Outcome Statement agreed at the Ministerial Roundtable at the Fifth ICAO World Aviation Forum (IWAF/5) in Montréal, Canada on 23 September 2019

We, the Ministers responsible for transport in Member States of the International Civil Aviation Organization (ICAO) and the Heads of international organizations, have assembled to seek understanding of, and to orient our response to, challenges and opportunities arising from innovation and frontier technologies, as well as new concepts of operation that are rapidly becoming available and increasingly transforming the aviation sector.

We acknowledge that frontier technologies, being at the intersection of radical forward thinking and real-world implementation, provide innovative solutions and tools to the air transport system such as automation and unmanned systems, transport electrification, big data, artificial intelligence and machine learning, and digitalization of processes. We encourage the aviation sector to continue to embrace innovation and frontier technologies to shape the future of the aviation business and address issues such as emissions reduction while ensuring their safe, secure, efficient and sustainable use.

We are fully aware of, and welcome the potential of these technological and regulatory innovations, to significantly accelerate the realization of socio-economic benefits and improve environmental performance through a seamless air transport system. We also underline the contribution of innovation towards achieving ICAO's objectives that there is *No Country Left Behind* (NCLB) and the Sustainable Development Goals (SDGs) set in the United Nations (UN) *2030 Agenda for Sustainable Development*.

Policy and Business Models for Innovation

We support ongoing initiatives and efforts by States to establish an enabling institutional, legal and regulatory framework for aviation stakeholders to operate, for technological innovation to thrive and expand, for emerging products and solutions to be effectively implemented, and for the benefits of the new era of urban air mobility to be fully realized.

We appreciate the unique challenge our leaders are faced with in the wake of these technological developments, which calls for an unprecedented design of a balanced environment capable of fostering innovation while ensuring regulatory and policy transparency and enforcement, legal certainty for businesses, cybersecurity, consumer and data protection, and a fair, environmentally, economically and socially sustainable development on a global scale.

We observe that substantial research and development (R&D) investments will continue to be required but certain new technologies incur relatively low development costs, allowing small and medium-sized "start-up" enterprises to be at the forefront of transformation in air transport. Regardless of breakthrough inventions or small-scale, incremental improvements alike, we should adapt to the new reality of the innovation process and adopt favorable measures in the progress from research to implementation.

We underscore that the enabling framework should not be technology specific but rather be designed to facilitate the timely evaluation and assessment of technological developments with the objective to allow an early integration, deployment and application of these technologies, strengthen incentives for entrepreneurship and provide a hospitable legal environment for the successful realization of "start-ups" in the aviation sector.

Innovation in Aviation Regulation and Governance

We recognize that the nature and pace of innovation require regulators at the national, regional and global level to avail themselves of new methodologies and tools. Latest technologies have the capability to accelerate aviation regulatory processes and make them more efficient, streamlined and responsive, allowing governments to level up with the speed of change in the industry and to fully leverage the potential benefits offered by technological advances.

We stress the importance of good governance which, based on greater coordination and communication between and across transport authorities and other ministries in charge of related portfolios, will provide for an expedited decision-making process, facilitate the reconciliation of objectives and needs with responsibilities and resources, and drive the process optimization in responding to new technology landscape.

We call for States to examine how latest and future technologies can be used to improve the existing regulatory frameworks of air transport, to facilitate the implementation of global standards, to increase the efficiency and effectiveness of processes while securing the value created, to enhance cyber resilience and to minimize potential risks and threats to the aviation sector.

Moving Forward / Next Steps

We wish to continue our cooperation among all stakeholders with the objectives to identify and evaluate the effects of the discussed frontier technologies, to accurately estimate the future demand and costs associated, to mobilize and secure necessary resources and to explore the possibilities of leapfrogging and taking full advantage of such technologies to bridge the technological divide between developed and developing countries.

We are committed to sharing our experience between States and among the States, governmental and non-governmental organizations, the private sector, academia and the relevant UN system entities in order to facilitate the introduction of innovation in civil aviation, strengthen community outreach efforts, and establish an inclusive dialogue at a strategic level that will encourage further collaboration in relation to innovation.

We look forward to the deliberations at the 40th Session of the ICAO Assembly related to Innovation in Aviation and trust that the Assembly will take into account this Statement.

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