

# HURDLING OVER INNOVATION'S 'VALLEY OF DEATH'

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# FOUR EXAMPLES THAT SHOW HOW TO MAXIMIZE THE IMPACT OF YOUR INNOVATION BUDGET

To keep pace with agile, innovative, and disruptive startups, many large companies have formed specialized units to seek out and implement new ideas. According to a recent report by Oliver Wyman and IESE Business School, 70 percent of firms said they were increasing investment in their innovation units, 60 percent of which were created in the past five years. Why, then, should most companies start thinking about replacing or restructuring their approach to innovation?

First, innovation units typically don't add much value. The same Oliver Wyman and the IESE Business School report found that despite increased investment in innovation, only 23 percent of companies said they had delivered a significant innovation—defined as one that accounts for more than 10 percent of the business's revenue. Another recent study of 34 German innovation hubs found that only half sustainably developed innovations and new products. Another study analyzed the relationship between R&D spending and financial performance over a dozen years. It couldn't find one.

Second, even the best innovation units tend over time to drift out of sync with corporate strategy or fail to leverage new assets the company has developed. A company whose innovation unit focuses on discovering new ideas may realize that generating ideas is less of a problem than implementing them. Moreover, a unit designed to promote intrapreneurship may unconsciously ignore external innovation. In short, a company's innovation ecosystem requires as much ongoing innovation as the rest of the business.

Despite the barriers to success, the good news is that global businesses in recent years have produced a stunning array of models to accelerate innovation. There is no single path to success, but a range of approaches that mesh with a given company's particular needs, strengths, and culture. Here we present four mini cases of successful corporate innovation units.



## WALMART: BUY AND BUILD

In the early 2010s, Walmart lagged far behind some of its e-commerce competitors. To catch up, in 2011 the retailer purchased Kosmix, a 60-person Silicon Valley startup. Kosmix, which focused on the interaction of search and social media, was founded by a team whose previous startup was bought out by (and contributed several key elements to) Amazon.

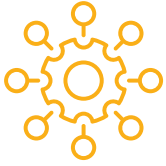
To protect the new acquisition from its corporate bureaucracy, Walmart maintained Kosmix as a wholly owned subsidiary in Silicon Valley. This new Walmart Lab quickly delivered. In nine months, it created an innovative search engine that made use of semantic technology to discern the intent behind consumers' searches. The new tool reportedly drove a 20 percent increase in Walmart's online sales.

Lately, Walmart Labs has been aggressively acquiring startups—14 in the last three years—

and expanding its purview to include merchant technology (online and in-store search, pricing, catalog, content, inventory, replenishment, and fulfillment), analytics, supply-chain technology, strategy, and cloud technology.

### WHY IT WORKS

The acquisition of a technology company is not just a matter of picking up a few patents and some domain knowledge. The most valuable startups know how to move fast and pivot as needed to a new model (as Walmart asked Kosmix to do). The most valuable part of the acquisition is often the presence of the founders, which was very much the case with the Kosmix acquisition. Managed correctly, an acquisition that is removed from the existing corporate culture is a good way to let the innovation unit develop its own culture and move at a faster pace.



## JPMORGAN CHASE: PHILANTHROPIC INNOVATION

Many companies take a rigorous approach to building innovation units to create new products or processes. JPMorgan Chase brought that same approach to one of its philanthropic initiatives. Partnering with the Center for Financial Services Innovation, JPMorgan Chase helped create the Financial Solutions Lab—a five-year, \$30 million program to develop products for the 50 percent of American consumers who struggle with their finances.

The program conducts an annual competition (FinLab) to identify innovative companies. The winners receive \$250,000 and access to JPMorgan Chase and an array of partner companies. Input from JPMorgan Chase has proved especially valuable, because relatively affluent entrepreneurs have little idea of the day-to-day challenges poorer Americans face in conducting relatively simple transactions—sending money to a relative, cashing a check, or checking a balance in a SNAP account.

The Financial Solutions Lab estimates that as of late 2017, the 18 organizations it has supported have served a million Americans—10 times as many as they served previously. Digit, a member of the first class of FinLab winners, has developed an app that helps clients save by looking at their expenses, estimating what it is safe for them to save, and automatically transferring that amount to their account. The company says it has helped clients save more than half a billion dollars. The nonprofit EARN, part of FinLab’s second class, offers a six-month

savings program that includes coaching and financial incentives to save. It estimates that 83 percent of its low-income clients develop a habit of savings, putting away an average of \$558 over the length of the program.

### WHY IT WORKS

JPMorgan Chase thought hard about impact in designing its program—impact on low-income Americans, impact on the companies it mentored, and impact on the market. Its understanding of how to multiply the effect of each dollar supports each phase of the program. Coaching and strategic support make the companies better able to help consumers—and that success draws outside investment. (Financial Solutions Lab companies have raised more than \$100 million since the program began.) JPMorgan Chase’s involvement, and its path to market, helps de-risk a category that might otherwise look like an unattractive investment.

“The lab works with specific kinds of companies, at a specific stage, and in a specific way,” wrote CSFI’s Ryan Falvey and JPMorgan Chase’s Colleen Briggs in the Stanford Social Innovation Review. “That sometimes means saying no to great ideas, great entrepreneurs, and seemingly unique opportunities to expand our scope, mission, and reach. But by remaining disciplined, we can help the firms that will benefit most from our resources, network, and position.”



## DAIMLER: MATCHING INTERNAL INNOVATORS WITH OUTSIDE RESOURCES

Daimler created its Lab1886 in 2017 by transforming an earlier innovation initiative into a unit that would encourage and enable internal innovators to quickly implement ideas. The unit has been responsible for many of the auto manufacturer's key new business models, including the car-sharing company Car2Go (which has 2.5 million customers globally), Moovel (which allows users to coordinate, book, and pay for multi-modal urban trips), and the Mercedes-Benz energy-storage system (which gives batteries from electric cars a "second life" in energy-storage facilities).

The unit conducts a competition, which includes a crowd-sourced round and a "shark-tank" review, to unearth new ideas. The best ideas are fast-tracked, often with the help of outside resources, provided by the lab's outposts in Beijing and Silicon Valley. "We work with independent companies worldwide," Daimler's head of innovation, Susanne Hahn, told [AutomotiveIT.com](#). "In the end, we want

to capitalize on external inputs and collaborate in the right areas. The goal behind the strategy is clear: We want to execute ideas on an accelerated basis and put innovations on the road even more quickly than we have." To date, 25 ideas have been approved and budgeted, ranging from a phone-based, augmented-reality, operating guide to a flying electric taxi.

### WHY IT WORKS

Daimler prides itself as one of the most innovative auto companies, and it wants to maintain that culture of innovation. Lab 1886's process to generate ideas provides an obvious focus for internal entrepreneurs and sends a powerful message about employees' creativity and empowerment. The lab itself functions as an incubator for the best ideas, providing funding, expertise in development and business models, and connections to outside companies traveling a similar path.



## XEROX AND PARC: SPINNING OFF “OPEN” INNOVATION

Perhaps the most famous of all innovation units, Xerox’s Palo Alto Research Center (PARC), offers a cautionary tale about matching the needs of the parent company and an ambitious idea lab. It also exemplifies how large companies have changed their approach to R&D.

Founded in 1970 as a division of Xerox, PARC in its early years produced a stunning series of crucial breakthroughs—the computer graphic user interface, laser printing, object-oriented printing, and the personal computer itself. Most of these technological breakthroughs, however, did not benefit Xerox. While PARC was mapping the future in Silicon Valley, its Connecticut-based parent was locked into the copier (Xerox) business. This was not all bad. Futurist Chunka Mui points out that Xerox invested roughly \$43 million in PARC’s output from the 70s. But from one of PARC’s innovations most central to its business model—laser printing—Xerox generated at least \$100 billion in revenue, a great return.

In 2001, Xerox took a step that preserved its access to the output of PARC while relieving it of the costs of developing innovations it couldn’t (or wouldn’t) use. It spun PARC off as a separate company. The new company

continues to serve Xerox, which provides about half of its revenue, but PARC works with other clients as well. PARC is highly regarded for its understanding of both business models and technology, and it has a reputation for working closely with its customers. Recent projects include an AI-based system for diagnosing skin-care needs for Olay and a technology that uses AI and machine learning to improve railroad maintenance for the East Japan Railway Company.

### WHY IT WORKS

Innovation units need to strike a delicate balance. Let them explore freely, and it may be difficult to link discoveries and inventions to the parent company’s business needs and strategy. Rein them in too tightly and they may fail to capture the future—which is their most important use. Xerox may not have maximized the full potential of PARC inventions, but the laser printer was a blockbuster. Nor has Xerox expended much management oversight or investment relative to returns. For its part, PARC has survived as a corporate R & D lab for nearly 50 years because it been given a long and independent leash at a geographic remove—initially from Xerox and now from other clients as well.



# GET MORE VALUE OUT OF YOUR INNOVATION BUDGET

For most companies, the question is not whether to build (or rebuild) an innovation unit, but rather how to avoid the financial costs and increasingly dangerous opportunity costs of a failed innovation ecosystem.

Successful innovation is complex. No model universally succeeds, and no model always fails. Context, fit, execution, and the human element each play a crucial role—but they make it difficult to emulate a successful program and apply its lessons to an inevitably different situation.

Even defining success can be tricky. Should an innovation unit be measured in terms of new revenue, the number of patents filed for, or products brought to market? How should companies rate innovations that primarily improve the customer journey?

The examples presented here suggest just a few models for success. Indeed, we have come to believe that it's best to approach the building of such a unit without a clear idea of what form it will take. An off-the-rack design for an innovation unit is likely to fail. But the successes outlined here do point to two common themes. One, a standalone unit, ideally geographically removed from headquarters, allows a more agile and competitive innovation culture to develop. Two, developing a broader innovation ecosystem with linkages to external resources and talent speeds innovation, culls out losing propositions, and develops a path to market.





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