How is the aerospace sector reacting to disruptive technology?

Jason Slivka, Global Practice Co-Leader – Aerospace and Defense at Mazars, offers some key thoughts on challenges and opportunities.

Whatever your opinion on flying cars, the fact that Uber and Google are looking to develop electric, vertical take-off and landing ("VTOL") vehicles designed mainly for commuting presents both challenges and opportunities for OEMs and suppliers in the aerospace sector.

For many players, the biggest challenge is to evaluate how such developments will shape the sector in the long term. On a basic level, the aerospace sector uses technology to get people from one destination to another, safely and cost effectively. But should future growth strategies include concepts that help ease congestion or, say, improve urban living?

In terms of opportunities, the statistics certainly suggest there could be a financial benefit in helping to free up roads by making better use of air space. According to the United Nations, 60% of the world’s population will live in urban areas by 2030, and one in every three people will live in cities with at least half a million inhabitants, stretching ground transport systems even further.

Airbus is one manufacturer that has decided the potential is too important to ignore. It has already carried out a successful trial in São Paulo of its helicopter ride-hailing service, Voom, which, much like a taxi, can be booked via a smart device application, helping to ease congestion by making helicopter travel more accessible and affordable.

The manufacturer is also developing VTOL vehicles for individual travelers and cargo transport. At the same time, Boeing, through its subsidiary Spectrolab, is experimenting with 3D light and radar technology for autonomous travel. While these jets-on-like concepts may be the future, plenty of opportunities exist for aerospace companies in the short term, as the demand for aircrafts continues to grow. In particular, the ability of suppliers to satisfy rising production rates for new generation aircraft that incorporate cutting-edge technology to improve avionics, cabin management and communication.

Creating connectivity

If there is one word that sums up technology trends in the aerospace sector, it’s connectivity. From a passenger viewpoint, we can already get glimpses of a more connected air travel experience through better Wi-Fi as providers such as Thales add more capabilities, enabling us to continue working on laptops or staying connected socially while on a flight. And while further improvements need to be made, customers are already enjoying more control and choice across the whole air travel experience. At airline level, major innovations on data gathering are ensuring aircraft systems are better integrated and connected. Understanding the level and depth of connectivity now required by OEMs is key for suppliers.

Identifying synergies

With the need to innovate and invest in technology remaining a key priority, one approach is to acquire or form a strategic partnership to capture essential capabilities. We have seen this with recent acquisitions such as Rockwell Collin’s acquisition of B/E Aerospace and then the subsequent acquisition of the combined group by United Technologies. Such partnerships are really all about identifying and maximizing synergies. Whether it’s through M&A-type due diligence or analyzing quality of earnings to best understand where the synergies may lie, potential partners are having to dig deep to gain a clearer idea of what the future could look like. This is particularly important when seeking to establish operations in countries such as China and India where the demand for aircraft is increasing rapidly, but where the ability to navigate country-specific operational challenges will determine degree of success.

Strategic goals

Technological development is seen as one way to buck any slowdown in production growth, not only in the commercial aircraft sector, but also defense and business aviation - whether this is through the development of supersonic jets or software that offers an online marketplace where you can book a trip instantly.

With so many options, OEMs and suppliers need to adopt strategic goals that not only take account of advances in technology, but also to understand what clients want. For operators in the luxury end of the market, using technology to improve quality and passenger loyalty is an essential differentiator, whereas the low cost sector is looking for newer, lightweight aircraft materials and interior design functions that maximize capacity and turnaround.

As players in the aerospace industry digest current technological developments both from within and outside of the sector, understanding levels of connectivity, nurturing or acquiring expertise and adopting a business strategy that plays to strengths can be game changers. Technology may soon transform what we see in our skies when we look up, but let’s not forget that success continues to depend on ground level decisions within the C-suite.

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- Jason Slivka