

46th SYMPOSIUM ON SAFETY AND QUALITY IN SPACE ACTIVITIES (D5)
Knowledge Management and Collaboration in Space Activities (2)

Author: Dr. Junpeng Du

China Academy of Launch Vehicle Technology (CALT), China, dujp124@163.com

Mr. Jingyuan Bi

China Academy of Launch Vehicle Technology (CALT), China, bijingyuan1984@163.com

Dr. Xiong Hou

China Academy of Launch Vehicle Technology (CALT), China, houxiang@163.com

Mrs. Wei Zhang

China Academy of Launch Vehicle Technology (CALT), China, zhangwei@163.com

Mr. Qiu hao Yang

China Academy of Launch Vehicle Technology (CALT), China, yangqh@163.com

A METHOD OF KNOWLEDGE MATURITY ASSESSMENT IN AEROSPACE ENTERPRISES

Abstract

Aerospace products development processes comprise highly knowledge-intensive task that involve extensive knowledge exchange and knowledge share. Knowledge is the core resource to maintain competitive advantages and to support sustainable development for aerospace enterprises. In an epistemological sense, the enterprise knowledge state includes ambiguous understanding, general understanding and complete understanding. Knowledge understanding degree of an enterprise positively influences knowledge capture, knowledge transfer, knowledge share and knowledge use. Furthermore, the method of knowledge maturity assessment could be used for analyzing enterprise capabilities, which offers quantized reference for enterprise management.

Knowledge maturity is a concept to describe the knowledge understanding process of enterprises, which supports knowledge evaluation, knowledge optimization and knowledge use. The emphasis of knowledge maturity assessment method is to define maturity levels and to make level standards. The knowledge maturity levels should be explicit, non-cross and progressive. The level standards should be scientific and operational. Enterprise knowledge has special characteristics such as extensive domains, mass data and fine grain. So, the feasibility of assessment process must be paid more attentions.

The technology maturity assessment has been adopted for widespread industrial use, which aims at controlling technical risk. Knowledge maturity assessment could benefit from some perspectives of technology maturity assessment. However, there are differences about assessment purpose, characteristic of assessment object and assessment process. Focusing on enterprise knowledge maturity assessment, the paper discusses the concept of knowledge maturity. Then, knowledge maturity level definition and level standards are put forward. The knowledge maturity assessment method provides a guiding framework and a measurement tool for continuous improvement of enterprise knowledge.