

## Business Matters - Whitepaper



### Managing Product Development Process Using Stage Gate Process

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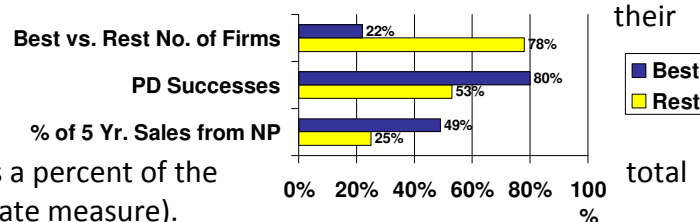
By Ted Barth, Managing Partner BNW Manufacturing Associates LLC

## Introduction

Companies that perform their product development process without a formal process or disciplined approach would be well advised to investigate an elemental, simple way to get started--- with a Stage Gate process. By utilizing the best practices available today a stage gate process is a simple yet effective way to bring order to chaos. The Stage Gate process was developed in the product development professional society, Product Development Management Association in the 1990's. This process combined with the best practices periodically conducted and outlined in the PDMA Best Practices Study are the basis for a sound footing to a product development process.

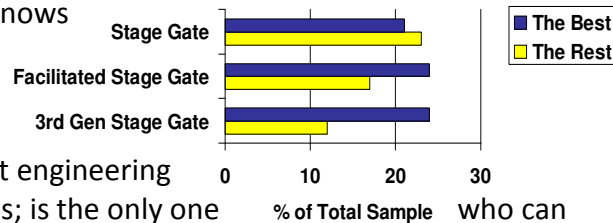
## Best Practices

PDMA periodically conduct a best practices study of those characteristics that separate the "Best" from the "Rest". The best typically have more successful product development launches, meet industry time-to-market timing, and allow those to have very high percent of new products developed in the last five years as a percent of the product revenue (this is the ultimate measure).



There are numerous best practices but the most dominant ones are standard process, facilitated process, flexible process, and a Stage Gate tool.

A standardized process is a product development process developed and managed by company management to provides very specific guidelines for managing the process. These guidelines includes phases, deliverables at each phase, and defined set of roles & responsibilities so that every stakeholder knows what his/ her responsibility is. A facilitated process best practice means that there is a single process owner—

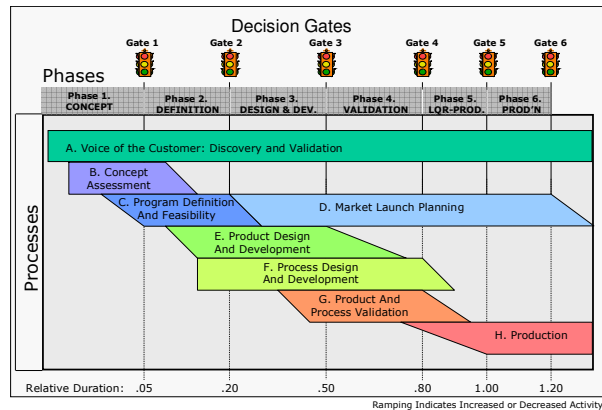


typically a product development of product engineering executive that "owns" the standard process; is the only one who can make changes to it; and is responsible for the process. Facilitated process means that the process owner is responsible to respond to questions; train new employees; maintain the process standards documentation; and coach all who struggle with the process. The Stage Gate tool is a series of defined phases and sub phase—such as Definition Phase; Development Phase; etc. the group the major activities into high or sub level groups that all stakeholders can understand. Each time phased stage has a set

of inputs and outputs that can clearly be reviewed with Executive Management at end of each phase.

### A Practical Stage Gate Process and Tool

The development and implementation of a practical Stage Gate Process is based on a standardized set of phases and sub phases that can graphically reflect both concurrent and serial timing. These phases have a relative and total timing that can be set by the product development leader. The process includes at the end of each phase an cross functional, executive review of progress. These reviews are a called “gate review” with their purpose to review the completion status of each of the deliverables that are defined in the process. Since some or more than some product development processes have a new product that has a poor outcome can be terminated, the gate review sometimes is called “go/ kill” gate- meaning killing or terminating the product as unviable. A stoplight is also sometimes used in some Stage Gate processes for “go”, “caution”, or “stop”— see adjacent diagram.



Each of the phases have a standardized set of deliverables defined that must be completed by the end of that phase. Best practice Stage Gate processes define a set of Roles & Responsibilities of the product process that define who the stakeholder is and what their role is. This phase planning and tracking tool allow the product manager and each stake holder to have a standardized process starting point, allows them to modify that standard to fit the uniqueness of the product, industry, and customer; know who is supposed to do what when by phase; and track each phase. Typically these phase tools are done in a simple spreadsheet--- see adjacent diagram.

Product Development System										
GATE DELIVERABLES & STATUS										
GATE 6: PRODUCTION										
Initials of Responsible Individual: _____					Program (S. Pgm. Mgr): _____		Risk Classification: _____			
					Gate Review Target Date: _____		ASSESSMENT			
	Field Support	Manufacturing	CEM Sales	Purchasing	Project Mgr.	Pgm. Mgr.	Product Planning	Quality	Target Date	Actual Date
	(• - Lead, ○ - Support)									
ASSESSMENT Legend: Green (Good), Yellow (Caution), Red (Poor)										
COMMENTS										
<b>GATE 6: PRODUCTION</b>										
Update on any incomplete Deliverables from Previous Gates										
<b>Production Process</b>										
Costing/Profitability Update	○	○	○	○	○	○	○	○		
Process Capability Monitoring	○	○	○	○	○	○	○	○		
<b>CEM Training</b>										
<b>Market Launch Planning Process</b>										
Lessons Learned Documentation	○	○	○	○	○	○	○	○		
Sales Monitoring	○	○	○	○	○	○	○	○		
<b>Value of the Customer Process</b>										
Customer Satisfaction Tracking	○	○	○	○	○	○	○	○		
TQM/TQM	○	○	○	○	○	○	○	○		
Complaint Investigation	○	○	○	○	○	○	○	○		

Additional sophistication of Stage Gate process include product project complexity configuration; written glossary of terminology; in process audits and post product project audits.

### Results

The results of an implementation of a Stage Gate process are consistency of effort; reduced misunderstandings and redundancy of execution of the process; an increased visibility by Executive management allowing recovery plans with necessary resources

and accountability; improvement of time to market; termination of new products during the process that are failing; and more order and less chaos to the product development process.

**About the Author:**

Ted Barth, Managing Partner of BNW Manufacturing Associates is an active member of Product Development Management Association and the Past President of the PMI (Project Management Institute) Great Lakes Chapter and Founding Director of the Michigan Huron Valley PMI Chapter and is a Microsoft Partner. BNW has been providing high performance product development, project and program management solutions for clients since 1996.

Mr. Barth's use of the BNW Project Management Maturity Model is considered one of the most accelerated and ease of adoption approaches in U.S. Industry today. BNW is considered to be a leader in the development of schedule, resource capacity management and cost management use for complex projects and programs. Mr. Barth currently is a guest speaker at PDMA and PMI chapters nationally on these topics.



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- ★ Version Upgrades & Migrations
- ★ Custom Programming
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- ★ Virtual Workplace
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