



ICAO SECRETARIAT
STRATEGY ON
INNOVATION
2022

ICAO SECRETARIAT STRATEGY ON INNOVATION

This document aims to provide a well-coordinated strategy and implementation plan for innovation within ICAO, in accordance with the goals and directives set by ICAO Assembly Resolutions and ICAO Strategic Objectives. Innovation is embedded into the work of the ICAO Bureaus and Offices, through the implementation of new and forward-thinking approaches and processes, as well as the engagement of ICAO technical experts with the innovation community. Notwithstanding, additional efforts are now required to deliver on a “One innovative ICAO”, to ensure the realization of synergies between and across Bureaus, foster support on innovation between Bureaus, bring about a culture of innovation across the whole organization and as such contribute to a vibrant innovation ecosystem consistent with the organization’s mandate. The purpose of this innovation strategy is to provide internal synergies to achieve this objective, and to ensure that the limited resources of the organization are efficiently used to engage on the latest innovations.

I. DEFINITION OF INNOVATION (FOR THE PURPOSE OF THIS DOCUMENT)

Innovation is the introduction of new things, ideas, concepts or ways of doing something that is ahead of current thinking and forward-looking. When applied to ICAO, it includes identifying, developing and deploying, in coordination with States, regulators and/or industry partners, more efficient and effective and /or innovative solutions that enhance the ICAO Strategic Objectives, consistent with the Convention on International Civil Aviation (Chicago Convention), and foster the realization of Supporting Strategies.

II. BACKGROUND

The ICAO Secretariat continuously integrates technological innovation into its work, as reflected in the adoption of ICAO international Standards and Recommended Practices (SARPs), policies and programmes and the implementation of capacity-building activities to support their introduction. ICAO also delivers innovation in the advancement of the supporting strategies, through the streamlining of processes and increased digitization and automation, taking into account financial constraints and regulatory challenges.

However, the significant acceleration in the pace of innovation coupled with an exponential increase in the diversity and sheer number of innovators requires ICAO to coordinate and if necessary to evolve its approaches, consistent with the provisions of the Chicago Convention, in order to facilitate and enable innovation in aviation at a global scale in a timely manner. Should the approach to innovation not be evolved, there is a risk of disconnect between the technologies and processes under development and the level of awareness of ICAO staff, experts from States and aviation stakeholders, leading to a possible lag in the development of international Policies, Standards and Recommended Practices, and guidance material.

In addition, as it is anticipated that new initiatives on innovation will be developed, addressing a more diverse range of stakeholders, clarity and consistency in the communications to the community is paramount.

Although innovation has traditionally been factored into the work of ICAO, it remains largely confined to the straightforward deployment of that innovation in the application for which it had been created. Any potential for scalability and cross-organizational applicability is often missed and should be further explored. Any failure in this regard may have a detrimental impact on both knowledge management, organizational efficiency and staff empowerment to deliver on innovation matters. Therefore, while recognizing that ICAO and its staff have been innovating, it is important for the Organization to further encourage and accelerate the pace at which it innovates.

¹ https://www.oxfordlearnersdictionaries.com/definition/american_english/innovation

III. THE MANDATE

The Assembly Resolution A40-27 - Innovation in Aviation - also lays down expected results for ICAO pertaining to its relationship with the aviation and innovation community. Indeed, operative clause 4 “Directs the Council to instruct the Secretary General to further liaise with States, governmental and non-governmental organizations, the private sector, academia and the relevant United Nations system entities in order to establish an inclusive dialogue at strategic level that will encourage further collaboration and sharing of experience in relation to innovation”.

The challenges identified in the background section (chapter II refers) are consistent with C-DEC 224/9, which requested that the Secretary General “consider measures that could be taken to enable and promote innovation at ICAO, including, but not limited to:

- a) identifying initiatives and changes in working methods that would promote more substantive interactions between ICAO and the industry, including industry’s engagement and inputs to Committees, Panels and other expert or policy groups, the Air Navigation Commission, and with the Council, as well as the processes by which State regulators introduce and promote innovation through their engagement with ICAO;
- b) implementing additional working methods within the Secretariat in order to mainstream innovation and further disseminate the innovation culture; and
- c) developing and/or identifying best practices aimed at better supporting Member States’ implementation of ICAO Standards and Recommended Practices (SARPs) within their regulatory frameworks.
- d) requested the Secretariat to develop a survey aimed at collecting the views of external stakeholders on ICAO and innovation, taking into account information already available.

IV. ICAO’S GOAL ON INNOVATION

Consistently with ICAO’s core values, all ICAO activities are underpinned by due consideration for gender equality and inclusion. These core values permeate the enhancement of ICAO’s innovation culture and the realization of ICAO goals on innovation. ICAO realizes its objectives with purposeful balance and fairness.

On innovation, ICAO aims to:

- a) Raise awareness of innovation among States, industry partners and the aviation community at large and promote its potential benefits;
- b) Encourage and support the timely deployment of sustainable innovative technologies, processes and capacity-building activities based on operational needs;
- c) Provide a framework that allows the industry to engage with ICAO at the appropriate level, and where appropriate within the existing frameworks, enabling ICAO to develop well-informed policies and carry out innovative implementation support initiatives; and
- d) Provide a framework that enables ICAO to engage academia in the development of innovative studies, training and projects, through the support of the States and the industry.

V. IMPLEMENTATION OF THE STRATEGY

A collaborative group of ICAO Secretariat Focal Points on Innovation, nominated by their respective Bureaus and Offices, coordinated by the Strategic Planning, Coordination and Partnerships (SPCP) Office, is responsible for supporting and administering the development and implementation of cross-organizational initiatives set forth in the mandate (section III refers). Through information-sharing across the organization, the Focal Points ensure the identification of synergies and facilitate the coordination and implementation of activities to achieving the inherent goals (section IV refers). The Focal Points also have a pivotal role in identifying opportunities to improve ICAO's tools and processes, taking full consideration of the Digital Transformation programme.

As part of this process, SPCP is responsible for the management and administration of the roadmap agreed upon by the group of Focal Points (Appendix B). This includes the specific activities and processes under the innovation banner and does not impact the specific events of each Strategic Objective, noting that events can be connected at the request of the Bureaus. Content development would be the responsibility of the Bureaus in coordination with the Regional Offices, with the support from the following offices, where applicable, but not limited to:

- a) SPCP for the aspects related to content coordination and administration;
- b) Global Aviation Training (GAT) office to help mature content and delivery consistently with ICAO standards on training;
- c) Revenue and Product Management Section (RPM) to garner interest from possible sponsors, in close cooperation with the Bureaus;
- d) Legal Affairs and External Relations Bureau (LEB) to provide advice on the compliance of novel initiatives with ICAO's applicable rules and procedures, in coordination with the Bureaus;
- e) Venue and Event Management Unit (VEM) to support registration process and develop potential new approaches to facilitate participation in innovation activities; and
- f) Communications Unit (COM) to support the articulation of ICAO's key messages on innovation and their strategic dissemination, in coordination with the Bureaus.

These initiatives should inform the Triennial Operating Plan of the Business Plan, for the advancement of the Strategic Objectives. However, it will be essential to consider extra-budgetary resources resulting from targeted resource mobilization and cost-recovery options, for those activities identified as partially funded or unfunded, in particular those that contribute to ICAO's Transformative Objective on Innovation. Each Bureau and Office remains accountable for delivering on their respective mandate, as per the applicable Assembly Resolutions and relevant Council decisions. However, the establishment of the group of ICAO Focal Points on Innovation provides the opportunity for enhanced internal coordination and knowledge sharing to assist in the implementation of Bureau led activities.

In addition, clear and transparent guidelines should be defined for the possible sponsoring of events. In this respect, Appendix A provides a nomenclature of the possible outreach activities, clarifying their objectives, formats, audiences and revenue-generation opportunities. It allows for a flexible planning mechanism, which takes account of the needs and resources available.

The innovation strategy also includes clear accountabilities on activities attributable to the group of Focal Points and the activities led by the respective Bureaus and Offices – all contributing to achievement of the Strategic Objectives. As such, the Strategy includes:

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- a) a 12-month dynamic plan of actions is available in Appendix B; and
 - b) the continuous exchange of information and provision of updates on all innovation related activities as they pertain to bureaus in sync with the Business Plan Triennial Operating Plan, to be shared on the occasion of the Focal Point meetings. Such meetings are also the opportunity to assess and provide advice on the prioritization of the activities aimed at promoting innovation in the ICAO Secretariat.



INNOVATION APPENDICES

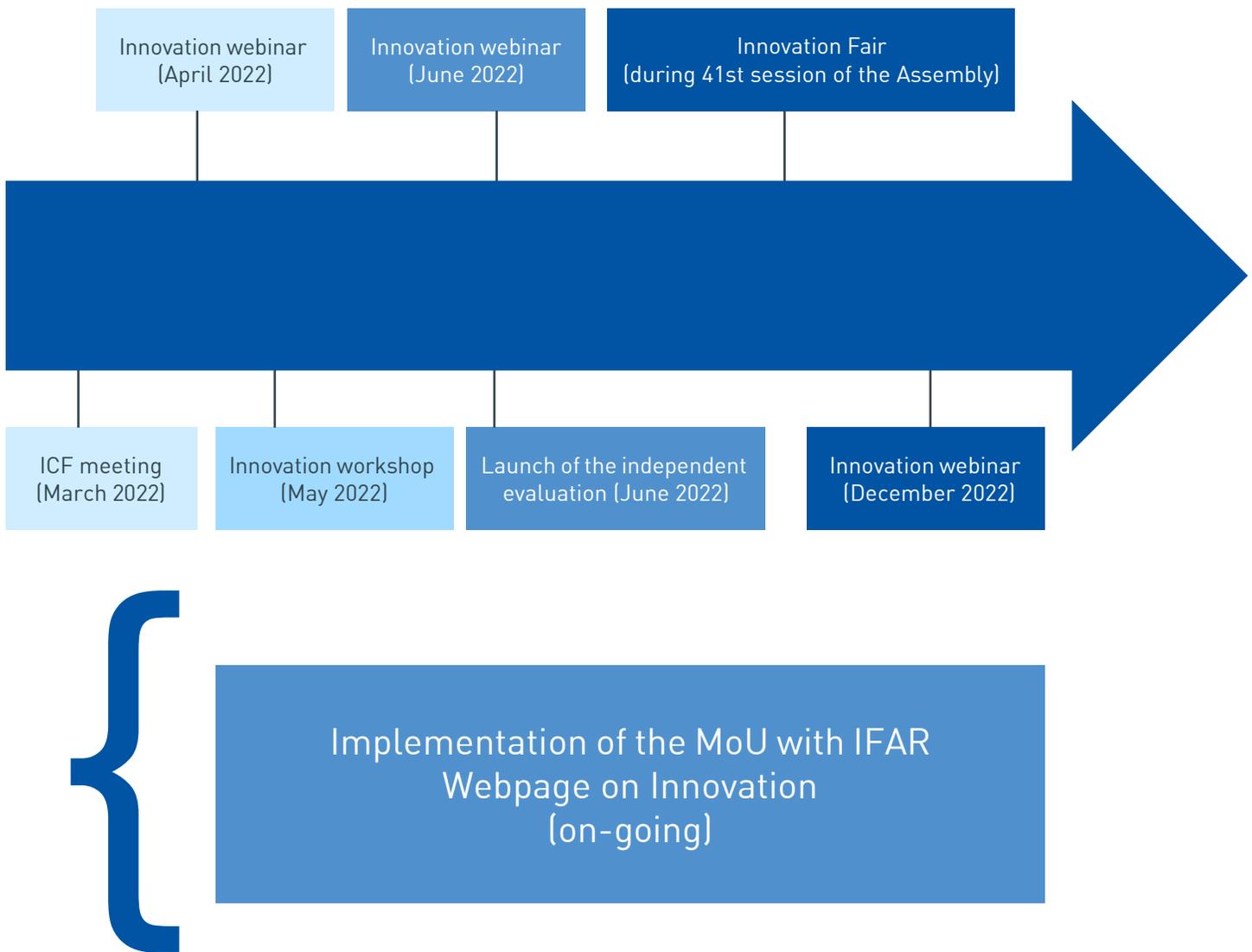
Appendix A – Proposed types of ICAO innovation events

	WEBINARS	WORKSHOP	FAIR
Setting	Webinars are on-line events, including but not limited to roundtables or seminars. 3 to 5 speakers from academia, private sector, States, other UN entity and moderated by ICAO staff; Conversation format, followed by Q&A; Regional webinars on innovation could be included in the activities on innovation by the Regional Offices.	Several external speakers from academia, private sector, States, other UN entity, ICAO staff and moderated by ICAO staff; Presentation format, followed by Q&A; Regional workshops on innovation could be included in the activities on innovation by the Regional Offices.	Panels of 4 to 6 speakers, from all segments of the industry and innovation community; exhibition; Presentation and Conversation format, followed by Q&A; Should the event not include an exhibition area (e.g. virtual event), the terminology “Symposium” will be retained. An Innovation Fair or Symposium could be declined at the regional level.
Duration	60-90 min	3 times 3 hours	2 or 3 days
Selection of themes	Bureaus; and Bureaus based on proposals from possible sponsors. As these are cross-ICAO events, SPCP will ensure the coordination.	Bureaus; and Bureaus based on feedback from participants. As these are cross-ICAO events, SPCP will ensure the coordination.	Bureaus; and Bureaus based on proposals from possible sponsors. As these are cross-ICAO events, SPCP will ensure the coordination.
Selection of speakers	Bureaus	Bureaus	Bureaus
Revenue-generation	Yes but not systematic, a flexible approach is expected.	No	Yes (Category 4 event)
Target audience	Technical and mid-management staff from the CAAs and Secretariat who would be interested in the technical and non-technical aspects of a new technology or process and its impact on all Strategic Objectives. Attendance upon registration	Primary target: all levels within the CAAs; Secondary targets: industry players; Other UN entities; Academia; All levels within the Secretariat; Attendance upon registration	DG and Director level within the CAAs; C- and D-level within the private sector; Academia, research community, civil society; UN entities; All ICAO Staff; Attendance upon registration;

	WEBINARS	WORKSHOP	FAIR
Objectives	<p>Showcase innovations in aviation that have the potential to help progress on the ICAO Strategic Objectives, deliver on the United Nations Sustainable Development Goals and enable the recovery and resilience of the aviation system;</p> <p>Help viewers understand the technologies but also the opportunities and challenges related to the technologies, exploration of its multiple facets and lessons learned from research and business applications that would have an impact on ICAO SARPs development; Showcase ICAO tools, services and products that are designed for use by the innovation community and the industry at large, beyond the expected SARPs development.</p>	<p>Support Member States to:</p> <ul style="list-style-type: none"> Understand innovations and their impact on all aspects of international civil aviation; Innovate their internal processes and create an environment prone to innovation (whether the State is a “manufacturing State” or not). <p>Support private sector to:</p> <ul style="list-style-type: none"> Understand the need to engage with ICAO/the CAA at an early stage of product development; and Understand better the role of ICAO. 	<p>Increase the understanding of ICAO’s role and raise innovators’ awareness on the necessary compliance with ICAO SARPs; Enhance the interface between ICAO and non-traditional aviation stakeholders.</p>
Benefits	<p>Opportunity to understand the more complex ramifications linked to a new technology and process;</p> <p>Opportunity for “contradictory debate” between stakeholders with different views and interest;</p> <p>Time-effective dive into a particular technological development both for the CAAs and ICAO staff;</p> <p>Can create a sponsorship opportunity for the Fair.</p>	<p>Educational purpose;</p> <p>Cover challenges across all SOs;</p> <p>Target Member States (capacity-building);</p> <p>Contribution from the private sector under the form of experience-sharing for the design and deployment of products and services in a given regulatory framework;</p> <p>Replicable for better cost-benefit ratio;</p> <p>Involvement of GAT to adhere to ICAO quality standards for training.</p>	<p>Representatives of States, private sector, academia, International Organizations, UN and non-governmental organizations (NGOs) to have substantive conversations on innovation in aviation and how its benefits society at large;</p> <p>At the policy and technical levels.</p>
Resource requirements	<p>Each Strategic Objective to propose 2 to 3 themes;</p> <p>Selection of themes and schedule during the Focal Points meetings;</p> <p>Identification of speakers after selection of the theme the Bureaus;</p> <p>Content to be controlled by Bureaus;</p> <p>Logistics by VEM and coordination by SPCP (including contacting speakers);</p> <p>Workshops publicized on the ICAO website and through social media; on-line registration and content available on ICAO TV.</p>	<p>Each Strategic Objective to review the content of the latest beta version of the workshop and add content related to their respective work;</p> <p>Bureaus to control and deliver on their respective content;</p> <p>SPCP to moderate with the potential support from GAT;</p> <p>Logistics led by SPCP;</p> <p>Workshops publicized on the ICAO website and through social media; on-line registration and content available on ICAO TV.</p>	<p>Each Strategic Objective responsible for its respective panels including the coordination with the ROs;</p> <p>VEM responsible for the logistics and event coordination;</p> <p>Content to be controlled by Bureaus;</p> <p>RPM responsible for revenue-generating initiatives in cooperation with Bureaus/Offices;</p> <p>Coordination by SPCP</p> <p>Innovation Fair convened by means of a State Letter</p>

Appendix B – Indicative timeline for the implementation plan from March to December 2022

This timeline captures the activities identified in Appendix B, with the view to facilitating the planning and coordination process amongst the Bureaus, under SPCP’s leadership. The identification of topics and the organization of these events will follow the process outlined in section V of the Strategy. ICAO Regional Offices are welcomed to tailor any of the content developed for the roundtables and for the workshop to the specific needs of their region, with the support of Headquarters.





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