What's Next After Stage-Gate?

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(an overview of the article by the author forthcoming *Research-Technology Management*, Nov 2013)

The original Stage-Gate system was created in the 1980s, based on an in-depth study of successful "intrapreneurs" within major corporations as they drove successful new products to market. Their practices and the lessons they learned provided the foundation for that early stage-and-gate model. Over the years, Stage-Gate has evolved and incorporated many new practices. Today Stage-Gate is used by an estimated 75% of US firms doing product development, and an even higher percentage in northern Europe.

Multiple research studies reveal that the Stage-Gate process has had a positive impact on the conception, development, and launch of new products. But there are also criticisms, some the result of the nature of the process and others of the way companies implemented the system. It is accused of being too linear, too rigid, and too planned to handle more innovative or dynamic projects. It's not adaptive enough and does not encourage experimentation. It's not context-based—one size should not fit all. Its gates are too structured or too financially based, and the system is too controlling and bureaucratic, loaded with checklists and too much non-value-added work. Some authors argued against these criticisms, arguing that most are due to poor implementation, while some deficiencies have been corrected in more recent evolutions of Stage-Gate. But issues do remain, and thus a handful of leading firms are rethinking and re-inventing their idea-to-launch gating system. Through my ongoing studies of benchmarking best practices, presentations at the annual Stage-Gate Innovation Summit, and personal interactions with leading firms, I've constructed an overview the next generation idea-to-launch system.
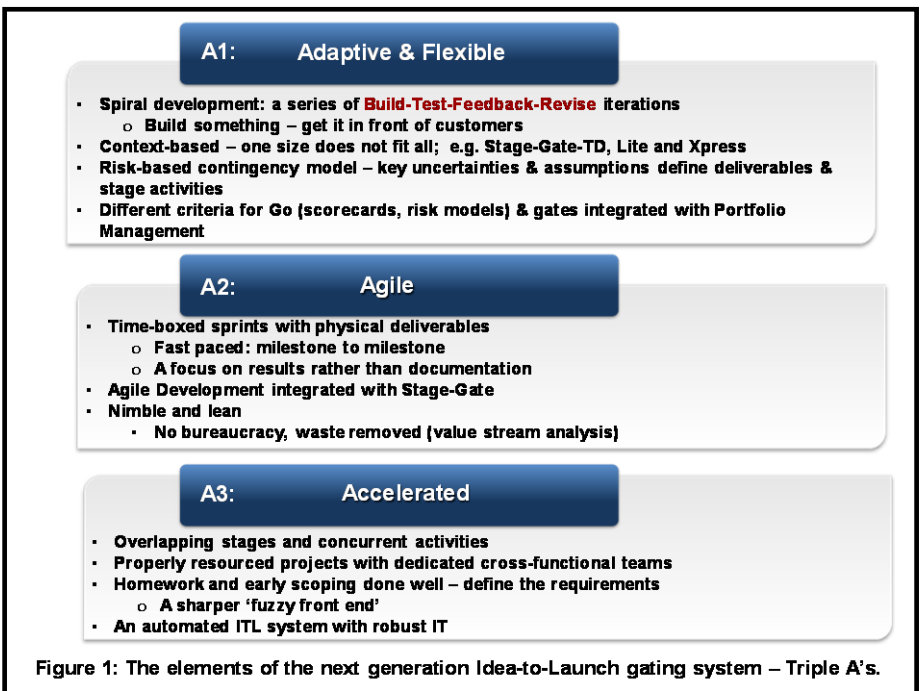
The Next Generation Idea-to-Launch System, A Triple A System

At first glance, the practices and recommendations of firms creating new idea-to-launch (ITL) 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, flexible gating process that is leaner, faster, and more adaptive and risk-based. This is what I call the Triple A system—it is adaptive and flexible, agile, and accelerated (Figure 1).

1 – Adaptive and Flexible: The next-generation idea-to-launch system is <u>adaptive</u>. It incorporates spiral or iterative development to get something in front of customers early and often through a series of build-test-revise iterations, each time interfacing with the customer or user. The product may be less than 50 percent defined when it enters development, but it evolves, adapting to new information, as it moves through development and testing. The system is also <u>flexible</u> insofar as the actions for each stage and the deliverables to each gate are unique to each product, based on the context of the market and the needs of the development process. This is the opposite of an SOP (standard operating procedure) approach to product development, which prescribes standardized actions and deliverables. There are also <u>fast-track versions</u> of the process for lower-risk projects. And in the next-generation system, a <u>risk-based contingency model</u> dictates that appropriate activities and deliverables be determined based on an assessment of project assumptions and risks. Finally Go/Kill <u>criteria are flexible</u>—there are no standard sets or universal criteria for each gate—and gates are integrated with portfolio management.

A2—Agile: The next-generation system also incorporates elements of <u>agile development</u>, the rapid development system developed by the software industry. For example, sprints and scrums—short time-boxed increments in which the deliverable is something that can be demonstrated to stakeholders (rather than documentation)—are part of the new system. Equally, these new systems emphasize moving quickly and <u>nimbly from milestone to milestone</u> and rely on a much leaner system with <u>all waste removed</u>—no bureaucracy, no unnecessary activities anywhere in the system.

A3—Accelerated: The next-generation idea-to-launch system is focused on accelerating the development process. Projects in the system are properly resourced, especially major projects, and fully staffed by a dedicated cross-functional team for maximum speed to market. Activities within stages overlap, and even stages overlap: the notion of a "stage" is less relevant in this new system. There is more emphasis on the fuzzy front end, making it sharper and less fuzzy, so that the project is clearly scoped and key unknowns, risks, and uncertainties identified as early as possible. Finally, robust IT support is provided to reduce work, provide better communication, and accelerate the process.

Figure 1: The elements of the next generation Idea-to-Launch gating system – Triple A's.

Integrating the Evidence into A Next-Generation Idea-to-Launch System
Integrating these various improvements and changes—some evolutionary, such as fast-track versions, some more revolutionary, such as the risk-based contingency model—produces a framework for next-generation idea-to-launch systems, contrasted to traditional Stage-Gate development in terms of context, system design, the role of gates, and the organization of project teams.

The traditional process is well suited to known and traditional product developments, which are the majority of projects for most firms. But the newer process is designed for more innovative and bolder projects targeted at less well-defined but growing markets and relying on newer technology with technology risks – 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, competitive, and leverage factors; when the criteria are financial, they employ more appropriate financial models to account for risk and options buying. Organizationally, the next-generation system requires dedicated cross-functional project teams with the resources needed to move the project forward quickly—dedicated people for important projects, not spread over multiple projects and other tasks.

To my knowledge, 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 more a more adaptive, agile, and accelerated stage-and-gate system.

For more detail on what's next after stage-gate, be sure to read Cooper's article in Research Technology Management. Nov 2013. Here's a quick 60 second unedited video clip too (an invite to an event at Temple University in Phila, USA). https://vimeo.com/74050699