Next Stage for Stage-Gate?
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Progressive companies are developing a new generation of idea-to-launch processes.

Summary: This is a shorter version of the article above, namely “What’s Next After Stage-Gate” – a look at what cutting edge firms are doing to take their idea-to-launch systems to the next level. The result is what Cooper calls the Triple A System: Adaptive and flexible; Agile; and Accelerated.

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The Next Stage for Stage-Gate

A look at the next generation of idea-to-launch systems

BY ROBERT G. COOPER

Stage-Gate®, an idea-to-launch (I2L) system for driving new products to market quickly and effectively, is employed by about three-quarters of product developers in America, most Fortune 500 firms and many other leading firms internationally, according to the Product Development and Management Association. A Stage-Gate system is a conceptual and operational roadmap for moving a new product from idea to launch. It divides the effort into distinct stages, separated by management decision gates (gatekeeping).

When I created Stage-Gate three decades ago, the goal was to improve success rates of new products (estimated to be about 50 percent or less) and shorten the time to market (more than half of new products were late to market). Firms logically saw a stage-and-gate system as the answer, and for many it was. Yet as the creator, I am often asked what’s next. For years, I’ve not had an answer.

Now I’m seeing new approaches emerging from progressive companies that represent a new generation of I2L methodologies. In some cases, it’s an evolution of Stage-Gate to a better, faster model; in other firms, it’s closer to a revolution, moving to a very different system. As companies struggle to become more innovative with their products and services, there is anything but unanimity as to what the next-generation I2L system should be. This article looks at what leading firms are doing to move beyond their current I2L methodology and tries to integrate these practices into a next-generation system.

Widely Used, But Not Perfect

The original Stage-Gate system was based on an in-depth study of successful “intrapreneurs” at major corporations, who drove successful new products to market. Their practices and the lessons they learned provided the foundation for that early model. Over the years, Stage-Gate has evolved, incorporated new practices and has had a positive impact on the conception, development and launch of many new products.

But there was also criticism of the process and of the way some companies implemented the system. It has been accused of being too linear, too rigid and too planned to handle more innovative or dynamic projects. And it’s been said that it’s not adaptive enough, does not encourage experimentation and is not context-based (one size should not fit all). The system is also reportedly too controlling, financially-based and bureaucratic, loaded with checklists and too much non-value-added work.

Some authors have argued that most of the criticism is due to poor implementation, and some of the deficiencies have been corrected in more recent evolutions of Stage-Gate. Issues do remain, however, and thus a handful of leading firms are rethinking and reinventing their I2L gating systems. Through my ongoing efforts to benchmark best practices, presentations at the annual Stage-Gate Innovation Summit and personal interactions with leading firms, I’ve constructed an overview of the next generation I2L system.

Triple A System

At first glance, the practices and recommendations of firms creating new I2L systems look a lot like the traditional process. There are still stages where work gets done, and there are still gates where decisions are made. But the details of the process and its function are quite different. What emerges is a more agile, vibrant, dynamic and flexible gating process that is leaner, faster and more adaptive—and is both context- and risk-based. This is what I call the “Triple A” system, because it is adaptive, agile and accelerated (see Exhibit 1).

A1: Adaptive and Flexible

The next-generation I2L system is adaptive, because things change all too quickly these days. A new-product project starts out based on a set of assumptions and some facts about what the customer wants or needs. Then partway through development, new revelations—perhaps from an insightful salesperson or an astute product manager—suggest that the original product concept is flawed and changes must be made. Unstable specs and scope creep are among the biggest causes of products being late to market, with project teams chasing moving goalposts.

Building in adaptivity via spiral development deals with this “fluid information” dilemma. Spiral development incorporates getting something in front of customers or users early, cheaply and often with a series of build-test-feedback-and-revise iterations (see Exhibit 2, page 22). The notion here is that for many new products, particularly more innovative ones, customers can’t tell you what they want or need until they see it. So get something out there fast and often in the form of a “virtual product,” a “protoconcept” (something between a concept and a working prototype), rapid prototype, or a crude working model that the customer can see, touch and respond to. Thus the product might be less than 50 percent defined when it enters development, but it evolves as it adapts to new information and moves through development and testing. Often
The new I2L system is also much leaner systems with all waste removed, no bureaucracy and no unnecessary activities anywhere in the system. This is consistent with yet another Agile principle: “Simplicity—the art of maximizing the amount of work not done—is essential.” Firms have applied the principles of Lean-Six-Sigma, focused on the value stream (much like in a manufacturing plant), and removed all work that adds no value, thereby accelerating the system and improving work efficiency. For example, the Ethicon Division of Johnson & Johnson revised its I2L process to eliminate bureaucracy using a Black-Belt Six-Sigma team, with paperwork and deliverables being reduced by orders of magnitude as a result. Additionally, smart firms have built in post-launch reviews—much like a post-game review in football—where, in addition to financial results, the steps and missteps of the project are reviewed and assessed with the objective of figuring out “how we can do the next project even better.” Continuous improvement of the I2L system is built in.

A3-Accelerated. The next-generation I2L system is focused on accelerating the development process. Perhaps the most important improvement is that projects in the system are properly resourced and fully staffed by a dedicated cross-functional team for maximum speed to market. This requires integrating Stage-Gate with portfolio management and resource management, ensuring that the number of projects in the pipeline is consistent with the resources available.

Additional ways that the new I2L system accelerates time to market include:

- **Concurrency.** In the new system, activities within stages (and even the stages) overlap. Indeed, the notion of a “stage,” where certain tasks must be completed before moving to the next stage, is less relevant in this new system. An example is ordering production equipment while the project is still in the testing stage, well before the formal “go-to-launch” decision is made. Yet, it’s risky, but overlapping the launch stage with testing may save months of time (see Exhibit 3, page 24).

- **Making the fuzzy front end less fuzzy.** There is more emphasis on removing the fuzzy front end, so that the project is clearly scoped and key unknowns, risks and uncertainties are identified as early as possible. For example, Procter & Gamble’s new Agile Innovation Management (AIM) system forces a very deliberate focus on the mapping of the system in project’s SIMPL (Simplified
Initiative Management and Product Launch stage-and-gate process. By identifying the risks early on and defining whether or not new technology might be required, many downstream problems can be averted and much time saved.

- **Robust IT.** A number of leading software suppliers have created IT systems in support of the I2L system, designed to reduce work, provide better communication and accelerate the process. Such tools include managing the project, pre-populating documents (such as business cases and launch plans), resource management and even idea capture and handling—and they are reputed to reduce time and project workload by as much as 30 percent.

Integrating the Evidence

The traditional Stage-Gate process is well-suited to known and traditional product development, which includes the majority of projects for most firms. But integrating these various improvements and changes—some evolutionary (such as fast-track versions) and some more revolutionary (such as the risk-based contingency model)—produces a framework for next-generation I2L systems.

The newer I2L process is designed for more innovative and bolder projects targeted at markets that are growing but less defined. It’s adaptive and flexible, agile and accelerated. Gates are still part of the next-generation system, but they are less relevant than in the traditional process, and they are integrated with portfolio management and portfolio reviews.

Go/kill criteria are less financially focused, emphasizing more strategic and competitive factors. Organizationally, the next-generation system requires dedicated cross-functional project teams with the resources needed to move the project forward quickly—including dedicated people for important projects, not people spread over multiple projects and other tasks.

No company has yet implemented every element of the next-generation system described here. But some have come close. Private discussions with executives in these firms reveal dramatically positive results. So perhaps it’s time to rethink your idea-to-launch system, borrow some of the methods outlined in this article and strive for a more adaptive, agile and accelerated stage-and-gate system.

Editor’s Note: For a deeper look on this topic, read Robert G. Cooper’s article in Research Technology Management, Jan 2014, published by the Industrial Research Institute, Washington, DC.

About the Author

Robert G. Cooper has spent more than 30 years studying the practices and pitfalls of 3,000+ new-product projects in hundreds of companies. His contributions include the Stage-Gate Idea-to-Launch Process, now implemented by almost 80 percent of North American companies. He has published more than 120 academic articles and 11 books, including the best-selling “Winning at New Products” (Basic Books, 2011). He is a Professor Emeritus of Marketing and Technology Management at the Michael G. DeGroote School of Business at McMaster University in Ontario, Canada and Distinguished Research Fellow at the Institute for the Study of Business Markets at Penn State University in Pennsylvania. He can be reached at robertcooper675@gmail.com.

Exhibit 3: Accelerate your new-product projects by overlapping activities and entire stages.