

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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ROSPIN SCHOOL: SPACE ENGAGEMENT BEYOND THE CLASSROOM IN ROMANIA

Abstract

With a highly theoretical curriculum, the Romanian secondary school system lacks interdisciplinary projects. The need for a real-life context where students can apply their knowledge is underlined by the 2022 PISA test results that rank Romania below the OECD average for all categories. Only 56

ROSPIN School has just closed its third edition and this paper will detail the evolution of the programme, the curriculum, methods of delivery and evaluation, the graduation rate and impact on local communities. The goal is to encourage the development of similar programmes in countries where hands-on space activities are scarce and to share lessons learned from working with hundreds of students.

The first edition happened between April and May 2022 and it enrolled 350 students divided in 65 teams from 20+ counties. Since 2022, ROSPIN School has had two more editions and it has evolved into Romania's first rocket model competition for high school students. So far, ROSPIN School has had over 800 participants with a graduation rate that increased from 43

The programme challenges the students to design a rocket model, conceptualize a full-sized rocket and develop a business plan around it. It has an online 6-week stage where the participants are provided with a handbook with background on relevant areas such as rocket design, orbital mechanics, and business model canvas. ROSPIN also offers a series of webinars on these topics, leading to an interdisciplinary project that requires both technical understanding and the ability to write a report and present a business case. The teams are evaluated based on their weekly quizzes, report writing and presentation. The programme also features an in-person final stage where in May 2023 the top 5 teams designed and launched their own rocket models.

ROSPIN School has reached all major cities in Romania, has led to the creation of several science clubs across the country and has inspired hundreds of students to pursue a career in space sciences.