

**AN EXECUTIVE BRIEFING ON BREAKTHROUGH INNOVATION:
For CEOs, presidents, and general managers**

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Helping mature companies survive and thrive in a volatile, complex, and increasingly ambiguous world

“If you have a proper understanding of what is required for Breakthrough Innovation success and commit to it, while not without risk and hard work, it’s the closest thing you’ll find to legally printing money.

If you personally do not either acquire sufficient, executive-level insight or commit sufficiently, you are just wasting your time and resources by pursuing it.”

Executive summary

One of just a handful of options available to executive leadership when their company or its products reach life cycle maturity, Breakthrough Innovation is the proven path of renewal, the opportunity to survive and thrive in a significant way. Yet, Breakthrough Innovation is only half of the innovation equation. A complete portfolio includes investment in both Incremental Innovation (which optimizes within the existing paradigm) and Breakthrough Innovation (which changes the paradigm within which competition occurs). When implemented effectively, Incremental and Breakthrough Innovation work together to enable the company to both survive in the near term and thrive over time.

Having decided to invest in Breakthrough Innovation, executive leadership must develop sufficient insight to do so wisely. Unfortunately, the most commonly held views on innovation, that it is either random or recipe, are flawed at their core and do not deliver on the promise of renewal. Instead, Breakthrough Innovation is the very human act of discovery – an act requiring a company to acquire and establish new perspectives, insights, cultural values, and business practices in order to achieve and sustain it. Only those who hold such a perspective possess the potential to succeed at Breakthrough Innovation.

Finally, having understood the way of Breakthrough Innovation success, executive leadership must commit sufficiently to ensure that success. While such commitment comes in many, varied forms, it includes but is not limited to hiring the right people, providing them with resources and time, and sustaining an innovation-friendly culture. It also requires resisting the temptation to pull these resources onto the problem of the day to extend maturity, a problem that all too often dilutes and renders useless what originally was intended as investment intended to renew the company.

While such insight and investment is rare, those who rise to these expectations and challenges serve all, successfully leading their organization beyond everyone's dreams.

1.0 Are you at a fork in the road?

When a company (its products, processes, or business model) reaches life cycle maturity (see Figure 1 below), executive leadership must choose from a handful of options:

- Manage an orderly decline and exit;
- Grind out an extended, marginally-profitable maturity by refreshing your product portfolio with a series of incremental improvements over time; or
- Renew your company by re-defining its products, processes, or business model in fresh, compelling ways and thrive.

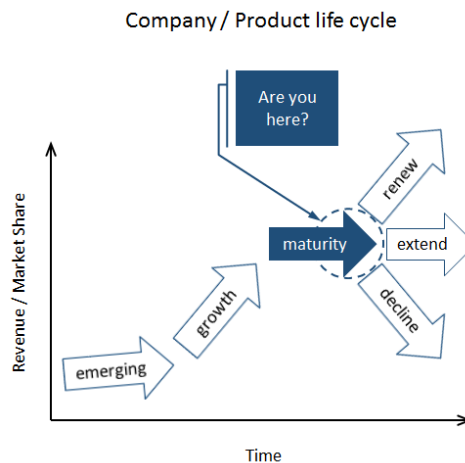


Figure 1: Company and Product life cycle options at maturity

Navigate this fork in the road well, and your company succeeds beyond everyone's dreams.

2.0 Renewal is achieved by means of Breakthrough Innovation

Renewal is characterized by a new product, process, or business model that both is entirely unanticipated and has significant, ongoing impact in the marketplace.

Think Apple and its relentless progression of paradigm-breaking new product concepts (see Figure 2 below). Think P&G and its portfolio of "billion dollar brands," some of which, such as Olay, were near extinction before their renewal. Think Toyota and the Prius, followed by Toyota's hybrid electric technology being launched across its entire fleet of product offerings. Think Uber implementing a business model that eliminates the need for a huge investment in a physical inventory of cars, instead making use of those belonging to others. Think of the many, varied product concept changes you may already have observed in your lifetime (see Table 1 below). Think of the countless small- to mid-sized companies that, while less well-known, have survived and thrived by renewing their product offerings.



Figure 2: Apple’s share price as it repeatedly renewed itself

Product concept	1965 products	2015 products
Personal music	LP record, pocket radio	iTunes on iPod, iPhone
Portable computation	Slide rule	Laptop, smartphone
Voice communication	Wireline telephone	Cell phone
Digital news	Teletype	Twitter
Computer memory	Paper punch card	Memory stick
Map	Paper	GPS, Google Earth
Diaper	Cloth	Paper disposable
Reading material	Book, news paper	eReader, iPad
General information	Print encyclopedia	Wikipedia

Table 1: Many product concepts have been renewed, some repeatedly

Breakthrough Innovation is the means of achieving renewal. It occurs in an environment characterized by volatility, complexity, and ambiguity. Yet, it yields high-profit, long-duration business success. Breakthrough Innovation delights customers, returns sizeable and sustainable financial returns to investors, stuns competitors, and allows companies that successfully practice it to survive and thrive. If it were easy, someone else already would have done it.

Breakthrough Innovation changes the paradigm within which competition occurs.

When implemented effectively, Breakthrough Innovation significantly impacts a company’s financial performance. Not merely prolonging stagnant sales revenue and propping up declining margins as is possible through Incremental Innovation as it extends maturity, Breakthrough Innovation that leads to renewal resets the cycle.

The company that succeeds with Breakthrough Innovation realizes competitive advantage, and returns to revenue growth and / or healthy margins, with such financial performance available over a much longer time frame than what is possible by merely extending maturity.

3.0 Maturity is extended by means of Incremental Innovation

Extending maturity, in contrast, is characterized by optimizing within the existing paradigm, resulting in a more moderate and shorter-lived impact in the marketplace.

Think implementing lean manufacturing, Six-Sigma quality, and Supply Chain management to realize new efficiencies. Think expanding geographically or into new-to-company segments to realize the benefits of new market entry. Think implementing New Product and Process Development and Stage-Gate™ processes and changing features (such as adding whiteners and scents to laundry detergent at one end of the spectrum, and removing dyes and perfumes at the other) to existing products to realize incremental innovation.

The expertise required for optimization typically is already established during the growth phase and, thus, found in most companies. Deploying it to extend maturity, then, is simply a matter of prioritization based on anticipated financial return. Optimization is, however, insufficient to renew or to sustain anything but near-commodity or commodity profitability in the long run.

Incremental Innovation is the means of extending maturity. It is a relatively low-risk activity that yields low- to modest-profit, short-duration business success. It must be pursued continuously and variously to extend maturity.

Incremental Innovation optimizes within the paradigm within which competition occurs.

When implemented effectively, Incremental Innovation ensures that the company survives to fight another day. While not resetting the cycle of competition as Breakthrough Innovation does, it repeatedly props up declining margins and provides brief periods of revenue gain, both of which provide real, though not sustained value to the company

4.0 Incremental and Breakthrough Innovation must co-exist

The Breakthrough Innovation necessary to renew your company is best pursued in combination with the Incremental Innovation necessary to extend maturity. The two paths are complementary, with extending maturity (realized through Incremental Innovation) representing the pursuit of survival in the near term and renewal (realized through Breakthrough Innovation) representing the pursuit of a thriving future.

Figure 3 summarizes graphically how Incremental and Breakthrough Innovation must co-exist for company success. Either one without the other leaves the company vulnerable to competitive threat.

Yet, as I will address again later, such co-existence is challenging to maintain since the “problem of the day” of Incremental Innovation tends to pull resources from a company’s investment in Breakthrough Innovation.

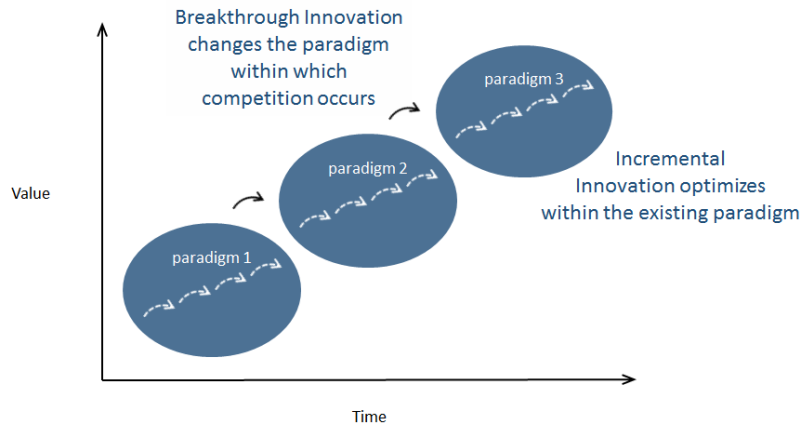


Figure 3: Renewal is accomplished through Breakthrough Innovation, while maturity is extended through Incremental Innovation

5.0 The way of Breakthrough Innovation success

In spite of the many examples presented above, the pursuit of renewal through Breakthrough Innovation often is justifiably called into question by executive leadership. For every success story, there are tales of wasted investment and dashed hopes.

What differentiates those companies that succeed from those that fail? What can be done to greatly improve your company's chances for a successful outcome?

The unmistakable pattern is that successful Breakthrough Innovation capabilities are built upon an accurate premise about the underlying nature of innovation, while unsuccessful attempts at Breakthrough Innovation are flawed at their core.

Some see Breakthrough Innovation as random, a rolling of the dice without insight or as the purchase of a lottery ticket with one-in-a-million odds of success. Others see Breakthrough Innovation as a recipe, a highly-managed, formulaic process.

Breakthrough Innovation suffers in many companies because the tactics employed to implement Breakthrough Innovation depend entirely on the fact that one or the other of these (often unarticulated and not well-understood) perspectives is shared within the company, especially among senior executive leadership.

Failed Breakthrough Innovation investments typically ignore the reality that Breakthrough Innovation is neither random nor recipe, but instead is characterized by an entirely-different, third way.

Breakthrough Innovation is the very human act of discovery – an act requiring a company to acquire and establish new perspectives, insights, cultural values, and business practices in order to achieve and sustain it.

And to drive this point home, my colleague Ray Price and I once conservatively estimated that 0.25% of the then-current technical staff of a large, mature company accounted for well over 20% of the company's annual revenue or its equivalent in cost reductions at the time. ***That is, each one of this***

handful of exemplary, proven Serial Innovators contributed 125 times the average of the rest of the technical staff employed by that company.

Only with the right perspectives, insights, values, and practices – along with a fair amount of hard work – does Breakthrough Innovation successfully fulfill its significant financial promise. And it does so with a much more modest investment than most expect, since proven Serial Innovators deliver so much more powerfully than the average, yet still highly-skilled other employees in a company.

“As I listen to senior business executives share their perspectives on Breakthrough Innovation, I often discern a pattern of thought associated with one or the other of two conflicting views, that Breakthrough Innovation is either random or a recipe.

My message to them is simple:

- *Do not despair; Breakthrough Innovation is not random.*
 - *Do not presume; Breakthrough Innovation is not a recipe.*
 - *Instead, successful Breakthrough Innovation is the very human act of discovery – an act requiring you and your company to acquire and establish unique and important perspectives, insights, cultural values, and business practices in order to achieve and sustain it.”*
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6.0 Your critical role in ensuring Breakthrough Innovation success

So, once you understand and accept both the value of and what is necessary for Breakthrough Innovation success, what is required of you in your senior executive leadership role to fulfill your responsibilities relative to Breakthrough Innovation?

Commitment.

A commitment in which you accept uncertainty while expecting serendipity.

And such a commitment comes in many, varied forms.

It involves commitment to hiring the right people (proven and aspiring Serial Innovators, and those who can effectively manage them), as well as commitment to providing them with sufficient financial and other resources, including time, necessary to discover opportunities for Breakthrough Innovation.

It involves commitment to an innovation-friendly culture. This is not to say that innovation is to dominate your company’s culture. It does imply that you must not let your company culture inappropriately drive out aspiring or proven Serial Innovators.

It requires all to resist the temptation to pull these resources onto the problem of the day to extend maturity. Or at least do so in a measured, insightful, disciplined way.

It requires a commitment to challenge each Breakthrough Innovation proposal in a manner no less nor more than how the market and competition would challenge them.

It may require a commitment to revisiting and revising incentives – especially finding the right mix of incentives for those in operations who appropriately and relentlessly focus on the bottom line.

Financial and cultural. Investment and leadership. It is a sustained, real commitment, not merely “lip service” for investors or as a fad.

Some desire no such commitment, seeking instead to be a fast follower in response to competitor success at Breakthrough Innovation. Unfortunately, I have never observed this to be the viable option that it is for Incremental Innovation. A successful competitor’s unanticipated actions can be so powerful that they leave fast followers reeling, without the possibility to respond in a sufficiently timely manner.

While it should go without saying, some try to get by on marginal commitment, investing less than what provides critical mass for Breakthrough Innovation success. In such instances, the likelihood of success is so diminished that the potential return is not worth even the minimal funds and attention invested. At some point it becomes more of a management distraction than an investment.

So, insufficiently committing to, or even ignoring Breakthrough Innovation may “look good” on your company’s bottom line for a period of time. Your near-term profit will not be impacted by early investment in Breakthrough Innovation. Yet, over time will you bear the risk of being blind-sided by a competitor or for missing a significant opportunity for growth and / or margins. While I understand and appreciate your need to balance this priority against the tyranny of today’s business, for your and your company’s sake I encourage you to commit sufficiently to Breakthrough Innovation.

In closing

If you rise to these expectations and challenges, you will have served all. You will have played a key role in bringing important new products to customers or in reframing your company’s business model. You will have fulfilled the most challenging investor expectations, both near term and long term. You will have provided the environment in which your employees have the opportunity to succeed and experience fulfilling careers. You will be known and remembered as being a wise and efficient steward of what has been entrusted to you.

My hope is that you and your company will succeed. That you will take up the challenge, leading your organization in a manner not often witnessed.



Breakthrough Innovation Advisors, LLC was founded by **Bruce Vojak** to help companies survive and thrive in a volatile, complex and increasingly ambiguous world. As a leading authority on Breakthrough Innovation, Bruce brings a unique and powerful combination of deep and broad expertise, as well as a rich network of other experts, to guide his clients in harnessing its benefits.

Spanning a career at the intersection of business and technology, Bruce has experienced and explored Breakthrough Innovation purposefully and variously. Having first established himself as a successful technology executive in industry, he understands first-hand the business need for and benefits of Breakthrough Innovation. Having later transitioned to academia, he followed his passion by conducting groundbreaking research on the practice of Breakthrough Innovation across a wide cross-section of mature companies and industries.

Bruce is co-author of [Serial Innovators: How Individuals Create and Deliver Breakthrough Innovations in Mature Firms](#) (Palo Alto: Stanford University Press, 2012) and five book chapters on innovation. He serves on the Board of Directors of Midtronics, Inc. and the Advisory Board of JVA Partners, periodically consults on the topic of innovation for Procter & Gamble, and regularly presents to, leads workshops for, and advises various other companies.

Prior to founding Breakthrough Innovation Advisors Bruce served as Associate Dean and Adjunct Professor in the top-ranked College of Engineering at the University of Illinois at Urbana-Champaign. Earlier in his career he was Director of Advanced Technology for Motorola's non-semiconductor components business, held research and business development positions of increasing responsibility at Amoco Corporation, and was on the research staff at MIT Lincoln Laboratory. He holds BS (with Highest Honors), MS and PhD degrees in Electrical Engineering from the University of Illinois at Urbana-Champaign and an MBA, with concentrations in finance and marketing, from the University of Chicago's Booth School of Business.