

47th SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE
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KNOWLEDGEMENT MANAGEMENT AND KNOW HOW TRANSFER TO YOUNGERS, THE KEY
FOR SUCCESS IN A SMALL ENTERPRISE

Abstract

Over the years a spacecraft system development got more complex due to the phenomenal advance verified in almost every related technology area, from materials and components to equipment, subsystem and integrated system. By the other side, effective introduction of this gathered knew technologies and knowledge to commercial space products and services are usually coordinated and effectively done by more experience professionals. In case of a small private enterprise, where young engineers rushed by their daily design, manufacturing, assembling and test activities, usually do not sort through report-libraries searching for information regarding their equipment or subsystem technology, the knowledge management and transfer from experienced personnel to the youngsters assumes extraordinary importance. Therefore, knowledge management is crucial to ensuring that the project activities since design and development, until manufacturing, assembly, integration and test will be done in accordance to the Product Assurance requirements, and managed to be kept inside their previously allocated budgets and schedule, avoiding project delays, over costs and technical performance non-conformances. This proposed paper aims to address and discuss the importance of knowhow transfer and technology development inside a small enterprise, for providing engineering services and products in the space sector, considering multidisciplinary development projects, small team and personnel technical management, projects performance compliance, Product Assurance requirements, tight schedules and financial budgets constraints. As a practical application, a case study on solar array manufacturing technology for Low Earth Orbit (LEO) satellites is addressed.