Innovation

Scaling Up Transformational Innovations

by Peter Koen, Ananya Sheth, Mike DiPaola and Linda A. Hill

From the Magazine (November–December 2024)

Andy Price

Summary. For large companies operating in mature sectors—such as Procter & Gamble in consumer goods, Apple in consumer electronics, and Adobe in cloud software—driving growth is a perennial challenge. Growth through acquisition is always an option, but companies often quickly find that the costs outweigh the benefits. According to the authors, the only reliable path to maintaining market leadership is transformational innovation: major changes to products and services that redefine what customers expect by delivering significantly improved performance, providing new kinds of value, resolving long-standing trade-offs, and/or radically reducing manufacturing costs. To understand what makes transformational innovations successful, the authors studied two of them at Procter & Gamble: Oral-B iO, a “smart” electric toothbrush that step-changed the experience of oral hygiene, and Always Infinity, a best-in-class menstrual pad that resolved the long-standing tension between comfort and protection. In this article the authors present a playbook for scaling up transformational innovation, organized around four major challenges: providing sufficient leadership, building

the right team, mobilizing resources and capabilities, and making big-bet decisions.

close

For large companies operating in mature sectors—such as Procter & Gamble in consumer goods, Apple in consumer electronics, and Adobe in cloud software—driving growth is a perennial challenge. Growth through acquisition is always an option, but many companies quickly find that the costs outweigh the benefits.

00:00 / 25:12

Listen to this article

To hear more, download the Noa app

The only reliable path to maintaining market leadership is what is widely known as *transformational innovation*—major changes in products and services that redefine customers' expectations by delivering significantly improved performance, providing new kinds of value, resolving long-standing trade-offs, and/or radically reducing manufacturing costs. Think P&G's Tide Pods laundry detergent, the Apple iPod, and Adobe's subscription software as a service.

But innovation of this type is not only difficult to envision; it is also extremely challenging to develop and scale up. Even companies that invest in R&D on transformational innovations often terminate projects with compelling value propositions during the expansion phase because they are reluctant to commit the necessary resources. Many that invest to scale up big-bet innovation projects do so only to see them fail.

Articles such as "The Ambidextrous Organization" (HBR, April 2004) and "How P&G Tripled Its Innovation Success Rate" (HBR, June 2011) have sketched out a solution to the development challenge: Large companies should separate innovation units from the core business, and senior executives from the core business should maintain strategic synergy with the new units but keep their incentives and cultures separate. Research has shown that such ambidextrous organizations are 90% more effective at achieving transformational innovations than either fully integrated or totally separate organizational structures are. But scaling up within the ambidextrous model has proved difficult. In our work researching and practicing corporate innovation, we repeatedly find that companies struggle to allocate leadership attention, personnel, capital, and other resources between the core business and a transformational effort.

To gain insight into these challenges, we completed a detailed study of two Procter & Gamble transformational innovations: Oral-B iO, a high-performance electric toothbrush that step-changed consumers' brushing habits to enable better oral health, and Always Infinity, a best-in-class menstrual pad that resolved the long-standing tension between comfort and protection. Although very different in nature, both products required investments that were material to the company's overall operations, and both are major successes in mature, highly competitive markets. Both iO and Infinity provided transformational experiences for consumers—supporting premium pricing and enlarging their respective categories.

The two examples represent views of P&G's strategy and innovation practices at different points in time: Always Infinity was launched in 2008, and Oral-B iO in 2020. Procter & Gamble's strategy and practices have evolved since then. Nonetheless, studying how a complex organization persevered to create transformational innovations can be instructive for managers in many industries—and adds to the body of knowledge about innovation practices.

We looked at what worked in the scaling up of these projects—and what did not—from the perspectives of the managers, technology experts, and senior leaders involved in them. We then validated our findings across a range of industries by conducting 40 qualitative interviews with innovation practitioners and senior leaders from a large medical-device manufacturing company, a large integrated petroleum company, and a large manufacturer of construction and mining equipment.

In the following pages we draw on the experiences of Procter & Gamble and other big companies to present a playbook for scaling up transformational innovation. It's organized around four major challenges: *providing sufficient leadership, building the right team, unlocking resources,* and *making big-bet decisions*.

Providing Sufficient Leadership

The leader of a business in which a transformational innovation is taking shape—typically the CEO or a business unit president (we'll refer to this role as the CEO hereafter)—has a formidable responsibility: to manage the current business, which generates significant revenue and needs continual incremental innovation to hit short-term growth targets, while championing the transformational innovation that will lead to future growth, which requires large investments in resources and leadership attention. Unfortunately, many CEOs are biased toward focusing on the current business.

A quick scan of a typical CEO calendar supports this claim: Most of the scheduled time is allocated for managing current business operations and incremental innovations. Activities related to transformational innovations rarely appear except on special occasions, such as "Innovation Day." It doesn't help that CEOs can often meet near-term goals (and secure performance bonuses) by relying on incremental innovations. The result is that they usually have less mind space for the efforts that a transformational innovation requires, from developing an effective leadership team for the project to managing disagreements among stakeholders while encouraging active, open debate.

And although the senior R&D executive in a business unit will often initiate and sponsor transformational innovation projects during the ideation and development phases, our research makes clear that the CEO and the executive must partner closely to successfully drive these projects through the scaling up and launch phases. We have observed that CEOs can carve out time for those efforts in three ways.

Delegate operating decisions. Leaders like making decisions—after all, to some extent it's the ability to do so that won them their roles. Whether they started their careers in marketing, finance, or design, it is human nature to resist delegating decisions in their personal areas of expertise. That behavior is reinforced by another common bias—putting the urgent ahead of the important. Leaders who successfully scale up transformational innovations fight both biases in order to give a project the leadership bandwidth it will demand. A now-retired CEO of P&G's Oral Care business, whose background was in marketing, told us, "If you compared my calendar to those of others in my role, you would find I spent way less time on the marketing. It is probably in some ways the most substantial choice I made."

Articulate a purpose. Changing existing work processes and cultural norms to accommodate transformational innovation is challenging in any large organization in which functional leaders have differing goals and performance scorecards. That creates a great deal of distraction for the CEO. Smart CEOs recognize that much conflict can be avoided by clearly communicating from the start why this innovation is worth it—how it will have an impact on (or make a difference in) consumers' lives. A former leader of P&G's Feminine Care business brought a sense of purpose to the organization: "to create products that women love every day, in every way, and all around the world, both functionally and emotionally." Believing that "there was no other business in P&G where one could transform girls' and women's lives the way one could in Feminine Care," the executive communicated that sense of purpose to the organization in a way that led to its being passionately embraced.

Establish the right cadence for project stakeholder meetings. Once a vision has been communicated, the CEO will need to manage stakeholder alignment by holding regular meetings over the course of the project. For Oral-B iO, project leaders, functional leaders on the executive team (from HR, R&D, finance, design, manufacturing, marketing, and so on), and regional business leaders came together monthly. Those gatherings helped surface and address differences and disagreements quickly. As one P&G senior brand director put it, "Preparing for the regular meetings was a lot of work, but we realized that it took out a lot of subsequent swirl." They also provided a forum where all leaders could voice their concerns and ensure that their needs were considered, which enabled global buy-in for the project. And regional leaders could clearly articulate and publicly commit to their success criteria.

Building the Right Team

A CEO's primary role in a transformational innovation is to partner with the senior R&D executive on the lead team to ensure that the organization gives the project the space and resources it needs to expand. But that does not mean that either person should become the project's leader. Both have many other responsibilities. At the same time, the project team is unlikely to have all the capabilities needed to develop and scale up the innovation by itself, let alone to win buy-in from other parts of the business. R&D's critical role in understanding consumer needs and leading product and technology development has been well documented; its role in transformational innovations is even more critical. To give the team the expertise it needs to scale up a transformational innovation, the CEO should make two key appointments.

The integration leader. This person is the CEO's representative on the project team and is responsible for ensuring that the CEO is aware of progress, obstacles, resource needs, and upcoming decisions across all aspects of the project. Thus a busy CEO can be confident of making informed decisions. The integration leader also serves as a go-between for the project team and other functional and regional stakeholders on issues that don't require the CEO's direct involvement. An integration leader must be able to identify and call out "issues that don't get discussed," such as organizational politics, functional conflicts, and roadblocks that may be difficult to perceive and that only a senior executive can address.

The conceptual photographer Andy Price plays with color and form to create imaginative scenes with everyday objects.

The integration leader is process- and organization-oriented, focused on identifying risks and prioritizing issues for leadership's attention. This person will complement the product owner, who is the champion of the product and the consumer, focused on vision, technology, design, and development and on managing the project team. In a well-functioning transformational innovation program, the two will work closely together. For example, in the Oral-B iO project the product owner was an experienced and technology-focused senior director of

R&D who had personally led work on innovative power-toothbrush designs and technologies for many years. The integration leader, by contrast, had significant experience working directly with the CEO as a program and portfolio manager in various P&G business units but had only limited experience with power toothbrushes. Their respective skills and experiences helped them jointly navigate the iO project through development, expansion, and launch.

The commercial leader. Transformational consumer experiences are often rooted in technological advances. It is tempting (and typical at large companies) to wait for R&D to develop the product and then assign commercial resources later in the program, once expansion is underway—and possibly after the launch has already been announced to retailers, customers, and investors. But that is a recipe for failure, as the well-documented case of Google Glass illustrates. Despite a huge investment in the technology and the product, it was a commercial flop, launched without a clear commercial strategy or understanding of who would want it, how they would use it, and how much they would be willing to pay for it.

To avoid a similar outcome, the CEO should appoint an experienced and fully dedicated commercial leader to the project team. This person's responsibility is to lead early work assessing the commercial readiness of the offering, to ensure that the technical design reflects a deep understanding of consumers' needs, and to develop innovations in consumer communications and the business model that will support and reinforce the technical innovation.

For example, iO's dedicated commercial leader partnered closely with R&D on foundational consumer research early in the project, identifying previously unarticulated emotional and social needs.

That led to chartering three separate projects that shaped the product's design to more fully deliver superior oral-health outcomes for consumers. One notable finding was that although customers appreciated the superior cleaning of Oral-B's previous-generation power brushes, they also wanted minimal vibration and noise, which is technically difficult to achieve. That insight supported the investment of significant capital in upgrading the brush's technology with a linear magnetic drive that R&D had developed. The foundational research also informed the commercial leader's development of a tiered product and pricing strategy designed to grow the category by appealing to both existing power-brush users and current manual-brush users, justifying investments for the magnetic drive and premium design elements. Within its first three years on the market, iO contributed to 70% of its category's growth, with about 30% of its users trading up from a manual brush.

Unlocking Resources

Scaling up transformational innovations requires the whole organization to do substantially more work, typically with no increase in total resources. Two approaches are useful here: leveraging centralized sources of funding and staffing and finding ways to free up resources within the business unit.

Leveraging corporate resources. Both Feminine Care and Oral Care successfully partnered with P&G's corporate R&D and tapped into central sources of innovation funding to supplement the development of Always Infinity and Oral-B iO. Although many large companies have such centralized resources, business units often struggle to access them.

To begin with, significant cultural differences may exist between the business unit and the corporate teams, along with differences in operating practices and reward systems. For example, a corporate innovation organization is usually focused on developing a portfolio of breakthrough technologies or a series of patent filings that have a long time horizon. The business unit, by contrast, is usually tasked with delivering a specific project on a specific schedule in order to hit a specific revenue target. Business unit employees also tend to be skeptical of technologies from "outside," such as those that the corporate R&D group may have developed or recommended.

Andy Price

One approach to addressing this common problem is to have the business unit CEO and the senior R&D executive initiate contact. At P&G decisions about distributing corporate R&D funding and support were made by the chief R&D and innovation officer (who was the chief technology officer). In the Always project the business unit leader and the senior R&D executive reached out to the CTO early on to define Infinity's consumer value proposition. As a result, central R&D experts and funding augmented Feminine Care's resources in the product's development. This partnership enabled the unit to build prototypes and test them with consumers to evaluate their potential for a superior experience—which, in turn, would support premium status and category growth and would build broad stakeholder confidence that P&G should invest to scale up the innovation.

Members of a project team should also reach out to their corporate counterparts, not only for help with the development of new technologies but also, when possible, for help applying existing technologies in product designs. For example, the iO program involved significant replatforming of the electronics system for the brush. Oral Care's senior R&D executive identified a group of experts in electronics and "smart" products in P&G's central R&D organization who were interested in demonstrating the potential of their technologies. The executive then worked with a counterpart in central R&D to design a win-win collaboration, offering iO as a platform for demonstrating the value of the connected technologies and the more-advanced user-experience techniques that were already in the pipeline to delight the consumer and create new opportunities for category growth.

Redistributing workloads. Shifting work internally can be an effective way to free up resources. To ensure sufficient resources for the Oral-B iO project, Oral Care's leaders moved responsibility for much of their incremental work to tech hubs in the manufacturing organization. Because the manufacturing teams were intimately familiar with how the production lines worked, they could efficiently design and execute incremental changes. That staffing decision did add costs to the manufacturing organization and required an adjustment of its performance goals—but the ability to redeploy R&D resources to consumer-focused transformational innovation was deemed worth it.

The tactics just outlined require the encouragement, backing, and intervention of a business unit's leadership. For example, at the monthly meetings for the iO project, the CEO would acknowledge disagreements and tensions, reiterate the vision and opportunity to grow the power-brush category, and personally facilitate problem-solving discussions on how to meet the various needs.

Making Big-Bet Decisions

Decision-making for transformational innovations requires projecting into an uncertain future. Business leaders need to agree on relevant measures that will dictate the decisions to scale up and launch. They must also avoid falling back on an overly cautious approach. A relatively recent HBR article, "Drive Innovation with Better Decision-Making" (November–December 2021), discusses how leaders can make more-effective decisions during the innovation journey. Here we apply those findings to making the big bets associated with transformational innovations.

Focus on forward-looking metrics. When determining performance metrics, innovation leaders obviously need to include conventional lagging indicators such as sales, market share, and ROI. But for transformational innovations they must also consider leading indicators, such as changing demographics and consumer attitudes. Although these indicators are often difficult to estimate precisely, they are more likely to suggest an innovative product's ability to capitalize on consumer and market trends—such as the growth of e-retail, mass customization and personalization, and increasing awareness of environmental and social sustainability.

During the scaling up of a transformational innovation, lagging and leading data may conflict, complicating decision-making. An example is the decision to scale up the Infinity project. To do so, Feminine Care needed to develop, build, and operate then new-to-the-world manufacturing facilities. But traditional operating and capital cost projections in a quantitative financial model could not fully capture the uncertainties of making a transformational product. And managers could not easily project demand for a superior consumer experience that would be offered at a premium price.

Therefore they tested a series of hand-assembled menstrual-pad prototypes with consumers, which elicited an extraordinarily positive response: Some consumers claimed they would pay twice as much as they paid for the product they currently used. That validation of a superior experience gave Feminine Care's leaders confidence in the product's readiness for the market. It also helped after the product launch, when the fledgling manufacturing process struggled to deliver the product reliably. The incoming business unit leader considered writing off the entire project but decided to persevere, primarily because of the compelling consumer evidence.

It is critical that the entire organization be aligned on the plan to gather data and the decision criteria—what tests will be conducted and how much indicative data is required for the project to move forward. With Oral-B iO, the CEO and his multifunctional leadership team worked together to design and agree on the success criteria for two consumer tests to gauge purchase intent. Favorable results from those tests enabled the team to commit to the project without a protracted debate over whether the dataset was sufficient or more testing was necessary.

Know when to be bold. To scale up and launch a transformational innovation typically requires significant at-risk investments: in new manufacturing equipment, in R&D and engineering, with value chain partners, and in marketing. Yet all the common methods of financial analysis are systematically biased against high-risk innovation. Thus a CEO's conviction is crucial. At P&G Feminine Care the business leader at the time was convinced that women and girls were making far too many behavioral trade-offs to use the menstrual products available and that P&G as the category leader had to bring a radical change in performance to the consumer. As that executive put it: “My belief at the time was that if we did not move into this type of transformational innovation and gain another 10, 15, or 20 years of product superiority versus our competition, we would eventually have a dying business or a slightly incremental one, which would never deliver on its needs—not just for the company financially but for consumers for a long time.”

. . .

Our research and experience show—not surprisingly—the critical role of senior leaders, both commercial and R&D, in transformational innovation projects across industries. In successful cases they recognize the need to champion such projects from start to finish—from making the big bet to pursue an innovation until the product or service is launched and commercialized. Too often leaders start the process but disengage when implementation begins. Thus they don’t keep their stakeholders aligned by reiterating the “why” of the effort and by working through the inevitable risks and trade-offs as decisions are made to scale up a project. By following the steps we have outlined, leaders can increase the likelihood that their organizations will achieve transformational innovations and delight their customers.

Editor’s note: Some of the research described in this article was funded by P&G.

A version of this article appeared in the November–December 2024 issue of *Harvard Business Review.*

PK

Peter Koen is an associate professor at the School of Business at the Stevens Institute of Technology.

AS

Ananya Sheth is an assistant professor at California Polytechnic State University's Orfalea College of Business.

MD

Mike DiPaola is an R&D director at Procter & Gamble.

Linda A. Hill is the Wallace Brett Donham Professor of Business Administration and faculty chair of the Leadership Initiative at Harvard Business School, the author of *Becoming a Manager*, and a coauthor of *Being the Boss* and *Collective Genius*.

Read more on **Innovation** or related topics **Design thinking**, **Customer-centricity**, **Teams**, **Decision making and problem solving**, **Leadership**, **Organizational change** and **Change management**