

ICAO RPAS Symposium 8/11/2022

Why certify, for what purpose, and to what standards?

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The CAA's Innovation Hub

Mission | To create an environment where innovation in aviation can flourish in line with CAA principles

1. **Gateway** to make it **easier** for innovators to access CAA expertise, guidance, and viewpoints on regulations

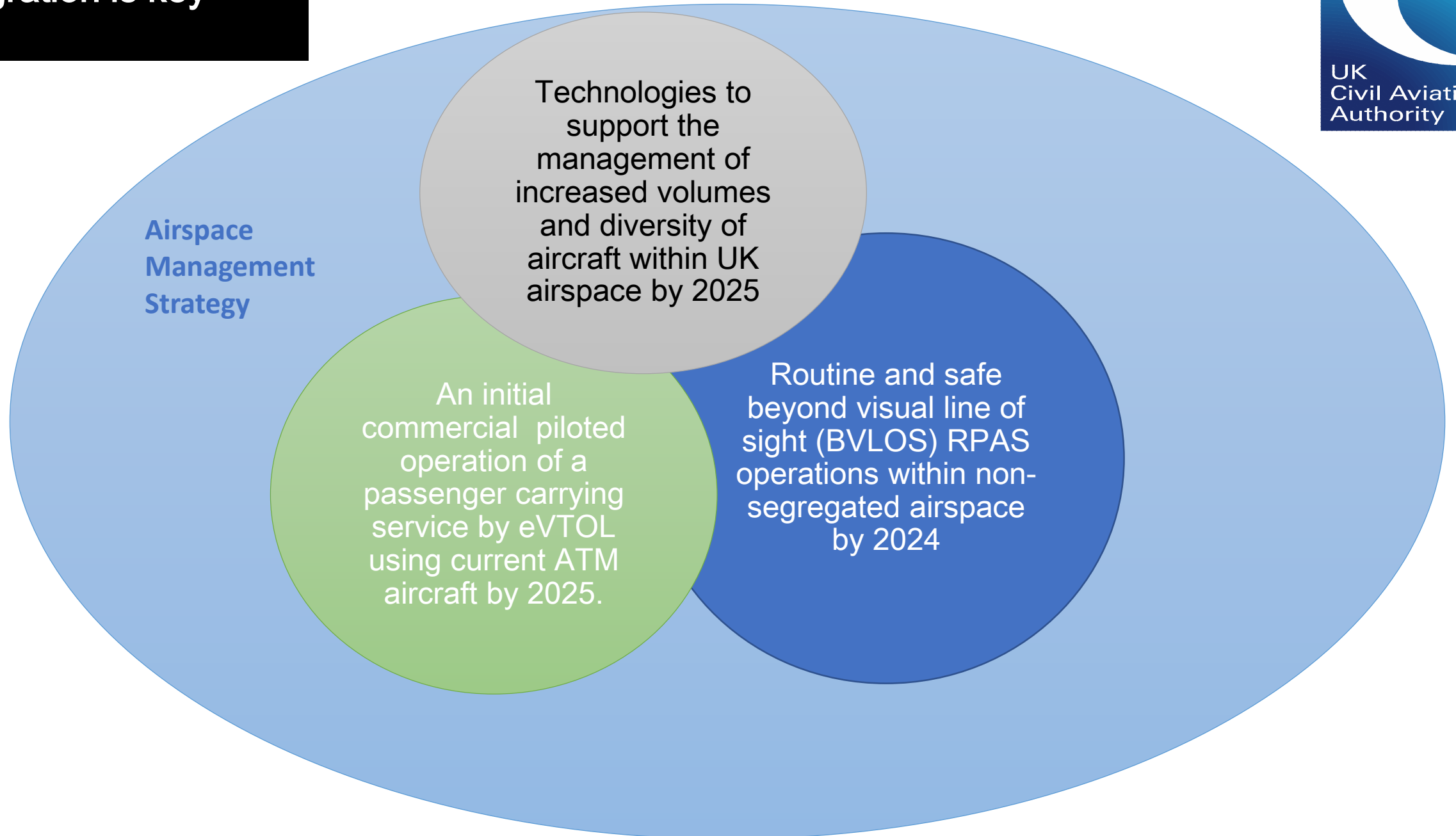


2. **Sandbox** to **trial** innovative concepts to maximise regulatory and innovator readiness.



3. **Regulatory Lab** to accelerate the development of new policies and regulations

Integration is key



UK AAM Vehicle Certification



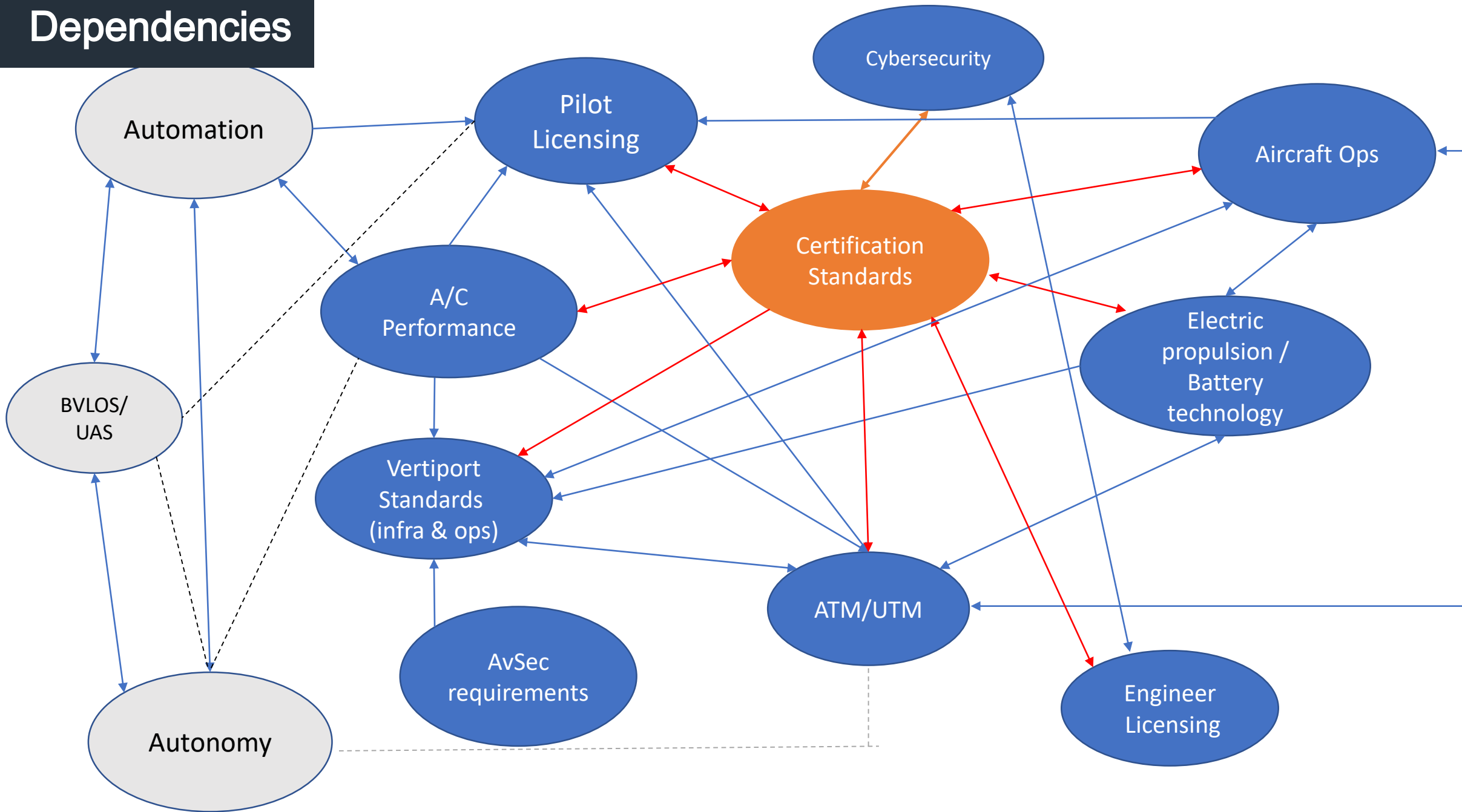
- EASA SC-VTOL and associated MoCs.
- FAA safety continuum approach based on part 21.17(b) using 14 CFR Parts 23, 25, 27, 29, 31, 44 and 35 as appropriate per vehicle.
- UK CAA has decided to adopt SC-VTOL.
- Participating in many Eurocae WG.

UK CAA will adopt what is appropriate for the UK AAM operating environment while being very cognisant that **harmonisation increases efficiency for industry and regulators but also enhances safety.**

International regulatory community must work together to move towards harmonisation:

- Collaboration and exchange of type certification data
- Streamline validation activities and minimise duplication of effort
- Establish a risk-based approach to validation between the State of Design and the Validating Authority using acceptance practices for low-risk validation items

Dependencies



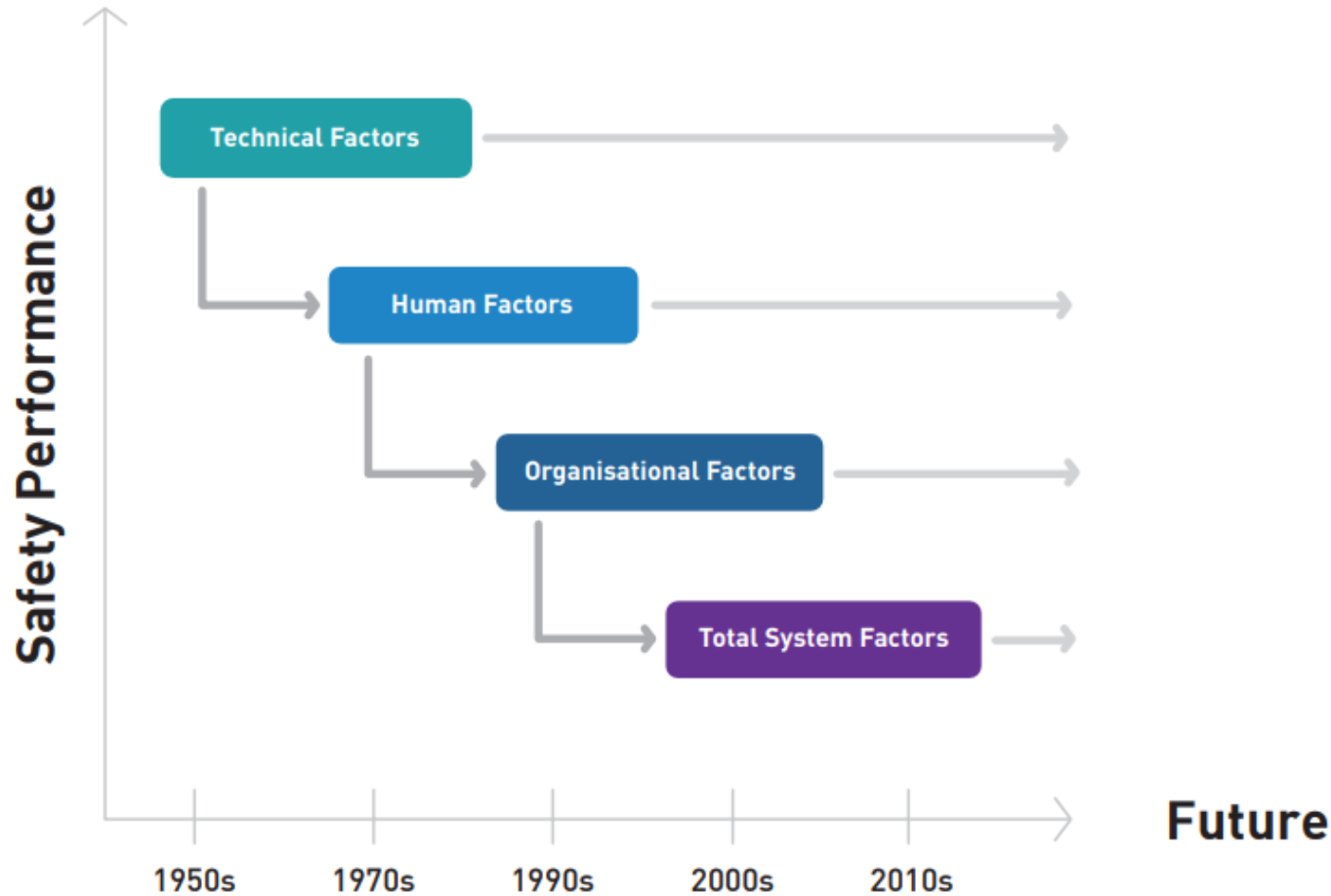
Unknowns impacting certification and other criteria



- **Known unknowns:**
 - Battery performance
 - Different aircraft designs & performance metrics
 - Aircraft handling characteristics, especially in emergency situations
 - eVTOL downdraft
 - Public appetite
 - UTM solutions
- **Unknown unknowns**
 - ?

Certification is only the beginning!

Safety improvement approach ICAO Doc 9859:



To capitalise on the benefits of RPAS/AAM for the public, environment and industry, all stakeholders need to work together in a different way as when we developed standards for 'traditional' aviation and aerospace.

- Speed of technological development and need for regulations/oversight/certification to keep pace.
- Much technological expertise resides in industry
- Aviation SMS experience
- Aviation Safety Culture
- Human performance

How can we explore synergies and make best use of our combined experience, and limited resources?

A slide with a sunset background, a blue arrow pointing right, and a dark blue bar containing the text "Thank you".

Thank you