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THE BENEFITS FOR THE SPACE COMMUNITY FROM THE ONGOING REXUS/BEXUS PROGRAMME

Abstract

The REXUS/BEXUS (Rocket/Balloon Experiments for University Students) programme provides students at a university level, from all over Europe, with the opportunity to fly experiments on sounding rockets and high altitude balloons. The programme has been carried out in its current format since 2007. Having completed two project cycles and running the third and fourth now, it has been possible to build upon strengths to increase the beneficial outputs of the programme.

The programme is realized under a bilateral Agency Agreement between the German Aerospace Center (DLR) and the Swedish National Space Board (SNSB). The German share of the payload has been made available to students studying at German universities, the Swedish share to students from other European countries through collaboration with the European Space Agency (ESA). EuroLaunch, a cooperation between the Esrange Space Center of the Swedish Space Corporation (SSC) and the Mobile Rocket Base (MORABA) of DLR, is responsible for the campaign management and operations of the launch vehicles. Experts from DLR, SSC and ESA provide technical support to the student teams throughout their project cycles.

Increased interest in space technology and space science has been fostered primarily through the outreach activities of the students themselves. With solid support behind them, they have been able to reach out to a broad community: the general public, other students, universities, research organizations and industry. This is a difficult parameter to quantify but it can now be seen that over the last years, REXUS/BEXUS has begun to have a serious impact both through the media and other outlets.

Through the completion of a full project life-cycle within the programme, students are well prepared to embark upon their careers within the space community. The training and support that they receive whilst participating increases their readiness to contribute within the fields of space science and technology. It is now possible to look back and see that many of the students have continued successfully within their fields after the completion of their studies.

Another significant benefit for the space community is the continued advancement of the capabilities of the parties involved in running the REXUS/BEXUS programme. Many systems and areas of expertise have progressed and these are now feeding back to the space community. Experimenters now working with sounding rockets and high altitude balloons can take advantage of the developments that have occurred.