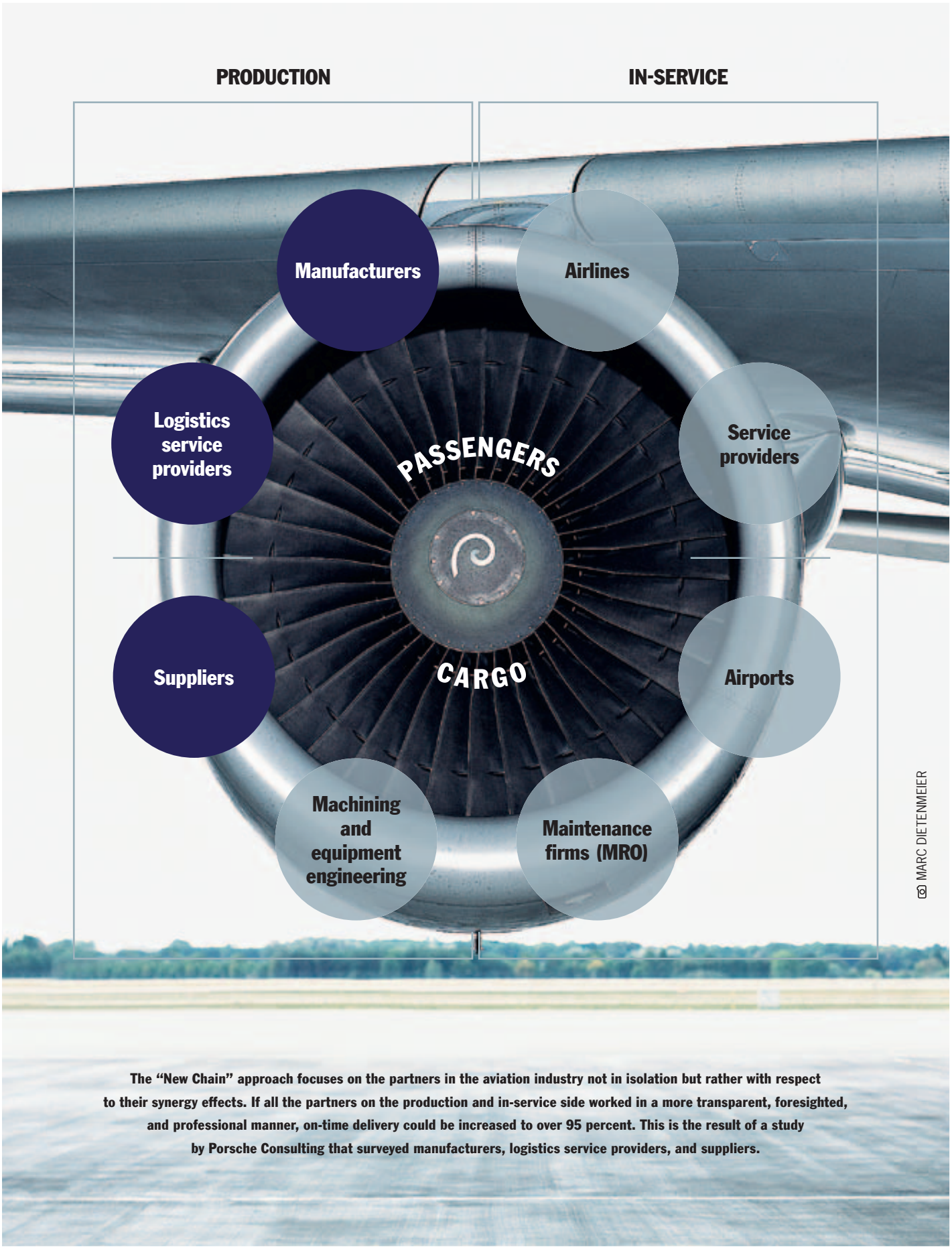
The year 2013 impressively demonstrated that aviation is a growth industry, despite whatever headwinds are blowing in the economy. A record number of orders were placed with Boeing and Airbus, higher than in any previous year. Together the two manufacturers received orders for around 2,450 aircraft in 2013, although this is more than twice the number of jets they delivered that year. This discrepancy—which is typical for the industry—is leading to an ever greater order backlog. Airbus and Boeing alone have accumulated more than 10,000 open orders. At the same time, the global volume of air traffic continues to rise, and the two manufacturers anticipate demand for around 30,000 new jets with 100+ seats by the year 2030.

This positive economic trajectory is posing an ever greater problem for the industry, namely, that of delivering these orders on time. Even now, only 80 percent of orders are delivered to customers by the dates specified in the contracts, and for new product ranges the delays may be measured in years. The industry is clearly not equal to the changes in demand. "The performance level of the entire supply chain needs to rise considerably," observes Eberhard Weiblen, Chairman of the Executive Board of Porsche Consulting. "The automobile industry can serve as a positive example here."

To examine the situation in greater detail, Porsche Consulting launched an industry-wide survey of top managers at production, supplier, and logistics companies in the civil aviation industry. The results showed that in order to become more efficient, all of the partners in the supply chain must rethink their approach and employ comprehensive, universal planning. "An insufficient degree of industrial depth along the entire supply chain is preventing monthly production rates from rising," says Joachim Kirsch, Partner and expert for the aerospace industry at Porsche Consulting. This does not mean setting →



There are currently around 16,000 jets worldwide with 100+ seats. Manufacturers expect that around 11,000 of them will have to be replaced by the year 2030, in addition to a need for about 19,000 new ones.



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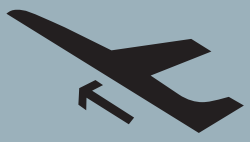
The "New Chain" approach focuses on the partners in the aviation industry not in isolation but rather with respect to their synergy effects. If all the partners on the production and in-service side worked in a more transparent, foresighted, and professional manner, on-time delivery could be increased to over 95 percent. This is the result of a study by Porsche Consulting that surveyed manufacturers, logistics service providers, and suppliers.

up additional production capacities, but rather making better use of existing ones. The survey revealed that in some cases, as much as 60 percent of capacity could be freed up by means such as improving scheduling and production processes.

"Growth without growing" is the key formula here. With its "New Chain for Aviation," Porsche Consulting has developed an approach that enables the industry's performance and profitability to be improved. According to the study, this approach can raise the on-time delivery (OTD) quota to over 95 percent and generate an average productivity potential of 20 percent. That corresponds to savings of currently $1.6 billion every year. Similar developments can be expected for backlogs in the worldwide supply chain. For the top 100 suppliers, for example, these could be reduced by more than 20 percent. That corresponds to $36 billion a year.

To make use of this potential, the individual partners in the supply chain need to build on three factors, namely, the three that have had an impressive effect on the automobile industry for years: transparency, quality planning, and professionalism. Greater **TRANSPARENCY** among partners with regard to processes, dependencies, and available capacities creates a better understanding of the supply chain's performance level. 67 percent of the companies surveyed are using a large variety of communications media, for example, which leads to considerably higher internal costs. As for **QUALITY PLANNING**, that means improving the agreement between planned and actual states in order to show actual performance levels and make this necessary information available to all partners. 77 percent of the companies surveyed have insufficient knowledge of their customers' needs and therefore build up costly inventories. "The only way to harmonize the entire supply chain is to communicate needs frequently," says Kirsch. In addition, greater **PROFESSIONALISM** is needed in day-to-day operations. This requires redefining the partners' roles and then acting upon them.



95%

on-time delivery

Aircraft manufacturers will play a crucial part here, as they both set the tone and assume an integrative function in their responsibility for planning the entire supply chain. They provide meticulous and completely transparent planning for product innovations, relocations, and "make-or-buy" activities, for example. At the same time, first-tier suppliers will assume a more important role. They will take on considerably greater systemic responsibility and will become the link between manufacturers and the supply network. But they will also serve as a driving force for innovation in the future. Logistics providers will become a greater force behind optimizing the logistics of the worldwide supply chain, with the aim of achieving the shortest possible response and delivery times. Shifts in shares of the value-added chain will also give them the chance to account for more value-added content and ease the load on other partners. Kirsch is convinced that "the key to profitable growth in the aviation industry lies in a partner-based form of cooperation." After all, "The best product innovations are not of any use if they cannot be delivered." ←