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Knowledge management and collaboration in space activities (2)

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PRACTICAL STUDIES ON INTERNAL KNOWLEDGE ACQUISITION AND SHARING METHODS FOR AEROSPACE COMPANIES

Abstract

In this paper, a set of effective internal knowledge acquisition and sharing mode is described in detail, which is constructed for project development in aerospace companies, using methods of knowledge management. The mode is applied in the China Academy of Launch Vehicle Technology, which achieves the objectives of lifting project development efficiency, cutting development cost and ensuring knowledge heritage. Two kinds of internal knowledge acquisition methods, based on development stages and disciplines, and two kinds of knowledge sharing modes, based on experiences summarization, are promoted in this paper. The learn-by-analogy knowledge sharing mode is applied in quality management during project development, to confirm the fault-reoccurrence possibility in other projects after the success of the corrective actions in one project, and to take improving measures. The experience-summarization knowledge sharing mode is focused on compiling reports on technical innovations and process variations in different development stages after successful ground tests and flight tests, for reference of other project with similar design.

With application, the mode is good for internal knowledge sharing and innovating in companies and achieves the expected objective. Besides, a guarantee mechanism is proposed, and as part of the following work, a knowledge management system is constructed at the same time, which is mainly based on knowledge tank and becoming the core competence platform of the company step by step.