ICAO POLICY ON INNOVATION

Approved by the Council and published by its decision



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Introduction

This policy is founded on Assembly Resolution A40-27: Innovation in aviation, which refers to articles 37 and 44 of the Chicago Convention and recognized the nature and pace of innovations. The policy is based on Council action taken on A40-27 in particular its consideration of the results of the independent assessment of innovation undertaken by the United Nations System Staff College (UNSCC).

1. **OBJECTIVES**

- 1.1. This policy is designed to enhance ICAO's role to assist Members States to benefit from innovation in the aviation sector, to address related challenges and for ICAO to develop, as needed policies, standards, other provisions¹ and tools that support the continuing improvement of safety, efficiency, security, facilitation, economic and environmental sustainability of international air transport in a timely and technology agnostic manner, and in accordance with the strategic goal of No Country Left Behind (NCLB).
- 1.2. This policy facilitates the development and deployment of innovation in international aviation by Member States and ensure that all States have a fair opportunity to develop and deploy innovations in aviation.
- 1.3. This policy also guides the identification and implementation of innovation to increase the effectiveness and efficiency of the Organization.

Note.— This policy is linked to the High Priority Enabler on "Innovation Strategy" contained in the Strategic Plan of ICAO)

1.4. This policy aims to:

- a) Provide a strategic vision of the role of ICAO on innovation. Outline what ICAO intends to achieve through its innovation initiatives, and how it identifies, communicates and builds strategic relationships.
- b) Ensure the timely development of global policies and standards related to innovations. Provide a framework that will help ensure the timely analysis of the need to develop global policies, standards, and other provisions in a technology agnostic manner, and tools that support the continuing advancement of innovation in the international aviation sector, while avoiding the adoption of premature innovations
- c) Promote an environment where innovation in aviation can flourish in all ICAO regions in line with the No Country Left Behind (NCLB) initiative.
- d) *Make innovations known and accessible to all States*. Proactively engage with all States on potential benefits of innovation in aviation and support their implementation and interoperability, taking into account national and regional circumstances.
- e) Strengthen ICAO's engagement with stakeholders to facilitate innovation in pace with the rapid nature of its development in the aviation sector.

¹ In this document "provisions" incudes Recommended Practices, Procedures for Air Navigation Services, Technical Instructions, Guidance Material and circulars

- f) Use innovation to increase the efficiency, effectiveness and transparency of ICAO.
- g) Intensify the embedding of innovation into the work under all ICAO Strategic Goals and supporting enablers.
- h) Create an environment where innovation can progress within the Organization and
- i) Ensure alignment with the High Priority Enabler on continuous improvement of ICAO contained in the Strategic Plan.

2. SCOPE

2.1. This policy applies to innovation in all aspects of the work of ICAO and its cooperation with the Member States, in-sector aviation stakeholders, emerging aviation stakeholders, and out-of-sector stakeholders².

3. **DEFINITIONS**

- 3.1. The following definitions apply for the purposes of this policy:
 - a) Innovation

Innovation is the introduction of novel value-added ideas, concepts, methods, products, technologies, or processes that are ahead of current thinking and are forward-looking. When applied to ICAO, it includes supporting, as appropriate, the identification, development and deployment, in coordination with Members States, regulators and/or industry, of more efficient, effective and accessible solutions that enable ICAO to achieve its objectives.

b) In-sector aviation stakeholder

Entities that are routinely involved in international civil aviation and are aware of and actively engaged in the relevant ICAO processes. This includes entities who may not be aviation entities per se, but who are regularly involved in international civil aviation and those that are part of the aviation supply chain.

c) Emerging aviation stakeholders

Entities, including start-ups, who are new to the sector and are not routinely involved in international civil aviation and who should be, but are not, fully aware of nor actively engaged in the relevant ICAO processes.

² ICAO Policy on Interaction with External Parties applies to the cooperation with stakeholders.

d) Out-of-sector stakeholders

Entities that are not routinely involved in international civil aviation but develop innovations that might be applied, directly or indirectly, to achieving the ICAO Strategic Goals. These include, inter alia, International Organisations, research and development bodies, academia and civil society entities.

4. ROLES AND RESPONSIBILITIES

4.1. Role of ICAO:

- a) to facilitate the development and deployment of innovations in civil aviation, and the sharing of experience and best practices among Member States, other in-sector aviation stakeholders, emerging aviation stakeholders and out-of-sector stakeholders;
- b) to support Member States, in line with the principles of NCLB, through promoting development, awareness and access to innovations in aviation; and
- c) to develop policies, standards and other provisions in a timely manner.

4.2. Roles and responsibilities of the Council:

- a) to establish the ICAO Policy on Innovation and approve subsequent amendments, as needed:
- b) to monitor the implementation of the ICAO Policy on Innovation
- c) to provide strategic guidance for implementation; and
- d) to revise the ICAO policy on Innovation as needed.

4.3. Roles and responsibilities of the Air Navigation Commission:

- a) to advise the Council on matters related to innovation for the advancement of air navigation, in accordance with its mandate; and
- b) in addition to its mandate, to implement the ICAO policy on Innovation and resulting actions as directed by the Council.

4.4. Roles and responsibilities of Committees of the Council:

- a) to advise the Council on matters related to innovation for the advancement of their respect areas of work in accordance with their mandate; and
- b) in addition to their mandates, to implement the ICAO policy on Innovation and resulting actions as directed by the Council.
- 4.5. Roles and responsibilities of the Secretariat, including Senior Management, Bureaus and Regional Offices in supporting the implementation of the ICAO policy on innovation consist of:

- a) implementing the ICAO Innovation Policy as related to its mandate including the relevant parts of the work programme described in the ICAO Business Plan;
- b) reporting on the implementation of the ICAO Innovation Policy;
- c) enhancing a culture of innovation;
- d) ensuring adequate staff levels who have appropriate competencies and are equipped with the appropriate tools;
- e) promoting the sharing of relevant information across the organization in a timely manner;
- f) advising the Council on matters related to innovation in accordance with its mandate;
- g) engaging with other entities within the United Nations on innovation.

5. PLAN OF ACTION

- 5.1. The plan of action related to the ICAO Policy on Innovation is detailed in the ICAO triennial operating plan and mapped to the High Priority Enabler on Innovation, which translates the requirements of the Policy to yearly implementation activities.
- 5.2. Convene regular sessions of a high-level body with the industry: Convene regular sessions of a structured strategic dialogue between the ICAO Council and industry leaders, in their respective roles and responsibilities, to consider innovation in aviation with the purpose of, inter alia:
 - a) sharing the industry vision, knowledge and experience that is relevant for the safe, secure and sustainable development of the aviation sector;
 - b) delivering strategic advice and recommendations on innovation in aviation;
 - c) helping ICAO to keep pace with relevant innovations that have possible implications for its priorities, workload and activities;
 - d) discussing the impact of innovation on different aspects of the global aviation system, including emerging technologies, operational consequences, economic impact, accessibility, legislation and the human factor, whilst also taking into consideration the objectives of the NCLB initiative; and
 - e) discussing possible common approaches to future challenges in international civil aviation, taking into account different national and regional circumstances.
- 5.3. Continue and enhance the inclusive dialogue with stakeholders to encourage further collaboration and sharing of experiences in relation to innovation and take proactive action with respect to accessibility of innovations by all States. This action should complement, and not replace or overlap, with those that are already established (e.g. the various ICAO expert groups). Specific actions should include:

- a) performing regular horizon scanning exercises to keep ICAO up to date on developments through which it can proactively identify innovations, as well as relevant stakeholders, in a timely and technology agnostic manner;
- b) performing regular analysis on the accessibility of innovations by States, including the identification of potential barriers to implementation;
- deploying the various forums and tools available to ICAO, and developing new ones as necessary, to enable collaboration and sharing of experiences to address the outcome of the afore mentioned horizon scanning and analysis; and
- d) assisting Member States to promote the development of, be aware of and access innovations in aviation, including through initiatives in such areas as cooperation, capacity-building and exchange of knowledge, best practices and lessons learned.
- 5.4. Enhance, plan, develop and deploy ICAO instruments and tools to enable the timely, effective and efficient regulation of innovations by States. Specific actions should include:
 - a) enhancing ongoing work and performing further gap analysis and other assessments to ensure that the actions of ICAO are optimized;
 - b) establishing a standardization roadmap building upon, and consistent with, ICAO's existing work, that captures all technological and process innovations in support of the ICAO Strategic Goals, with a view to supporting the effective planning and resource management of the Organization, while also providing greater certainty and predictability to the industry regarding the timely development of the Standards and Recommended Practices (SARPs) and other provisions; and
 - c) identifying, planning, developing and deploying other tools, as necessary, to enable the effective and timely regulation of innovations by States.
- 5.5. Promote a culture within the Secretariat to open up to innovations and adapt its internal processes by, inter alia, leading by example, and assessing and updating ICAO's working methods. Specific action should include:
 - a) assigning all senior managers as innovation champions who actively encourage the identification of, and allow for the timely evaluation, and, when validated, implementation of innovations to improve the efficiency and effectiveness of ICAO;
 - establishing an innovation team within the ICAO Secretariat that enables innovation, moves forward innovation related actions in a cohesive manner, and enables partnerships for horizon scanning and knowledge transfer/management - while providing organizational support across ICAO;
 - mainstreaming innovation, enhancing its strategic positioning within the organization and reinforcing the capabilities of the innovation team to better drive and support innovation initiatives;
 - d) developing and maintaining an internal innovation sandbox, in order to create a transparent and controlled environment or platform that allows individuals and teams to experiment, test, and develop new ideas, products, services, or technologies in a safe and isolated space;

- e) developing and implementing educational and administrative processes to ensure the proper use of specific innovations by the ICAO Secretariat ensuring compliance with existing ICAO policies including those on Ethics, Information Security, and Intellectual Property;
- f) providing input into ICAO's continuous improvement activities including those related to Human Resources, digitalization, and process improvements;
- g) assessing and supporting the application, as relevant, of methods or products, that can support an environment where innovation can progress within ICAO; and
- h) communicating both internally and externally on success stories as well as other experiences with the implementation of innovations.
- 5.6. Council monitoring on the implementation of the ICAO Policy on Innovation. Specific action should include:
 - a) establishing Key Performance Indicators;
 - b) monitoring the implementation of the ICAO Policy on Innovation and recognizing best practices; and
 - c) periodically reviewing the effectiveness of the ICAO Policy on Innovation and amend as necessary.

6. **EFFECTIVE DATE AND REVISION**

- 6.1. This policy has been approved by Council at the sixth meeting of its 234th Session, with an effective implementation date of 17 March 2025.
- 6.2. This policy will be annually revised and may be regularly updated and amended by the Council, as needed.