

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

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EVALUATION OF THE SPACE SECTOR IN THE MIDDLE EAST FOR NEXT GENERATIONS

Abstract

With the development of the space sector in recent years, new entrepreneurship companies have emerged. The global space sector is predicted to exceed 1 trillion dollars by 2030, reflecting a growth of 186 percentage from 2020's market size. Start-up investments are also doubled in 2021 compared to 2020. The areas of satellite launch, earth observations, space tourism, satellite communication, artificial intelligence and cybersecurity, space mining, low-cost launch vehicles, space debris, and novel material development will be the key drivers of growth in terms of subsectors. With the development of these technologies, low-cost and sustainable systems will emerge for deep space missions. Space agencies have announced their new vision for Moon and Mars exploration. Large commercial companies also share their future projects for both deep space exploration and space tourism with the industry. At this point, one of the most important issues is the contribution of developing countries to the space sector. Especially countries in the Middle East are making serious breakthroughs for the space industry. Turkey will conduct low-budget launch vehicle studies with its own probe rocket. In addition, Turkey's Lunar Probe mission soon will also make a sound. The national astronaut training program is also one of the focal points of Turkey. The UAE is seeking opportunities to explore celestial bodies, develop satellite communications technology and deploy the latest space technologies in terrestrial applications. The UAE also focuses the need for the applications of remote sensing through satellites; natural resource mapping, environmental monitoring, land-use planning and security. Lunar mission by 2024, interplanetary mission by 2028 and national space strategy 2030 are important projects that have been addressed. Saudi Space Commission (SSC) supports start-up companies for Space Vision 2030. SSC also has astronaut program to help better serve humanity. Azercosmos has strong projects related earth observation and telecommunication services. In addition, greenhouse detection, terranet platform development, UAV charge stations and small launchers are his other important works. Other countries in the ME region are also making serious efforts to develop space technologies in a world-independent way in the future. The purpose of this article is to evaluate these projects and interpret career processes for future generations.