



## Solutions for Wood with Barbara Bell

# Managing Product Development

### Part two in a three-part series on product development

In part one of this series on managing product development, we looked at the importance of having a high-level strategy to guide your efforts. (For part one, visit [woodworkingcanada.com](http://woodworkingcanada.com).) The next challenge for management is to determine the “how” and “who” of product development.

As companies grow, they tend to refine and legitimize various aspects of their business, and the area of product development is no different. At the first level, product development efforts lack planning and performance tends to depend on the capabilities of a few individuals' skills. At the second level a system is implemented to give structure so successful practices can be repeated. Product development process can be characterized at this level as practiced, documented, enforced, trained and measured. (Most wood product manufacturers tend to be at the stage where they are moving from level one to level two.) The third level focuses on optimizing processes. Failures are analyzed and there is continuous improvement. This level is more critical to fast-paced industries such as electronics where product life-cycles are short and speed to market is everything.

Several different methodologies for new product development exist. Adopting these methodologies can result in cost savings through decreased development times, improved manufacturability of new products, reduced launch costs and increased consumer satisfaction with products. Some of the more written about models include Quality Function Deployment, Stage-Gate Process, and Superior Product Development. While the details of each model differ, the basic ideas are similar. We outline the Stage-Gate process below but it's a good idea to explore several models and then pick and choose elements to create your own, tailored process.

### The Stage-Gate Process

The Stage-Gate process involves “gates” that weed-out less viable projects to focus efforts on those with the most potential. Basically a sequential approach, it consists of a number of stages required to take a new product idea to market.

The process involves a number of work “stages” that are followed by “gates” where “Go/Kill/Hold” decisions are made based on preset evaluation criteria.

#### Step 1: Idea Generation

The need for new ideas is ongoing — they are the feedstock of the new product development process. There are certain things managers can build in to excel at this activity.

Firstly, communicate the goals and strategy for new product development to everyone involved so that ideas fall

“in-bounds”. Secondly, be open to ideas from anywhere, either from internal or external sources. To harness bottom-up ideas (as in the case of a technician serendipitously uncovering a technological possibility), managers need to encourage and reward idea submissions from anyone.

Harnessing top-down ideas is generally more directed. Product development is handled best by cross-functional teams since varying viewpoints from production, engineering, design and marketing tend to make a superior product.

It's also a good idea to develop feedback systems with customers, lead users and suppliers. It is sometimes advantageous to buy or license ideas or intellectual property from outside sources.

#### Step 2: Product Screening and Building Business Cases

After the idea generation phase, there is generally a process of screening new product ideas to ensure that they are consistent with the company's skills and resources, as well as its overall objectives. After screening, business cases are built to support the remaining ideas and these ideas are then carefully evaluated during gate meetings.

#### Step 3: Development

Promising new product ideas are then put forward for development, which typically involves creating a prototype (a physical model of the new product concept), and perhaps even test marketing it in select customer segments.

#### Step 4: Launch

Finally, if all signals point to a new product with market potential, a launch takes place — production facilities are finalized, marketing and promotional programs are rolled out, and the product is released into the marketplace.

### Key Features in Product Development

#### Teamwork

The process of product development requires expertise from all facets of business. Without technology a product won't work, without operational excellence a product won't be profitable, without design the product won't evoke desire and without consumer relevance it won't sell.

Consider the classic tactical error that companies used to make by not involving the production people early and throughout the process. New products were often completely developed before the production people had a chance to explain why the product could not be made.

At the beginning, teams will require leadership from upper management but as they become more used to working together, they can become more self-directed.

#### Parallel Processing

Significant time-savings happen when certain development tasks take place concurrently. For example, once a new product concept has been approved, the marketing people can start working on the market launch rather than waiting for the product to be completed. This approach is also more conducive to better communication throughout the product development process. It forces people to share thoughts rather than complete ideas.

#### Customer-Focus

As customers are the ultimate judges of whether a product is a success, their needs and wants must be at the core of all product development initiatives. The following list describes opportunities to integrate a strong market orientation:

#### Idea Generation

Bring customers into the idea generation phase to identify problems, gaps and emerging opportunities.

#### Preliminary Stage

Do a relatively inexpensive market assessment to gauge market attractiveness of the proposed new product.

#### During Development

Do a more in-depth study to determine customer needs and wants face to face with customers.

Do a competitive analysis to gauge your competition's products and product deficiencies, prices, costs, technologies, production capacities and marketing strategies.

Do concept testing of the various prototype or model iterations to determine market acceptance.

#### After Development

Do user tests of the finished product to confirm intent to purchase.

Do a proficient launch based on a solid marketing plan and backed by sufficient resources.

Understanding the key features of a typical product development process will be central to developing your own standardized process. Even with a template in place, it is necessary to tailor the process to the unique requirements of each development project. **WW**

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