

METHODOLOGY FOR PLM SYSTEM IMPLEMENTATION – FROM BUSINESS DRIVERS TOWARDS COMPETITIVE ADVANTAGE

FIDLER Branislav, VALČUHA Štefan

Slovak University of Technology in Bratislava, Slovakia

branislav.fidler@stuba.sk, stefan.valcuha@stuba.sk

Keywords: Product lifecycle management, SME, Information system implementation, SWOT analysis, Systems modelling

Abstract: The objective of this paper, beside short analysis of the current issues of product lifecycle management, is to introduce methodology for implementation of the PLM system. The methodology comprising of managerial procedures, engineering principles, and formalizing structures should provide a guide through the whole implementation, i.e. from business drivers towards competitive advantage. It is one of the outputs developed within applied research programme at Laboratory of PLM and Innovations – Faculty of Mechanical Engineering, SUT in Bratislava.

Today, integration of business processes through the whole product lifecycle is one of the most challenging opportunities in industry, wherein PLM tools and applications provide an appropriate software infrastructure. However, the implementation is rather difficult solution with whole-company impact and relatively long-term return of investment. According to our procedure, the project is structured as follows: 1. Vision & strategy, 2. Selection procedure, 3. System deployment, and 4. Putting into operation. During the first two phases “foundation stone effect” is emphasized, which means that high quality analysis at the beginning is a prerequisite for successful implementation and trouble-free maintenance of the system under operation.

Having the methodology at disposal, the purpose of the case study was to analyse utilization of the PLM system under specific conditions of SME. Production environment of the industrial partner are described in more details in the paper. Initial questions of managers were focused on the first phases of implementation, and arose from lack of information. In mapping the prospective functionality for business processes of the organisation, the main expectations were generally associated with improving data flow efficiency, data and product quality and knowledge security. Comprehensive SWOT analysis pointed out that, despite relatively longer return on investment, the PLM system implementation could be profitable for medium enterprises to improve agility of their production and competitiveness on the market.

REFERENCES

- [1] CIM DATA, Inc. Measuring Business Process Benefits Achieved Using SMARTEAM, Retrieved: [online] 05/2008, www.ariondata.es/servicios/documentacion
- [2] SILVESTRI, M.J, et al. Product Lifecycle Management (PLM). System Evaluation Toolkit. Life Cycle Solutions, Inc., Avon, 2005, p. 158
- [3] STARK, J. Global Product – Strategy, Product Lifecycle Management and the billion customer question. Springer – Verlag London Ltd., UK, 2007.
- [4] AI-TIMINI, K. Understanding Product Lifecycle Management – Datamation Ltd., UK, Retrieved: [online] 06/2006. <http://datamation.co.uk>
- [5] FIDLER, B., PODMAJERSKÝ, P., VALČUHA, Š. Case study of Product lifecycle Management system’s usability in Engineering Company (SME). In: Proceedings of DET2008 – 5th International Conference on Digital Enterprise Technology 2008. Nantes/France, 2008.