



COGNITIVE SAFETY SYSTEMS

Company

TRW Automotive is one of the global players in the automotive supplier industry.

200 plants in 27 countries worldwide as well as an expansive growth strategy ensure the company a leading market position in the following business areas:

Integrated vehicle control and driver assistance systems, braking systems, steering and suspension systems, occupant protection systems and steering wheels, electronics as well as products for the worldwide after-market.

Initial situation

TRW has been looking for a solution of a group costing for a long time. Different attempts with SAP Standard and other sub systems failed due to the given material number disruption as a result of company acquisitions as well as lacking possibilities of illustrating the transportation costs.

“Global thinking & local acting” requires transparency with global costs and profits of products sold on the market

In terms of the company philosophy “global thinking & local acting” global responsibility for the different product group and product families was created at TRW. Planning, management and controlling of the different product areas of TRW should take place globally. In case of deviation to e.g. planned costs, the reasons should be investigated and local measures should ensure the avoidance of such deviations in the future.

An external consultant of TRW, who played a significant role in the introduction of SAP CO and already knew GCP Engine from another project, suggested eventually to contact IM&C.

First stage: Generation of a proto type for representative global value chains

In a first expansion stage of the project it was agreed to choose certain products of OSSE, that are sold on the market, and to model their value chains with all value added stages in the different countries and plants in GCP. Especially those products should be chosen which were expected to cause special problems. The aim of the proto type was to create a template which could be rolled out globally on all plants and products in the second stage. The management of TRW wanted to see how GCP Engine calculates with their own data. Therefore the customizing for plan and actual had to be adjusted and numerous test runs had to be performed and analyzed. The exception reporting in GCP filtered out all features which could lead to incorrect results or non-consideration of the relevant business process. User-defined transaction types in customizing, for example, had to be assigned to the corresponding processes in GCP. These user-defined processes cannot be displayed in GCP otherwise. In this stage of the project the in GCP implemented data validation and cleansing layer paid off for displaying the material number disruption between plants on an in GCP managed central material number.



Solution

TRW decided to introduce the GCP engine for European companies of the product area occupant protection systems (seat belts, airbags and steering wheels). An OSSE-wide plan and actual calculation should be introduced, which supports both the cost-of-sales and the period accounting. The local results of the plan calculation, which are carried along in GCP in parallel, should be coordinated with SAP CO-PA. SAP BI should be used on the basis of the for TRW defined group contribution margin scheme for compressed displays of product groups and product families.

Benefit

The main benefit for TRW was to keep the group production costs and the contribution margin for every product. Furthermore interim profit for sales to the market and inventories can be reported in the future.

A SAP MDM (Master Data Management) could come to use in this case, but TRW did not use it (yet). Another requirement, which has been implemented in this stage of the project, was to sell manufactured raw steering wheels to an external refiner and to repurchase them after appropriate sheathing, leather coating und subsequent refining steps. At the same time, there were processes which were displayed in external wage work with material provided. Due to the passing of risk, the sale of raw steering wheels was not displayed with material provided. The project goal was reached within the budget and in time with the presentation of the proto type. The management had been excited about which results obtained in GCP compared to the own in Excel calculated figures.

“We were impressed which possibilities are given to process and cost transparency with this tool. All results and deviations to our figures were explained and justified. We have certainty now that we see our requirements fulfilled with the rollout on the total mass within the OSSE”, remarks Thomas Walter, Manager Financial Planning & Analysis at TRW.

Besides the evidence that GCP can operate and edit the business processes and postings, which arise in SAP, further important insights could be made in this project stage. Partner functions had to be recorded in some cases more precisely to display the global value chain across all plants completely. These points should be included by the project team and implemented via change management for all companies of OSSE.

Second stage: Rollout to all OSSE plants

In contrast to the prototype all data of the OSSE plants should be processed now. A range of new business processes, which were not featured in the proto type and could not be recognized as a problem case, were evaluated hereby. Essentially this also included the sample construction, which should be separated from the normal business. Furthermore the application of product cost collectors and multi item orders ensured corresponding extensions in the GCP Engine and an accompanying customizing. One was now in the position to control sales differently due to the order type. Another requirement in this stage of the project was, that for special, in a merger acquired companies, a sub-group consolidation was desired.

For this purpose the overall consolidation was represented in a version and the partial consolidation in a second version by a definition of a more specific scope of consolidation in customizing. The difference in the approach of the two versions is that in the second version just transfers between companies of OSSE apply as intercompany, when they take place within the same subgroup. If the companies belong to different subgroups, the transfers of the partial consolidation are classified as payments of third-party payers.



Soft- and hardware equipment

Hardware:

IBM: 14 processors,
55 GB main memory
1315 GB disk storage

Software:

Operating system: IBM AIX 5.3
SAP: SAP R/3 Enterprise 47X110,
SAP Kernel 6.20 64-Bit
Database: Oracle 10.2.0.2.0.



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“The GCP Engine appeared like a filter during rollout, even for those business processes which have not been recorded according to our group standards. Through corresponding traffic light functions a distinction can be made between urgently needed correcting potential and messages with less priority, which permit a later processing. The standard software appeared strong-performing and tough, even for additional functionality and user exits, which had to be integrated during the project progression”, remembers Michael Kellner, coordinator of the rollout to the plants.

TRW uses for the examination of the results of the mass runs the “Table Viewer and Comparison Tool” with which the user can define his own reports by adjusting standard formats within a very short time. With this tool it is possible to define through formulas, e.g. percental and absolute deviations or proportions and to create charts with summation levels, which facilitate the control of partial interim profit or partial fixed costs etc.

Outlook: Rollout to all OSS plants worldwide as well as for other sectors of TRW

At TRW in Asia and America there are currently no SAP ERP systems in use. There is a desire to integrate the regional ERP systems with a central company FI/CO.

“The concept of GCP shows synergies to our goal for a worldwide FI/CO. The structures and organizational units of our ERP systems remain unchanged. We could imagine that GCP could offer an additional benefit on our way to a worldwide FI/CO”, says Roderick Mc Laren, director of Finance OSS Europe.