

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

Author: Ms. Chimira Andres  
Students for the Exploration and Development of Space (SEDS-Canada), Canada

Mr. Aaron Rosenstein  
Queen's University, Canada  
Mr. Sepand Dyanatkar Motaghed  
University of British Columbia, Canada  
Ms. Marieke de Korte  
University of Toronto, Canada  
Ms. Alina Kunitskaya  
University of British Columbia, Canada  
Ms. Sobia Nadeem  
McMaster University, Canada

CURATING A NATIONAL STUDENT PRESENCE IN THE SPACE SECTOR: A COMPARATIVE  
CASE STUDY OF STUDENTS FOR THE EXPLORATION AND DEVELOPMENT OF SPACE IN  
CANADA

**Abstract**

As the space sector looks to secure its next generation of innovators, educational institutions are seeking to expand their aerospace programming to attract students into the field. However, many of these programs are detached from the national space sector, and the opportunity to make connections with leaders in industry as well as other students and researchers are sparse before entering into the professional world. Non-for-profit student organizations that seek to create a national student presence in the space sector have an important role to play in facilitating the growth and handover of the space sector on the national stage. Using *Students for the Exploration and Development of Space Canada (SEDS-Canada)* as a comparative case study, we sought to identify the opportunities and challenges that exist for student organizations in the space sector. A survey (via theme analysis and structured interviews) of other national student space organizations, including *SEDS-USA*, *SEDS-India*, *UKSEDS*, *SEDS Sri-Lanka*, the roots of the developing *SEDS-Italy*, and other members of the *SEDS-Earth Council of Nations (CoN)* provided a snapshot of the recruitment, membership structure, membership benefits, programming, and financial strategy of national student space organizations in various levels of establishment. Through this survey and comparative study with the growth of SEDS-Canada over the past 5 years, we identified several benefits to a strong national student presence in the space sector, most notably **1)** the creation of opportunities for students at all levels through various project competitions and scholarships, **2)** the ability to connect students with each other as well as industry mentors through national conferences such as Ascension (SEDS-Canada) and SpaceVision (SEDS-USA), **3)** access to national student recruitment for industry through the student organization's job postings, and **4)** maintenance and development of student involvement in space activities on an intergovernmental/national level (i.e. with national space agencies). We also identified three major universal roadblocks to strong student programming: **1)** lack of secure funding for the student organizations from one fiscal year to the next, **2)** retention of membership that is representative of all areas of the country, and **3)** providing substantial membership benefits to those outside major space centres. In this presentation, we will discuss the impact of SEDS-Canada and other national student space organizations on their student membership/activities as well as their national

space sectors, and present recommendations for curating a strong national student presence in the space sector in light of the identified challenges.