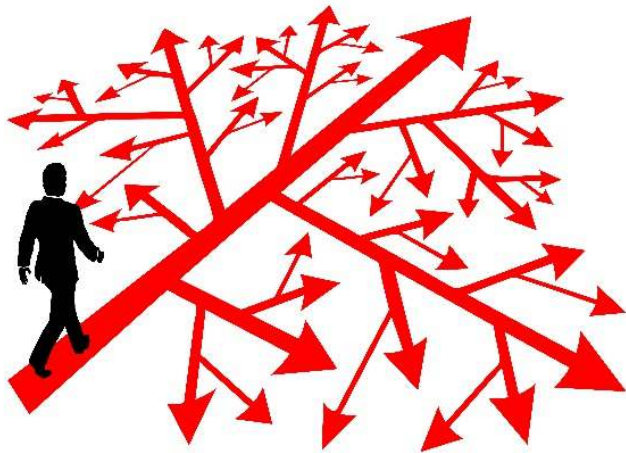


# STAGE-GATE®: THE QUINTESSENTIAL DECISION FACTORY

BY MICHELLE JONES



**Benchmarking studies confirm that the real power behind a truly authentic Stage-Gate model is its deceptively simple yet complete design aimed at cultivating a ‘decision factory’ culture: continuous, calculated, cross-functional team-based decisions that shape and sculpt a portfolio of new product winners to achieve a return on innovation investment for its sponsors. Unfortunately, many businesses only ever implement a ‘surface-level’ design of the real Stage-Gate model and they miss the opportunity to achieve real performance gains. How close is your company’s application of Stage-Gate to a real decision factory?**

**T**he authentic Stage-Gate model is purpose-built to drive new product success by emphasizing a robust, steady stream of timely and effective decisions that start in small increments and build gradually one Stage and Gate at a time. This clever design doubles at risk-sharing and momentum-building, as cross-functional teams iteratively shape the winning product and Gatekeepers (management) shape the impact of their investments (resource allocation and funding to projects) to advance the business goals and strategy.

Why the emphasis on decision-making in its design? Thirty years of performance and practice benchmarks have continuously validated the important link between effective decision-making, new product profitability and speed to market. If you want both, speed and profit, examine the way your development process enables and yields timely and effective decisions across all stakeholders. This article will help guide you through such an assessment.

Despite the importance of decision-making to new product success, many companies still struggle to manage new product development as a decision factory. The most common problems include indecision, typically resulting from a lack of confidence; delayed decisions, typically due to a lack of alignment across multiple stakeholders or poor quality of information; and poor decisions, typically due to opinion-based or fluid information. We classify these observations into three broad symptoms of an ineffective decision structure in a company’s approach to new product development:

1. Slow to Market. This can be indicative of a lack of clarity in the product innovation strategy (key arenas, products, technologies and markets to pursue), indecision with project prioritization and resource allocation (pipeline gridlock), a lack of cross-functional contribution via teamwork and lack of discipline to place emphasis on an early product vision and definition.

2. Poor In-market Results. This can be indicative of ineffective Go/Kill decision points, poor evaluation criteria, lack of solid market/customer insight (Voice of Customer), lack of rigor with prototype design reviews and testing, and poor launch planning and preparation.

3. Poor Return on Investment: This can be indicative of a portfolio of low value projects, lack of clarity or direction for the desired portfolio, poor metric monitoring (portfolio management) and an ineffective idea-to-launch process to accelerate development of the best projects and kill the weak ones.

Why do organizations struggle to build decision factories around the way they approach new product development?

First, inherent in the pursuit of new products, is that most projects have a starting point that is somewhat fuzzy with varying degrees of uncertainty. One may start with a vision of an opportunity to satisfy a market need and make some money in doing so, but the vision may only be partial and how to achieve it may be even less clear. The starting point of each new project proposal usually presents with a series of questions that need answers. To add complexity to this, the degree of clarity may differ from one function to another. For example, the target market may be very familiar and clear to the company but the technical solution may be brand new. What may seem like a simple project to all involved may be quite difficult for just one function to accomplish

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because their part involves doing something in which they are not familiar. This makes reaching alignment even more challenging because each contributing function has their own unique set of competencies and their own unique language and so many find articulating these assessments to their counterparts or teammates tough to do quickly and effectively.

Second, on an organizational level, the sheer volume of functions and people involved in each project and the number of decisions each of those people is making or contributing to, is complex to coordinate, especially when managing multiple portfolios of complex projects, globally.

Third, on an individual level, ensuring each decision-maker has the information needed to produce effective and timely decisions or contribute to team decisions can be tricky given how personal this can become. When a decision-maker lacks the confidence to make a decision, this can result in a need for more information. More information results in more work effort and this increases time and budget. If unmanaged, teams can find themselves spinning in a circular rut. Often times, decision makers unintentionally add cost and time to projects. This goes for decisions made within the team in Stages and for decisions made by Gatekeepers at the Gates. This impacts all stakeholders who are contributing to decisions, whether at a strategic level (are we selecting the right projects to do?) or execution level (are we doing those projects the right way?).

The authentic Stage-Gate Model emphasizes the management of the *Decision-Deliverable-Work Effort* cycle because it contributes so significantly to speed to market and profit. It strives to maintain the 'sweet spot' of balancing the desire of leaders and developers for 'near perfect' information in order to make effective decisions, while keeping work effort costs and time down to a viable minimum. Managing this healthy tension occurs primarily at each Gate, with follow through in each Stage. Leverage your Stage-Gate design to guide every project, but be careful. Establishing deliverable requirements that are too fixed and rigid, may add unnecessary time and cost, thus delaying projects. Establishing deliverable requirements that are too flexible and loose, may subject the organization to unnecessary risk, and even failure.

If you did not design your Stage-Gate process with the end in mind, or work backwards to ensure everyone contributing throughout it is getting the information they need to make faster, better decisions every step of the way, you might take this opportunity to close some gaps that may exist and improve your time to market and profitability performance.

Test your process to ensure its design is achieving these three goals for improved decision-making. Additionally, complete the Stage-Gate Decision Factory Questionnaire (that follows this article) to pin point specific gaps and improvement opportunities.

**Goal 1. Confidence** – achieve speed by building decision confidence in all decision-makers:

a. **Direction** – make it is easy for decision-makers to know that their decision(s) will enable the organization to move in its desired direction (i.e. the product innovation strategy is clear; and, 'Degree of Strategic Fit' is an evaluation criterion at each Gate).

b. **Visibility** – make it easy for decision-makers to see the impact of their choices by illustrating how their decisions 'fit' into the bigger picture (i.e. illustrate each project's holistic product definition via the Basic 8 Framework; and, visualize your pipeline of prioritized projects).

c. **Increments** – make it easy for decision-makers to take small risks together by organizing decisions into smaller increments (investment decisions at the Gates and product decisions in the Stages).

**Goal 2. Alignment** – bring transparency and coordination of all decision types to all contributing functions, to achieve ownership and accountability and to build consensus and momentum.

**Goal 3. Information** – establish understanding and acceptance of the progressive nature of information and the relationship with time and money. Manage expectations between those requesting information and providing it, via a common language that helps articulate the varying degrees of quality of information necessary relevant to the risk and size of investment of the decision:

a. **Uncertainty** – help functions articulate the degree of familiarity or newness as it pertains to their specific contribution to the new product as this information helps to establish the right amount of rigor necessary for the risk.

b. **Reliability** – help functions articulate the degree of dependability (opinion versus fact) as this information helps to establish relevance and validity.

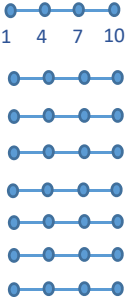
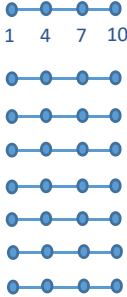
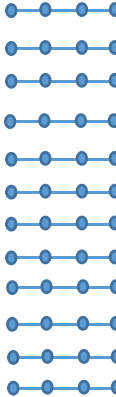
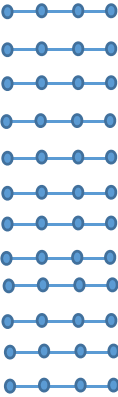
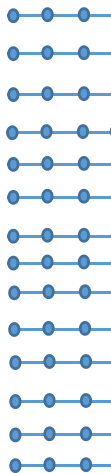
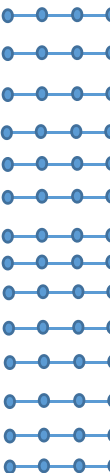
c. **Stability** – help functions articulate the degree of fluidity (fixed or changing) as this information helps to establish a sense of timeliness and completeness.

How well does your company's application of Stage-Gate cultivate a decision factory culture? Are you mindful at achieving continuous, calculated, cross-functional team-based decisions that are timely and effective? Pin-point specific gaps and improvement opportunities by completing the Stage-Gate Decision Factory Questionnaire that follows.

# THE STAGE-GATE® DECISION FACTORY

## Sampling of the Hallmark Decision Structure of an Authentic Stage-Gate Innovation Framework

A robust Stage-Gate Innovation Framework drives a decision factory yielding effective and timely decisions, enabling speed to market **and** profitable results. Consider this sampling of decisions in your organization. Does your current Stage-Gate design **enable** these types of decisions? Does your current Stage-Gate design **yield** effective decisions? If not, improve overall new product innovation performance by addressing gaps in your current Stage-Gate design. **Scale of 1-10: 1=No; 4=Sometimes; 7=Often; 10=Yes.**

	Design Enables Decision	Yields Effective Decision
	1 4 7 10	1 4 7 10
<b>Stage-Gate Leadership Decisions</b> (Continuous alignment of Stage-Gate Processes to Business Strategy)		
<ul style="list-style-type: none"> <li>▪ Dedicated investment to the New Product Innovation Program (total \$\$ and resources).</li> <li>▪ How the investment should advance the business strategy (role, goal and expected return).</li> <li>▪ Desired mix of project types and resource allocations that will achieve the business strategy.</li> <li>▪ Stage-Gate Process Types needed to successfully advance the strategic mix of projects.</li> <li>▪ The right functional expertise needed to execute the portfolio (or a co-development strategy).</li> <li>▪ Appointed cross-functional team of leaders accountable for the product innovation investment.</li> <li>▪ Idea generation program to support the new product strategy (or an open innovation strategy).</li> </ul>		
<b>Gate Governance Decisions</b> (Holistic evaluations of individual projects and the portfolio(s))		
<ul style="list-style-type: none"> <li>▪ Initial screen of idea proposal for business potential and strategic impact.</li> <li>▪ Initial routing of idea proposal into the Stage-Gate Process Path best suited for desired result.</li> <li>▪ Selection of project success criteria that will define the desired/intended result.</li> <li>▪ Defined information (deliverables) needed, Gate-by-Gate, to advance investment in the project.</li> <li>▪ Evaluation of the quality of project deliverables relevant to specific Gate expectations.</li> <li>▪ Evaluation of project potential for business impact and strategic importance, Gate-by-Gate.</li> <li>▪ Evaluation of project potential for in-market success and customer adoption, Gate-by-Gate.</li> <li>▪ Feasibility of each function to contribute to project success and overcome risk, Gate-by-Gate.</li> <li>▪ Assessment of Project Go Forward Plan (Next Stage Plan) for soundness, effectiveness and efficiency</li> <li>▪ <b>Go</b> (fund), <b>Kill</b> (stop funds), <b>Recycle</b> (obtain information), <b>Hold</b> (fund pending resource availability).</li> <li>▪ Prioritization of project, if added to the portfolio.</li> <li>▪ Portfolio reflects strategy, maximizes value, is balanced, and sufficient to achieve the business goal.</li> </ul>		
<b>In-Stage Decisions</b> (Transform ideas/concepts into winning products through continuous, iterative development)		
<ul style="list-style-type: none"> <li>▪ Selection of the best resources (project leader or manager and relevant functional resources).</li> <li>▪ Selection of the best external partners (co-development suppliers) to contribute to the project.</li> <li>▪ How the team should organize, communicate and work effectively throughout each Stage.</li> <li>▪ How the team should navigate the Stage-Gate Process (customize how project progresses).</li> <li>▪ Best practice activities to emphasize in each Stage given individual project context and risk.</li> <li>▪ Team approach to cross-functional collaboration on activities that require team-based decisions.</li> <li>▪ Functional methods to apply to best perform the activities needed within each Stage.</li> <li>▪ Selection of option(s) that shape the product strategy that optimizes market and brand impact.</li> <li>▪ Selection of option(s) that shape the business case that maximizes value for customer and company.</li> <li>▪ Selection of option(s) that shape the technical solutions that optimize value for customer and company.</li> <li>▪ How to interpret, analyze and synthesize all functional inputs to shape the winning product definition.</li> <li>▪ Design Reviews to assess the robustness of proposed prototype(s) or plans (i.e. brands, safety, etc.).</li> <li>▪ How to summarize the business case for a Gate, including the team Go/Kill recommendation.</li> <li>▪ When to throw a rescue flag if the project pivots or deviates from the previous Gate commitment.</li> </ul>		

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## References

Edgett, S. 2011. *New Product Development: Process Benchmarks and Performance Metrics*. Houston, TX: American Productivity and Quality Center and Hamilton, Ontario: The Product Development Institute.

Cooper, Robert G. and Scott J. Edgett, "Lean, Rapid, and Profitable New Product Development": Product Development Institute, 2005.

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Edgett, Scott J. "The Innovation Challenge for Executives", Stage-Gate International, 2017.

## Resources

### Publications and Reports

Purchase a variety of best-selling business books on product innovation management and performance benchmarks, authored by co-founders Dr. Robert Cooper and Dr. Scott Edgett.

### Training Workshops and Public Events

Invite our innovation management experts into your organization to deliver award-winning training workshops.

### Products

Stage-Gate International develops 'off-the-shelf' products that inform, empower and enable leaders to deepen their company's product innovation knowledge and practical application of performance benchmarks, best management practices, and proven models, methodologies, and frameworks.

### Solutions

Stage-Gate International co-develops, customizes, improves, and implements Innovation Management Frameworks with business leaders to empower and enable their organizations to achieve and sustain meaningful results and unique competitive advantages. Our solutions are robust, flexible, scalable, are guided by experts, and customized using proprietary Solution Playbooks<sup>SM</sup>.

## About the Author



Michelle Jones is Executive Vice President and Chief Innovation Officer. Her portfolio includes Research & Development, the Design Lab (for custom product development), Global Professional Development and strategic business partnerships. In her role, Michelle oversees value creation for clients and markets through the research, development and commercialization of highly differentiated product and service offerings designed to enable companies to achieve innovation excellence. Stage-Gate International is widely recognized for its thought-leadership, peer-reviewed research, benchmarking databases, ground-breaking methodologies and practical products and services.

Michelle is also a speaker, author, and consultant to industry on the topic of product innovation management. She has over 30 years of experience advising business leaders and leading teams in companies across a wide range of industries including Aerospace, Agriculture, Automotive, Chemical, Consumer Packaged Goods, Defense, Electronics, Energy, Food, Financial, Manufacturing, Medical and Pharmaceutical. She helps her clients achieve clarity and command of their innovation management systems while balancing an engaging and empowering culture. Michelle has led a wide range of corporate and industry innovation initiatives to successful completion including industry and consortium benchmarking initiatives, global product and technology development processes, multi-divisional portfolio management, governance frameworks, innovation strategies and corporate innovation learning programs.

Michelle holds a Master of International Business Administration degree from Western University, Program and Project Management from McGill University and Food Science from Guelph University. Michelle is also a certified New Product Development Professional (NPDP).



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Stage-Gate International enables companies to drive organizational excellence in new product development. Companies of all sizes, and across all industries around the world, look to Stage-Gate International for help to improve their product innovation and development success.