

Promises You Can Keep

Why Rapid Learning Cycles Build Confidence in R & D's Ability to Deliver Innovation

By Katherine Radeka



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Key Takeaways

- **The Rapid Learning Cycles Framework builds collaborative relationships with partners from the beginning of product development.**
- **The framework provides flexibility to respond to new information about customer and market needs, competing products and new technical capabilities.**
- **The framework reduces late design changes caused by technical surprises, reducing the amount of "bad news" partners hear about R & D's ability to deliver.**

My partner, Gene has learned that he can't rely upon our hotels to provide a good set-up for ironing, even in hotels that claim to provide one. Sometimes, the hotel only has a few irons, and so he has had to wait for one to be delivered to him. Sometimes, the iron in the room is dirty, underpowered or broken. So he packs a small travel steamer so that he doesn't have to worry about it. He has mitigated his lack of confidence in our hotels' ability to deliver on their promise to supply irons, but he's done that by adding more weight to his own bag.

When business teams lose confidence in an R & D organization's ability to deliver the new products they need, they may decide to take things into their own hands. They may engage with outside design firms because the people they already have "aren't innovative enough." They may fall prey to the siren song of outsourced engineering firms who promise to deliver a specific product to market sooner - for a price - because the outside engineering team can focus on one project in a way that few internal teams can, even though the firm lacks knowledge of the company's core technology, and may develop solutions that are difficult to integrate back into the organization later. In extreme cases, the executive team may begin to question the need to have a dedicated R & D department at all, or wonder why the company's experienced engineers are worth the salaries they're being paid.

When a product development organization has had a significant failure - a cancelled product launch, a new platform that was so delayed that it missed the market opportunity, or a major product recall - it needs to rebuild trust with the business leaders whose strategies and forecasts failed along with the product. When an R & D group is consistently late, delivers products that cost too much to make, or fails to finish enough of the feature set to have a competitive product, its relationships with key partners may deteriorate into finger-pointing about who is responsible: "The marketing team couldn't make up their minds." "The engineering team was too slow." "The manufacturing group ignored our product for months, and then demanded a lot of changes."

This is a challenging place for an R & D leader to be, because strong collaborative partnerships require trust and confidence in the ability to deliver on promises and commitments.

The Importance of Confidence to Support Collaboration

Product development is the most collaborative, cross-functional activity in a company. It requires contributions from almost every other function. Successful product development program managers build deep relationships with procurement agents, plant managers, product managers, company IP attorneys and regulatory compliance specialists. Their jobs are much easier if their partners have confidence that the engineering team is on schedule, so that they can plan their own work. If the engineering team is consistently late, then their urgent requests for collaboration seem much less urgent.

Yet product development program managers are also the ones who have to deal with the fact that Marketing can't deliver a stable set of requirements up front, because knowledge about customer and market needs doesn't stop evolving after the first phase of the program. They are the ones who have to pester Manufacturing and Supply Chain to get involved early, when downstream feedback will make the most difference, because a current customer order will always take precedence. Engineering teams that experience constantly changing requirements and fail to get early feedback from downstream partners will be overwhelmed with late design changes even if everything else they do is perfect. They will either add a lot of buffer to their schedules - and face a lot of pressure to accelerate their timelines - or they will be late.

Given these realities, how can an R & D organization build trust and confidence in its ability to deliver? The Rapid Learning Cycles Framework addresses the systemic issues that erode confidence within engineering, and with partners.

Three Ways Rapid Learning Cycles Increase Collaboration to Build Confidence

The Rapid Learning Cycles Framework builds confidence by providing mechanisms for early collaboration, flexibility to accommodate change and elimination of the long slow loopbacks that result from rushed technical decisions.

Early Collaboration

A Rapid Learning Cycles Kickoff Event is a cross-functional experience. We invite key partners to participate in these events at least one phase earlier than they would typically be involved. We ask these partners to identify their own Key Decisions and Knowledge Gaps, and to provide feedback on the R & D team's Learning Cycle Plan. They see the flow of Key Decisions, and so it's clear to them where the team will require their input in order to make good decisions. They identify the areas where they need to do some early learning in order to prepare themselves to support the team and the program's timeline.

Partners who are actively working on Knowledge Gaps participate in Learning Cycle Events, where they can see the team's progress. They give feedback on Key Decisions during Integration Events. The regular cadence of events gives partners plenty of advance notice about when their presence will be needed, and the impact on the program if they cannot participate in a Key Decision and then wish to revisit it after the Last Responsible Moment. They stay connected, even though it may be months before their own work begins.

Flexibility to Accommodate Change

In the Rapid Learning Cycles Framework, we push decisions later to maintain flexibility. The framework acknowledges the reality that new information can come into the program at any time, about customer needs, competitor products, manufacturing capabilities, market price sensitivity or any other aspect of the product. Teams that have not locked down decisions prematurely are teams that can flex to accommodate this new information without disrupting the flow of engineering work, or triggering rework. They have room to maneuver when their plans don't work out as expected.

Teams encounter much less of this change when they get products to market faster. If the Marketing lead believes that it will be three to five years before a new product comes out, then the product has to have everything it needs to be competitive in the market for that long. When the Marketing lead knows that the team will deliver a product every twelve months, then their latest new feature request may be able to wait until the next version. In fact, faster time-to-market makes the entire organization more flexible and responsive to the market, because they can respond a lot faster to the feedback they receive from their last launch.

Eliminate Premature Technical Decisions


The traditional product development process forces Marketing to make early decisions about customer needs, and Engineering to make early decisions about critical technology choices, before either function has the knowledge they need to make those decisions. Rapid Learning Cycles front loads learning activities to build the knowledge to make good technical decisions that won't have to be revisited later. The team encounters fewer surprises in late development, where issues soak up time, energy and money as the clock ticks. When they do encounter issues, they have a deeper base of knowledge to draw from as they resolve the problem.

As a result, the product development program manager does not have to deliver nearly as much "bad news" about the state of the product and process design of the worst kind: unexpected technical issues that arise from engineering decisions that are difficult to explain to partners, especially those that lack the technical background to understand them. These issues seem avoidable from the outside, even though the engineers on the inside were making the best decisions they could, given the constraints of their process. Partners hear much more positive news about Knowledge Gaps closed, Key Decisions made and milestones reached with confidence.

Stronger Collaboration During the Program, Increased Confidence After the Program

During the program, early engagement with partners at Learning Cycle and Integration Events increase collaborative decision-making, even if the rest of the organization still believes that the new product will be just as late to market as every other product, with just as many problems. It takes time to restore trust after a track record of missed launch dates.

When the first teams that use the Rapid Learning Cycles Framework deliver products on time, partners begin to feel hopeful that perhaps things are changing. As the framework spreads, partnerships grow and product launches become more predictable, business partners will begin to feel confidence that R & D can deliver on the company's most important strategic objectives. As the value of the organization's knowledge base becomes apparent through extensible knowledge to accelerate product development, business partners will be able to see the folly of taking responsibility for development away from the company's most valuable experts.

When Gene travels to a hotel he's visited before, where he knows the iron and ironing board will be clean and in working order, then he doesn't have to take on responsibility for packing his own - and he has confidence that the hotel will meet his other needs as well. It's a small thing that contributes to a stronger, more mutually-beneficial relationship. 

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- [The Power of Meaningful Progress: How Rapid Learning Cycles Keep Teams Motivated, Creative and Productive](#)
- [From Idea Generation to Final Decision: Divergence and Convergence in the Rapid Learning Cycles Framework](#)



About the Author

Katherine Radeka has a rare combination of business acumen, scientific depth and ability to untangle the organizational knots to remove the barriers to change. Since 2005, Whittier Consulting Group, Inc. has helped some of the world's leading companies get their products to market faster.

She has a global reach with clients in Europe, North and South America, Asia, and Australia/New Zealand. She has worked with companies in pharma, biotech, medical device, high tech, consumer electronics, food and beverage, and consumer packaged goods, among others. She currently supports over 50 implementations of Rapid Learning Cycles through the Rapid Learning Cycles Certified™ Professionals Community.

Katherine is the author of two books. Her first book, *The Mastery of Innovation: A Field Guide to Lean Product Development* won the Shingo Research Award in 2014. This book contains 19 case studies of companies, including Steelcase, Ford, Novo Nordisk and Phillips Electronics, who have used lean ideas in product development to get their ideas to market faster.

Katherine's second book is *The Shortest Distance Between You and Your New Product: How Innovators Use Rapid Learning Cycles to Get Their Best Ideas to Market Faster*. This book summarizes Katherine's ground-breaking work to integrate Agile Development with her work on Knowledge Capitalization into a proven method for accelerating innovation.

Katherine has climbed seven of the tallest peaks in the Cascade Mountains and spent ten days alone on the Pacific Crest Trail until an encounter with a bear convinced her that she needed a change in strategic direction.

