IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Enabling the Future - Developing the Space Workforce (5)

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ESA YOUNG PROFESSIONAL SATELLITE: INSPIRING THE NEXT GENERATION OF YOUNG PROFESSIONALS

Abstract

In October 2021, a small, diverse, and motivated group of young professionals within the European Space Agency (ESA) identified a unique occasion: embarking an experiment on the Ariane 6 inaugural flight. The group immediately understood the educational value of this undertaking: to expose a workforce of future leaders in European space to a hands-on spacecraft design project that would be complimentary day-to-day work. The ESA Young Professional Satellite (ESA YPSat) was started as an educational project focused on developing a satellite able to record images of in-orbit events such as fairing and payload separation onboard the Ariane 6. The ESA entry-level programs, such as Young Graduate Trainees, Research Fellows, and Junior Professionals, aim to prepare the next generation of leaders in the European space industry and the ESA young professionals are tightly embedded in their respective departments and contribute to the programs of the agency, which are often long-term, tightly regulated and leave little room for failure. The YPSat is currently ran fully by ESA young professionals, with support from experts within ESA, as well as from industry and academia, and provides the unique hands-on experience of working in a multicultural and multidisciplinary team and designing, building, testing, and launching flight-worthy hardware to space. The team currently has over 65 members from across all ESA directorates and sites of various nationalities and backgrounds, various level of experience and varying levels of availability towards the project. The project encourages its members to tackle project areas and take on responsibilities and risks beyond their comfort zone. One of the focus areas of the project is help the participants develop skills which are highly relevant in a space sector undergoing transformation such as the New-Space approach and agile working. The YPSat mission, by definition, is

one with fast turn-over times, allowing a less than two years' timespan for fully developing flight-worthy hardware. The commitment and dedication in carrying out this project has greatly aided the recognition of the space community both within ESA as well as outside, culminating with the team being awarded the prestigious ESA Teamwork Excellence Award which recognizes outstanding achievements of project teams within the agency. Following the success of the YPSat 1 project, a follow-on initiative, YPSat 2, is currently being outlined for the future generations of ESA young professionals.