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IAF SPACE EXPLORATION SYMPOSIUM (A3)
Space Exploration Overview (1)

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A PERSPECTIVE FROM THE NEXT GENERATION: BUILDING A SUSTAINABLE, DIVERSE AND INCLUSIVE FUTURE FOR SPACE EXPLORATION.

Abstract

Space exploration has increased human knowledge and presence within the Solar System, bringing tangible science and technological benefits to our lives. The future of space exploration is bright; coming missions will expand our robotic and human presence beyond Low-Earth orbit (LEO), to the Moon, Mars, asteroids, and other celestial bodies of the Solar System within the next 25 years. The majority of people who will make this a reality are now teenagers, students or young professionals. Therefore, incorporating the voices, ideas and visions of this next generation in future strategy plans is a necessity. The Space Exploration Project Group (SEPG) of the Space Generation Advisory Council aims to give a voice to this next generation to implement concepts and ideas, as well as provide recommendations and advice on space exploration trade-offs that are made on a high institutional level. SEPG consists of young professionals and students between the ages of 18-35 with enormous motivation and drive to build a sustainable, diverse and inclusive future for space exploration. The project group has a very diverse composition with more than 75 countries represented, as well as educational and professional backgrounds providing the most diverse, inclusive and multidisciplinary next generation voice in the space exploration community.

The focus of this paper is on the outcomes and insights gained from SEPG initiatives and projects during the years 2022 and 2023. This includes the results from the ROADMAP initiative, a project that consists of 4 committees with different perspectives to revise the current and future Space Exploration Roadmaps based on the voices of young professionals. ROADMAP represents an international initiative

to coordinate joint human-robotic space exploration efforts, as well as to determine practical and viable exploration routes to Low-Earth orbit (LEO), the Moon, Mars, asteroids and other destinations in a sustainable manner within the next 25 years. Additionally, other projects and initiatives that our 100+ members have been participating in will be highlighted and combined into our results. The objective of this paper is to propose recommendations informed by the vision of the next generation, for the next 25 years of space exploration, with particular emphasis on devising an inclusive, diverse, and sustainable strategy that can be put into practice by space agencies across the world. Please note that the present abstract is submitted under the Space Generation Advisory Council's auspices as part of the Space Exploration Project Group's research.