47th SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE ACTIVITIES (D5)
Knowledge Management and Collaboration in Space Activities (2)

Author: Ms. Roberta Mugellesi-Dow
European Space Agency (ESA), United Kingdom, Roberta.Mugellesi.Dow@esa.int

Mr. Damiano Guerrucci
European Space Agency (ESA), Germany, damiano.guerrucci@esa.int
Mr. Raul Cano Argamasilla
Terma GmbH, Germany, raul.cano.argamasilla@esa.int
Mr. Siegmar Pallaschke
Consultant, Germany, espall@t-online.de
Mr. Juan Prieto
Immediait, Spain, jfprieto@immediait.com
Mr. Diogo Bernardino
Serco Europe, Germany, diogo.bernardino@esa.int
Mr. Jean-Michel Bois
European Space Agency (ESA), France, Jean-Michel.Bois@esa.int
Mr. Eric Conquet
European Space Agency (ESA), France, eric.conquet@esa.int
Mr. Thomas Beck
European Space Agency (ESA), France, thomas.beck@esa.int
Mr. Mike Steinkopf
European Space Agency (ESA), France, mike.steinkopf@esa.int

A CONCRETE CASE OF KNOWLEDGE CAPTURE FOR AN ESA SPACE MISSION

Abstract

This paper will describe the activities, which will be performed by the ESA Corporate Knowledge Management Office to secure that the knowledge, and experience gathered through the overall ATV project is preserved and presents the methods, which will be implemented to make such knowledge and information available to the community at the appropriate places for the work processes and future use. It is a challenging task to identify and to make available the relevant knowledge, experience and expertise so that other colleagues and projects can benefit from it especially when dealing with large space project like ATV with a complex structure and in a multi-national environment. The ATV project will be terminated after the last mission ATV-5 that is scheduled for launch mid-summer 2014 and re-entry in December 2014. Knowledge Capture activities are at the core of the Knowledge Management discipline, which has been around in ESA since some years. It has been evolved from the first initiative towards an ESA corporate approach adding on each step new expertise consolidating the discipline within the Agency. The ESA Corporate KM Team has performed several activities relevant to the ATV knowledge capture project. The experience acquired throughout the execution of these KM activities will be now applied to ATV knowledge capture and preservation project and will cover the following areas: ● Technologies: Adapting existing tools as the KM Portal with search engine, Wiki, competencies management, knowledge inventories. ● Processes: Applying with minimum modifications processes as the ATV knowledge identification, knowledge capture process, competencies management and lessons learned collection and

dissemination. • People: Identifying the relevant experts and including them within the Expert Directory and for reference into the ATV wiki. • Documents: Classifying ATV documentation and applying metadata to ease the searching and for reference into the wiki. Capturing ATV knowledge is not as simple as storing everything in one place, since that would be pretty inefficient to implement and really hard for a future user to retrieve precise and specific information. Not to mention the knowledge that is kept on the mind of the professionals that worked on the project and is not captured in any physical form. The ESA Corporate KM Team has elaborated a plan on recommended activities for an efficient extraction and archiving of the knowledge and information covering all aspects of the ATV mission. These activities and the results will be described in details in the paper.