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## Failing Forward Quickly with a Learning Plan

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Breakthrough innovation takes an organization out of its familiar comfort zone into a realm of uncertainty. Unlike incremental innovations into existing product domains and markets, where the behavior of technology and customers is well understood, breakthrough innovations entail using new technologies, selling to new kinds of customers, or both. In each such project, there are many questions about whether and how the project can proceed successfully. If any of these questions has a negative answer, the project can't succeed, and there's a real value to seeking the answers in a particular order to avoid putting time and money into a doomed project.

A [Learning Plan](#) aligned to the innovation's business strategy identifies the pivot points in your innovation project, places at which you may need to change course based on what the real world has told you. The Learning Plan consists of a series of proof points in a time sequence that puts the greatest sources of risk first: this lets you de-risk the project as cheaply as possible by finding out early on which pitfalls you can and can't clear. Each proof point is something that must be true for the project to meet its objectives. If you fall short at any proof point—or if you uncover much higher upside—you can pivot as planned to an alternative, or (if there's no viable alternative left) cancel the project outright and avoid further costs. The pivot points create options you can exercise at each step in the incubation to achieve the best outcome available.

Here is an [example](#) from an HP project to create a consumer photo print kiosk. With HP's vast expertise in digital printing, it seemed a natural fit to offer consumers a self-serve option to print their digital photos. Initially, HP focused on the technical challenges, the familiar and relatively easy work to create a proof-of-concept prototype. They planned to put off the harder questions of whether consumers would actually use these kiosks, and whether channel partners would want to be part of this business. Their initial plan looked like the Execution Plan below: it is a typical execution plan, focused on achieving milestones to create a sense of progress.

	Probability	Investment
<b>Product Development Phase</b>	47%	\$10 M
Performance	95%	
Reliability	90%	
Channel partner trials	55%	
<b>Scale-Up Phase</b>	8%	\$2 M
Ease of use	25%	
Business model validated	35%	
Channel partner commitment	90%	
<b>Totals</b>	4%	\$12 M
(Development adjusted)		\$10.9 M

### Execution Plan: getting the work done

The execution plan asked for a \$10 million investment with a 47% chance of success of completing the prototype trials, to be followed by a \$2 million investment with an 8% chance of success in getting to market. The overall probability of success of the project was 4%, and the plan had a probability-weighted cost of \$10.9 million (with a minimum spend of \$10 million).



*...as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns — the ones we don't know we don't know.*

— Donald Rumsfeld

We were able to show HP there was a better plan—a Learning Plan—that was focused on buying proof at each proof point and would help them get to these make-or-break decisions more cheaply. By reordering the tasks to put the most difficult ones first, if the project ran into its most likely failure modes, that would happen with much less money spent. Moreover, if the project survived the business validation phase, the probability of ultimate success would rise substantially.

	Probability	Investment
<b>Business Validation Phase</b>	5%	\$2 M
Ease of use	25%	
Business model validated	35%	
Channel partner trials	55%	
<b>Scale-Up Phase</b>	77%	\$10 M
Performance	95%	
Reliability	90%	
Channel partner commitment	90%	
<b>Totals</b>	4%	\$12 M
(Development adjusted)		\$2.5 M

#### Learning Plan: buying proof, with the biggest challenges

This shows how rigorous decision quality turns an idea into an investment-grade innovation proposal. This Learning Plan tells management, “all we need to begin is \$2 million to explore the first proof point, with a 5% chance of success. If that does succeed, we then will have a 77% chance of succeeding through the next proof point, and will ask for a further investment of \$10 million to explore the second proof point and go to market.”

An aligned Learning Plan helps to deal with two other major areas of innovation uncertainty: organizational and resources. Innovation can induce panic, because it takes the organization into new and uncharted territory. In response, innovators sometimes tell the rest of the organization, “Trust us and fund us, and we’ll deliver a breakthrough innovation.” Sometimes they don’t tell the organization anything, and try to fly under the radar, hoping to complete their work before management

finds out what they’re doing and stops it. With a Learning Plan, innovators can present the organization with a concise proposal that shows efficient use of funding and realistic expectations. That helps them to calm the panic and gain the commitment of the organization to fund the proposed work and let them carry it out to completion.

	Execution Plan	Learning Plan
Focused on	Delivery	Proof
Goals	Build momentum	Create and exercise options
Time orientation	Next steps	Work backward from goal
Comfort	Within comfort zone	Out of comfort zone
Mood	Confidence-building	Panic-inducing

#### Comparing the Execution Plan to the Learning Plan

Learning Plans are a way to manage the cost and risk of breakthrough innovation efforts without stifling them under project management methods and financial business case requirements that are unsuited to projects with multiple significant uncertainties. They make more [breakthrough innovations](#) possible.

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