

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Lift Off - Secondary Space Education (2)

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BUILDING THE SCHOOL OF TOMORROW THROUGH SPACE: THE LESSONS LEARNED FROM
THE GIS4SCHOOLS PROJECT

Abstract

Social inequalities and climate challenges are undermining the social fabric and putting at risk the future of the next generations, exacerbating social differences, and increasing poor access to digital skills. Overcoming this challenge could be possible through education, a powerful tool to support individuals to develop their capabilities and attitudes growing as persons, citizens and professionals. STE(A)M subjects can help students to understand the world around them and develop a critical spirit, enhancing their chances to acquire new skills to access the job market.

STE(A)M subjects are often not taken into consideration by students because are considered too hard or they considered themselves not enough or they lack guidance at school. In this sense, the role of teachers is central to supporting students to unlock their potential and give them the right tools to pursue a career in STE(A)M. But often, the teachers themselves need upskilling and reskilling to adapt to students' expectations. At the European level, a series of funded projects by the European Commission is focussing on training teachers to allow them to acquire new skills and knowledge and, more specifically, digital skills. A case study is represented by the GIS4Schools project aiming at promoting a new innovative approach to foster the teaching of STEAM subjects in secondary schools leveraging space technology.

The paper aims to present how space technology can be used in high schools both to attract students to STE(A)M subjects and can lead to the upskilling of teachers. In addition to this, the paper aims to introduce policy guidelines that can help implement new training programmes in Europe and beyond. Finally, it will also present the involvement of developing countries in the framework of the GIS4Schools project and how the outcomes of the project can support local educational institutions in implementing new curricula that include space technology as a tool for socio-economic development - particularly regarding the effects of climate change on local communities.