

47th SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE
ACTIVITIES (D5)

Knowledge Management and Collaboration in Space Activities (2)

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EFFECTIVE KNOWLEDGE MANAGEMENT FOR FUTURE SPACE EXPLORATION TO MOON

Abstract

This paper is intended to show the importance of Knowledge Management as a vital strategic resource for space activity. Since the space race of the 1960s, the stringent competition centered on launching capability by the space faring nations, has resulted in significant changes in space activity with regard to both space based earth observation, and deep space exploration missions. These changes are necessary for future space missions due to the essential development of new space technology. The national space agencies should adopt changes to align with the external environment and also modify their internal environments in terms of increased innovation, competitiveness, employee training, flexibility, and processes improvements. Intangible resources are significant elements which add value though a knowledge management based implementation approach. When the complications of space activities and processes are viewed through a knowledge management and technology readiness level system, the real challenge becomes the development of an adequate system of knowledge management for space agencies and organizations. The Balance Scorecard strategy performance management tool has confirmed that the importance of knowledge management in the transfer of knowledge through the organizations via new learning and growth perspective opportunities. The United States of America National Aeronautics and Space Administration (NASA) and The European Space Agency (ESA) have developed the Knowledge management framework to identify and capture operational experience and facilitate increased and more effective knowledge transfer and dissemination.