



**Closing Remarks
by the Secretary General
of the International Civil Aviation Organization (ICAO)
Dr. Fang Liu,
to the Fifth ICAO World Aviation Forum (IWAf/5)**

(Montréal, Canada, 23 September 2019)

1. We have now arrived at the conclusion of this Fifth ICAO World Aviation Forum, and it has been my great honour to be able to participate with you at this event.
2. ICAO greatly appreciates the time and thoughtful viewpoints you have shared with us today.
3. It's been exciting to see the interactions and energy on display here, as we have explored how to address the opportunities and challenges arising from an unprecedented technological revolution transforming aviation.
4. And I have been greatly encouraged to see that a practical roadmap toward a thriving innovation ethos in aviation over the longer term has been realized here.
5. Technological innovations, if addressed on a complementary basis, can greatly accelerate the rate at which all countries and peoples can benefit even more from the significant and sustainable socio-economic impacts of air transport.
6. But to optimize these benefits, States must fulfill their obligations to ensure that new technologies are safe, secure, efficient and sustainable, delivering new advantages to the travelling public without imposing unnecessary or time-consuming barriers which impede innovation delivery.
7. We have also focused here on operational and regulatory adjustments designed to steer technological innovation and unlock its potential benefits.
8. This reminds us that fostering innovation is not only about creating new technologies, but about the process, policy, and business models that support those technologies' adoption.

9. Technological advancement in aviation can only be realized alongside concurrent progress in regulatory processes and awareness-raising efforts to respond to the new technology landscape.
10. In this regard, we have supported here the development of new regulatory policies and practices in aviation so that our sector can proactively engage with innovators and encourage, rather than impede, their inventiveness.
11. Innovations happen in large and small ways, and we should recall that it is the invisible hand of the State which in many cases provide the opportunities for innovations to take place.
12. In parallel with continuous efforts in mobilizing Resource & Development resources that are particularly important to national objectives, authorities must also become better informed of the wide variety of unconventional actors who are helping to shape the future of aviation.
13. Acknowledging their role and understanding how they benefit from, or challenge, current regulations is imperative for finding adequate regulatory responses to their business ideas.
14. Another very important outcome of our discussions was that innovation in aviation doesn't only refer to new technologies, but also of how the entire sector is managed in support of the global prosperity and quality of life it generates all over the world.
15. It also concerns how our sector manages opportunities and challenges and communicates to an increasingly demanding public.
16. Besides creating good regulatory framework conditions, therefore, governments also need to be more actively involved and cooperate more closely with industries, technology providers, private investors, and many other stakeholders.
17. In addition, enhancement in human capacity, meaning higher numbers of skilled aviation professionals, will be required to operate these new capabilities.
18. States must therefore target capacity building, and with a focus on investment and development in 'soft infrastructure', to address this effectively.

Ladies and gentlemen,

19. The pace of innovation and modernization is accelerating and continues to disrupt the world around us.
20. Changes are underway on a vast scale, with the Internet of Things, digitalization and frontier technologies transforming economies, governments, and societies in complex, interrelated and unpredictable ways.
21. Government policies and practices, however, have often not kept up with the speed of change.
22. Building a culture of innovation must therefore be a top imperative for States today, and it's recommended to take a portfolio approach to comprehend, foster, and successfully manage the multi-faceted challenges of innovation.
23. This would include, for example, improving your public transparency to enhance trust and fuel innovation.
24. Increasing government openness through the leveraging of open source data and the emergence of new business models.
25. And taking progressive steps to enhance public engagement through better communications with your industries, businesses and customers.
26. In addition, with the rapid development of big data analytics, artificial intelligence (AI) and machine-learning which continues to transform and impact information collection and analyzation globally, governments can utilize these technologies to make information based decision-making and to re-imagine the means by which policy and legislation are originated.
27. Aviation has a rich tradition of innovations, and with respect to both the early adoption of new technologies and to policy leadership.
28. Deregulation for example has brought large benefits to economies and air transport customers, and new business models have revolutionized the industry in many respects.
29. This is a key tradition and achievement of global aviation, and one that is likely to continue given the positive growth forecasts for international flight.

30. But at the same time we must better reconcile the impact this growth will have on air transport emissions, an innovation challenge which could well prove to be make-or-break with respect to the sustainability of certain types of operations.
31. What I can assure you of today is that ICAO will keep pace with the rapid technological advancements in air transport, and that a Resolution on this topic will be presented to our upcoming Assembly this week.
32. Whether we are considering urban mobility, unmanned aircraft systems and AI, new forms of aircraft propulsion, or new regulatory policies, how we redefine efficiencies and enhance innovation in air transport will be critical to accelerating how States can realize the Sustainable Development Goals (SDGs) currently established under the United Nations (UN) *2030 Agenda for Sustainable Development*.
33. Moreover, ICAO is committed to doing more to assist our Member States under the *No Country Left Behind* initiative, and that includes addressing your capabilities and capacities relevant to enabling innovation.
34. This year's IWAF provided us with an invaluable opportunity to address how political commitment, in addition to enabling institutional, legal and regulatory frameworks can foster technological advancement in recognition of the potentials posed by this era of incredible aviation innovation.
35. I am very pleased to see many initiatives and consensus reached, which are all reflected and incorporated in the **Outcome Document agreed at the Ministerial Roundtables** issued today.
36. I could not have hoped for a better set of outcomes to help set the tone for our 40th Assembly, and indeed for the future of air transport at the service of civil societies everywhere.
37. Thank you.