

# Next-Generation Product Cost Management

*A holistic and networked approach to cost-efficient products beyond one-time efforts*

## Challenges for effective product cost management

Companies in the manufacturing industry today have to face a variety of challenges emerging from volatile market environments and increasing competitive pressure. Product cost management plays an increasing role in sustaining profitability and competitiveness.

The majority of our clients, however, do not yet benefit fully from the potential that lies in product cost management. They do leverage their highly skilled teams of engineers and very professional organizations in specific projects. But how can they sustainably manage product costs beyond one-time measures?

Efforts are, in many cases, driven by the need to optimize the cost structure of a specific product. This approach is bound to just a single project and usually yields only short-term benefits. In contrast, the Arthur D. Little approach to product cost management goes beyond such emergency measures for future product development projects. By implementing sustainable concepts, organizations are able to monitor product cost and identify the right product properties to focus on – for all projects to come.

### Design-to-cost foundations

As an essential basis for product cost management, a design-to-cost framework has to be established that guides consistently through all levels in the product development process. Arthur D. Little's approach is centered on the following steps:

- **Customer requirements:** Product development is always initiated by the identification of customer requirements. In many cases, primary market research (e. g. using

conjoint analysis) will deliver the relevant information accurately and efficiently

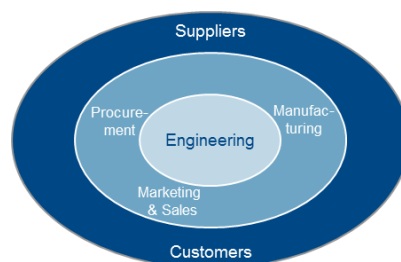
- **Functional breakdown:** Generalized product functions independent of the technical solution are determined and assigned to values based on customers' willingness to pay
- **Product structure:** Technical implementations for the functions are designed, enabling the calculation of costs per function. Benchmarking with competitor products can be beneficial to identifying suitable technical concepts
- **Concept decision:** Based on value from customer perspective and associated costs, the overall product concept is decided and transferred to pre-series manufacturing

Thus product development can be tailored to customer needs and made cost-efficient through focusing only on the most valued properties and features.

### Networked organization as a key

In order to implement an all-embracing sustainable framework, the company needs a mindset that is open to shared responsibilities and efforts. Product cost management is not limited to the engineering department and cost engineers. It affects various organizational units and requires all departments to play active roles (see figure)

Networked Organization



Such a networked design philosophy requires close collaboration even beyond the company. For example, joint workshops with suppliers help to optimize procurement and leverage external know-how. By implementing the networked design philosophy, uncertainties in cost estimation can be reduced systematically, allowing improved control of costs during product development. The Arthur D. Little approach to product cost management comprises a comprehensive guideline on how to align the organization with framework requirements, how to define roles and responsibilities therein, and how reporting and communication should be managed within the product development process. Thus enabling involved units and people to benefit from a philosophy of joint goals and efforts.

### Successful examples, outlook

Across various industries, we have helped clients to establish sustainable product cost management. By introducing a design-to-cost framework, manufacturing costs were reduced by 30% at a supplier of textile machines. One key success factor was the alignment of a platform concept with marketing and sales. Another example is a rail equipment supplier, for which a new development process was introduced across six global sites, resulting in product cost reduction of 30%. Numerous other examples show comparably successful effects. With its state-of-the-art product cost management methodology, Arthur D. Little enables companies to evolve into more efficient and competitive players in their respective markets.

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