

## Product Engineering and Development

In business, having a good—or even a great—idea can only take you so far.

Without the proper management and attention, ideas—and the products based on them—can quickly wither and die on the vine as pressure from competitors and changing market conditions outpace an organization's ability to grow and adapt.

That's where Deloitte's Product Engineering and Development practice comes in.

Our expertise is to help your business succeed by assisting you with all aspects of your product strategy development and management, including development of new R&D strategies, optimization of your product portfolio, creation of your business and go-to-market strategies, and more.

### Our approach

We take a 360-degree approach to help you address your issues whether that be related to strategy, product lifecycle management (PLM), manufacturing execution system (MES), or the digital thread. We will help you create the optimized transformation roadmap consisting of the initiatives that will drive the quickest and greatest value to your organization. In short, we offer a comprehensive set of tools and frameworks—supported by years of hands-on, industry experience—to help your business deliver products to your customers, at a lower cost, and with greater efficiency.

## Deloitte's Product Engineering and Development services



### Deloitte's Product Engineering and Development approach

#### Assessment

We can't help our clients to succeed until we understand the market and competitive business issues that they face. That's why we begin each engagement by conducting a thorough assessment that allows us to:



Using this process, we are able to leverage our unique, pre-configured and industry-tested platforms—DPLM and DMES—, processes, and applications to manage "gaps" (requirements truly needed by the company) against a proposed solution.

**Product lifecycle management**

From inception to maturity and, eventually, replacement, all products have a natural lifecycle of usefulness and popularity. What was new and innovative when it was first introduced can quickly become—or become perceived to be—old and outdated in a short period of time.

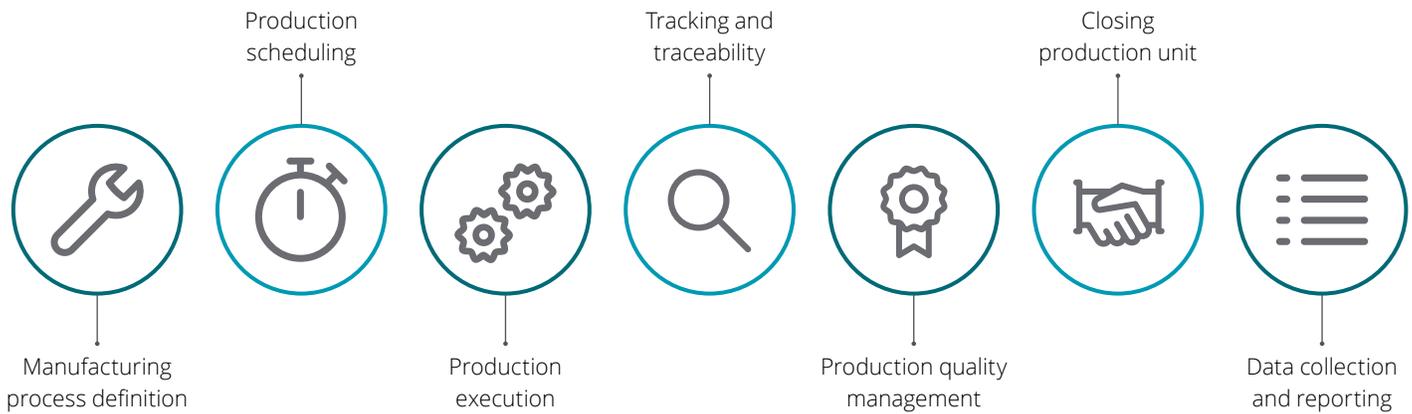
The reasons for this are as varied as the products on the market: the introduction of new technologies, advanced designs, and features; competition from rival manufacturers; outdated marketing campaigns. The list is extensive, which is why one of the most important aspects of maintaining and growing market share is, for many companies, to constantly innovate.

Sometimes referred to as “planned obsolescence,” manufacturers know that constant innovation is the key to keeping their brands fresh and attractive to both their existing customer base and to potential new customers who are cross-shopping the competition. Companies that fail to innovate—or even update—their products to incorporate the latest technologies and trends can remain stagnant and, eventually, become left behind by more agile, and forward-thinking competitors.

It’s our job to help your organization stay in front of your competitors, rather than having to catch up with them down the road.

**Manufacturing execution system**

Similarly, we use our Manufacturing Execution System (DMES) pre-configured solution available through a wide range of engagement options to help you tailor implementation to your organization’s needs, culture, time frame, and budget as you progress in your digital maturity. DMES focuses on seven key capabilities with prebuilt process and data integration connections to other digital product development and real-time IoT production monitoring capabilities:



**Establishing the digital thread**

Together, these tools form the foundation of creating the digital thread that connects engineering, manufacturing, and supply chain with the rest of the business and is where most organizations are seeing the largest value in their business. Depending on our clients’ needs, we also rely on any number of proprietary accelerators or packaged services, including:

- Model-based Enterprise leverages the digital model as the single source of truth throughout the value chain, allowing our partners to eliminate redundant and disconnected steps in the product lifecycle while improving design quality
- Product Data X-Ray (DPDx) brings together digital technologies with Deloitte’s unparalleled industry knowledge to help organizations better understand their data, define data strategy, and accelerate unstructured data digitization
- Product Cost and Complexity Management (PCCM) analytics identify opportunities to reduce cost and improve quality through benchmark driven cost reduction and lifecycle product cost decomposition
- IndustryPrint™ (DPLM/DMES) significantly reduces implementation time (months, not years). We’ve found that 80% of processes within an industry are largely similar. For this reason, we developed preconfigured solutions to leverage industry best practices while focusing on client-unique content
- Assessment Tools

**What we can do for you**

We know change isn't easy, but it's often necessary if organizations want to remain competitive in today's evolving marketplace.

Our Product Engineering and Development team can help your organization identify and address both the short-term issues that can help your business today, and develop and implement long-term plans that can help you achieve future growth.

We bring a healthy mixture of strategy, process, technology, and organizational talent and transformation capabilities to help your business transform its current capabilities into your desired future state. Using tools like DPLM, DMES, and our other accelerators, we can tailor specific business approaches designed to help your organization become leaner, more efficient, and smarter. Through our work, we can help you streamline your business processes on the path to reducing costs and improving productivity.

**Case studies**

**Global automotive OEM**

Our client wanted help identifying and developing insights related to new technologies for future automobiles.

We assessed 18 different R&D organizations across multiple industries to provide them with a comprehensive look at current industry best practices, including explanations behind the rationale for each approach, and their potential benefits for our client's business.

As a result, we assisted our client to develop a new set of operating practices for its R&D lab, and other locations.

**Large life sciences company**

Our client wanted assistance in mapping all of its existing processes across all of its various locations in an effort to reduce expenses and eliminate redundancy across the organization.

We leveraged Deloitte's accelerated implementation methodology to help our client develop new leading practices, including development of a new technology solution including non-intelligent part numbering, attribute-based search capabilities for improved manufacturing reuse, and a bi-directional interface to share cost and lead-time information.

As a result, we assisted our client to streamline its operations and increase efficiencies by helping them to reduce errors in data transfer, improve information sharing, and reduce time-to-market.

**Large telecom services provider**

Our client was seeking assistance to determine its optimal portfolio of product investments to stimulate growth and protect existing revenue through product enhancements.

We helped them to map their product portfolio and revenue into a lifecycle model, and to create a scoring model based on key strategic, operational, and financial variables.

As a result, we helped them to reduce their normal negotiation cycle between their individual business unit managers and executives, and to reduce the overall product planning cycle from months to weeks.

For more information on how we can assist you,  
please contact us at...



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