

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

Author: Ms. Kim Ellis
International Space University (ISU), Australia

INTERDISCIPLINARY SPACE BUSINESS, POLICY, GOVERNANCE, REGULATORY AND
SUSTAINABILITY PRINCIPLE TRAINING AS A KEY DRIVER IN ADDRESSING CHALLENGES
OF FUTURE SPACE WORKFORCE DEVELOPMENT

Abstract

Commercial success, in particular within the Global Space Industry, requires a constant supply of highly qualified and experienced individuals who possess an ever expanding, complex set of professional skills and capabilities. In addition, as nations around the globe rely on increasing volumes of community, security and consumer services delivered through space technology, this creates challenges for the development of the next generation of the Space Workforce. Traditionally, the focus is to enhance internal organisational policy and related STEM skills for engineers, scientists and administrators. Development of legal, compliance, regulatory and business skills for STEM professionals and for the future developing workforce has been identified as a key differentiator in stimulating organisational innovation and operational sustainability for future space workforce development.

The volume of related national laws, international treaties and agreements related to global space operations has grown exponentially, particularly in the last decade. To address this challenge, organisations require an ongoing plan for training the current and future workforce. Space industry professionals from all backgrounds are required to interact with governance authorities and systems regularly. The ability for current STEM professionals to deal with compliance issues, resolve disputes over intellectual property and bring products to market will be increasingly required and as organisations work to recruit their future workforce, these skills will be essential.

Enabling your technical workforce with a strategic skill set and a background in legal and business concepts as they relate to technical fields of expertise, has been found to enhance the effectiveness of organisational capacity to achieve key performance deliverables and increase organisational innovative capacity. In particular, organisations will need to identify and gain a practical understanding of how national and international policy, legal and regulatory environments affect daily technical operations and the ability to achieve technical deliverables.

This paper outlines a unique method of interdisciplinary education and training for current and future workforce development as a means of promoting organizational innovation and addressing the challenges of meeting organisational needs for new recruitment during growth. The method was developed from workshops, training and interviews designed and delivered for graduate level professionals during the 2013 and 2014 Space Studies Programs in Strasbourg and Montreal and research conducted during that time. Interdisciplinary training in governance, policy and sustainability principles can positively impact the ability of an organization to create additional returns and value from current resources in addition to identifying future workforce needs.