

AGENCY

Fly Your Satellite! Design Booster pilot selects CubeSat teams

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ESA / Education / CubeSats - Fly Your Satellite!

In brief

The pilot version of the Fly Your Satellite! spin off programme, **Design Booster**, has successfully finished its shortlisting and selection of future participating teams. The selection itself was in the hands of ESA experts, following a workshop held in the beginning of December. FYS Design Booster teams are now heading to the very first execution of the programme.

In-depth

Earlier this year ESA Academy announced the expansion of the established programme Fly Your Satellite! (FYS) with two new derivatives, **Design Booster** and **Test Opportunities**.

Unlike previous editions of Fly Your Satellite!, these pilot

programmes are time constrained and focused specifically on supporting and consolidating a detailed design, in the case of FYS Design Booster, and the preparation and execution of an environmental campaign in Test Opportunities.

The FYS **Design Booster** timeline is set to 18 months, throughout which students will be exposed to ESA standards and processes and experience wide support throughout various disciplines of spacecraft design such as conducting trade-offs, running analysis and evaluating options while balancing the scope and resources of the mission. Receiving support from ESA experts at this stage may facilitate future development activities, since performing modifications is still relatively easy and cheap, when compared to later phases of the project.

— Fly Your Satellite! Design Booster selection workshop presentation by team AlbaSat

— Fly Your Satellite! Design Booster selection workshop presentation by team ST3LLAR-Sat1 BOIRA

The Design Booster was kicked off by the **Training Week** at ESA's technical centre in the Netherlands from 7-11 November. 80 motivated students from 12 shortlisted teams were given an extensive schedule full of lectures and

workshops covering various spacecraft design disciplines delivered directly by ESA experts.

The selection workshop was held online from 6-9 December. Student teams worked tirelessly and devotedly towards this event, so they could finally present their missions, introduce the challenges, showcase their solutions, and convince the panel of the suitability of their CubeSat project to participate in the programme.

The panel of experts noted the remarkable quality of all proposals during the evaluation. However, the high demand for participation in this pilot programme made the selection process a competitive one. Based on the evaluation, the teams offered to participate in the programme are as follows*:

6S, AlbaSat, BIXO, Rospin-Sat-1, SAGE, ST3LLAR-Sat1 BOIRA

(*Note: Teams are in alphabetical order)

6S

University: Politecnico di Milano, Italy

— Logo of CubeSat team 6S from Politecnico di Milano, Italy

CubeSat project fully developed by students of PoliMi

consists of 1U hosting 2 novel payloads dedicated to in-orbit

demonstration and testing. These are a set of perovskite solar cells and a mock-up of structural battery.

AlbaSat

University: Università degli di Studi di Padova, Italy

— Logo of CubeSat team AlbaSat from Università degli di Studi di Padova, Italy

The proposed mission by student team called Alba CubeSat

UniPD has four independent objectives accommodated on a