

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

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ACADEMIA'S CONTRIBUTION BEYOND THE CLASSROOM: THE ROLE OF R&D&I,
ENTREPRENEURSHIP, AND BUSINESS IN SPACE EDUCATION

Abstract

Universities and institutions of higher education in Europe contribute significantly to research, development, and innovation within the European space sector, as well as to entrepreneurship. This study aims to map and analyse the higher education landscape in Europe and systematically understand the significant interplay between higher education institutions and research, development, and innovation, as well as entrepreneurship fields within the space sector. Firstly, the research groups the space-related study programmes across Europe into “macro-areas”, which support an in-depth analysis of the fields of study available for students in Europe, as well as their distribution across the continent. In regard to research, development, and innovation, the study focuses on university opportunities to conduct space-related research in dedicated research centres, laboratories, as well as universities’ participation in space-related Horizon 2020 projects, and through CubeSat contributions, for example. In regard to the interplay between higher educational institutions and entrepreneurship, many universities offer start-up incubators and foster university spin-offs. For example, 75% of the universities identified as hosting space-related educational programmes in Europe also have close relationships with, or host business incubators or accelerators on their campus. Overall, the study examines the ways in which universities and institutions of higher education offer students the possibility to operate within the research domain and pursue entrepreneurship opportunities. These hands-on educational opportunities can be seen as better preparing students for careers in the space sector, which increasingly demands a skilled workforce with interdisciplinary and multidisciplinary backgrounds. To complement the analysis conducted on opportunities offered to students, the study also examines students’ and former space education students’ perspectives on transitions to the workforce and the role of the opportunities afforded to them throughout their studies in preparing them for the increasingly dynamic careers within the European space sector.