

Holistic Business Process Reengineering and certification according to the ISO TS 16949 at a supplier to the automotive industry

Objective

The automotive supply has been gaining enormous importance within the previous years. This is also due to transfer of responsibilities for whole modules from OEM to the system suppliers. This leads more and more to complex systems of products, which the supplier has to handle. All related internal and external business processes have to be managed. First pre-condition is to obtain transparency of the whole business including all relations to second and third tier suppliers. Our customer was facing exactly this situation. The company produces interior lamps and interior systems for the automotive industry. The products combine exclusive design with sensors and electronic control systems. Due to a dynamic development towards more variants, new customers and new sales regions as well as a sales increase of more than 20 % per year the demand emerged to synchronize all business processes and units by using a holistic enterprise model.

To identify potentials for optimisation all business processes and their relations had to be modelled regarding the following aspects:

- The model should be available to all employees to make the business transparent. This requires that the complexity level matches the requirements of the involved user groups.
- Complete illustration following the requirements of the TS 16949, a new challenging standard specific to the automotive industry, as a by-product of the modelling.
- Training of employees in order to enable them to set up and administer the model.
- Elaboration of the complete model within five months.

Proceeding

The model was basically generated by the members of the core project team. IPK Berlin provided training on the modelling method IEM and the software tool MO²GO accompanying the project. Yet the main task was to guide the core team achieving the shared business process model. This joint approach to develop a holistic business process model leads to little costs as well as to a broad transfer of knowledge about configuration and optimisation of businesses and makes sure the results are sustainable. An Intranet Process Assistant generated automatically by the MO²GO system is now able to guide employees through the work. No specific modelling knowledge is needed to use the Process Assistant.

Results

The model for our customer includes 120 linked sub-processes and the assigned products, documents, operating facilities, involved organisational units and responsibilities. The processes are divided into three groups:

- Management Processes like strategic planning
- Core Processes like daily planning and disposition
- Support Processes like acquisition

For all processes and sub processes the involved participants are linked according to their responsibilities. Via reflective views all relevant processes of every enterprise role can be selected. Similar functionalities are used to link documents, IT-systems and business indicators to the processes.

All employees can "surf" through the business via the process assistant and can choose if they want to use a graphical overview or textual hyperlinks like on the internet at home. The second alternative does not demand any methodical knowledge reducing fears to use the model. The main advantage is the possibility that employees can access templates, specifications and documents concerning the course of operation

using the perspective (manufacturing process; information flow; involved resources) matching their requirements. With the aid of the holistic business process model, many process and work instructions could be deleted, which reduced especially the administration effort. The model is now the central basis for the QM-system which is already certified according to the new ISO TS 16949 in January 2004. Now this system was also used for certification according to the environmental standards ISO 14000.

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