



INDUSTRIAL CHALLENGES IN THE AEROSPACE SECTOR

The aerospace industry having a more prominent international footprint than any other sector, it is understandable that it is facing a multifaceted and complex future. Digitalization, climate change and cybersecurity are some of the challenges the aerospace sector is dealing with.

Cybersecurity is the single biggest threat facing the aeronautics industry. The sector is undergoing major digital transformation with increased inter connectivity and dependency. As a result, new cyber threats and security breaches are emerging, requiring a more holistic approach covering proactive and reactive cybersecurity.

Aerospace manufacturers must adapt to new and innovative technologies in order to maintain their position on the market and deal with the always growing demands on security and sustainability, the two most important factors in today's industry.

New technologies such as 3D printing, modular design, cloud-enabled automated production, automated machinery, and engagement of AI are essential for maintaining progress, landing contracts, and keeping pace with the changing climate focused on digitalization and sustainability.

What makes the digitalization process more complicated is the certification needed in the aerospace industry. It's widely known that the emphasis on security as the most important aspect of air travel is very high. That's why, as in all the other industries, it is essential to control the safety and applicability by certification. The most important certification in the aerospace industry is the standard AS 9100.

Climate change, and the actions introduced to curb it, presents major short and long-term challenges for the aerospace sector. Sustainable aviation fuel (SAF) reduces the climate impact but is not cost competitive with regular jet fuels.

Electric propulsion has the potential to make flights quieter with reduced emissions, safer with reduced costs – and could open up new segments of aviation, including urban air taxis and a new sub-regional market.





Hydrogen is now gaining serious traction as a possibility for aviation, and already tests are under way to prove its effectiveness.

Climate change itself could have major repercussions. For example, should temperatures continue to rise, this will have a major impact on the performance and efficiency of aircraft. It's expected that an increase in storm systems, coupled with unpredictable atmospheric changes, will also need to be factored into the future of air travel.

