

55th IAA SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE  
ACTIVITIES (D5)

## Knowledge management in the digital transformation (2)

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## APPLICABILITY OF KNOWLEDGE MARKET MODEL

**Abstract**

This paper describes the work that has been conducted in ESA concerning the applicability of the knowledge market with the aim of improving knowledge sharing. Knowledge sharing can be considered as a kernel of knowledge management as it supports develop, distribute, use and store which are four out of the six operational Probst building blocks. An attractive approach for knowledge sharing is the knowledge market model presented by Klaus North more than 20 years ago which has been successfully applied in various organizations. The model goes beyond the consideration of individual building blocks such as distribution, usage and retention. It builds on market mechanisms which facilitate the exchange of knowledge between supply and demand. Because knowledge is a scarce resource with a significant value, a market-oriented control of knowledge can be made possible. With the help of this market economy, entrepreneurial action and cooperation can be promoted and this contributes to the long-term development of skills/ competences within the organization. In order that this model is successful, framework conditions (Importance of knowledge, identification of competences, valuation of cooperation) must be established, rules of the internal market (Frequency of market days, selection of actors, push and pull principles) must be laid down and the structures and processes (Establishing infrastructure) necessary for exchange must be created. The concept can only work by means of the actors. In addition to the knowledge provider and seeker/ searcher, the knowledge broker plays a major part. Of course, all these items must be adapted to the needs of the company which was the purpose of the submitted proposal. ESA approved this work in June 2021 that concluded with a pilot project during the first two months of 2022. The analysis has shown that the knowledge market contributes to the efficiency of knowledge handling. The proposed paper will describe: - The basics of the knowledge market model consisting of instruments, processes, actors, roles and principles. - The range of applications ranging from taking up new activities, introducing new technologies, disseminating Best practices up to sharing current activities. - The steps of the knowledge market including a thorough preparation looking into cultural and organisational aspects and a consequent follow-on. - The pilot was selected in the area of Energy Management System concerning a coherent monitoring system for measuring the energy consumption. To summarize, the paper will describe the knowledge market model, its possible application and the contribution to the efficiency of knowledge handling.