

Agency

Civil Aviation Authority of Singapore



How does the agency keep abreast of critical industry trends/innovations and facilitated new business ideas for the sector's transformation and growth? Please share the best practice with examples/case studies.

Multi-dimensional, in-depth stakeholders' engagement

- **Actively engage bilateral partners to deepen international contribution and collaboration:** CAAS organises regular meetings with our bilateral partners (e.g. Federal Aviation Agency (FAA) of the US) to understand their regulatory developments and challenges to align ourselves with international and industry developments. Recently, CAAS hosted the FAA Asia-Pacific Bilateral Partners Dialogue meeting virtually that brought together representatives from 16 States to discuss the prioritising of safety initiatives in restoring public confidence in air travel.
- **Gather key industry stakeholders to explore new initiatives:** CAAS organises meetings for the Joint Committee on Airside Safety (JCAS), which is a platform to bring together key industry stakeholders and to track the development of new initiatives to promote airside safety. JCAS is one of the regular platforms that CAAS uses to engage the aerodrome operator and airside community to explore and test new technologies to improve safety of operations at the aerodrome.
- **Regular and pro-active engagement & consultation with the stakeholders to explore and test new technologies:** CAAS actively promotes a positive safety culture, shares good safety practices and encourages compliance through a series of activities and touchpoints to spur dialogue and collaboration among the aviation community at various levels. Some examples of regular platforms include:
 - o Aviation Safety Forum (ASF) - a platform to inform and engage the aviation community on developments in safety policy and rules and gather new ideas from the industry.
 - o CAAS Safety Series - a mix of talks, workshops and seminars, to keep our aviation industry updated on safety-related developments and address any impact of new programmes or changes on the industry. To-date, CAAS has conducted five virtual CAAS Safety Series (CSS) in 2021.
 - o Regular meetings and dialogue sessions with our regulated entities to facilitate the exchange of ideas and discussion on aviation safety issues.

Embracing the "Pro-Enterprise" mindset

- The effective stakeholder engagement is made possible by cultivating the "pro-enterprise" culture internally through officers' exposure to latest aviation technology and development. Such exposures lead to better appreciation and support to stakeholders' innovative ideas.



How does the agency, encourage new business ideas and innovations as well as taking the effort to understand stakeholders' needs and challenges to fine-tune implementation processes in support of them? Please share the best practice with examples/case studies.

Keeping an open mind on establishing new ground, while keeping open conversations in striving towards safe & vibrant air hub collaboratively

- **Tap on expertise outside the aviation community:** to advance innovation.
 - o Example: Through the Aviation Challenges where CAAS calls for proposals to tap into the expertise of both aviation companies and technology providers to develop their solutions to problems in the aviation industry. Shortlisted proposals are given funding support for prototype development and initial implementation.
- **Establish regulatory frameworks:** to support implementation of new business ideas and innovations:
 - o Examples:
 - Introduced a new safety regulatory regime for heliport certification, to cater for future vertical take-off and landing (VTOL) aircraft that are to be aligned with our State-level airspace policy, and to complement our existing aerodrome regulatory framework.
 - Expanded the use of Permit-to-Fly to facilitate flight trials on unregistered new aircraft concepts (e.g. Flyboard and Volocopter).
 - Modernised our rules, which included reviews on providing for outcome-based rules in place of prescriptive rules, and where possible, to provide industry with the flexibility to explore innovation to demonstrate their compliance with the safety rules.
- **Understand stakeholders' needs and challenges to fine-tune implementation processes:** CAAS has touchpoints / platforms for discussion with the relevant stakeholders at various levels. This provides CAAS with the opportunity to understand the stakeholders' needs and challenges, allowing them to fine-tune the relevant implementation issues. By taking a pro-enterprise stance, CAAS try to facilitate the requests unless there are wider implications on other issues

Air Transport Industry Transformation Map

We launched the Air Transport Industry Transformation Map (ITM) 2017, to provide a roadmap to revolutionize the aviation sector through innovation, productivity, enterprise and jobs and skills.



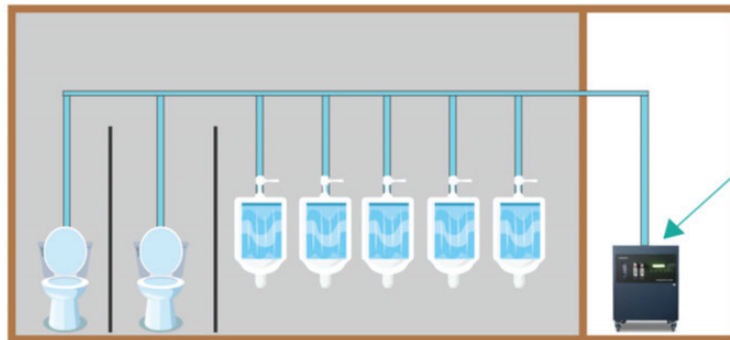
22nd FAA Asia-Pacific Bilateral Partners Dialogue Meeting

Some of the 104 virtual participants from 16 States attending the 22nd FAA Asia-Pacific Bilateral Partners Dialogue Meeting hosted by CAAS in Sep 2021. Attendees include (from top left) Mr Han Kok Juan, Director-General, CAAS, Mr Earl Lawrence, Executive Director, FAA Aircraft Certification Service and Mr Alan Foo, Senior Director (Safety Regulatory Group), CAAS.



Aviation Development Fund (ADF) - CAG's Ozone Water Disinfection System Project

This is one of the projects that was supported under the ADF Enhanced Framework with 90% funding support and is being trialled at Changi Airport Terminal 1/Terminal 3 and Seletar Airport.



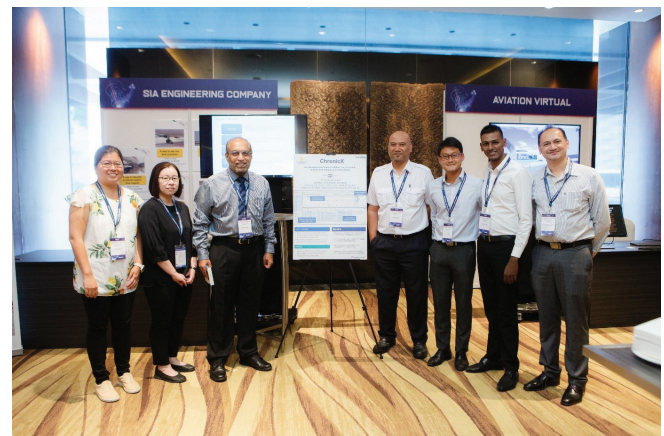
Ozone Water System

Medkline's state-of-the-art Cerafusion™ Technology infuses Active Oxygen into incoming water source to disinfect and deodorize the WCs and urinal every time the toilet is used.



Aviation Safety Forum (ASF)

Industry partners (from left: MITRE Corporation, Changi Airport Group (CAG), CAAS, Jetstar and ST Engineering) sharing their insights at the last physical Aviation Safety Forum organised by CAAS in 2019.



Aviation Safety Forum (ASF)

Industry partners showcasing their safety initiatives and innovations at the last physical Aviation Safety Forum organised by CAAS in 2019.