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Knowledge management for space activities in the digital era (2)

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ROLE OF KNOWLEDGE MANAGEMENT IN INNOVATION AT THE EUROPEAN SPACE AGENCY

Abstract

Innovation management has gained in maturity during the last decades. Whereas in the past, innovation was seen as an unstructured process, a more structured understanding of innovation strategies and processes has been now obtained. The targeted planning and the consistent implementation of innovation are built on knowledge and experience. Only through ideas and knowledge, the creative process of innovation can be nurtured and completed. Innovation management is the effective use of the organizational aspects including culture, strategy and resource capabilities. These aspects affect the organization's ability to perform activities of innovation. Innovation management can then in the bigger picture be seen as the organization of processes, models, and framework with the intention to develop new or significantly improved methods and tools. Knowledge management is a discipline that can facilitate the location or creation of knowledge, it manages and leads the knowledge flow in the organization, and enables the utilization of organizational knowledge with the goal to strengthen the competence and thus the productivity, and quality of the activities within an organization. Knowledge management is often seen as an antecedent of innovation, and the action or process of innovation can in many instances be accredited to the acquisition of knowledge, and the responsivity to knowledge, clearly establishing dependency links between the two disciplines. The more innovative the improvement, the closer the relationship of the two. In the literature it is also pointed out that companies with knowledge management capabilities are able to use their resources more efficiently, perform better and are more innovative. Long before innovation or knowledge management were discussed Albert Einstein said: 'Progress lives from the exchange of knowledge'. This paper illustrates the impact on innovation with the help of the knowledge management processes and strategies as applied to space activities at European Space Agency. KM activities can be used to improve the cycle of knowledge creation, capture, organization and sharing to increase innovation success rate and improve organizational performance. For example, managing knowledge for innovation is a difficult issue because innovative knowledge is implicit and hard to capture from minds. Knowledge capture technologies can help to make this knowledge explicit and knowledge sharing tools and methods can contribute to diffuse the innovative knowledge and develop more competencies. In summary, the paper is aiming to develop a framework leveraging on existing resources to link knowledge management and innovation activities across the Agency.