

Product Design Cost Estimating Using SAP

CIMdata Commentary

Effective product design cost estimating (PDCE) is an important factor in determining whether a company should commit to building a product. Failure to accurately estimate the cost of a design will have a significant negative impact on a company's market success and profitability. Underestimating the cost may require additional expenditure of resources, cause delays in bringing the product to market (missing the prime selling window) or result in having to charge a price higher than the market for that product will support. Benefits that can be achieved through more effective PDCE include:

- Improved ability to determine if a product can be marketed successfully - meet price expectations
- Ability to more quickly and accurately respond to requests for quotations - improve the success rate of winning bids
- Provide costing solutions to companies making quotations prior to accepting work orders - set proper expectations and eliminate cost uncertainty
- Reduce the effort to determine product cost - eliminate non-value added manual cost information searches
- Better cost control during early engineering - earlier determination of impact of a design on the final product cost
- Improved ability to perform impact analyses against change requests - faster determination of which change requests should be incorporated
- Continually improve the quality of cost information throughout the product lifecycle - more accurately estimate cost of upgrades, enhancements and follow-on products

Performing effective PDCE requires integrating several sources and types of information and providing that information to appropriate users. Typically, product cost information has been created by multiple organizations and maintained in multiple formats (frequently Microsoft Excel) and repositories (files, spreadsheets, databases). Too often cost information is not consistent across the organizations, within the processes that use it and, more importantly, the correct information is not known or available to the users who need it most.

SAP has developed solutions for its customers that address these issues and provide an integrated, environment for effective cost planning. The PDCE solution is intended for use in the automotive, high-tech, consumer products, aerospace and defense, machinery, engineering and construction industries. It is based on the SAP Strategic Enterprise Management (SEM) and is an independent, flexible costing solution. Easy Cost Planning (ECP) is an ECC-integrated costing solution dependent on ECC objects semantics and master data. ECP is designed for automotive suppliers and the engineering, manufacturing and construction industry.

The following figure provides a high level view of the issues and positioning of SAP PDCE solutions.

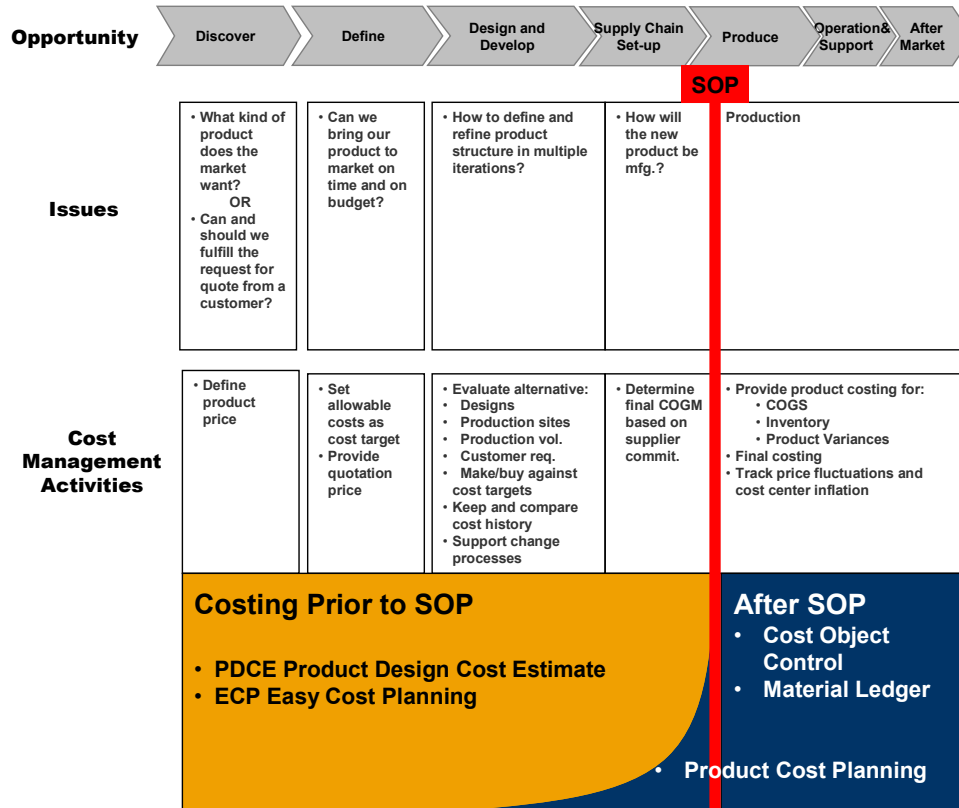


Figure 1: PDCE - Issue, Activities and SAP Solutions
(Courtesy of SAP)

Examples SAP PDCE functions include:

- Import BOM and routing from ECC PP or any other logistic system
- Import existing cost estimates from ECC CO-PC
- Complete and value the quantity structure
- Perform target costing
- Perform costing analysis and simulations

Multi-level estimating enables cost roll-up over multiple levels while keeping fixed and variable costs and handling lot-size-independent quantities. It supports costing lot size and provides the ability to simulate alternative costing lot sizes and their impact on costs per unit. Users can simulate different suppliers or make/buy decisions at the item level and consider alternative product process structures, allowing them to simulate COGM for each design alternative. PDCE includes automatic generation of additional costing items.

CIMdata believes that SAP is providing an important new capability for its users with its product cost estimating solutions. Integrated within the SAP environment, PDCE enables users to evaluate product design cost factors and make faster, informed

decisions concerning a product's design and the processes for manufacturing them. The result will be products that more closely meet the needs of customers at the price they are willing to pay. This is a solid step forward to providing a more complete product information environment broaden SAP's PLM capabilities.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. Visit www.CIMdata.com for more information.