Innovation in the fast lane

SPEED-PASS™APPPROACH TO IMPROVING THE NEW PRODUCT PROCESS

By Michael A. Dalton

It's exhilarating when your innovation process is working and cranking out the new products you need to grow your business. But the reality is that over half of the companies out there are dissatisfied with their innovation.[1]

Often, the response is to install new product development processes hoping to see big gains. But the result is usually just bureaucracy, more overhead, and frustration leading to a process that your teams are constantly searching for a way around. Unfortunately, traditional formal innovation processes are based on outdated command and control models that just don't lend themselves to today's fast moving markets.

Don't get the wrong idea – we're not advocating chaos or abdication of management responsibility. Just the opposite. But these formal processes include numerous stages and gates where product development teams must stop and formally review the project with management. The problem isn't the review or assessment, but the fact that stage gate builds in delays and can become an innovation bottleneck itself. It also requires added bureaucracy to manage the process which also adds more overhead burden. This all ends up creating distractions and bad multitasking[2] that pulls constrained team members away from the primary goal of developing successful new products.

But there is a simpler approach ......

The process challenge

The goal of any innovation process must be to generate more money in the future - more money than your operations would generate without new products and services. So improving any innovation process must result in at least one of the following outcomes:

1. Increased throughput[3] - more money from new product sales. Increasing throughput means a higher return from your innovation investment.

2. Reduced cycle time – less time for a project to go from proposal to generating throughput. Decreasing cycle time means that your innovation begins paying off sooner and with less investment.

When developing your innovation process, there are several critical elements required to make reduce cycle time and create higher throughput:

1. Up front planning – As the saying goes "If you don't know where you're going then any road will get you there." But if you know your destination then a map helps ensure all the team members, as well as those financing the expedition, know how you are going to get there.

2. Cross functional involvement – It just doesn't work when marketing finds new opportunities and dumps them on R&D or when R&D comes up with new technologies that marketing has to figure out how to sell or that manufacturing has to figure out how to make. What works is when each member of the new product development process has early input and knowledge of the plan.

3. Clear understanding of unmet customer needs - Product targets and specifications should be determined and frozen before significant development resources are assigned.

4. Assessment at the project level – How attractive is this project? Does it create value for customers and your company?

5. Prioritization at the portfolio level – How does the opportunity stack up against all the other opportunities you have and how do you decide between them. The point here is that you can only do a finite number of projects. Your process must help choose the critical few and ignore the trivial many.[4]

6. Feasibility – Far too many projects end up being cancelled after scarce development resources have been used.[5] If a project isn't feasible, either technically, operationally, or commercially, you need to know that as soon as possible. Fail fast and save resources for more promising opportunities.

Putting it all together: The Speed-Pass approach

If you're looking for a way to stop the frequent starting and stopping with traditional innovation processes, or if you don't have an innovation process today and are concerned about creating complexity, what can you do?

We advocate a streamlined process called Speed-Pass. Rather than a series of tolls and gates, where the team must stop for reviews and approvals, after the initial planning and proposal teams roll through the fast lane and into the next stage as long as all project goals and milestones are being met and the project requirements and critical assumptions have not changed. While still requiring good upfront planning and assessment, this approach minimizes bureaucracy and allows teams to focus on results rather than executive presentations.

Stages vary depending on the development process of your particular industry but here is a general approach that can be modified as needed:
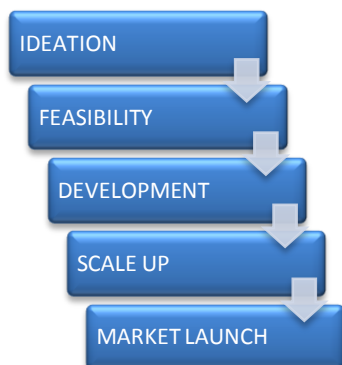
STAGE 0: Ideation and Identification of Unmet Needs

Cross-functional development teams, consisting of technical/research, marketing/business development, and manufacturing/scale-up resources are given the freedom to evaluate any market opportunity within the boundaries set out in the company's strategic focus. This is early stage work and many opportunities will end up being blind alleys. There are guidelines limiting the number of evaluations a team can do at one time to help maintain focus. Teams are given a fixed window of time and budget for front end customer visit and value work to identify unmet customer needs that the company's current and developing technology can solve. The team then puts together a business case and project plan based on explicit assumptions about the market and technology. In the only required gate, this proposal is reviewed by leadership, critically evaluated and either approved or sent back for refinement.

STAGE 1: Feasibility

At stage Zero, the team has approval to move forward, but their first step is to verify their assumptions and determine feasibility which requires answering three questions:

1. Commercial: Do customers have a problem that they will pay us to solve? If we spend all the time to answer 2 and 3, will customers buy our solution at a price that allows us to make money?

2. Technical: Is it technically possible? Does a practical solution exist?

3. Manufacturing: Can we produce it at a cost that still provides value all the way around? What do customers think of our early prototypes?

Most product development teams start by trying to answer number 3 first. Big Mistake - there always seems to be a real reluctance to do customer work before the product is available. It's a shame because relatively inexpensive customer interviews or even simple Google adwords testing can help you verify that a market for your new product exists without commiting expensive development resources.

It can also be useful at this stage to have a peer advisory group or an external coach quickly review and challenge the assessment. If feasibility cannot be demonstrated within the time agreed in the project proposal, the team leader releases the resources to move on to the next opportunity.

Projects are often killed at this stage and management must learn not to kill the messenger and instead encourage teams to continue running these types of small scale experiments that can quickly evaluate feasibility. This is critical to keep the team excited about new opportunities and willing to take risks. Determining that a project isn't feasible is only a failure if we wait until after a large investment when we could have known beforehand.

STAGE 2: Development

If feasibility proves out, the team is on schedule, and none of the critical assumptions has changed, the team doesn't stop for review and approvals but continues right on to Development where the final solution is created and again beta customer tested.

STAGE 3: Scale-Up to Commercialization

If no problems arise during development, the team is still meeting all of its milestones, and nothing else has changed, the team continues on to Scale-Up and Commercialization for the launch. For some time after the launch, the team stays involved to work with sales and to gather additional feedback that may be useful for future products and line extensions.

STAGE 4: Market Launch and Ongoing Sales

Some members of the team continue to be involved with customers as the product goes to market. Seeing the product in use and hearing customer feedback is an excellent source of information for better positioning the product and getting testimonials. As part of the ongoing improvement effort to continue elevating the capacity of our development constraint, before returning to another development project, the project team critiques the project to identify successes that can be leveraged and mistakes that can be avoided. It can be helpful to identify someone with the facilitation skills to help teams walk through this sometimes thorny area.

Where to go from here

If you are struggling with new product development that takes too long, costs too much and doesn't deliver the bottom line growth you need, you are not alone. We've worked with industrial products companies like yours to help them create a more predictable stream of impactful new products that are delivered on time and on budget.

To learn how, you can download our guide: *Are New Products Driving your Bottom Line - 5 Steps to Rapidly Improved Innovation Results at:*

www.GuidedInnovation.com/5step

Or consider participating in our complimentary *Innovation Breakthrough Strategy* session as highlighted in the resource box to the left.

How to reach us:

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The last word:

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Reference notes:

[1] Boston Consulting Group. 2006. *Innovation 2006. Boston, MA.*

[2] Wheelright, Steven C. and Kim B. Clark, eds. 1992. *Revolutionizing product development: Quantum leaps in speed, efficiency, and quality.* New York, NY: Free Press

[3] Goldratt, Eliyahu M. 1990. What is this thing called theory of constraints and how should it be implemented. Great Barrington, MA: North River Press

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[5] Eduardo, Miranda, 2003. *Running the successful hi-tech project office.* Norwood, MA: Artech House