

Autonomous Vessel Forum 2022: Post-event communiqué

Trusted Autonomous Systems ran the [Autonomous Vessel Forum 2022](#) in Townsville, Queensland, 28-29 September 2022. Taking note of the [outcomes of the inaugural AMSA-led AV Forum in 2019](#), the 2022 event focused on identifying the status of autonomous vessel development and regulation in Australia and identifying areas of focus for improving assurance and regulatory pathways into the future.

Over two days more than 70 delegates from government, defence, industry, and academia, participated in the event. Highlights included the preceding autonomous vessel demonstration with four live and five static vessels at ReefWorks (see AIMS [Media Release](#)), together with the many insightful presentations discussing technology, assurance and regulatory challenges, describing the experience of developing and using the technology in different contexts, updating the audience on regulatory developments domestically and internationally, and discussing future assurance and regulatory pathways. A series of ideas and themes emerged from the event, which are outlined below.

The Autonomous Vessel Forum 2022 marked a positive step towards ongoing collaboration across the Australian autonomous systems ecosystem, and we look forward to future events.

Summary of key ideas and themes

1. A **variety of autonomous vessels** are operating in Australia for a diverse range of commercial, research and defence purposes, and the size, range and capability of these vessels is increasing.
2. The ability to effectively operationalise the rapid technological development underway in the autonomous systems sector is contingent on **access to suitable regulatory pathways** supported by a skilled, interdisciplinary workforce.
3. The existing regulatory framework is **not fit for purpose** and does not contain relevant technical standards. Obstacles experienced include difficulty accessing information and support as well as delay and uncertainty over processes and outcomes.
4. **Simulation will be critical** for assuring autonomous vessels (i.e. demonstrating compliance with requirements), but the data sets used must be verified, and a diverse range of test scenarios will be needed.
5. **Priorities for the autonomous vessel sector** moving forward (see Slido poll results in Appendix 1 on page 3) include: improving the regulatory experience; creating and adopting standards; and increasing clarity within future regulatory frameworks. The sector supports adoption of lessons learned learnings from the air domain.
6. There is a strong need to establish **Regulatory Sandboxes** to facilitate test and trialling of autonomous vessels, and to inform future regulatory and policy development.
7. Multiple speakers and attendees highlighted the **positive impact of Trusted Autonomous Systems' work** in supporting assurance and regulatory pathways across the breadth of commercial industry, academia, and Defence, including the Australian Code of Practice, COLREGs Operator Guidance Framework, and [RAS-Gateway](#).
8. There is strong support **for increased open, interdisciplinary, collaboration across the autonomous systems ecosystem**. This collaboration should help people and organisations share information and experience, harness lessons learned, and drive beneficial outcomes across the breadth of the ecosystem.

Participating organisations

Australian Association for Uncrewed Systems	Firetail Robotics Surfbee	Ocean Infinity
Australian Institute of Marine Science	Flinders University	Ocius Technology
Australian Droid + Robot	FNC Australia	Pipar Automation
Australian Maritime College Search	Greenroom Robotics	Office of Defence Seaworthiness Regulator
Australian Maritime Safety Authority	Insitu Pacific Pty Ltd	Riverside Marine
BMT	James Cook University	Shelf Subsea Australia
Btb Marine	Jasco Applied Sciences	Shoal Group
CSIRO	L3Harris	TAFE Queensland, GBRIMC
Defence	Lloyd's Register	Thales Australia
Defence Science and Technology Group	Macrodata	Thaum
East Consulting Services	Maritime New Zealand	Trusted Autonomous Systems
EdgeROV	Maritime Safety Queensland	Unique Subsea
Evaluation Partners	Mcbathy	University of York
Queensland Department of State Development, Infrastructure, Local Government and Planning	Queensland Department of Tourism, Innovation and Sport	Warfare Innovation Navy

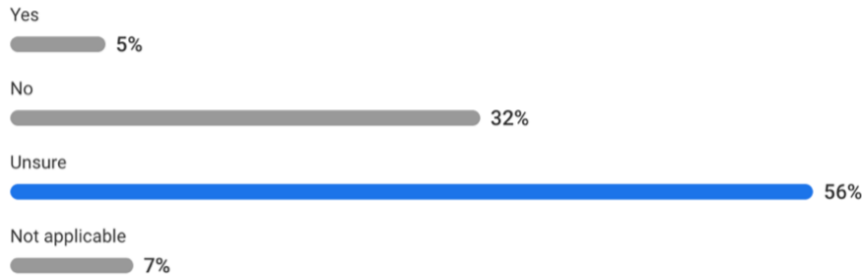
Next Steps

- Trusted Autonomous Systems will continue to work with AMSA and other stakeholders to identify opportunities to improve assurance and regulatory pathways in Australia.
- Trusted Autonomous Systems will support the establishment of a Regulatory Sandbox.
- Feedback and ideas for future regulatory initiatives can be provided to info@tasdcrc.com.au

Appendix 1: Slido results from poll regarding regulatory pathways

During the Forum, Trusted Autonomous Systems' Assurance of Autonomy Lead Rachel Horne polled attendees to understand their views on regulatory pathways. The results indicate priorities for the autonomous vessel community moving forward, including improving the regulatory experience for autonomous vessels; creating and adopting standards; and increasing clarity within future regulatory frameworks.

Q1: Are you satisfied with the current regulatory experience for autonomous vessels?



Q2: What key regulatory issues do you want to see addressed?



Q3: What key elements of a future regulatory experience are important to you?

