Message from Jan Pie

Chairman of the Board of the International Coordinating Council of Aerospace Industries Associations (ICCAIA)

As aviation recovers from the COVID-19 pandemic, the environmental challenge remains the most significant issue facing the aviation sector in the 21st century. Expectations from governments and civil society are high. Recognising the challenge that lies ahead and acknowledging our part in developing solutions, the manufacturing and services sector, represented by ICCAIA, has issued a statement committing to a Net-Zero Carbon future by 2050. Our statement aligns with the common ambition expressed by many in the sector globally, both within our membership and by other parts of the industry.

Our immediate future is tied to the recovery of aviation from the pandemic, presenting opportunities to build back more sustainably. When the crisis first arrived, significant parts of the fleet were permanently taken out of service and dismantled using processes that allow between 90 and 95% (by weight) of the aircraft to be reused or recycled. These ageing aircraft had higher fuel burn and worse noise characteristics than the modern aeroplanes that are increasingly replacing them. As a result, a step change in the environmental performance of the global fleet after 2019 can be foreseen.

Within the ICAO Committee on Aviation Environmental Protection, the past couple of years have seen one of the most important pieces of work conducted in recent times: assessing the feasibility of setting a Long Term Aspirational Goal, or LTAG, for the reduction of carbon emissions from international aviation. The manufacturing and services sector has contributed substantial resources to supporting this effort, with a particular focus on the technology workstream. Engine and airframe manufacturers have shared their visions of the future for alternative fuels and new technologies, including electric and hydrogen powered aircraft.

The most significant and immediate contributor to aviation carbon reduction comes from the use of Sustainable Aviation Fuels. As they are drop-in-fuels, aircraft can already take benefit from operating on a 50% blend of SAF mixed with oil-based kerosene. However, the industry is not content to rest here. Work is ongoing to enable operation of our products using 100% SAF. Our challenge, though, is the availability of the fuels at a price point which is acceptable to both the airlines and, ultimately, the consumer when it is translated to their ticket price. Whilst international cooperation is ongoing between manufacturers and fuel producers to secure compatibility, the industry needs States to work together on the incentives for production and enabling global availability of these fuels.

In the medium and long term, the industry is focused on progressively reducing the dependence on burning kerosene-type fuels that continue to emit CO_2 into the atmosphere. Implementation of new technologies for reducing the fuel burned by conventional configurations is an ongoing task while more revolutionary aircraft configurations are developed that promise even larger fuel burn reductions. Small electric passenger aircraft are already flying in limited numbers, and several companies have projects to bring electrically powered commuter airliners into service. By the middle of the next decade, some manufacturers foresee the development of hydrogen powered aircraft coming to market, initially for shorter range operations. Both of these alternative energy supplies will require the development of new infrastructure to store and supply the energy, requiring international, cross-sectoral collaboration between manufacturers, airports and airlines to ensure worldwide deployment. ICAO will have a key role to play in securing a global framework of international standards applicable to the vehicles and propulsion systems resulting from the new energies across all aspects of rulemaking.

Ultimately, a commonly agreed long-term goal driving a common approach for the sector will be essential for a unified environmental vision as the industry recovers from the COVID-19 crisis. Cooperation between States, regions and the industrial sectors, with guidance from ICAO, will be an essential part of creating a sustainable, decarbonised, future for aviation.