

Swedish-Brazilian Competition Seeks Drone Technologies for Fighting Forest Fires

Registrations are open to interested parties from Brazil and Sweden in teams of up to 10 members

The Swedish Aerospace Research Center (SARC) and the Brazilian Aerospace Research and Innovation Network (BARINet) have launched the 2nd SARC-BARINet Aerospace Competition, an initiative that aims to foster multidisciplinary collaboration between academia and industry in the aeronautical sector.

The competition will present a specific challenge focused on the detection and fighting of forest fires, and the participants will have to propose solutions involving multiple Unmanned Aerial Vehicles (UAVs). The aircrafts must work collaboratively, flying in formation, or a swarm of small drones. There is a requirement that the UAVs be launched into the forest area by another aircraft.

"We are very motivated for this second edition. After all, the competition's theme directly addresses one of the biggest challenges related to sustainability, a priority issue for society today," says Alessandra Holmo, Managing Director of CISB, the Swedish-Brazilian Research and Innovation Center, one of the supporting organizations.

The Competition

The competition is open to the public in Brazil and Sweden, except for aerospace industry employees, and teams should have a maximum of 10 members. Participants will work on everything from drone design and manufacturing to virtual demonstration, and upon selection for the next phase, live demonstration in their home country.

Design aspects include mechanics, aerodynamics, flight controls, structures, electrical subsystems, electronics, software, "systems of systems," and commercial off-the-shelf parts adaptations and integrations will be accepted.

Given the potential positive results for the aerospace industry, major companies are supporting the initiative, such as Brazil's Embraer and the Swedish defense and security company Saab. "Embraer values and continuously stimulates learning acceleration for professionals so that they are always able to find solutions for the most diverse challenges of the aeronautical industry," said Maurílio Albanese Novaes Júnior, Head of the Technology Development at Embraer.

Magnus Ahlström, Vice President of Saab's Global Innovation says the company is proud to sponsor a competition that encourages entrepreneurship and innovation in the industry and, on an individual level, inspires young people to develop their skills and talents. "I look forward to seeing the concepts and ideas that will blossom from this cooperation between Brazil and Sweden in future technologies for unmanned aerial vehicles," Magnus concludes.

Award Registration Schedule

The winning team will receive a prize of 6,000 euros to cover travel expenses for team members, who will be invited to travel to Brazil (if they are Swedish) or Sweden (if they are Brazilian). The trip will also include a meeting between the visitors and aerospace industry representatives of the corresponding country.

The relevant dates for the competition are:

- By July 1, 2022: submission of documents for Stage 1
- July 13, 2022: announcement of teams advancing to Stage 2
- November 7, 2022: Presentation of the awards at the CISB-SARC Congress

For more information and registration, please visit <https://sarc.center/sarc-barinet-aerospace-competition/>