NIST UAS Innovation Portal

The Challenge

- National Institute of Standards and Technology (NIST) launched the UAS 6.0 Innovation Challenge to advance wireless data-gathering technologies for uncrewed aircraft systems (UAS), aiming to improve real-time situational awareness and safety for first responders in environments lacking fixed communications infrastructure.

- The challenge sought cross-disciplinary solutions in AI, radio communications, IoT, and cybersecurity to address data transmission and operational difficulties in hazardous or remote scenarios. The competition was open to a pool of American innovators, emphasizing the need for rapid, reliable information delivery during national disasters and emergencies.

Our Approach

- The challenge was structured in multiple stages: initial research paper submissions, capability demonstrations via video, and a live scenario-based final event.

- The Ezassi innovation management portal was central to the process, enabling contestants to submit ideas, research papers with supplemental attachments and demonstration videos; judges used the platform to rate, rank, and collaborate on evaluating entries efficiently and securely. Supported by Ezassi's collaborative tools, the SMEs were ensured rigorous, transparent evaluation and fostered engagement among participants and stakeholders.

Results & Client Impact

- The challenge surfaced breakthrough UAS solutions, including drones with enhanced endurance, advanced wireless communication, and real-time data relay capabilities for first responders. The winning teams demonstrated their technologies in live scenario testing, showcasing innovations that improved disaster response, urban search and rescue, and critical infrastructure monitoring to deliver actionable prototypes and performance benchmarks that can be commercialized or integrated into public safety operations, directly benefiting first responders and the communities they serve.

- The innovation management portal enabled NIST to efficiently manage a complex, multi-stage national competition, ensuring IP protection, data integrity, and robust collaboration across all phases. This project demonstrated how structured, portal-driven open innovation can drive real-world impact, inspire further cross-sector collaboration, and accelerate the adoption of life-saving technologies in the public sector.

> "Thanks so much to the Ezassi crew for all the hard work enhancing the UAS 6.0 experience for contestants! We were able to award $760,000 in prizes to the innovative teams who will present their life-saving technologies at the Public Safety Innovation Summit later this year."
>
> - National Institute of Standards and Technology (NIST) Public Safety Communications Research Division (PSCR) UAS 6.0 Competition Client