

# **The Planning and Development of Human Resources within an integrated process model for the implementation of product data management systems**

Abstract of the dissertation of Dipl.-Wirt.-Ing. Rainer Pusch

PDM systems form the backbone of data processing in product development processes. The high strategic significance of the concept standing behind PDM and the high complexity of the PDM systems lead to implementation problems in many enterprises. A structured, methodical procedure which takes the human aspect into account promises remedy here.

Taking this into account, a catalogue of requirements for a process model for PDM implementation with integrated planning and development of human resources was developed. The analysis of existing process models shows that no existing model fulfils all requirements at the moment. Existing process models are incomplete, hardly supported by methods and within the context of human resources planning they only consider the aspect of user trainings. Therefore a process model needs to be established which eliminates these weaknesses and supports the implementation according to its demands.

This leads to the development of an integrated process model for the implementation of PDM systems. The model describes the implementation of PDM according to the actions to be carried out, the required input and the obtained results. In addition it performs an assignment of roles to the activities. It additionally contains a set of coordinated methods which support all phases of the PDM implementation.

It is derived from the activities of the process model which technical and social skills are necessary for the accomplishment of the tasks contained. Thus a skill profile for every task is developed. Tasks with the same profiles are put together into roles for the PDM implementation. Additionally, for each role the effort needed for the tasks within the activities is estimated.

A process according to how the roles will be occupied with employees of the company is being defined. The assigning happens according to the skill profiles and the availability of employees. If a deficit of skills exists which might be adjusted by measures of qualification these steps will be taken. If there is no suitable employee within the company the role will be occupied externally. The procedure of assigning corresponds to the procedure for internal employees. Finally measures for the qualification for the project-work and for further professional training are being described.

By the application of the process model omissions concerning the planning of a PDM implementation can be avoided. Also risk management is made easier. The integrated method of the planning and development of human resources makes the efficient and effective use of employees in the project and in the by the PDM implementation newly arranged processes possible. The occupation of roles bases on competences leads to a better performance and higher motivation.