



PROPELLING INNOVATION

Friday, December 12, 2016

RICHARD SAAD

HEC Matricule: 11061168

McGill Matricule: 260704546

EMBA | McGill –HEC

Table of Contents

1	Introduction	5
1.1	The Question.....	5
1.2	The Goal	5
1.3	The Methodology	5
1.4	The Structure.....	6
2	UNDERSTAND THE CONTEXT THROUGH THE STRATEGY	6
2.1	What is Innovation?.....	6
2.1.1	<i>The Trend</i>	6
2.1.2	<i>The Process</i>	7
2.1.3	<i>The Formula</i>	8
2.1.4	<i>The Blind Spot</i>	8
2.1.5	<i>The Survey</i>	9
2.1.6	<i>The Context</i>	9
2.2	Why Innovate?	10
2.2.1	<i>The VUCA Pressure</i>	10
2.2.2	<i>The Competitive Advantage</i>	10
2.2.3	<i>The Sustainable Edge</i>	11
2.3	How to Innovate?.....	11
2.3.1	<i>The Three-Horizons Concept</i>	11
2.4	When to Innovate?	16
2.4.1	<i>The Life Cycle</i>	16
2.4.2	<i>The Reactive Innovation</i>	17
2.4.3	<i>The Proactive Innovation</i>	17
3	DISCOVER THE CONCEPTS THROUGH THE LITERATURE REVIEW	18
3.1	External Innovation (What is Corporate Venture Capital?).....	18
3.1.1	<i>The History</i>	18

3.1.2	<i>The Statistics</i>	19
3.1.3	<i>The Value</i>	20
3.1.4	<i>The Two Dimensions</i>	20
3.1.5	<i>The Four Types of Investments</i>	21
3.1.6	<i>The Search and Integration</i>	24
3.1.7	<i>The Process</i>	26
3.2	Internal Innovation (What is IV?).....	29
3.2.1	<i>The History</i>	29
3.2.2	<i>The Two Dimensions</i>	29
3.2.3	<i>The Four Types</i>	31
3.2.4	<i>The Creation and Integration</i>	32
3.2.5	<i>The Process</i>	35
3.3	Joint Venturing (What is JV?)	40
3.3.1	<i>The Two Dimensions</i>	40
3.3.2	<i>The Creation and Integration</i>	41
4	LIVE THE INNOVATION REALITY THROUGH THE CASES STUDIES	42
4.1	The IBM Case Study	42
4.2	The GE Case Study	45
4.3	The Alphabet Case Study.....	47
4.3.1	<i>Commitment to Research</i>	47
4.3.2	<i>Innovating from the Bottom up</i>	48
4.3.3	<i>Incubators</i>	48
4.3.4	<i>A Tight Feedback Loop</i>	48
4.4	The Joint Venture Outside-In Program of AT&T	50
4.5	The Joint Venture Inside-Out Program of PayPal.....	51
5	LEARN FROM THE EXPERTS THROUGH THE FIELD STUDIES	51
6	COMPARE THE STRATEGIES THROUGH THE ANALYSIS	55
6.1	The Three Main Strategies.....	55
6.2	The Evolution of Business Incubation vs CVC.....	58
6.3	The Evolution of Accelerators and Incubators	58

6.4	The Timeframe	59
6.5	The Context	59
6.6	The Industry	60
6.7	The Types of Mode	63
7	Conclusion.....	64
7.1	The GROW Framework.....	64
7.2	My Top Five Learning:.....	65
7.2.1	Corporate Venture.....	65
7.2.2	Internal Venture.....	65
7.2.3	Joint Venture.....	66
7.2.4	The Organization's Context and DNA.....	66
7.2.5	The Type of Industry and Business.....	67
7.3	My Final Thoughts.....	67
8	APPENDIX GE, GV, LABS, CVC.....	71
9	APPENDIX INTERVIEWS	77
9.1	Interview with Ph.D. Cassin R., Senior Business Strategist.....	77
9.2	Interview with Ph.D. Oliver T, Senior Business Strategist.....	78
9.3	Interview with David D., Serial Entrepreneur	79
9.4	Interview with Jordan T., Senior Venture Capitalist	79
9.5	Interview with Steve T., Senior Venture Capitalist.....	81
9.6	Interview with Sean V., Senior Venture Capitalist	81
9.7	Interview with Thomas D., Director of a Corporate Innovation Lab in the Media Sector 83	
9.8	Interview with Francois R., Director of a Corporate Innovation Lab in the Manufacturing Sector	84
9.9	Interview with Caroline R., Director of Innovation in the Media Sector	85
9.10	Interview with Michael A. Senior Corporate Strategist.....	86
9.11	Interview with David Menard, the Product owner at a major software/It corporation 88	

1 Introduction

“Velleity” is one word that sums up the main reasons why many organizations fail; the marketer Matt Bailey describes it as “a desire to see something done, but not enough desire to make it happen.” This fear of failure causes the decline and the collapse of these companies that are too scared to take the Innovation leap and challenge the status quo.

"What got us here, won't get you there." Marshall Goldsmith.

It is not that innovating is crucial, it is an ongoing process that should never stop. Nowadays, it only takes a couple of years for an organization to lose significant market shares once it stops innovating.

1.1 The Question

There are several strategies such as CVC, IVC, JV that initiate innovation. What are the differences of these strategies and their impact on the corporation? When, how and why do we apply them?

1.2 The Goal

This paper aims to help organizations regardless of their sectors to stimulate innovation through models that address their real challenges and business goals.

1.3 The Methodology

The study focuses on literature review, case studies, interviews with corporate business strategists, corporate venture capitalists and managers of innovation labs as well as other subject experts related to the research.

1.4 The Structure

The first part introduces this paper's goal, then I start by defining innovation from an organizational standpoint describing the relationship between business strategy and innovation. Through an in-depth literature review, the third part defines the three main strategies by identifying their approach, process and benefits, etc. The fourth part analyzes various case studies that acknowledge their application to life scenarios. The fifth part focuses on insights and information collected from field experts through my interviews. The final part summarizes my findings and I conclude with my top ten learning.

2 UNDERSTAND THE CONTEXT THROUGH THE STRATEGY

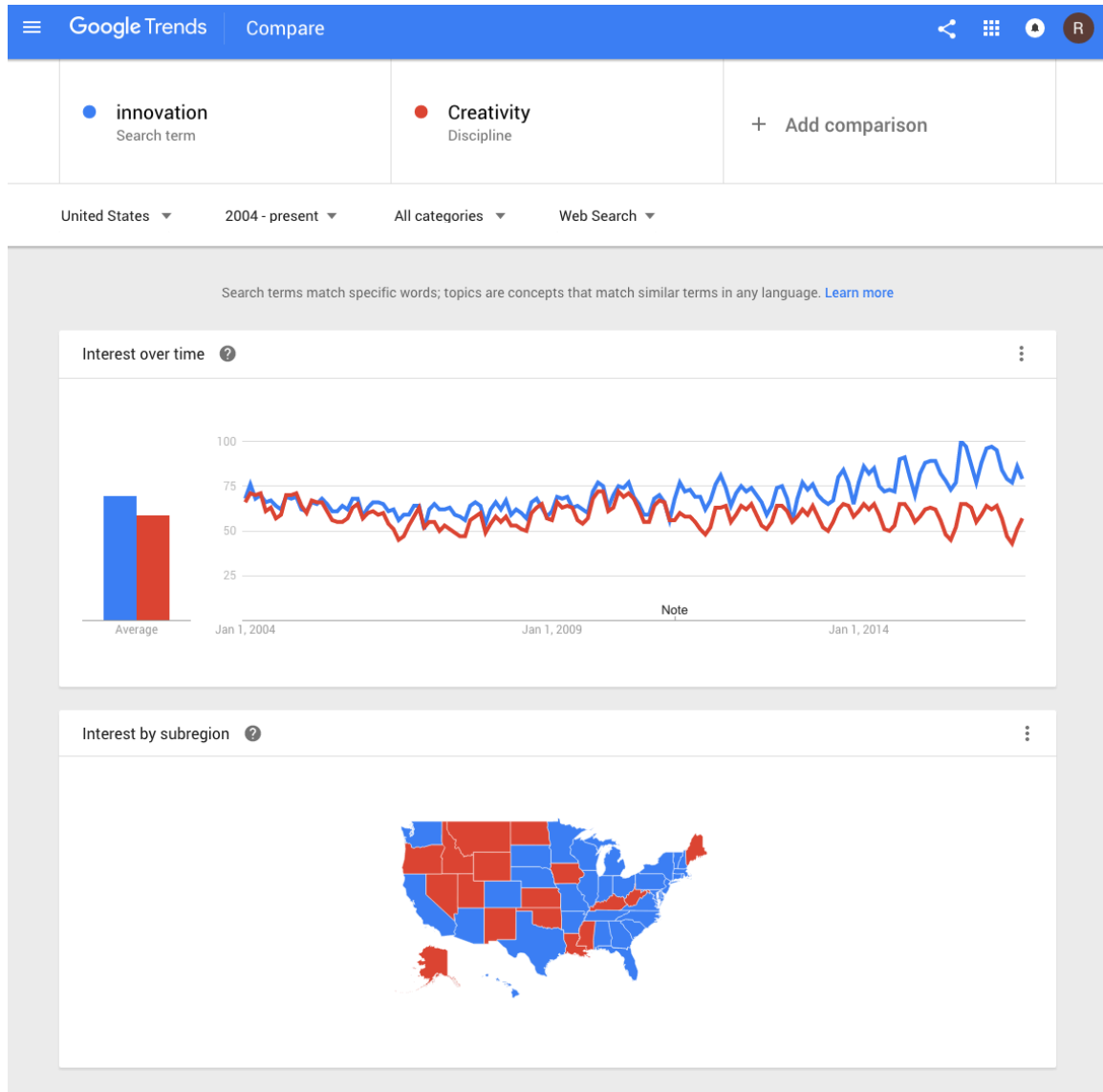
2.1 What is Innovation?

2.1.1 The Trend

Creativity and Innovation are overused words in business environments. According to LinkedIn 2013's report, that analyzed more than 135 million member profiles, "Creativity" was the 3rd most used word, and "Innovation" was the 7th¹. Google echoes the same popularity for these two words. In the US alone, there are around 130,000 searches per month for the keyword "Innovation" and 70,000 searches per month for the keyword "Creativity"². The striking fact is that "Creativity" is mostly used as a personal skill compared to "Innovation" which tends to be used in an organization context.

¹ LinkedIn, *The most overused buzzword of 2013*, 2013

² Google Adwords, *Volume Search*, 2016



Source: Google Adwords, Volume Search, 2016

2.1.2 The Process

We often hear these two words used interchangeably with little attention to their enormous differences. In fact, "Creativity" is the process of finding the idea, and innovation is the execution of the creative idea³. Research shows there is one major difference, as Innovation is measurable as opposed to creativity which is limited to an

³ Vijay Govindarajan, "Innovation is Not Creativity", *Harvard Business Review*, 2016

idea too abstract to measure. Managers and employees like the idea generation process; managers will often schedule a brainstorming session where a group of people get together and start pitching unstructured ideas with one vocal person monopolizing the conversation. The session finishes with participants congratulating themselves on the greatness of the ideas without an executing plan. Unfortunately, many of these ideas end up in an email or in a folder with no real desire to invest the effort, time and budget to concretize them.

Great ideas if not executed are only dreams⁴.

2.1.3 The Formula

Everyone has ideas, but the real challenge is the execution part. Thus "Innovation" = "Idea" x "Execution"⁵. It is a multiplication instead of a sum due to the importance of having both in the process. In other words, there is no innovation if you have a great creative force without execution and vice versa.

2.1.4 The Blind Spot

The following are examples that show that the follow-through of an idea is a crucial part in any Innovation. When Canon introduced the personal copiers, they made their idea transparent to Xerox. Xerox failed to follow-up, not because they did not want the consumer segment, but because they could not implement the necessary actions. Same for Kodak, they saw the rise of digital photography, but they did not adjust to the trend even though it was in plain sight. Another example is Wal-Mart's new everyday-low-price discount, the idea is to communicate their USP (Unique Selling Proposition) loud and clear. Unfortunately for Sears, they could not retaliate not because they were out of ideas, but most probably because they could not implement them.⁶

⁴ Michel Bundock, *La place de la réflexion dans mon métier de dirigeant*, 2014

⁵ Vijay Govindarajan, *"The Three-Box Solution: A Strategy for Leading Innovation"*, 2016

⁶ Vijay Govindarajan, *"Innovation is Not Creativity"*, *Harvard Business Review*, 2016

2.1.5 The Survey

According to a survey that included thousands of executives in Fortune 500 companies, participants overwhelmingly believed that their companies are better at generating ideas (average score of six) than they are at commercializing them (average score of one)⁷. These results are not surprising when we evaluate the level of their respective effort.

One of the issues with execution is that some top executives consider the suggested idea a distraction from the core business and that valuable resources are being used with no guaranteed financial gain. Also, managers prefer the credit of a great idea rather than working on a high-risk project, which can turn into a long and tedious process. The risk of tension with top management often dissuades managers in pursuing uncertain projects for fear of failure.

2.1.6 The Context

Innovation is a catchy word; it has become the right answer for many politicians and managers. It has reached a point where the topic becomes circular "To be innovative, we need to encourage innovation". Employees, managers and, in some cases, top executives complain that their organization lacks in Innovation, and there is always someone to blame for the organization's poor performance. This appetite for innovation is the result of the increased use of technology, which is blurring local markets into one global economy. Hence, Innovation is one of the main strategies to stand out from the competition. The meaning of innovation can vary significantly from company to company. Here are some examples of innovative organizations⁸:

⁷ *Ibid.*

⁸ Andrew (Drew) C. Marshall, "There's A Critical Difference Between Creativity And Innovation", *Business Insider*, 2013

- Embracing Innovation under former CEO A.G. Lafley, Procter & Gamble's value increased by more than \$100 billion. In 2000, it had 10 billion-dollar consumer brands; today, it has 229.
- Kaiser Permanente is the largest not-for-profit health provider in the USA. By applying design thinking to every aspect of their operation, they were successful in improving patient health, satisfaction, soundness of sleep, speed of healing, and cost control¹⁰.
- Square, one of the most innovative companies, helps SMB's (Small Medium Businesses) liberate themselves from expensive credit card machines and high rates on transactions. By thinking non-linear, they were capable of disrupting the cash payment industry and adjust to SMB's needs. Square noticed that the economy was quickly becoming paperless and provided customers a way to keep up¹¹.

2.2 Why Innovate?

2.2.1 The VUCA Pressure

For almost two decades, managers have been learning to play by a new set of rules because of the VUCA (Volatile, Uncertain, Complex and Ambiguous) World. Consumer's behavior is evolving, technology is always changing, and competition is vicious leaving organizations wondering on how to protect their profitability.

2.2.2 The Competitive Advantage

The quest for efficiency and speed have never been so crucial. Organizations review their processes, redesign their products and continually benchmark to serve their customers better while maintaining their performance. Under shareholder pressure,

⁹ Andrew (Drew) C. Marshall, "There's A Critical Difference Between Creativity And Innovation", *Business Insider*, 2013

¹⁰ Andrew (Drew) C. Marshall, "There's A Critical Difference Between Creativity And Innovation", *Business Insider*, 2013

¹¹ Andrew (Drew) C. Marshall, "There's A Critical Difference Between Creativity And Innovation", *Business Insider*, 2013

many organizations lose sight of their long-term goals by prioritizing short-term returns such as EPS (earning-per-share) and DPS (dividend-per-share).

Operation excellence is Effective but not sufficient¹².

OE allows a company to realize higher margins by improve efficiency and lower average unit costs, but it cannot create a sustainable added value. In other words, OE means creating the same product, better than rivals. In contrast, Innovation implies to create a different product in various ways from competitors.

Innovation allows the creation of a competitive advantage that can be preserved¹³.

2.2.3 The Sustainable Edge

The Japanese automobile companies were far ahead of rivals in OE. They can produce better quality products at a lower cost¹⁴. They continuously improve their processes through the application of OE frameworks, such as Kaizen, which led them to miss out on the change of trends and the evolution of the industry. Honda is a great example of an OE driven product, as opposed to Tesla which is the result of innovative thinking. OE can reach a certain level of superior performance, but it can never overperform innovation on the long run.

2.3 How to Innovate?

2.3.1 The Three-Horizons Concept

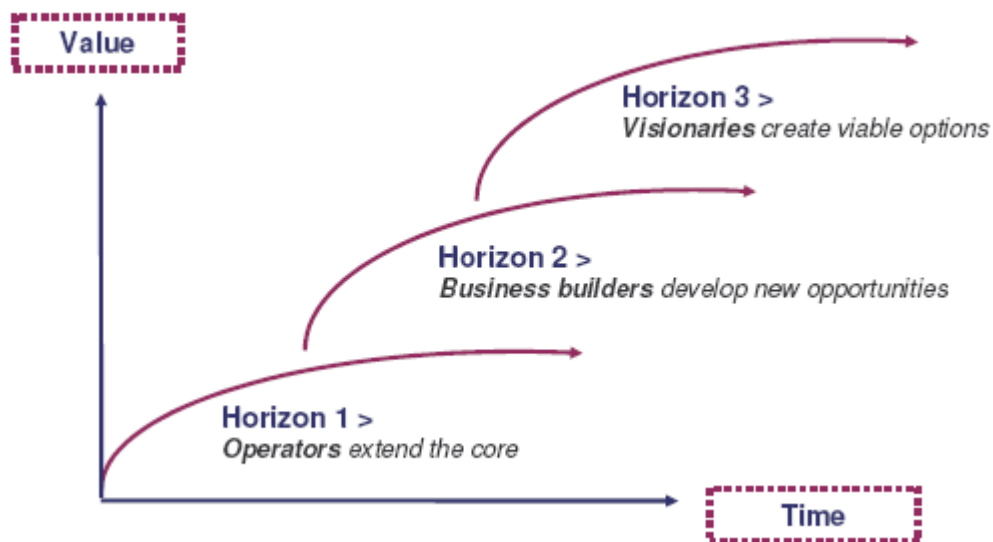
The Three-Horizons concept is from the "The Alchemy of Growth", which explains how to maintain growth by managing current activities while capitalizing on upcoming

¹² Michael E. Porter, "What Is Strategy?", HBR, P61-78, November-December 1996

¹³ Ibid.

¹⁴ Ibid.

opportunities¹⁵. Horizons are a timeframe along the x-axis and its respective value along the y-axis. For each Horizon, I integrated a type of innovation with its respective goals, risks, and outcome.



Source: Mehrdad Baghai, Steve Coley, and David White, "The Alchemy of Growth", 2000

2.3.1.1 The Horizon 1 Innovation

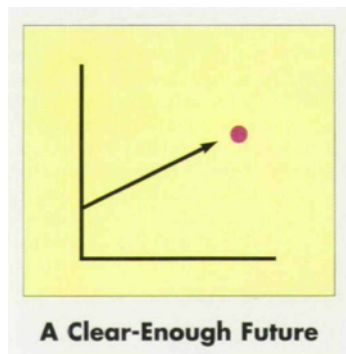
2.3.1.1.1 What is H1?

H1 is the organization core business, the competitive value is evident and generates the greatest profit and cash flow. In H1, Innovation could be a way to overperform identified competitors and extend the core business.

2.3.1.1.2 What is H1 Risk Level?

The H1 short timeframe minimizes the risk of future uncertainty as the execution lasts between 6-12 months, with this relative short period there are rarely major changes that can jeopardize the project. The certainty of the future makes the innovation's risk low.

¹⁵ Mehrdad Baghai, Steve Coley, and David White, "The Alchemy of Growth", 2000



Source: Hugh Courtney, Jane Kirkland, and Patrick Viguerie, "Strategy Under Uncertainty", HBR, P67-79, November-December 1997

2.3.1.1.3 What is the H1 Outcome?

Called No regret Moves¹⁶, It is a type of innovation that guarantees the expected outcome if the macro and micro-environment are assessed wisely using strategy toolkits such as the PESTEL Analysis¹⁷ and the PORTER's 5 Forces¹⁸.

2.3.1.1.4 What are H1 Drivers?

H1 Innovation is triggered either by a client's request or based on an industry insight. This opportunity allows the organization to innovate through a guaranteed project. The innovation is then leveraged across the organization to enlarge the core business or beat a competitor product. Most of the innovations in the manufacturing sector are based on a client's request. It is one of the preferred methods as there is a lower risk for market failure and financial loss when compared to other types of innovation. The decision to innovate can also come from inside the organization based on industry insight. This low-hanging fruit innovation can be a small tweak to an existing product to fit the market better. These opportunities are identified intuitively from within the industry. These types of projects are linked to the R&D department because the innovation is directly related to the organization expertise.

¹⁶ Hugh Courtney, Jane Kirkland, and Patrick Viguerie, "Strategy Under Uncertainty", HBR, P67-79, November-December 1997

¹⁷ Francis Aguilar, "Scanning the Business Environment.", 1967

¹⁸ Michael E. Porter, "The Five Competitive Forces That Shape Strategy", HBR, 2008

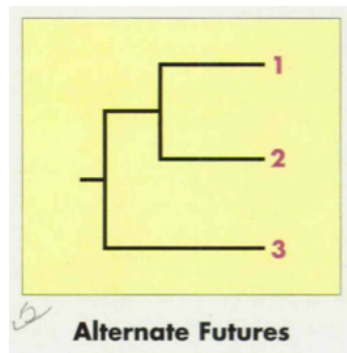
2.3.1.2 The Horizon 2 Innovation

2.3.1.2.1 What is H2?

H2 tackles emerging opportunities that could be valuable in few years due to changes in the industry, competition, consumer behavior and technology.

2.3.1.2.2 What is H2 Risk Level?

Due to longer timeframes of 1-2 years, innovation risks increase because of future uncertainty. The longer is the timeline; the higher the systematic risk. Business analysts can decrease uncertainty by monitoring industry signals and conducting research.



Source: Hugh Courtney, Jane Kirkland, and Patrick Viguerie, "Strategy Under Uncertainty", HBR, P67-79, November-December 1997

2.3.1.2.3 What is The H2 Outcome?

Called Options¹⁹, the strategy is to invest in innovations that generate significant growth if predictions are correct but suffer a small loss in worst-case scenarios.

2.3.1.2.4 What are H2 Drivers?

H2 Innovation can be the result of a defensive strategy to retaliate against a competitor or a substituting product. Also known as leapfrogging²⁰, it is a radical innovative response to eliminate the threat by disrupting the disruptor. Also, H2 Innovation can be the reaction to market research suggesting potential new applications for emerging or different industries/markets.

¹⁹ Ibid.

²⁰ Michael E. Porter, "Sustaining Superior Performance", Chapter 5, P 108, 1985

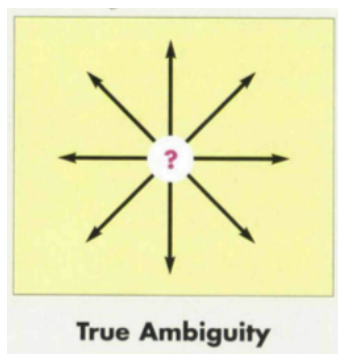
2.3.1.3 The horizon 3 Innovation

2.3.1.3.1 What is H3?

H3 is the prediction of drastic changes that will occur in the next five years allowing the organization to build a viable future idea that would fit upcoming opportunities.

2.3.1.3.2 What is H3 Risk Level?

Anticipating the future is highly risky, constant changes in technology and economy are confusing many organizations. By the time a technology is implemented, a new entrant rival has already a new and superior solution. Large organizations cannot pivot easily due to the enormous effort, time and resource it requires. Therefore, anticipating future trends can be a strategy to develop new and innovative solutions.



Source: Hugh Courtney, Jane Kirkland, and Patrick Viguerie, "Strategy Under Uncertainty", HBR, P67-79, November-December 1997

2.3.1.3.3 What is the H3 Outcome?

Called Big Bets²¹, the strategy is to aim for a Disruptive Innovation. This allows the organization to become the undisputed leader while minimizing the loss if the outcome isn't as predicted.

²¹ *Hugh Courtney, Jane Kirkland, and Patrick Viguerie, "Strategy Under Uncertainty", HBR, P67-79, November-December 1997*

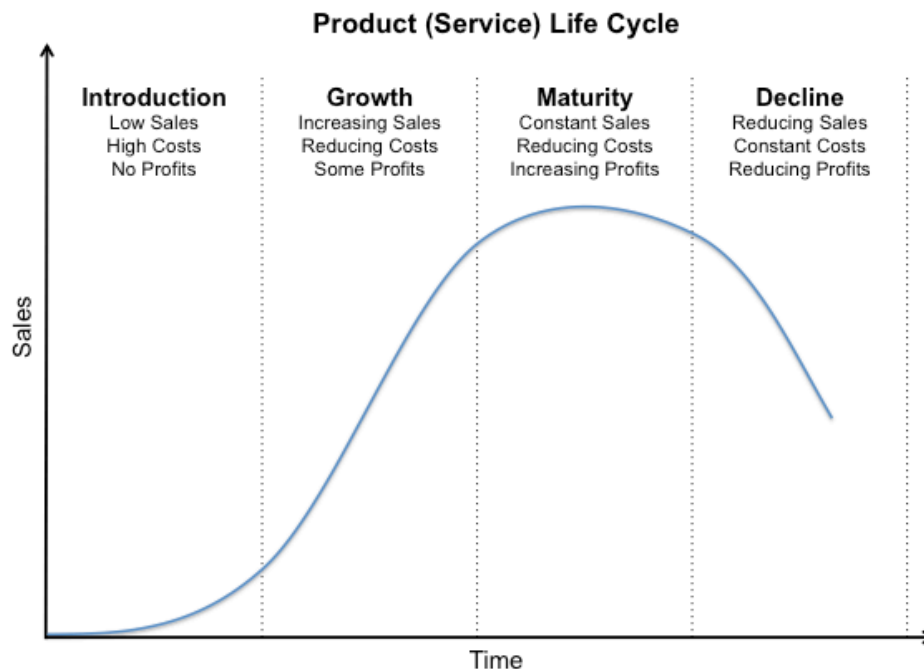
2.3.1.3.4 What are H3 Drivers?

It can be either a diversification strategy to minimize future risks by hedging products/solutions, or a growing organization seeking new plans. Changing one of the following variables can be a potential route to grow:

1. Target customers
2. Value proposition
3. Value chain

2.4 When to Innovate?

2.4.1 The Life Cycle



Organizations/Products go through the following stages; Birth, Growth, Maturity, and Decline²². To avoid the downhill slope, an organization must reassess its growth strategy and find new ways to remain prosper. One of the options is to innovate at the right time to avoid being caught off guard.

²² Raymond Vernon

Reactive Innovation vs Proactive Innovation

2.4.2 The Reactive Innovation

Reactive Innovation is when an organization is in a stagnation phase, or in a decline. Under time and resource pressure, the organization is obliged to change course immediately. It must find a suitable H1 innovation that has the shortest production time but yield the highest return. If the matter is not resolved, the situation can turn into a crisis where time and resources to innovate become impossible. The organization last option is to either acquire or merge with a complementary team/product that helps ease the pressure. These types of rough contexts require a leadership that is comfortable with confusion, lack of resources and time. A leader who is not afraid to be in survival mode.

2.4.3 The Proactive Innovation

Proactive Innovation is part of a growth strategy where the core business is doing well and access to resources and time are available. Nevertheless, the organization is aware that there is a maturity point and planning for H2 and H3 is essential to maintain its superiority. H2 and H3 require entrepreneurial leadership, a creative thinker who is an expert in the core business, knows the market, and is tech savvy.

3 DISCOVER THE CONCEPTS THROUGH THE LITERATURE REVIEW

3.1 External Innovation (What is Corporate Venture Capital?)

One of the structures that foster and access innovation is Corporate Venture Capital. It explores new ideas outside the boundaries of the organization and its R&D department. Companies, with strong bargaining power, can leverage their technological, marketing and business resources to attract valuable startups. A high level executive takes a seat on the board, and the organization becomes a minority shareholder. Research shows the importance of external venturing in its contribution to the renewal of the incumbent²³.

3.1.1 The History

The growth of private equity firms in 1990 and their popularity grabbed the attention of large corporations such as Intel, Merck and GlaxoSmithKline that started investing in startups²⁴. Shortly after, CVC became a strategy for organizations to find new ideas and overcome the constant change in economy and technology. However, many organizations have no experience in venture capital to a point where they are regarded as "Dumb Money" or just looking to steal ideas²⁵.

²³ S.Basu, C.C. Phelps, and S. Kotha, "Search and Integration in External Venturing: An Inductive Examination of Corporate Venture Capital Units", *Strategic Entrepreneurship Journal*, September 2015

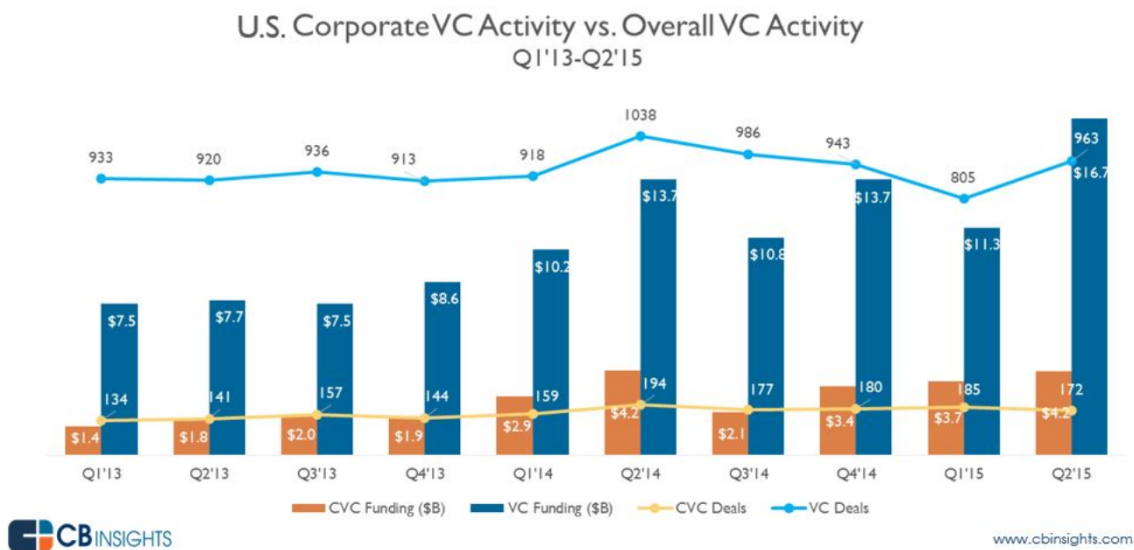
²⁴ Corey Phelps, "Corporate Venture Capital: The Factors Behind Successful Investments", HEC Paris, July 2011

²⁵ *Ibid.*

3.1.2 The Statistics

IN 2015, CORPORATE VCs PARTICIPATED IN 1 OF EVERY 5 VC DEALS²⁶.

Corporate venture firms participated in just over 20% of the 1,768 venture-backed rounds in the first half of 2015. This is compared to CVC participating in 15% of venture deals in Q1 2013²⁷.



2015: CORPORATE VENTURE CAPITAL ON TRACK FOR NEW HIGHS²⁸.

The first half of 2015 saw corporate venture capital investors participate in 357 deals totaling \$7.85B. At the current run rate, corporate VC deal activity is on track to top 2014's high. Funding dollars involving corporate VC arms has topped \$3B in each of the last 3 quarters²⁹.

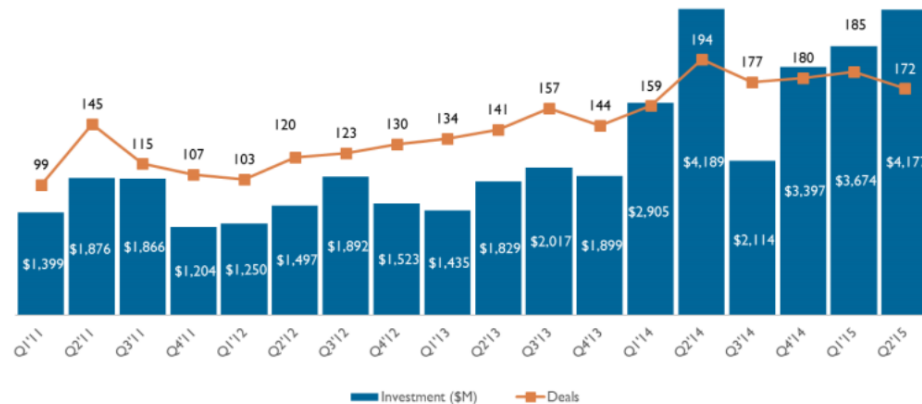
²⁶ Matthew Wong, "Benchmarking Corporate Venture Capital", CB Insights Analyst, 2016

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

Quarterly Corporate VC Investment and Deal Volume Trend
Q1'11 to Q2'15



CBINSIGHTS

3.1.3 The Value

Acquiring new technologies and solutions via CVC can be a viable strategy when capitalizing on new trends and upcoming opportunities. It helps mitigate the risk of the investment. However, CVC can also be a defensive strategy to avoid new technologies falling into the hand of the competition. R&D is great on improving existing technologies, but it has its limitation in bringing the organization to the next level and in exploring new territories³⁰. The rapid changes in technology lead me to question the cost efficiency of R&D as opposed to spreading the risk over multiple, low-commitment, outside innovations. Furthermore, CVC allows the introduction of new knowledge which is crucial for growth. Unfortunately, R&D and internal knowledge can become very homogenous limiting the innovative thinking.

3.1.4 The Two Dimensions

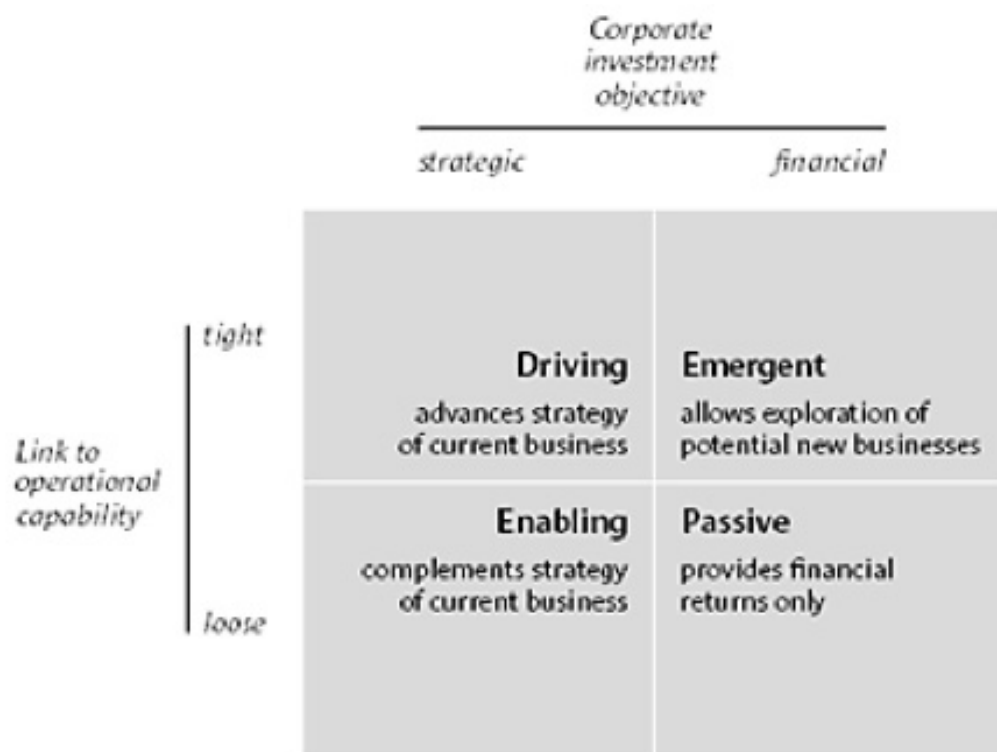
First, CVC is divided into two main categories that define the purpose of the investment: Financial vs. Strategic³¹. The strategic CVC consists of increasing sales and profit by

³⁰ Josh Lerner, "How Corporate Venture Capital Helps Firms Explore New Territory", HBR, September 2013

³¹ Henry Chesbrough, "Making Sense of Corporate Venture Capital", HBR, March 2002

creating synergies and transferring knowledge between the two companies. On the other hand, financial driven CVC seeks high returns with no plan for future integration between the startup and the parent company. The financial strength of the corporation is a significant advantage over other investors. Also, the company's in-depth knowledge of its sector allows it to identify attractive startups with high potential quickly. As soon as the purchase is communicated, the value of the startup ramps up. The acquisition by a well-known corporation sends to the market a sign of endorsement and validation. The purpose is to make financial gains by reselling to other investors or customers once the startup had been leveraged.

3.1.5 The Four Types of Investments



Source: Henry Chesbrough, "Making Sense of Corporate Venture Capital", HBR, March 2002

3.1.5.1 Driving Investment:

This type of investment is the degree to which the parent company and the startup are tightly linked. This investment allows an organization that has reached its innovative limitation to evolve again. The goal is to cooperate on disruptive strategies or to identify new opportunities beyond the current capabilities.

3.1.5.2 Enabling Investment:

Even though it is a strategic investment, the incumbent and the startup are not tightly linked in their activities. This mode of investment enables both organizations to grow respectively by being complementary while staying autonomous. It is about creating an ecosystem where one organization drives business to the other.

3.1.5.3 Emergent Investment:

This type of investment is financially driven even though the startup operates within the same industry. The priority is not to enhance the current capabilities of the parent company immediately. Similar to Options, the goal is to benefit from the new venture if changes occur and new markets or new sets of customers emerge. It is hard for a stable organization to focus and serve outside its current space. Therefore such an investment is a suitable avenue to explore new ideas, test solutions and pilot programs. One of the Emergent Investment assets is its "sharing" of resources, marketing, and facilities. The economy of scope and scale can become enormous benefits to the parent company.

3.1.5.4 Passive Investment:

Some organizations use CVC for a financial purpose only, the diversification of their portfolio of unrelated startups is only to mitigate risks and increase returns. They act like private equity firms by using their market and technology knowledge to their advantage over other investors. The parent organization has little ambition in integrating new technologies let alone creating synergies.

Each of the above CVC strategies contributes differently to the growth of the organization as seen in the graph below.³²

Growing Your Current Businesses

	<i>Investment</i>	<i>Type</i>	<i>Example</i>
<i>Promoting a standard</i>	In start-ups making products and services that promote the adoption of a technology standard you own or are backing	Driving	Microsoft's investment in companies supporting .Net, its Internet services architecture
<i>Stimulating demand</i>	In start-ups developing complementary products and services that increase demand for your own	Enabling	Intel's investment in companies whose products require its Pentium processor
<i>Leveraging underutilized technology</i>	In companies you have spun off in order to commercialize an unused and nonstrategic technology	Emergent	Lucent's investment in companies built around a technology that Lucent deems a misfit with its current strategy

Growing Your Future Businesses

	<i>Investment</i>	<i>Type</i>	<i>Example</i>
<i>Experimenting with new capabilities</i>	In ventures developing interesting new business processes unrelated to or possibly in conflict with your current ones	Emergent	Cisco's investment in communications technologies that it later acquires and deploys internally
<i>Developing a backup technology</i>	In companies developing alternative technologies, as hedges against your current technology direction	Emergent	Intel's investment in a company developing a networking technology that could supplant one that Intel participates in
<i>Exploring strategic whitespace</i>	In companies serving customers in new markets, thereby providing an indicator of those markets' potential	Emergent	Panasonic's investment in start-ups pursuing the convergence of home computing and entertainment

Source: Henry Chesbrough, "Making Sense of Corporate Venture Capital", HBR, March 2002

³² Henry Chesbrough, "Making Sense of Corporate Venture Capital", HBR, March 2002

3.1.6 The Search and Integration

Research on 17 corporate venture capital units identifies what makes the search and the integration of CVC successful³³. The search of the right startup is the combination of generating the opportunity and then selecting it wisely.

CVC can be an unknown area for an organization. Hence, it is smart to syndicate with venture capitalist firms. It is good practice to learn from experienced venture capitalists on how to negotiate term sheets, process the due diligence and finalize the deal. The more transactions a corporation passes, the more opportunities open as it gains legitimacy in the startup community³⁴. Once the startup is identified, it is essential to establish trust between the two organizations through personal relationships and common goals. Unfortunately, if there is no trust, the negotiation process becomes complicated and often stalls. The study shows that the two keys elements in generating favorable opportunities are the reduction of deal complexity and the protection of the venture's interest³⁵.

In the selection phase, the time of investment is vital. The startup must be acquired as soon as its high potential idea is mature enough but not ready for the market yet. If this period is missed, the startup can either fall into the hands of the competition or reach its next level of growth by making the pre-money valuation too high for the investing company. Early stages of startup can benefit from the parent company's resource to accelerate the time-to-market or penetrate the market more efficiently. One of the selection criteria is the precision and the focus of the startup in a particular area; this helps define its role in the parent company.

³³ S.Basu, C.C. Phelps, and S. Kotha, "Search and Integration in External Venturing: An Inductive Examination of Corporate Venture Capital Units", *Strategic Entrepreneurship Journal*, September 2015

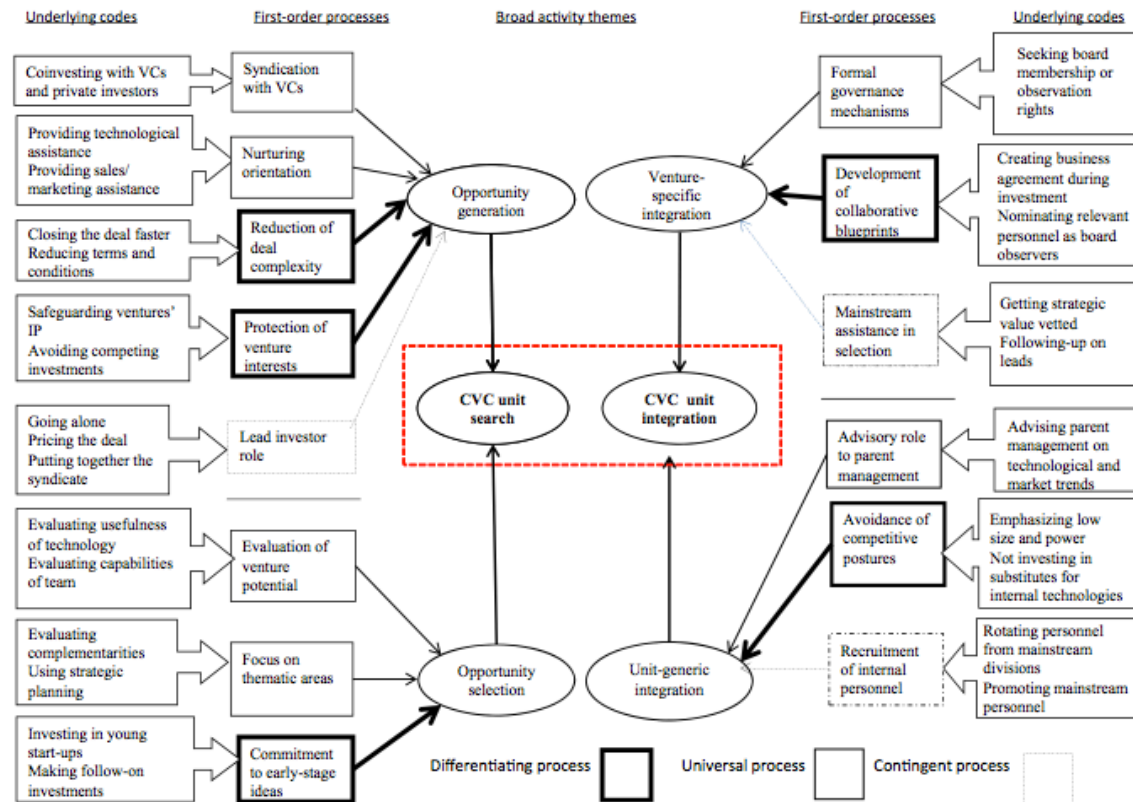
³⁴ Ibid.

³⁵ Ibid.

After the search, there is a possible integration which can be either venture-specific integration or business unit integration. Before integrating with a startup, it is wise to work conjointly on few projects to test the relation's dynamic and improve it when necessary. A good exercise can be collaborative blueprints, it facilitates the integration and helps build trust. When there is venture-specific integration, it is recommended for the parent company to have a seat on the board to monitor the integration and protect its interest³⁶.

On the other hand, the integration of the startup within the business unit can create a clash of culture. Hence, it is important to integrate gradually by having the startup key executives in an advisory role first. It is recommended to avoid competition and tension by not substituting neither technologies nor processes too fast, but instead giving the mainstream business enough time to endorse the idea of the integration.

³⁶ *Ibid.*



Source: S. Basu, C.C. Phelps, and S. Kotha, "Search and Integration in External Venturing: An Inductive Examination of Corporate Venture Capital Units", *Strategic Entrepreneurship Journal*, September 2015

3.1.7 The Process

The most difficult part in CVC is the senior leadership's approval; it is hard convincing top executives to explore unfamiliar boundaries. Once the idea is endorsed, there should be a clear investment strategy whether the objective is strategic or financial. CVC's plan must be developed in collaboration with the business unit, high executives, and the corporate finance department³⁷.

The CVC Strategy is then shared with trusted VC firms in search for the potential startup. VC firms, as in other industries, have specialties. Hence it is important to work with VC

³⁷ Amanda Feldman, Charmian Love and Sasha Afanasieva, "Investing in Breakthrough; Corporate Venture Capital", *Volans Ventures Ltd*, September, 2014

that knows the sector in which the corporation operates. The more VC firms are contacted, the better are the chances to find the suitable startup. VC's partnership with incubators, accelerators gives the corporation better chance in finding the right match as opposed to finding it by itself. Once a potential startup is identified, there is an internal assessment of the technology, business, market, value, supply chain and even the evaluation of its culture, especially when there is possible integration. It is crucial to ensure that it is a cultural fit before moving forward. As Peter Drucker said, "Culture will eat strategy for breakfast."

Once the internal evaluation is over, it is then shared with the VC firm for its feedback. If the decision is to move forward, the VC firm along with the CVC start structuring the deal. The first challenge starts by establishing the market value. Because often there is no history to discount the cash flow and use standard financial modularization to set a price, the startup's value becomes a speculative forecast based on its potential value and its relevance to the incumbent. The negotiation part is a series of discussion that includes the convertible notes condition, voting rights, the board of directors, pro rata, etc. These negotiations result into a term sheet that is followed by the due diligence process. The corporation's R&D gets involved in evaluating the technical side of the solution.

From the startup perspective, there are pros and cons in taking CVC investment, the table below describe the key factors.

Cons of taking CVC investment

- | | | | | |
|---|---|--|--|--|
| 1
CVCs can limit the available exit options. | 2
CVCs can contribute to a less 'efficient' environment: they can shield you from market signals that might otherwise be helpful inputs to your business plan development. | 3
CVCs may negotiate monetary discounts and exclusivity with their partners. Exclusivity can prohibit you from acquiring additional, potentially higher value, customers. | 4
CVCs, given their corporate links, may move more slowly than you would expect and need them to. | 5
CVCs can expect more control than you are comfortable giving (i.e. involvement on your board which might distract from business plan goals that extend beyond the relationship with your CVC investor). |
|---|---|--|--|--|

Pros of taking CVC investment

- | | | | |
|--|--|---|--|
| 1
CVCs can take a longer-term view than traditional investors, so pressure on exit can be less intense. | 2
CVCs can become your lead customer and give you access to suppliers and customers from their own value chain. | 3
CVCs can provide you with access to special skills and expertise from within the business, as well as capital. | 4
CVCs can give you an opportunity to have influence on the parent company's business strategy. |
|--|--|---|--|

Source: Amanda Feldman, Charmian Love and Sasha Afanasieva, "Investing in Breakthrough; Corporate Venture Capital", Volans Ventures Ltd, September, 2014

Having close relation with the VC community is not only beneficial to spot the suitable startup for the cooperation, but it can also be the other way around. This is where innovation developed internally can spin off and find an interested buyer if the core business has no plan in commercializing the new product.

3.2 Internal Innovation (What is IV?)

Internal Venture, Lab, Garage, Intrapreneurship are all buzz words to designate internally-driven innovation. Creative entrepreneurs are not only on the startup's top list but also for SMB companies seeking change.

Despite the growing interest for organizations to implement innovation units, their rate of failure is between 70-90% of the time³⁸. However, there are several ways to make corporate innovation work. One method is by stimulating entrepreneurship while leveraging the organization resources and infrastructure.

3.2.1 The History

First innovations were the result of obsessed entrepreneurs with an idea. Their successful new product led to the development of several companies in around 1915 such as Gutenberg's press, Whitney's cotton gin, Edison's lightbulb, The Wright brothers' plane, Ford's assembly line³⁹. Today, we are in a new era where innovation is likely to involve a business model based on market needs rather than only technology breakthrough. "One analysis shows that from 1997 to 2007 more than half of the companies that made it onto the Fortune 500 before their 25th birthdays—including Amazon, Starbucks, and AutoNation—were business model innovators"⁴⁰.

3.2.2 The Two Dimensions

Radical vs Incremental

³⁸ Beth Altringer, "A New Model for Innovation in Big Companies", HBR, November 2013

³⁹ Scott Anthony, "The New Corporate Garage", HBR, September 2012

⁴⁰ Ibid.

3.2.2.1 Radical

Radical Innovation is the concept of changing the way we are doing things. When we refer to Innovation, we often mean this type of approach where a company introduces to the market a new meaningful product using different technology. The launch of the iPhone is a good example of radical innovation. Even though the multi-touch screen technology was already in use in design laboratories, Apple was successful integrating this technology into a consumer product in a meaningful way. This type of innovation is difficult to achieve with a 96% fail rate. It happens perhaps every 5-10 years⁴¹.

3.2.2.2 Incremental

Incremental innovation is the process of bringing new changes to the products that help improve its performance, desirability, or simply lower its cost. The advantage of progressive changes is its instant appeal to the "Early Majority", which is the most profitable segment. Incremental Innovation allows the organization to capture potential value and lower the risk of the novelty.

Technology vs Meaning

3.2.2.3 Technology Push

The fast growth in economy between the 1950 and mid-1960s led to an industrial expansion⁴². Companies focused on scientific breakthroughs; it was the golden age of R&Ds. There were new products pushed to the market regularly without any proper market research. The goal was to focus on product excellence and not to worry about the consumer's needs.

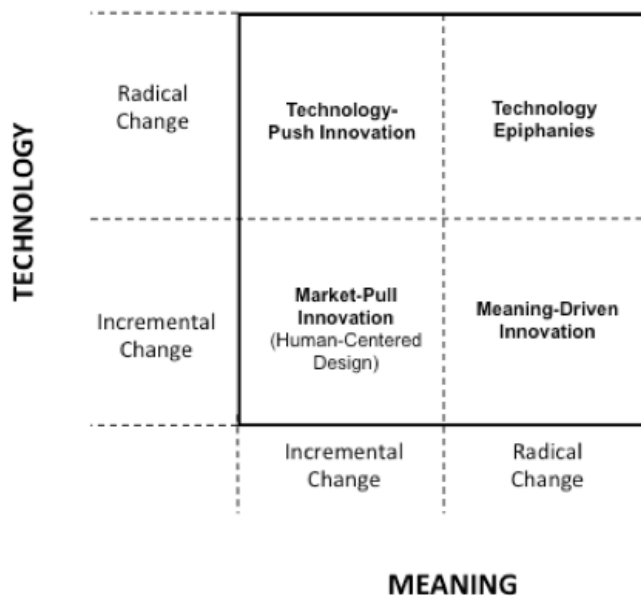
⁴¹ Donald A. Norman and Roberto Verganti, "Incremental and Radical Innovation: Design Research versus Technology and Meaning Change", *Design Issues*, March 2012

⁴² Rothwell, Roy R., "Five Generations of Innovation", *Emerald and International Marketing Review*, 1994

3.2.2.4 Meaning Pull

Between the mid-60's the early 70s, there was a shift that included market research, business and management resources to the production process⁴³. Due to market saturation, organizations started battling over market shares leveraging the importance of understanding consumer's needs and market research. It became a fundamental approach in creating more meaningful products than the competitor.

3.2.3 The Four Types



Source: Donald A. Norman and Roberto Verganti, "Incremental and Radical Innovation: Design Research versus Technology and Meaning Change", *Design Issues*, March 2012

3.2.3.1 Technology Push Innovation

It is the innovation from a purely technological perspective. For instance, the invention of color TV is a radical change based on R&D efforts⁴⁴.

3.2.3.2 Meaning-Driven Innovation

It is the comprehension of socio-cultural dynamic. For organizations to be meaningful, they need to be involved in their audience's context; it leads to valuable insight on their

⁴³ *Ibid.*

⁴⁴ Donald A. Norman and Roberto Verganti, "Incremental and Radical Innovation: Design Research versus Technology and Meaning Change", *Design Issues*, March 2012

consumer's behavior, interest, and preferences. The invention of the mini skirt is an example of a meaningful innovation that symbolizes woman's freedom without any technology involved⁴⁵.

3.2.3.3 Technology Epiphanies Innovation

This type of innovation is the most exciting as it brings new meaning using new technologies. It is the most studied and appreciated invention by the public. Nowadays, we call it a disruptive innovation. Uber, Tesla, and Nintendo fall into this category⁴⁶.

3.2.3.4 Market Pull Innovation

With this, the customer's needs are at the core. It starts by identifying the direction of the innovation by applying human-centered approaches such as design thinking⁴⁷.

3.2.4 The Creation and Integration

For Internal innovation to succeed, it needs the right ecosystem. The core business has little time to invest in new risky projects outside their current activities. Thus, the creation of a new unit is to foster, develop and test new streams of ideas that are too embryonic for the core business to handle⁴⁸. This new unit dedicated to innovation should operate alongside the mainstream business in relation to top management; reporting directly to the CEO.

The lab's goal is to allow the organization to explore new ideas that would have been rejected by the mainstream by demonstrating the proof of concept. Regardless if the innovation is business or technology related, the innovation group is filled with like-

⁴⁵ *Ibid.*

⁴⁶ *Ibid*

⁴⁷ *Ibid*

⁴⁸ ROSABETH MOSS KANTER, "Teaching Old Companies New Tricks: The Challenge of Managing New Streams Within the Mainstream", Harvard Business School, December 2002

mindful, passionate entrepreneurs that reject the status quo. The lab is also a way to retain these key talents by offering them a fast paced, high risk, anti-bureaucratic environment. In fact, this is what makes the internal venturing unit efficient in finding new business ideas to unused patents or invention. The capability of the lab to turn sunk cost into new revenue stream makes this unit essential to the organization not only for research and development but also from a financial and business perspective. As much as these units are impactful for the future of the organization, they are very fragile due to the enormous pressure by other units for quick results. Therefore, it is important that these labs operate with a different set of rules than mainstream to achieve their goals. The relation between mainstream and newstream can become tense. The full support of high management and their understanding of the below factors are crucial for the survival of any project.

3.2.4.1 Uncertainty

The organization must understand that there is a lot of uncertainty when developing a new idea/vision. It requires "Patient Money" and the acceptance of constant deviations from the initial plan due to emerging reality⁴⁹.

3.2.4.2 Intensity

It is intense physically and emotionally. The belief in an idea drives the group to work with an exceptional determination that often exceeds regular working hours to overcome arising hurdles. The common goal and responsibility of the team lead to a tight group that work seamlessly accelerating the process. The intensity of the environment creates a collaborative culture based on camaraderie and loyalty. Therefore, any change or loss of key members can jeopardize the project due to the break of the momentum and the group's synergy⁵⁰.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

3.2.4.3 Autonomous

The lab rhythm is so different than the other units; innovation unit requires more independence and control over their resources and processes. To move efficiently, the internal venturing unit should operate above the rules of the organization when it comes to preparing special analysis for top management or participate in unrelated meetings. All distractions that can derail from the main goal must be ignored. Therefore a physical separation with its ecosystem can be a useful alternative in some cases⁵¹.

Corporate vs. Venture Mindset²

<u>Corporate Mindset</u>	vs.	<u>Venture Mindset</u>
Quarter time horizon	vs.	5 year time horizon
Metric is operating income	vs.	Metric is IRR
Get profitable in a year	vs.	Optimize investment to raise share price
Fund annually	vs.	Fund to milestones
Watch income	vs.	Watch cash
No business fails	vs.	Many businesses fail
Must grow revenues	vs.	Revenues fall as ventures exit
Retain and grow employees	vs.	Get employees to join ventures
Own and control	vs.	Share the risk
Move people around different jobs	vs.	Hire domain experts
"NIH" (not invented here)	vs.	Get outside help
Preserve intellectual property	vs.	Deal intellectual property
Reward by promotion	vs.	Reward by wealth

Source: ROSABETH MOSS KANTER, "Teaching Old Companies New Tricks: The Challenge of Managing New Streams Within the Mainstream", Harvard Business School, December 2002

The main challenge for an organization starts when an idea is mature enough to integrate the mainstream business. The difference in culture and procedure can cause clashes. Therefore, it is important to evaluate the integration decision correctly based on the level of connectivity with the mainstream. Here are the following factors that help the organization decide whether to integrate the lab or not.

⁵¹ Ibid.

More Separation When:

- no mainstream change agenda
- early stage idea (idea novel)
- won't use brand
- totally different customers
- implications for mainstream business processes
- mainstream hostile
- mainstream procedures don't fit, are harmful
- speed essential ,competition
- need resources beyond what mainstream can supply

More Connection When:

- part of mainstream change agenda
- later stage (idea clear, easy roll out)
- synergies with brand
- customers overlap
- has implications for mainstream business processes
- mainstream receptive
- can live with mainstream procedures
- speed not the primary consideration
- mainstream resources sufficient

Source: ROSABETH MOSS KANTER, "Teaching Old Companies New Tricks: The Challenge of Managing New Streams Within the Mainstream", Harvard Business School, December 2002

Once there is a decision to integrate, the process must be gradual to avoid resistance; it must start by building bridges between resources such as participating in trade shows, conferences, etc. These soft activities can facilitate the next stage which can be a joint project. The organization can also encourage informal friendships between key influencers. It can introduce rotating jobs allowing the lab talent to learn the mainstream reality and vice versa. The creation of boards and councils as well as internal communication such as newsletter can facilitate the integration by gradually consolidating knowledge and information in a unified way to all units.

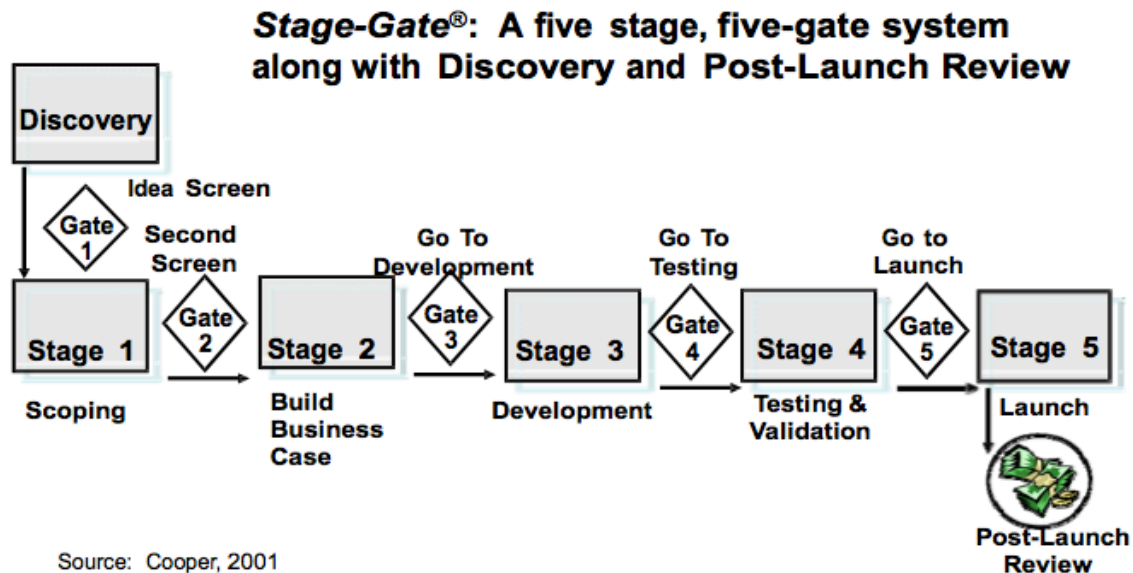
3.2.5 The Process

The Internal venturing unit's main role is to create innovative product. There are several product development approaches, but one of the most efficient is the Agile/Stage Gate Hybrids.

3.2.5.1 What is Stage Gate?

Developed by Dr. Robert G. Cooper, the stage gate is a large project broken into a series of stages with management decision gates between them. At each stage, it focuses on collecting information, assessing it and taking the appropriate decision whether to kill the project or continue to the next phase. The goal is to mitigate risks by

investing incrementally along with the available information. It is a stepwise process; the more you know, the more you invest.



Source: Dr. Robert G. Cooper, "Perspective: The Stage-Gate® Idea-to-Launch Process – Update, What's New and NexGen Systems", Stage Gate International, 2008

Stage Gating is an entrepreneurial mindset that stimulates innovation by making the process more adaptive and agile. The product development through drawings, cardboard, and prototypes starts at a very early stage to test and show stakeholders. The goal is to collect feedback based on a serial of loops: Build, Test, Collect Feedback, and Revise. This interactive method, integrated with the voice of the customer, is all the way to launch. The goal is to get an evolutive product in front of customers as early, affordable and often as possible allowing the improvement of product based on customers' feedback. Stage Gate is in contrast with traditional development that defines the product first and then goes through the different progress steps through a waterfall approach that often leads to failed launches.

Stage Gate is built for speed. Stages are made of cross-functional teams from R&D, marketing, sales and other related departments. It is a business process where activities occur in parallel rather than in series. Each stage has its Gate. The latter has

deliverables that had been defined in the previous Gate along with a checklist designed to identify misfit projects quickly. Gates are monitored by Gate Keepers who are senior executives and field experts. Relying on criteria list, their role is to decide whether the project is worth continuing to the next stage or killing it ⁵².

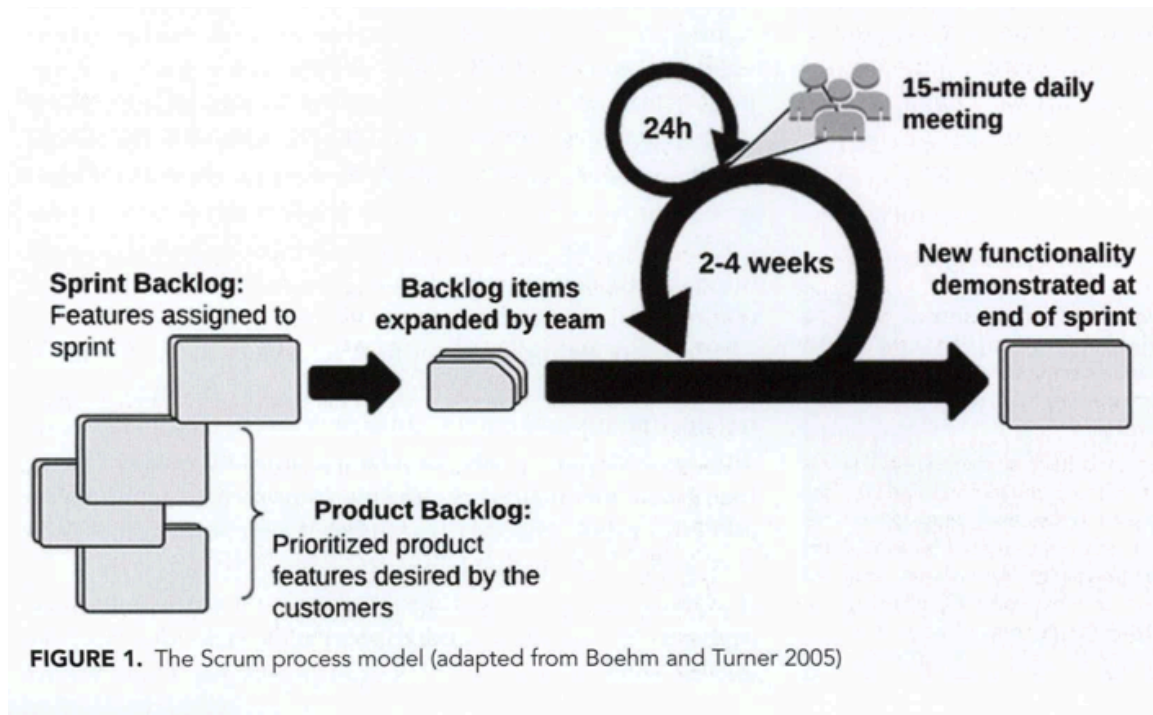
3.2.5.2 What is Agile?

Introduced by the software industry, Agile focuses on the delivery of tangible results rather than documentations and paperwork. In other words, it evangelizes more action and less planning. It is context-based where methods are adjusted case by case avoiding no-value based activities. It breaks the development phase into milestones of 2-3 weeks resulting in concrete deliverables. Scrum is an Agile Framework that includes three repetitive stages; Product backlog development, sprints, and daily sprints also known as subactivities.

The product backlog is an alternative version of the business/user case that lists the product's features. The process starts by breaking it down into sprints' backlogs that prioritize features based on its relevancy. Each sprint's backlog has a sprint period that can vary from 2 to 3 weeks. Then sprints are broken down into subactivities of no more than two days to complete. These subactivities are described on sticky notes on a scrum board. A sprint meeting is held once every 24 hours; it is a 15-minutes stand-up meeting that allows team members to share what he/she has done since the last meeting, what he/she will be completing by the next session and hurdles that he/she is facing. The latter is addressed after the meeting. In some cases, technical complications cause the subactivity timeline to be reviewed. To monitor the progress of sprints, a graph is drawn on a board with its X axis representing the sprint's timeline and the Y axis representing the sprint's completion in percentage. Once a sprint is over, it is evaluated against the sprint backlog. At this point, the product backlog can be modified due to the emergence of new information, change in customer requirements, or challenges encountered in a

⁵² Dr. Robert G. Cooper, "Perspective: The Stage-Gate® Idea-to-Launch Process – Update, What's New and NexGen Systems", *Stage Gate International*, 2008

sprint. This leads to the review of the sprint backlog which triggers a new sprint. This process can happen over and over again until reaching the sprint's goal that is part of the product backlog.⁵³



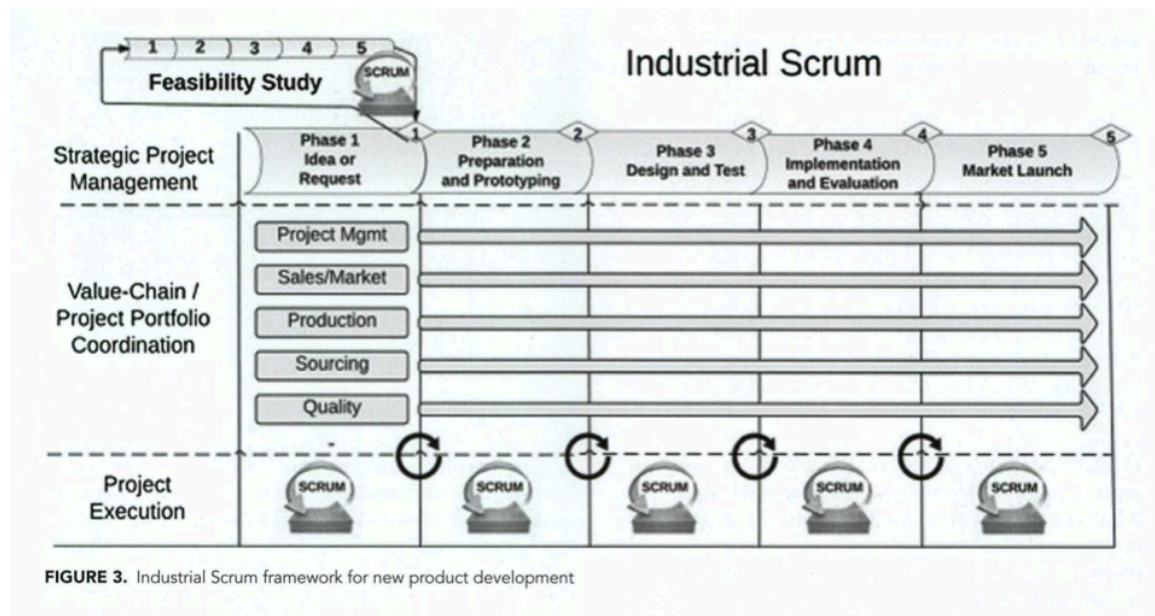
Source: Anita Friis Sommer, Christian Hedegaard, Iskra Dukovska-Popovska, and Kenn Steger-Jensen, "Improved Product Development Performance through Agile/Stage-Gate Hybrids", Research-Technology Management, January-February 2015

3.2.5.3 The Integration of both

Stage-Gate is a macro process enabling executives to take better managerial decisions based on the available information. On the other side, Agile is a project management

⁵³ Anita Friis Sommer, Christian Hedegaard, Iskra Dukovska-Popovska, and Kenn Steger-Jensen, "Improved Product Development Performance through Agile/Stage-Gate Hybrids", Research-Technology Management, January-February 2015

method that targets the micro process of each stage.



Source: Anita Friis Sommer, Christian Hedegaard, Iskra Dukovska-Popovska, and Kenn Steger-Jensen, "Improved Product Development Performance through Agile/Stage-Gate Hybrids", Research-Technology Management, January-February 2015

3.2.5.4 Balanced Portfolio

Stage Gate helps mitigate risks by eliminating the poorest project early in the process; the funnel effects lead to a better portfolio. One of the advantages of Stage-Gate is the importance of data and deliverables before moving to the next stage. The standardization of stages' requirements allows managers to evaluate the potential of projects better by comparing it against each other. Because the process is divided into stages, the prioritization factor enables a more efficient allocation of resources and budget.

It is important not to confuse cost cutting and business improvement models with frameworks for innovation such as Stage-Gate. Lean Six Sigma and Kaizen focus on reducing defects, cost and solve problem activities. It is designed based on a problem

assumption and converges to a solution as opposed to Stage Gate which concentrates on product development and innovation by allowing divergence.⁵⁴

3.3 Joint Venturing (What is JV?)

The previous models discussed are corporate venture capital, an outside-in innovation, and corporate incubators an, inside-out innovation. In addition to these two models, an organization can achieve its goal through a no equity structure based on collaboration and mutual interest with external resources. “Open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology”⁵⁵. Alternatively, it is collaborating with partners by sharing risk and sharing the reward. The boundaries between a firm and its environment have become more permeable; innovations can easily transfer inward (Outside In) and outward (Inside out).

3.3.1 The Two Dimensions

Inside out vs. Outside in

The advantage of a no-equity collaboration is the elimination of transaction costs that consist of the due diligence, bargaining, and legal fees. The no equity models aim to help the organization respond faster to emerging opportunities with the help of external ideas.

3.3.1.1 Inside-out

This inside-out concept is to get the startup to build their solution around the corporation’s technology. In other words, the large corporation becomes a vital partner to the startup.

⁵⁴ Dr. Robert G. Cooper, “Perspective: The Stage-Gate® Idea-to-Launch Process – Update, What’s New and NexGen Systems”, Stage Gate International, 2008

⁵⁵ Chesbrough, Henry William “Open Innovation: The new imperative for creating and profiting from technology” Harvard Business School Press, March 2003

akes the role of a supplier by seeking startups that leverage the enterprises core business. The incumbent becomes the propeller of the solution and its backbone. The more they are involved in startups, the more likely one of the new solutions will arise bringing with her the corporation. The goal is to create a platform that can be easily used and integrated into startups⁵⁶.

3.3.1.2 Outside-in

The concept is to sponsor an exciting startup by making the technology available to be easily used for new applications. It allows the organization to explore unfamiliar industries. It can range from organizing innovation contests in partnership with universities and associations to sponsoring research centers. These types of collaborations can vary from a few months to a couple of days depending on the context. For instance, Hackathon is a sprint-like event of a couple of days where diversified groups of programmers, subject experts, designers, project managers, and marketers focus on resolving a particular problem by creating a usable MVP (Minimum Viable Product)⁵⁷.

3.3.2 The Creation and Integration

The two no equity models allow the organization to innovate for those who are not ready to engage in pricey investments and the administrative hassle of a Merge & Acquisition. In contrast, the financial return of a no equity venture is based on either royalty payments, license fees or profit sharing.

In addition to its economic benefit, these platforms allow the R&D and business unit to grow by leveraging external ideas. Open innovation is moving from Research and Development to Research and Connect. The goal is to screen potential projects as much as possible. On average, a screening of 1000 ideas per year can lead to 80 of them for

⁵⁶ Tobias Weiblen Henry W. Chesbrough, "Engaging with Startups to Enhance Corporate Innovation", University of California, Berkeley, Winter 2015

⁵⁷ Ibid.

detailed evaluation which results in 13 projects⁵⁸. The business unit role is selecting projects and managing the whole process. In contrast, top management' role is to ensure that projects are well on track and the progress is according to the plan. One of the challenges of a no equity venture is the intellectual property, which is often detailed in the joint agreement. IP matters when needed; therefore the legal aspect of these joint ventures must be well defined as to who owns what before the project starts⁵⁹.

The no equity philosophy allows the organization to treat all partners neutrally in creating an ecosystem for innovation where all parties share a common goal, while remaining independent.

4 LIVE THE INNOVATION REALITY THROUGH THE CASES STUDIES

4.1 The IBM Case Study

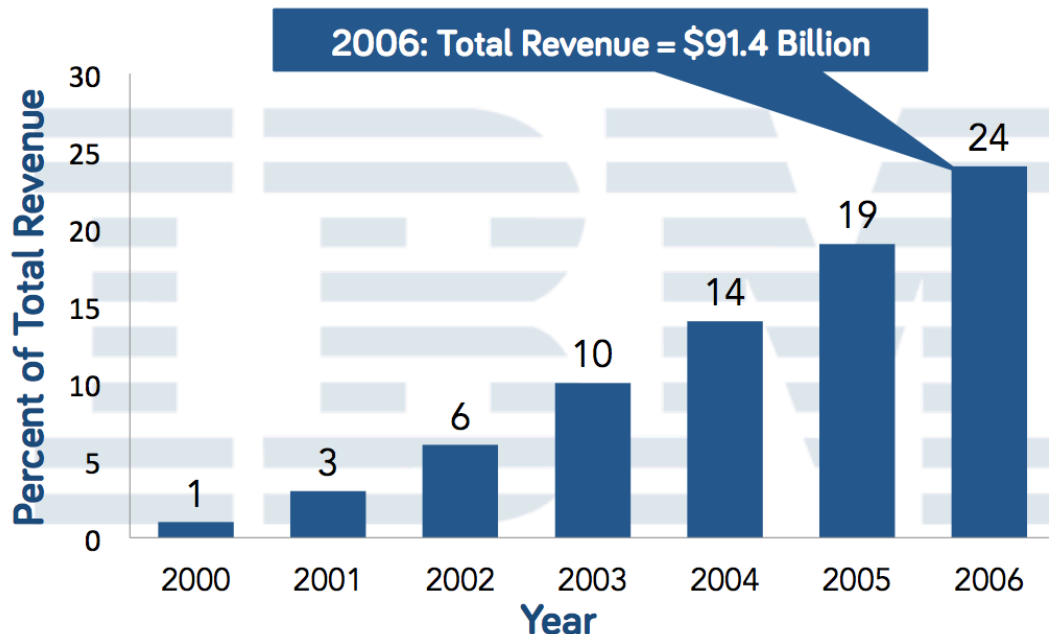
The EBO (Emerging Business Opportunity) department of IBM was a successful program run from 2000 until its termination in 2012. The EBO's role was the launch of innovative businesses with high revenue potentials. The graph below shows the EBO Revenue percentage of Total IBM revenue⁶⁰.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ David A. Garvin and Lynne C. Levesque, "Emerging Business Opportunities at IBM", Harvard Business School, February 2005

EBO Revenue as % of Total IBM Revenue



Source: O'Reilly, Harreld & Tushman. 2009. California Management Review.

Source: David A. Garvin and Lynne C. Levesque, "Emerging Business Opportunities at IBM", Harvard Business School, February 2005

The program's success was due to the determination of high management to rethink innovation differently. IBM introduced the Horizon of Growth framework and developed the projects accordingly: they did not only focus on short-term and immediate financial returns. IBM knew that success would come from longer-term projects if executed and planned wisely. Hence, they needed an incubator that prototyped and tested idea efficiently. However, one of the challenges for an incubator and/or a lab in a corporation is to make the mainstream business understand that innovation takes time and patience. Therefore, the support of IBM's top executives was crucial in overcoming hurdles. Bringing ideas to life is not an easy task; therefore, it takes a type of leadership that thrives in chaos, with entrepreneurial skills, and a strong industry knowledge.

The EBO emphasized a lot on the importance of the expertise and the experience of these individuals along with their ability to be creative and solution-driven. Because of their entrepreneurial traits, IBM knew that they had to work with different processes and rules than the mainstream business. They built for these innovation enthusiasts the suitable working environment that enables them to act as VCs, where they were free to scale up, abandon and spin off startups as they see fit. This type of freedom and self-governance was also risky because of the financial compensation set-up. In other words, these dynamic and future-oriented people were paid mostly on performance either with stock options or bonuses. It is based on the concept that the more risk you take, the higher is the reward.

The EBO team was paid, managed, measured differently than regular IBM employees. Nevertheless, it was important not to isolate the EBO from the rest of the organization; therefore they put in place incentives for collaboration. Business units had to work closely with EBO by funding projects. The more they had skin in the game, the better they were co-operating. Collaboration and synergies were the drivers for innovation. Performance does not come from lone stars and geniuses, but from team effort.

One of IBM's strength was its capabilities to know when to integrate with the mainstream. Due to cultural differences between the two units, integration sometimes created conflicts. Therefore, it was a case by case assessment made as the following.

Similarity between established business and innovation

		Low Strategic Relatedness (different markets & resources)	High Strategic Relatedness (similar markets & resources)
Nature of Conflicts Between Mainstream Business and Innovation	Serious	Separation	Phased Integration
	Minor	Phased Integration	Integration

Source: David A. Garvin and Lynne C. Levesque, "Emerging Business Opportunities at IBM", Harvard Business School, February 2005

Today that EBO had been terminated; IBM has an internal innovation unit but also is active on externally-driven innovation. IBM officials said that they are working jointly with Seiko Epson Corp to build a semi-conductor operation in Japan. Research shows that IBM has a balanced exploitation vs. exploration type of innovation. In other words, IBM innovates based on existing opportunities but also in exploring new ones. The graph below shows the balanced IBM strategy between the Internal vs. External and Exploitation vs exploration⁶¹.

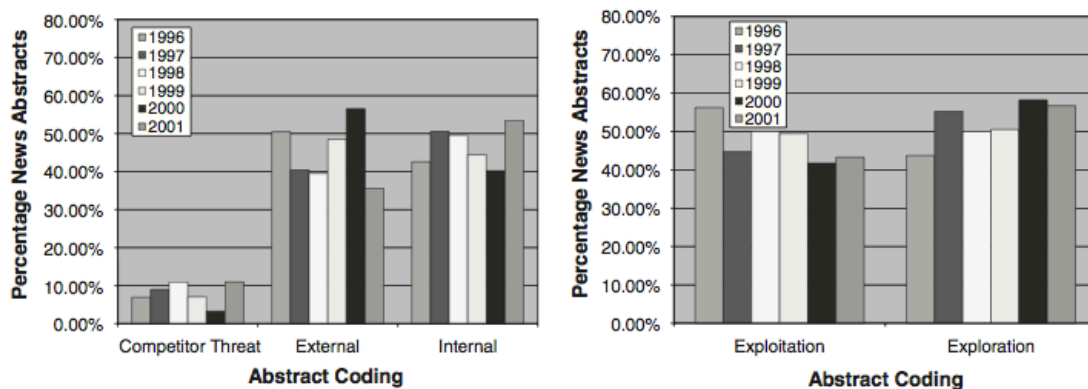


Figure 5. Venturing focus and learning orientation for IBM (1996–2001).

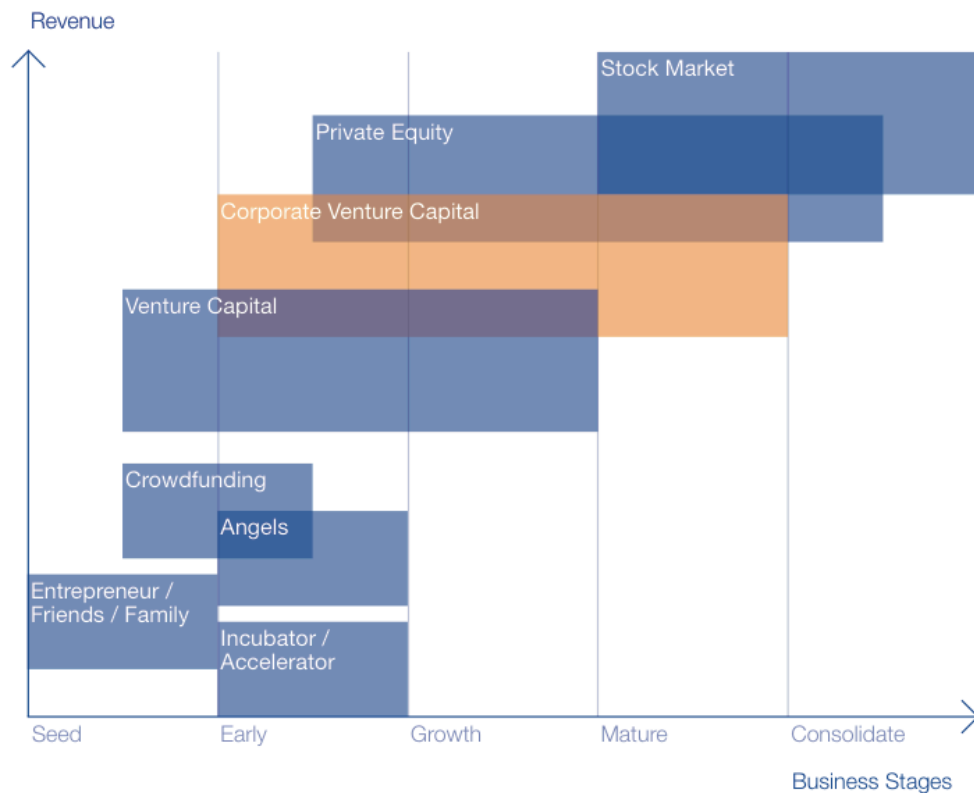
Source: Christopher Williams and Soo Hee Lee, "Exploring the internal and external venturing of large R&D-intensive firms", R&D Management, 2009

4.2 The GE Case Study

GE Venture invests in four industries: Energy, Healthcare, Software (IT) and advanced manufacturing. With a budget of 200 million to spend on equity and partnership deals⁶², GE invests in seed through to growth stage investments.

⁶¹ Christopher Williams and Soo Hee Lee, "Exploring the internal and external venturing of large R&D-intensive firms", R&D Management, 2009

⁶² Amanda Feldman, Charmian Love and Sasha Afanasieva, "Investing in Breakthrough; Corporate Venture Capital", Volans Ventures Ltd, September, 2014



Source: Amanda Feldman, Charmian Love and Sasha Afanasieva, "Investing in Breakthrough; Corporate Venture Capital", Volans Ventures Ltd, September, 2014

According to Colleen Calhoun- Senior Executive Director Energy Ventures - GE has been involved in CVC for several years. GE Ventures also work conjointly with other organizations. For instance, they worked with the Clinton Health Matters Initiative to transform and improve the delivery of healthcare in US cities where GE operates. GE Ventures philosophy is that external venturing helps reduce development cycles and accelerate time to market for entrepreneurs and companies⁶³.

Even though GE has some internally-driven projects, it has been known for its vigorous external venturing activities as shown in the graph below. In contrast with IBM, GE

⁶³ Amanda Feldman, Charmian Love and Sasha Afanasieva, "Investing in Breakthrough; Corporate Venture Capital", Volans Ventures Ltd, September, 2014

innovates via external venturing for exploration purposes and not to exploit a current opportunity as seen in the graph below ⁶⁴.

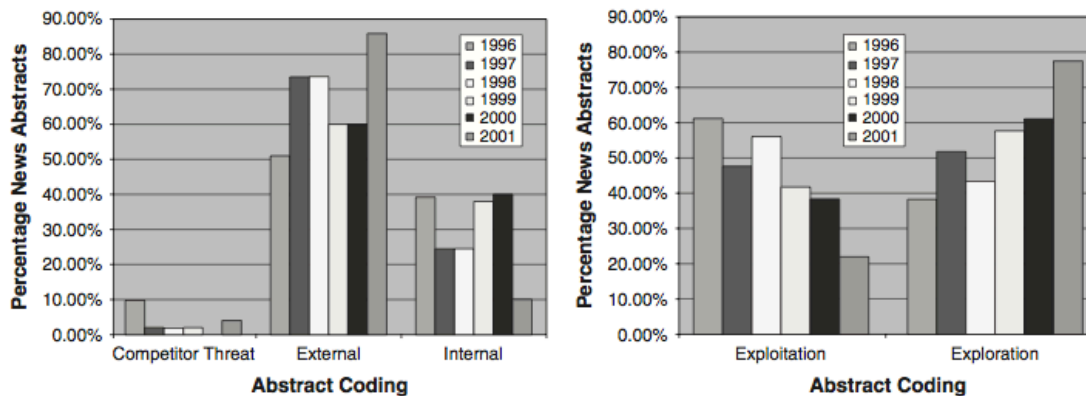


Figure 7. Venturing focus and learning orientation for GE (1996–2001).

Source: Christopher Williams and Soo Hee Lee, "Exploring the internal and external venturing of large R&D-intensive firms", *R&D Management*, 2009

See Appendix 1 to view the list of GE Venture Portfolio.

Source: Crunchbase Inc, 2016

4.3 The Alphabet Case Study

There is a lot that we can learn from the most innovative organization in the world. Here are the key elements⁶⁵:

4.3.1 Commitment to Research

The more an organization believes in the importance of research, the more highly it is to invest the necessary effort, time and money. Unfortunately, some groups consider research as a cost and reduce the R&D budget to invest in sales. Committing to research is more than just a plan, it is a company's culture. Research can go beyond the

⁶⁴ Christopher Williams and Soo Hee Lee, "Exploring the internal and external venturing of large R&D-intensive firms", *R&D Management*, 2009

⁶⁵ Greg Satell, "Want to Do Corporate Innovation Right? Go Inside Google Brain", *HBR*, June 2016

boundary of R&D; it can include sponsoring academic studies, collaborating with another organization through a joint venture.

4.3.2 Innovating from the Bottom up

The most popular innovations at Alphabet, such as Gmail, Google News, and AdSense, have originated from a program where employees have 20% of their time dedicated to exploring new ideas and working on projects that interest them. Dedicating a percentage of time to pursue an entrepreneurial idea was initially started at 3M in 1948. Since then many organizations followed similar models.

4.3.3 Incubators

Often as a SWAT team with different expertise, they work in close cooperation in enhancing a current technology, or work on building and launching a new product. The goal is to move fast and efficient away from the organization bureaucracy.

4.3.4 A Tight Feedback Loop

The organization, through R&D, conducts research in a waterfall linear way. But, innovative companies such as Alphabet work tightly with product, marketer, and consumers. A collaborative ecosystem where innovation is an iterative process with incremental improvement based on feedback. The tight feedback loop can be interpreted as the fifth generation of creation of Rothwell's taxonomy of innovation models. It describes the importance of a fully integrated development model where there is a strong collaboration between engineers, marketers, researchers, customers, and suppliers allowing faster and market-oriented innovations.

In addition to the Google internal innovation, Google Ventures (Venture capital department of Google) invests in external ideas seeking financial returns and strategic alliances. Today, Google tries to combine both investment strategies IVC and CVC. Google Ventures has invested in over 100 firms from home appliances like Nest to health care firms like Foundation Medicine (a cancer diagnostics company).

Google's CVC strategy is to invest in enterprises that aim to directly compete with Google Products. The investment's intent is to gain early insights into the most recent technologies. Also, Google Ventures try to connect founders with Google engineers for learning and information sharing purposes. The goal is to bridge the startup founders into Google Inc. for a possible integration. This happened for instance with the company Milk (a mobile app development firm) whose entire team joined Google within the first year of Milk's existence, with one of Milk's founders being a partner at Google Ventures today⁶⁶.

Since Google Ventures is a hybrid of a venture capital investment firm and a corporate incubator, it offers the exit strategies of both of these two categories. Consequently, one strategy is the inclusion of the funded company into the parent company Alphabet. As described above, this happened in the case of Milk. Here, however, the integration was mainly a talent acquisition. The second strategy is to sell some of its startups to another investor. Google Ventures has done so, for instance, with the video game publisher ngmoco, which was sold to the Japanese internet service platform DeNA. Other examples are Dasient, an anti-malware technology, which was acquired by Twitter, and Hipster, which was acquired by AOL.⁶⁷

See Appendix 1 to view the list of Google Venture Portfolio.

Source: Crunchbase Inc, 2016

See Appendix 1 to view the list of corporations with innovation labs.

⁶⁶ Oliver Gassmann and Fiona Schweitzer, "Management of the Fuzzy Front End of Innovation", Springer International Publishing Switzerland, 2014

⁶⁷ Oliver Gassmann and Fiona Schweitzer, "Management of the Fuzzy Front End of Innovation", Springer International Publishing Switzerland, 2014

Source: Jackie Fenn, Mary Mesaglio, Mark Raskino, Hans Van Grieken, "Seven Best Practices to Create an Innovation Center", Gartner, Inc. 2016

See Appendix 1 to view the list of the most active corporations in CVC.

Source: Amanda Feldman, Charmian Love and Sasha Afanasieva, "Investing in Breakthrough; Corporate Venture Capital", Volans Ventures Ltd, September, 2014

4.4 The Joint Venture Outside-In Program of AT&T

The AT&T Foundry was launched in 2011 in the US. Today, it has four offices across the US and one in Israel. The working mode is designed to operate as closely as possible to a startup with a great speed of execution in a lean environment. The AT&T Foundry works by first submitting a request for innovation aiming to solve a specific problem, roughly 10% result in a joint venture translated in a simple two-page document that captures the scope and the goal of the project. Each project is given a 12-week timeline where teams formed of AT&T employees and startups founders get together in creating a proof of concept or an MVP. To accelerate the process, maximize results and avoid distraction, an AT&T Foundry facilitator provides all necessary resources and infrastructure. Through design thinking and other idea generation techniques, teams build their prototypes that are presented to the business unit committee. At this stage, AT&T does not take any equity nor claim any IP from the startup. The goal is to help startups build businesses where AT&T core products is an integral part of the solution⁶⁸.

Not all Outside-In platforms are the same; The Siemens Technology to Business Program (TTB) focus on the purchase of licenses either from universities or research centers which are later leveraged by Siemens commercialization infrastructure. The TTB process starts scouting for the best suitable innovation based on the business unit needs. Once the suitable technology or license is found, the negotiation part kicks off leading in some cases to hire the professor/inventor of the technology. At Siemens TTB, the core element of a partnership is the 'Joint Development Agreement.' In contrast of

⁶⁸ Tobias Weiblen Henry W. Chesbrough, "Engaging with Startups to Enhance Corporate Innovation", University of California, Berkeley, Winter 2015

the AT&T Foundry, the agreement is more detailed where activities, milestones, IP handling, and financials are addressed upfront. Today, Siemens TTB projects take between three to 18 months before it is handed to the business unit for commercialization⁶⁹.

4.5 The Joint Venture Inside-Out Program of PayPal

The inside-out approach is to scale rapidly by becoming the supplier of a high potential startup. PayPal's model is a good example where it succeeded in becoming the preferred e-payment solution for many businesses. The most respected PayPal's deal is most probably UBER. The latter used PayPal's system to process daily transactions of millions of dollars. PayPal assures that there is no contractual or technical lock-in to its platform preventing UBER from working with another vendor. However, why would someone change a working solution without a compelling reason? It is a practical lock-in that is the center of the Inside-Out approach⁷⁰.

5 LEARN FROM THE EXPERTS THROUGH THE FIELD STUDIES

I conducted more than a dozen of interviews with three types of experts. It is enlightening to collect these insights that shed light on the real-life challenges to which these experts have to deal on a daily basis. It is very fruitful to complete the paper with their opinion that gives another perspective to the study. Along with the literature review, the highlight of our discussion helps better understand the strategies and their impact.

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*

I had the chance to meet with three venture capitalists with whom I discussed the corporate venture capitalism strategy. According to these VCs, corporations that co-syndicate with VC firms can be both challenging and complex. The problem when dealing with corporations is their desire for control with a request such as the right to the first refusal. The involvement of the incumbent is not always the best option for a startup as it might limit its growth by restraining them from exploring some avenues that won't fit the corporation's vision such as working with the competition. However, working with Google Venture and the Intel Venture are examples of successful co-investment cases due to the arm's length relation with the VC firm. It is important for the corporation to have a knowledgeable expert dealing with the VC firm because he knows the guidelines and the industry's best practices. Co-syndication with a VC firm on a particular project is one way to engage in CVC; there is also the option for a corporation to invest in a VC fund that operates in the field of interest. This approach allows the corporation to access a broad range of portfolios and scout on the ground. Corporations are opting for CVC as a strategy to become the disruptor instead of being the disrupted. The example of Ford investing heavily in Lyft, the competitor platform of UBER, is an exact case where the incumbent tries reversing these roles.

There is no one CVC model. Some corporations de-risk their investment by choosing a mature technology that would be leveraged across their well-established distribution channels. But there are also companies that prefer the technology risk instead of the sales one. In either case, the startup needs to be grown enough so it can't be crushed by the incumbent's culture. The timing and the level of maturing depend on the sector. For instance, pharmaceutical industries are willing to invest in an early stage for data analytics tools, an average stage for medical devices but in a mature stage when it comes to molecules. The cases where the corporation ends up buying the startup is when the technology becomes very related to the core business and integration become inevitable.

It is important for the Corporate Venturing representative to be involved and active in the startup and the VC community. It gives privileged access to hot deals before they become public similar to any industry when the insider has the edge over the general public. Connecting with VC allows the corporation to spin off some of its R&D as well.

The second group to whom I talked is the corporate strategist experts. Their opinion is that CVC allows the monitoring of innovations and technologies in development. It is an expensive initiative as it is an equity based acquisition. Usually, the organization becomes a minority shareholder. R&D are often involved in CVC as they provide valuable insight on due diligence, but also on the technical and the strategical value that the startup brings to their organization. IVC relies on internal resources making the cost incremental as part of the operation expenditure. IVC's role is to identify white spaces by leveraging opportunities through various markets and users' research techniques. Both CVC and IVC require patience and substantial investment. There must be a fit aspect between the strategy it chooses and the organization. In theory, organizations that don't have the capacity to innovate internally via lab/incubators/accelerators, would prefer acquiring more creative organizations. Unfortunately, the access to innovation does not lead the organization to become more innovative but rather it gives it only the access.

Innovation can be calculated as opposed to what many people think, the formula of the innovation index is the following: Five years revenue from new products divided by total revenue.

Many of the corporate strategists to whom I talked prefer the Joint Venturing strategy when an organization takes a leap in a new industry that requires a modification to its product. Joint Venturing consists of two companies; one has the technology, the process, and the product capabilities and the other has the market, user, and the distribution knowledge. The JV partnership can be either by creating a new company 50%-50% model, licensing or OEM.

My last group of experts is corporate innovation directors who organize various innovation programs. One of the companies has an accelerator program that enables all employees regardless of their roles to participate by pitching an idea that solves a current problem. These ideas are submitted via a platform reserved for the corporation's staff. Once ideas are presented, a group of moderators assesses the proposed solutions, and in some cases, request additional information or ask for modifications to better comply with the program's guidelines. With the help of an external consultant, the selection committee selects the best 3-4 ideas that are later presented to the committee through a demo day. The winner is then assigned the necessary resources to build his prototype with a budget dedicated to the purchase of material, the participant's extra hours invested in the project, and any related fees. Once the prototype is developed, and the project is over, the purpose of this program is to find the suitable department that sees enough potential in the idea to invest from its budget in pursuing the development and the commercialization of the product.

In addition to the accelerator, there is the R&D. The latter focuses on technology research. It centers less on business innovation but rather on the integration of an identified technology based on a substantial business opportunity. Some corporations are also exploring the introduction of a new incubator program by hosting early stage startups and providing them with the necessary expertise and infrastructure in exchange for equity. Obviously, the startup should be relevant to corporation's core business.

The externally driven innovation of one of the corporation happens through the sponsorship of the famous Notman House, which is a space for incubators and accelerators, allows the media/publishing firm get first access to developing technologies and ideas. The CVC or acquisition occurs when the innovation director and the Corporate Venture team identify a potential startup from a financial and strategic perspective.

The organization is also involved in Joint Venturing based on a cost/profit sharing especially with european firms that have a complementary solution/product that fits the Quebecor market.

6 COMPARE THE STRATEGIES THROUGH THE ANALYSIS

These strategies whether they are CVC, IVC, Joint venturing or others such as M&A and R&D depend on a lot on the type of industry, context and the timeframe.

6.1 The Three Main Strategies

Also known as external venturing, CVC's goal is to give the organization insight on the industry trends, the latest technologies in development and a new value chain to the incumbent. Also, it can become a defensive strategy to avoid new technologies falling into the competitor's hands. Strategic CVC is led by the business unit as opposed to purely financial CVC that is led by the Corporation through the finance department. It can be either to resell it for financial profit or to mitigate risk by diversification.

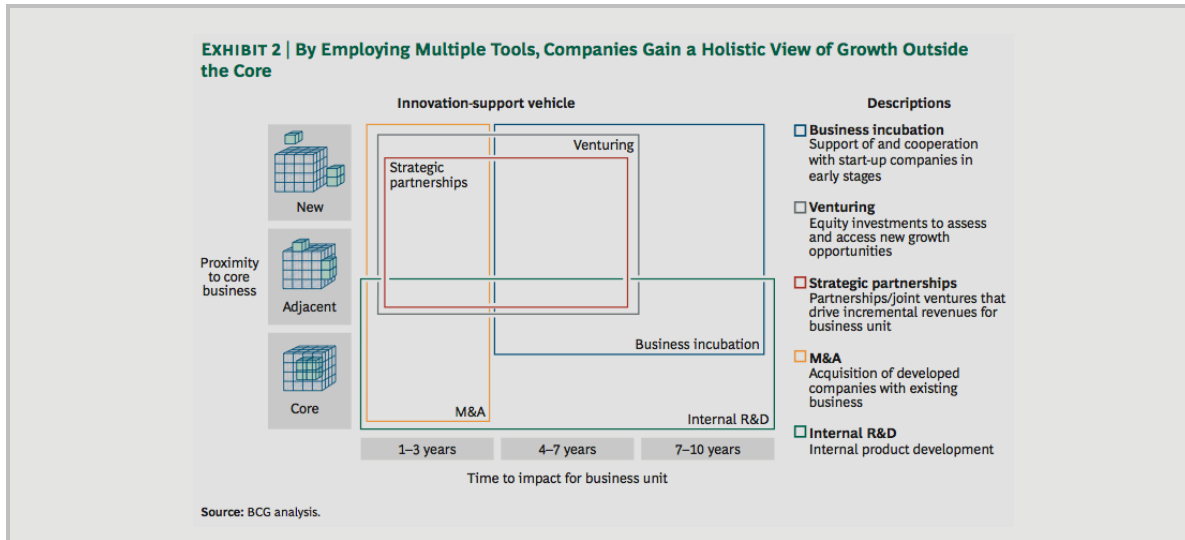
Also known as Internal Venturing, IVC happens through innovation labs that run business incubation and acceleration programs. These two programs are part of the innovation lab's responsibility in advancing products and services that are close to the core business or complementary. The role of the innovation lab, which is formed of a small diversified team, is to work in close collaboration with the R&D unit to develop rapid prototyping in an iterative and agile model similar to a startup. Customer-driven, the innovation team builds their ideas on insight from the business unit, market research, customer feedback but also by conducting their own field studies and observation.

In addition to running incubator and accelerator programs, the Innovation Lab's role is to innovate by connecting, collaborating and sharing ideas with external partners. This can be achieved by:

- Organizing 'Hackathons' by bringing together developers, subject experts in collaborative and intensive workshops to create a prototype.
- Scouting missions, which are meetings with independent startups, inventors or researchers to seek out innovations.
- Seeking joint venture opportunities to find promising ideas for further development and investigation.

Joint venturing is often referred to as a no-equity partnership where two organizations collaborate in developing and marketing a new product by leveraging their respective strength. For instance, a tech startup with a smart solution utilizes the marketing infrastructure, channels and sales force of a large corporation through a license or royalty fee model.

Here is a holistic view of the main strategies for innovation:



Source: Michael Brigl, Alexander Roos, Florian Schmieg, and Drake Watten, "Incubators, Accelerators, Venturing, and More", The Boston Consulting Group (BCG), June 2015

EXHIBIT 3 | Each Tool Has Distinct Advantages, Depending on Context

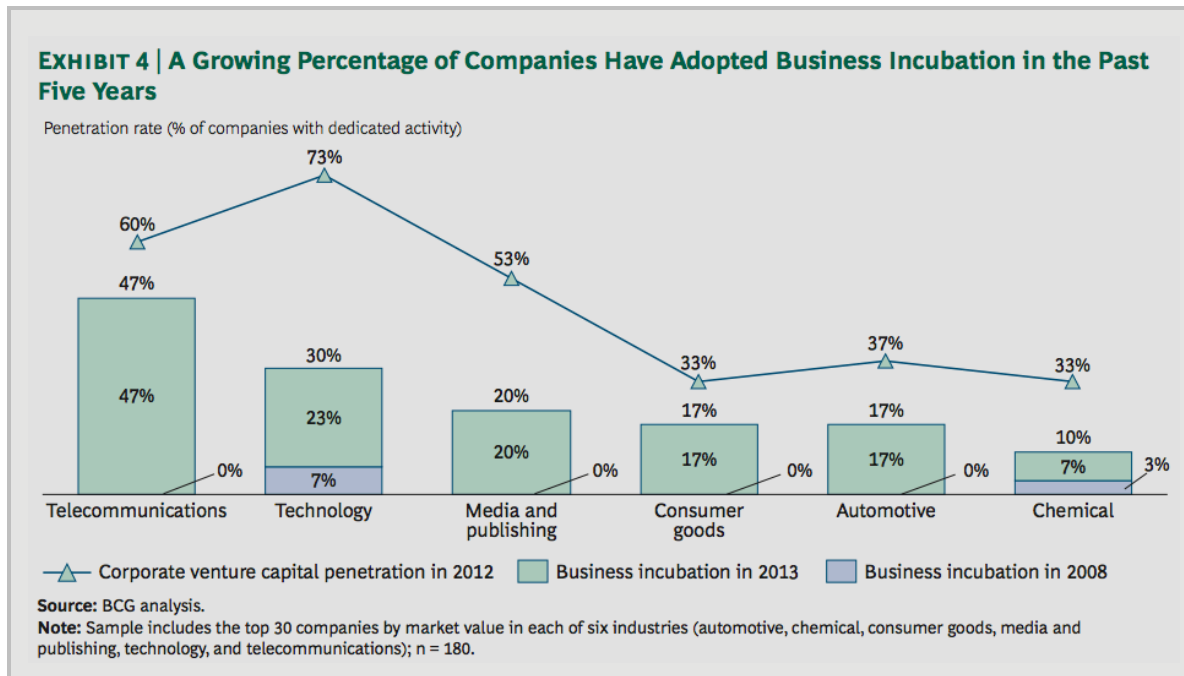
	Business Incubation			
	Corporate Incubator	Corporate Accelerator	Corporate Venture Capital	Corporate Strategic Partnerships
Objective	Support start-ups with an array of business support resources and services, orchestrated by incubator	Support start-ups with a structured program along fixed curricula	Support existing companies with capital in exchange for equity shares	Partner with existing companies to drive joint value creation
Benefits to start-up partner	<ul style="list-style-type: none"> Office space, hardware Business skills training Professional networks Management support Potential funding support 	<ul style="list-style-type: none"> Office space, hardware Skilled mentorship and coaching Start-up network Technical support Potential funding support 	<ul style="list-style-type: none"> Financial support In many cases, close cooperation with corporate unit as equal partner Mentorship (in some cases) 	<ul style="list-style-type: none"> Extend market potential Close missing IP gap Limit investments in noncore corporate capabilities Create competitive advantage
Benefits to company	<ul style="list-style-type: none"> Outsourced R&D function Wider corporate growth options and investment opportunities Enhanced employee recruitment and retention 	<ul style="list-style-type: none"> Wider search field for corporate development and growth options "First pick" potential in case of promising start-up business 	<ul style="list-style-type: none"> Equity share in company with strong growth and profit potential Portfolio extension, especially in advanced technologies and products 	<ul style="list-style-type: none"> Extend market potential Close missing IP gap Save investments in noncore corporate capabilities Create competitive advantage
Investment	Up to 25 percent of equity	Partly without equity; in some cases up to 5 percent	20 percent or less	Possible equity exchange, depending on partnership format
Start-up stage	Early-stage, without existing business	Start-ups technically ready to "spread wings"	Small existing companies with high growth potential	Innovative companies but not necessarily new players
Time frame	12–36 months	Typically 3 months	5–7 years	Depends on product cycle

Source: BCG analysis.

Source: Michael Brigl, Alexander Roos, Florian Schmieg, and Drake Watten, "Incubators, Accelerators, Venturing, and More", The Boston Consulting Group (BCG), June 2015

6.2 The Evolution of Business Incubation vs CVC

Business incubation has increased significantly since 2008.



Source: Michael Brigl, Alexander Roos, Florian Schmieg, and Drake Watten, "Incubators, Accelerators, Venturing, and More", The Boston Consulting Group (BCG), June 2015

6.3 The Evolution of Accelerators and Incubators

During the same period, the percentage of companies using accelerators and incubators surged from 2% to 44%. This increase was propelled in part by a sharp increase in the number of accelerator partnerships, a practice that we first observed in our company sample in 2006. By 2015, accelerator partnerships accounted for 15 percentage points—more than one-third—of the 44% penetration of accelerators and incubators. The usage rate of innovation labs climbed from 5% to 19% among companies⁷¹.

⁷¹ Michael Brigl, Alexander Roos, Florian Schmieg, and Drake Watten, "Incubators, Accelerators, Venturing, and More", The Boston Consulting Group (BCG), June 2015

6.4 The Timeframe

CVC's payback timeframe can vary from 5-7 years based on the startup maturity. The more the startup is developed, the more it is ready to market. However, strategic CVC has no particular timeframe; it depends on many factors⁷².

IVC works with two different timeframes. Accelerators programs, as its name implies, aim to accelerate the commercialization phase, it takes up to 3-10 months as opposed to incubators which have a longer process due to the development of the idea in addition to its commercialization, it is a 12 to 36-year timeframe depending on the complexity of the solution⁷³.

In contrast to CVC, JV is a type of a no equity partnership where the negotiation is relatively simpler with no complex term sheets and due diligence processes. The partnership can be applied within 3-6 months⁷⁴.

6.5 The Context

The corporation chooses the innovation strategy based on their internal capabilities and resources. Internal-driven innovation thrives when the corporation succeeds in building an ecosystem and a culture where an internal team is capable to operate as a startup. If not, CVC and M&A are the alternative solution when innovation is difficult to ignite from the inside. CVC can help strengthen the core business for industries where innovation is periodic such the pharmaceutical industry when it is seeking a new drug.

⁷² *Ibid.*

⁷³ *Ibid.*

⁷⁴ *Ibid.*

As explained before, CVC's goal is to give the organization insight on the industry trends, the latest technologies in development but can also access a new value chain that would create value to the incumbent. This can also become a defensive strategy to avoid new technologies falling into the competitor's hand. Strategic CVC is led by the business unit as opposed to purely financial CVCs that are led by the corporation and it's financial unit. It can be either to resell it for financial return or to mitigate risk by diversification.

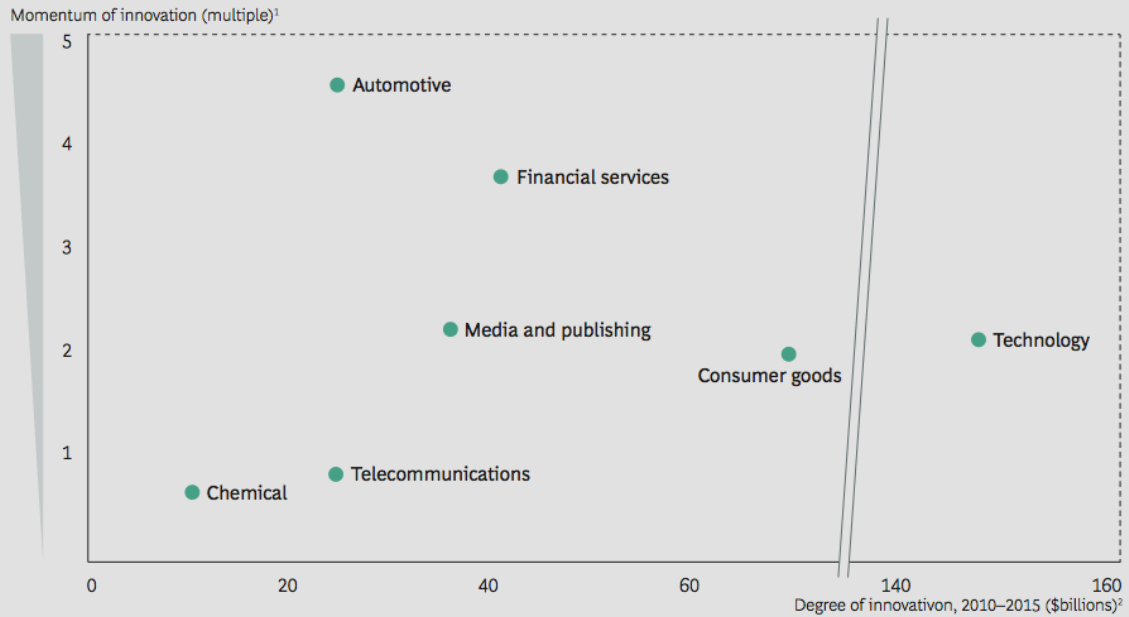
Whether to develop the core business, adjacencies, or to find new applications, Joint Venturing allows innovation by partnering up with another organization, research centers or universities. It is a collaborative model where two or more organizations leverage their organization's ownership advantage with the goal to reach new levels.

6.6 The Industry

There is a correlation between industries and the type of strategy applied. In industries where innovation momentum is high, and the need for innovation is average, such as the automotive and the financial industry, companies predominantly use accelerators and incubators. In contrast to industries such as chemicals, where the pace of innovation is somehow slower, and companies mainly use CVC. However, industries where there is a high degree of innovation and high momentum such as the tech industry, we often see a combination of CVC and IVC⁷⁵.

⁷⁵ Michael Brigl, Max Hong, Alexander Roos, Florian Schmieg, and Xinyi Wu, "Corporate Venturing Shifts Gears", *The Boston Consulting Group (BCG)*, April 2016

EXHIBIT 1 | The Degree and Momentum of Innovation Are Accelerating



Sources: Thomson Reuters; BCG analysis.

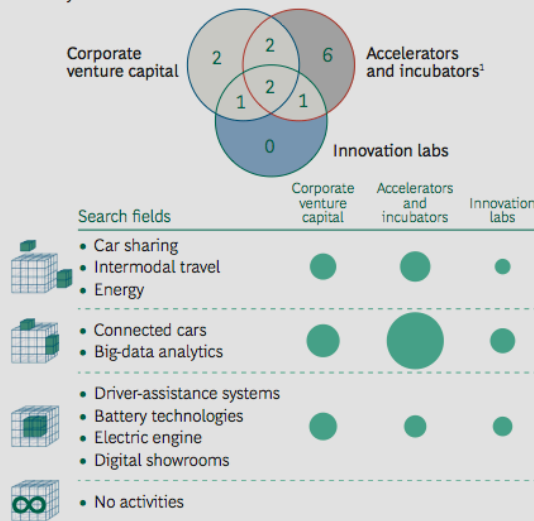
¹The momentum of innovation is determined by comparing the amount of VC investments in 2015 with the average amount of VC investments from 2010 through 2014. For example, the average amount of VC investments in the automotive industry in 2015 was about four and a half times greater than the average amount of VC investments in the automotive industry from 2010 through 2014.

²The degree of innovation is approximated by the amount of VC invested.

EXHIBIT 2 | By Employing Multiple Tools, Companies Gain a Holistic View of Growth Outside
EXHIBIT 3 | A Company's Choice of Venturing Tools and Search Fields Reflects Its Industry

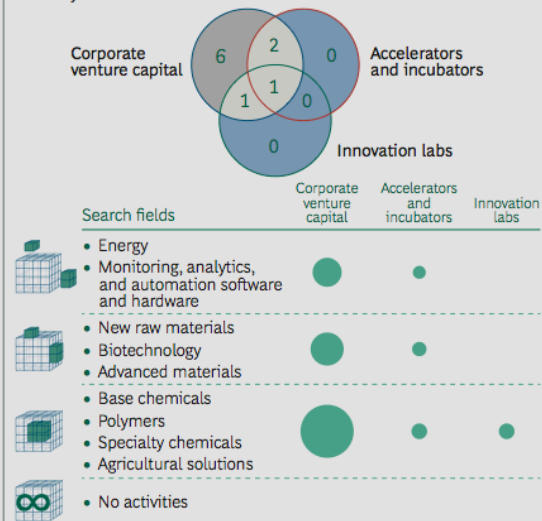
AUTOMOTIVE

Innovation focus is on adjacencies
 Mainly uses accelerators and incubators



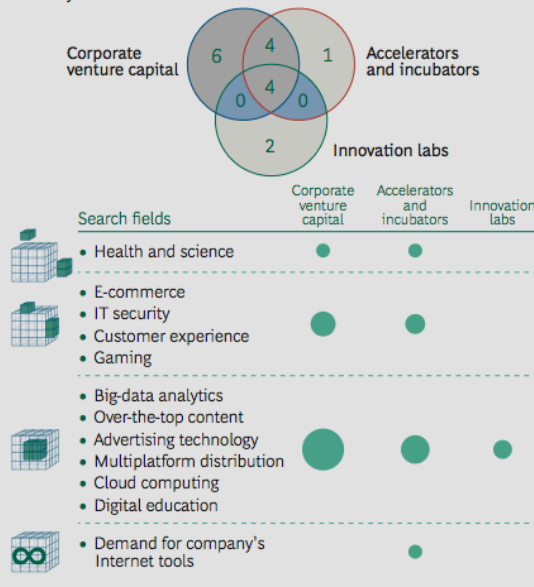
CHEMICAL

Innovation focus is on core businesses
 Mainly uses CVC



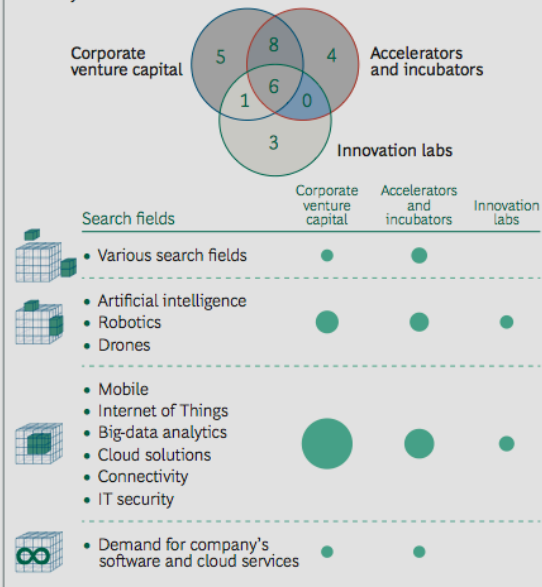
MEDIA AND PUBLISHING

Innovation focus is on core businesses and adjacencies
 Mainly uses CVC and accelerators and incubators



TECHNOLOGY

Innovation focus is on core businesses
 Mainly uses CVC and accelerators and incubators



Source: Michael Brigl, Max Hong, Alexander Roos, Florian Schmieg, and Xinyi Wu, "Corporate Venturing Shifts Gears", The Boston Consulting Group (BCG), April 2016

Technology companies focus on core-business innovation using a combination of CVC and accelerators or incubators. Technology companies use these strategies to locate innovations in fields such as the Internet of things, big-data analytics, cloud solutions, and IT security. These companies are increasingly turning to innovation labs, using them in concert with their other venturing tools.

6.7 The Types of Mode

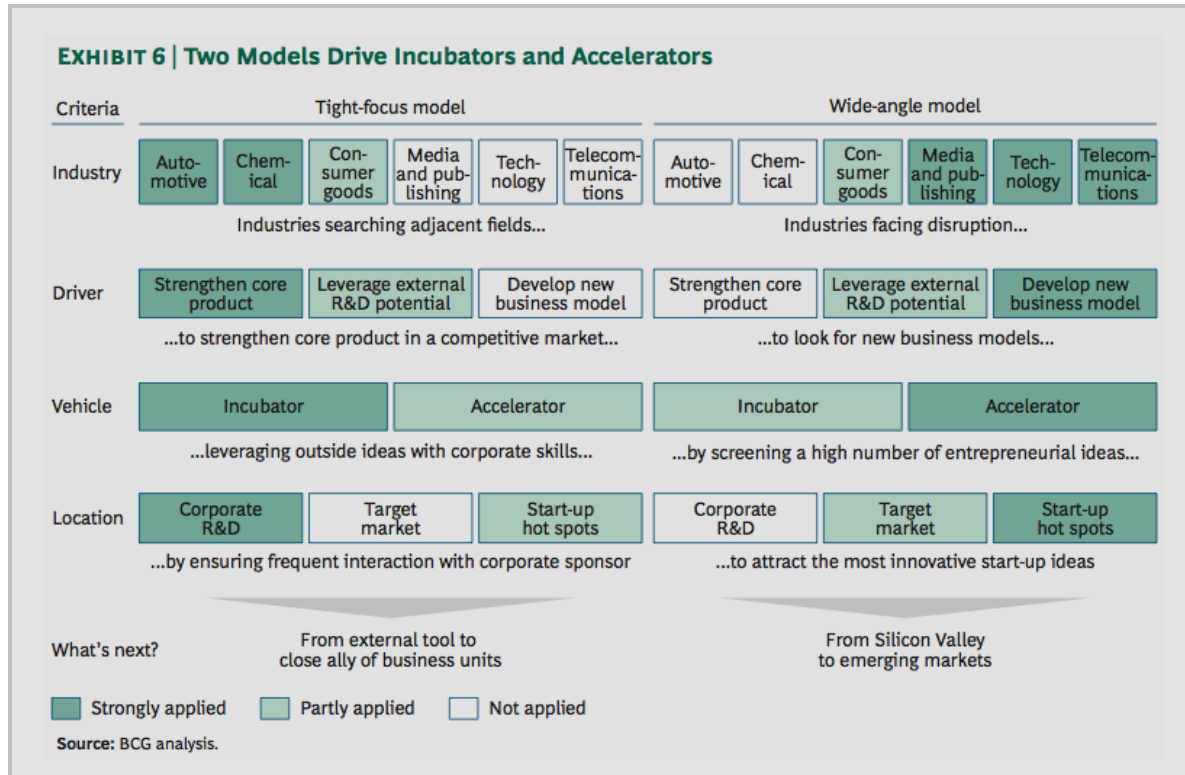
Tight Focus Model vs Wide Range Model

Tight-Focus model is innovation designed to strengthen the core business whether by targeting adjacencies or the core itself. Most companies that follow this model opt for incubators located close to the R&D department to promote collaboration and encourage cooperation between the two units. For instance, the automotive industry is strengthening its core business by developing adjacencies such as connected cars, big-data analytics, etc. This type of investment requires time for development and integration. Hence, the automotive industry opts for business incubation⁷⁶.

The other side of the spectrum is the Wide-Range model where the focus is to develop new business models and find new applications. These companies try to mimic the startup structure and ecosystem by creating innovation labs separated physically and culturally from the core business. This approach allows the dedicated team to work away from the mainstream bureaucracy and regulations that can delay the innovation process. For instance, the tech company prefers accelerators over incubators due to the importance of time-to-market. In technology, companies must move fast and efficiently to stay one step ahead of the competition otherwise they lose their edge⁷⁷.

⁷⁶ Source: Michael Brigl, Alexander Roos, Florian Schmieg, and Drake Watten, "Incubators, Accelerators, Venturing, and More", The Boston Consulting Group (BCG), June 2015

⁷⁷ Ibid.



Source: Michael Brigl, Alexander Roos, Florian Schmiege, and Drake Watten, "Incubators, Accelerators, Venturing, and More", The Boston Consulting Group (BCG), June 2015

7 Conclusion

We have seen different strategies for innovation; each approach has its strength and weakness. These concepts don't guarantee success or turn an annoying organization into a creative firm. They are simply tools that enable a corporation to expand its horizons. Innovation is a mindset that leverage collaboration, risk, and perseverance. In fact, these concepts are as good as the leadership applying it. Therefore, the backing of the organization highest executives is very crucial to the success of innovation.

7.1 The GROW Framework

[Click here or see on one visual, the GROW Framework that summarizes this paper.](#)

It is also available on this address: goo.gl/xQu705

7.2 My Top Five Learning:

7.2.1 Corporate Venture

Corporate Venturing is not a new concept; it has been around for several years in the pharmaceutical industry. It is becoming a trend where a corporation is seeking innovation outside its boundaries either to find new business models or to strengthen the core business. CVC can be financial when it is led by the Corporation and strategic when it is led by the business unit. Today, it is very common to see the combination of both. If it is for financial purpose, the purpose is either to resell the startup's equity after being leveraged or for hedging purposes by mitigating the risk of future uncertainty. Strategic corporate venturing can be for several reasons such as to monitor the latest technology in development, or scouting for an acquisition. But it can also be a defensive approach by preventing the competitor to get access to a solution that can jeopardize the business. Corporate venturing happens either by co-syndicating with a VC firm on a particular project or by investing in a VC fund. Again, the investment approach depends on the purpose. Normally, CVC investment is a capital expenditure as opposed to business incubation which is more an operation expenditure. Connecting with VC firms is not only beneficial to access and acquire innovation, but also to sell it. In other words, VC firms are interested in corporate innovation resulted from R&D if the corporation is not interested in its commercialization or/and related to the core business.

7.2.2 Internal Venture

Internal venturing has different interpretations. Based on my findings, internal venturing is the creation of an innovation unit that explores white spaces relevant to the core business and its adjacencies but also to find new business models and applications. The innovation unit runs different business programs such as incubators and accelerators. But also its responsibility is to leverage external ideas through external collaboration. Internally driven innovation is the unavoidable route to find new ideas, hence the importance in selecting the right team and its leadership. There are two types of

innovation: Radical where an organization aims to disrupt its market and incremental where the innovation comes in phases. Often, the self-governed innovation unit operates away from the mainstream rules and processes so it can focus on the development of ideas away from the core business's distraction. In some cases, there is little separation between the innovation unit and the core business especially when the innovation is related to the core business. Therefore, the collaboration with the R&D and the business unit becomes relevant to the process. It is important to mention that the corporate lab is not a substitute to the R&D but complementary. Innovation lab is built for speed and efficiency. Therefore work processes such as the combination of Stage Gate/Agile becomes relevant to keep the focus, time and energy well optimized.

7.2.3 Joint Venture

Joint venturing is when two organizations combine its forces in creating a new business or revenue model. It is an interesting model where risk is minimized when comparing the financial investment of Joint Venturing to Corporate and Internal Venturing. Since there is no equity involved, it is a profit/cost sharing model. Intellectual property is often one of the main challenges in these types of agreements. The two models are either "Inside Out" which means taking a role of a supplier by providing the technology/solution while the other party handles the commercialization part, or "Outside In" which is the other way round. There are different activities to leverage outside ideas such as hackathons, contests, sponsorship or simply scouting for intellectual properties. For Joint Venture to work, there should be a common goal between the two organizations while sharing equal governance and responsibility.

7.2.4 The Organization's Context and DNA

The organization's unique context and reality are important factors to consider when seeking innovation. On a micro level, we often see external venturing either by corporate venture capitalism or by acquisition when organizations are struggling to innovate from the inside either because they don't have the resources or the culture. It is important to assess the organization capabilities first so it can identify the strategy that fits its need, philosophy, and culture. The latter cannot be changed overnight. Therefore it is

important to acknowledge the organization capabilities whether its strength is integrating external innovation or driving innovation from the inside. Regardless of the approach, the organization forty should always be the starting point. I believe that an organization with a strong innovation team that initiates business incubation programs, pursues joint venturing opportunities and engages in external venturing create an attractive ecosystem for innovation. Also, the timeframe is an important factor to consider since each strategy has a different yield time. Corporate venture capitalism takes a longer time to pay back the investment when compared to an accelerator program managed by the business innovation unit.

7.2.5 The Type of Industry and Business

Even though there is not one secret strategy that fits all businesses, there is pattern based on industries. Organizations in industries where the momentum and level of innovation are slow such as the pharmaceutical, chemical sector tend to invest in corporate venturing and acquisition as a way to access innovation since many of these companies as described before can become risk averse due to their heavy and bureaucratic structure. On the other hand, organizations in an industry where innovation is its core business such as the technology sector engaged actively in internal, external and joint venturing. Besides the industry, the nature of the business plays a role in the preferred type of strategy. The more an organization has a wide range of potential applications, the more benefits it has in connecting, collaborating and pursuing external ideas either by CVC, JV. In contrast, the organization that is a tight focus on one application has more advantages in concentrating its effort in business incubation and R&D.

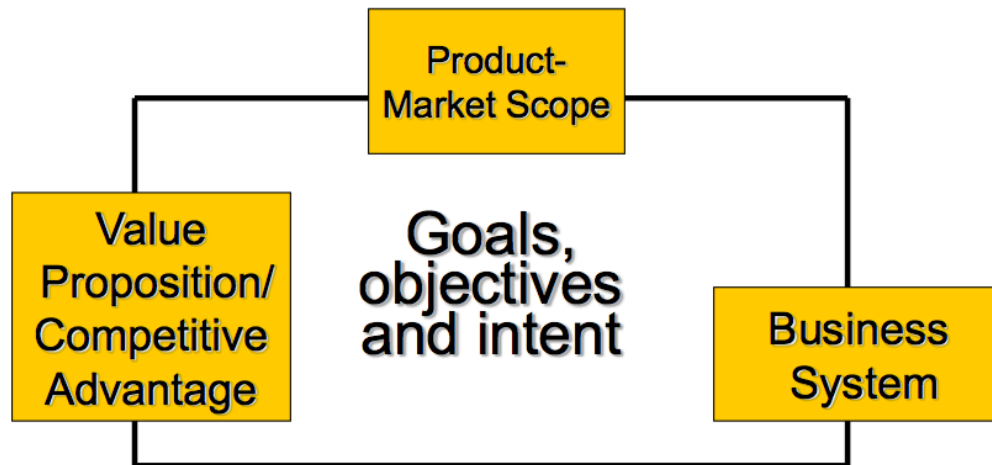
7.3 My Final Thoughts

The paper initial's goal is to focus on how organizations innovate, but I realized through the literature reviews and interviews that innovation is a mindset whether it is a CEO or middle management. It starts by acknowledging that innovation takes away what we value the most which is safety and comfort. In fact, these exact two elements are the reason why prestigious organizations that we thought are too big to fail collapsed in a

short period. It is important to understand that the application of the same strategy that helped an organization creates its first successful product is not a guarantee that leads to another invention. What brings a company to point B doesn't necessarily bring it to point C because the context changes. Therefore, a growing organization must adapt to the change by embracing new tactics, which are often outside the corporation's comfort zone.

Not all companies are willing to take the risk of innovation, and it is understandable. As Real Jacob said: "Innovation is great, you start first." It summarizes how great innovation is on paper, but how tough it is in reality. The fact is that most of the articles in business magazines talk about the need for change and highlight the success of Apple, Google, etc. I agree, but let us not lose sight on the remaining 99.9% companies that are struggling not because they don't have great ideas but because innovation is easier said than done. Based on my interviews, many large organizations had shut down their internal innovation unit or/and corporate venturing arms due to the substantial financial investment it requires and the little outcome it generated.

For a for-profit organization, innovation is essential for growing financially and gaining market shares. Hence, innovation becomes an integral part of the business growth strategy. In a nutshell, strategy is the correlation of three following elements as shown in the graph below.



Source: Louis Hébert, 'The Strategy Perspective', EMBA McGill-HEC, March 2016

The integration of innovation in one or more of the boxes that constitutes a strategy helps the organization to accelerate its growth.

Innovative organization has the capabilities to build their own innovation unit. Otherwise, companies can access it through CVC and Joint Venturing models. In my perspective, the main two obstacles for a corporation to innovate is its level of risk and its financial requirements. So, how can we de-risk innovation and decrease its financial implication?

Perhaps Joint Venturing program with no-equity that starts gradually with a small project between two organizations that shares the same culture and vision is an option.

Nevertheless, there is no secret recipe that makes an organization innovative and successful. There are many internal and external variables to factor such as the organization capabilities in taking risks and dealing with uncertainty as well as the industry dynamic and the macro/microeconomic circumstances.

This paper described the different innovation strategies that lead the organization to growth. Now my question is what is more important; Innovation or Strategy? Is it better to be an organization made of creative/innovative people with no strategists or the other way round?

8 APPENDIX GE, GV, LABS, CVC

Table 1. Examples of Innovation Centers

Company	Industry	Source
Alfa Bank Alfa Laboratory	Financial Services	http://officesnapshots.com/2014/07/17/alfa-banks-new-moscow-laboratory-offices-ind-architects
Argos	Retail	www.marketingmagazine.co.uk/article/1229199/argos-opens-london-based-digital-hub-attract-top-technology-talent
BBVA Innovation Center	Financial Services	www.intelligenthq.com/innovation-management/have-you-heard-about-bbvas-innovation-centers
DHL Innovation Center	Logistics	www.dhl.com/en/about_us/innovation/dhl_innovation_center.html#.VILqGXbhDRY
Fidelity Center for Applied Technology	Financial Services	http://fcap.fidelity.com
Ford Research and Innovation Center Palo Alto	Auto	https://media.ford.com/content/fordmedia/fna/us/en/news/2015/01/22/research-and-innovation-center-palo-alto.html
GE	Conglomerate	www.ge.com/digital
ING Customer Experience Center	Financial Services	https://www.ing.jobs/Netherlands/Expertise/Information-Technology/Blog/Innovation-and-ICT-are-top-of-the-agenda-at-ING.htm
Johnson and Johnson Innovation Centers	Healthcare and CPG	www.jnjinnovation.com/contact
McDonald's	Restaurant	www.chicagotribune.com/business/ct-mcdonalds-innovation-1019-biz-20141017-story.html 500
Nestle Digital Acceleration Team	Food and Beverage	www.youtube.com/watch?v=ktsMa8hfgY0
Safran Fab Lab	Aerospace and Security	www.safran-group.com/media/20141112_safran-fab-lab-steps-innovation
Steelcase Innovation Center	Furniture	www.steelcase.com/find-us/locations/key-buildings/#innovation-center_overview
Target Technology Innovation Center	Retail	https://corporate.target.com/article/2013/05/meet-target-s-silicon-valley-team
Toyota InfoTechnology Center	Auto	www.us.toyota-itc.com
Visa Europe Collab	Financial Services	www.visaeuropecollab.com
WalmartLabs	Retail	www.walmartlabs.com

RICHARD SAAD

HEC Matricule: 11061168

McGill Matricule: 260704546



McGill – HEC Montréal

ADD TO LIST

TOP CONTRIBUTORS

ADD TO THIS PROFILE

CONTRIBUTE

General Electric (GE) is sponsoring [Slush 2016](#) on Nov 30, 2016

Overview

UPDATE

Acquisitions

16 Acquisitions

IPO / Stock

Went Public on Jan 13, 1978 / NYSE:GE

Headquarters:

Fairfield, Connecticut

Description:

General Electric Company offers infrastructure and financial services worldwide.

Categories:

Finance, FinTech, Electronics

Website:

<http://www.ge.com>

Social:

Company Details

UPDATE

Founded:

January, 1878

Employees:

95 in Crunchbase

General Electric Company offers infrastructure and financial services worldwide. It operates in various segments, including power and water, oil and gas, energy management, aviation, healthcare, transportation, appliances and lighting, GE capital, and more.

...

[See More](#)

Recent Timeline Activity (1,339)

October 28, 2016

- Business Wire - [GE Reaches Agreement to Acquire a 75% Stake in Concept Laser GmbH of Germany](#)
- [www.geaviation.com](#) - [GE reaches agreement to acquire a 75% stake in Concept Laser GmbH of Germany](#)

ALL TIMELINE ACTIVITY

Funding Rounds (1) - \$2M

UPDATE

Date	Amount / Round	Valuation	Lead Investor	Investors
Nov, 2009	\$2M / Grant	—	—	0

Graph Insights

General Electric (GE)'s Current Team worked at:

GE Capital

17

GE Energy

9

GE Aviation

7

SEE ALL

General Electric (GE)'s Past Team now works at:

GE Capital

6

Cisco

5

GE Aviation

4

SEE ALL

RICHARD SAAD

HEC Matricule: 11061168

McGill Matricule: 260704546

EMBA

McGill – HEC Montréal

Date	Invested In	Round	Partner(s)
Jul, 2016	Carbon	\$81M / Series C (Lead)	—
May, 2016	Pivotal	\$653M / Series C	—
Dec, 2015	ThetaRay	\$15M / Series C	—
Oct, 2015	Bracket Computing	\$46.4M / Series C	—
Oct, 2015	Welspun Energy	\$452M / Debt Financing	—
Oct, 2015	Welspun Energy	\$165M / Private Equity	—
Mar, 2015	TTTech	€50M / Venture	—
Jul, 2014	ThetaRay	\$10M / Series B	—
Jul, 2014	ThetaRay	undisclosed amount / Venture	—
Jun, 2014	Nuventix	\$4.9M / Debt Financing	—
Mar, 2014	Cool Planet Energy Systems	\$100M / Series D	—
Jan, 2014	Bracket Computing	\$62.6M / Series B	—
Nov, 2013	Quirky	\$79M / Series D (Lead)	—
Aug, 2013	ThetaRay	undisclosed amount / Undisclosed	—
Jun, 2013	Gati Infrastructure	\$43M / Private Equity (Lead)	—
Jun, 2013	Cool Planet Energy Systems	\$29.9M / Series D	—
Apr, 2013	Pivotal	\$105M / Series B (Lead)	—
Oct, 2012	University of Connecticut	\$7.5M / Undisclosed	—
Jun, 2012	Rock Health	\$4M / Private Equity	—
Nov, 2011	Better Place	\$200M / Series C (Lead)	—
Dec, 2010	Trilliant	undisclosed amount / Venture	—
Jul, 2010	Trilliant	\$106M / Series B (Lead)	—
Aug, 2009	Advanced Electron Beams	\$14.2M / Series C	—
Apr, 2009	A123 Systems	\$69M / Series E (Lead)	—
Apr, 2009	Southwest Windpower	\$10M / Series C (Lead)	—
Jan, 2009	eSolar	\$40M / Series F (Lead)	—
Jul, 2008	BlogHer	\$5M / Series B (Lead)	—
Oct, 2007	A123 Systems	\$30M / Series D	—
Jul, 2007	Trion Worlds	\$30M / Series B	—
Apr, 2007	Adify	\$19M / Series B	—
Mar, 2000	Neuvis	\$56.5M / Venture	—
Feb, 2000	ChemConnect	\$70M / Private Equity	—
Feb, 2000	CompuBank	\$36M / Series A	—
Jan, 2000	Sierra Atlantic	\$17.4M / Venture (Lead)	—
Jan, 2000	Derivion	\$40M / Series C	—


RICHARD SAAD

HEC Matricule: 11061168

McGill Matricule: 260704546


EMBA

McGill – HEC Montréal



[ADD TO LIST](#)

TOP CONTRIBUTORS



ADD TO THIS PROFILE

[CONTRIBUTE](#)

Overview

UPDATE

Status
Company of Alphabet

Investments
444 Investments in 304 Companies

Founders: [Bill Maris](#)

Headquarters: Mountain View, California

Funds Raised: \$100M

Categories: Finance, Venture Capital

Description: GV provides seed, venture, and growth stage funding to technology companies.

Website: <http://www.gv.com>

Social: [f](#) [t](#)

Investor Details

UPDATE

Founded: March 31, 2009


Aliases: Google Ventures


Type: Venture Capital that does Seed, Early Stage Venture, and Later Stage Venture Investments


GV provides seed, venture, and growth stage funding to technology companies. The firm operates independently from Google and makes financially driven investment decisions.


Recent Timeline Activity

(3,124)

 October 26, 2016

 Made an investment in [Genomics Medicine Ireland](#)

 \$40M / [Series A Venture Round](#)

 3 Other Investors

ALL TIMELINE ACTIVITY


Investments


(445)


Date	Invested In	Round	Partner(s)
Oct, 2016	Genomics Medicine Ireland	\$40M / Series A (Lead)	—
Oct, 2016	Twyla Inc	\$19M / Venture (Lead)	—
Oct, 2016	Mist Systems	\$28M / Series B (Lead)	Karim Faris
Oct, 2016	Carrick Therapeutics	\$95M / Series A	—

Graph Insights

Co-Investments with GV:


 [Kleiner Perkins Caufield & Byers](#) 34


 [SV Angel](#) 34


 [Andreessen Horowitz](#) 29

SEE ALL

Categories favored by GV:


 [Mobile](#) 73


 [Internet](#) 40


 [Enterprise Software](#) 38

SEE ALL

GV's Current Team worked at:

 [Google](#) 23

 [JotSpot](#) 4

 [YouTube](#) 3

SEE ALL


RICHARD SAAD

HEC Matricule: 11061168

McGill Matricule: 260704546

EMBA

McGill – HEC Montréal

 <p>ADD TO LIST</p> <p>TOP CONTRIBUTORS</p> <p>ADD TO THIS PROFILE</p> <p>CONTRIBUTE</p>	Oct, 2016	Carrick Therapeutics	\$95M / Series A	—
	Oct, 2016	Aspire Health	\$32M / Series D (Lead)	—
	Sep, 2016	Shape Security	\$40M / Series D	—
	Sep, 2016	Gametime	\$20M / Series B	—
	Sep, 2016	Ripple	\$55M / Series B	—
	Sep, 2016	Luma	\$7M / Series A (Lead)	—
	Sep, 2016	Arcus Biosciences	\$70M / Series B	—
	Aug, 2016	LendUp	\$47.5M / Series C	Blake Byers
	Aug, 2016	Farmers Business Network	\$20M / Series B	Andy Wheeler
	Aug, 2016	Pindrop	\$80.8M / Series C	—
	Jul, 2016	Carbon	\$81M / Series C	—
	Jul, 2016	Upthere	\$77M / Venture	—
	Jul, 2016	CyberGRX	\$9M / Series A	—
	Jul, 2016	Ripple Foods	\$30M / Series B (Lead)	—
	Jul, 2016	light	\$30M / Series C (Lead)	—
	Jun, 2016	Orbital Insight, Inc.	\$20M / Series B (Lead)	—
	Jun, 2016	SecurityScorecard Inc.	\$20M / Series B (Lead)	—
	Jun, 2016	Plaid	\$44M / Series B	—
	Jun, 2016	Andela	\$24M / Series B	—
	Jun, 2016	Ionic Security	\$45M / Series D	Blake Byers
	May, 2016	Weaveworks	\$15M / Series B (Lead)	—
	May, 2016	CoreOS	\$28M / Series B (Lead)	Dave Munichiello
	Apr, 2016	Helium	\$20M / Series B (Lead)	Andy Wheeler
	Apr, 2016	Anomali	\$30M / Series C	Karim Faris
	Apr, 2016	Medium	\$50M / Series C	M.G. Siegler
	Apr, 2016	Quartet Health	\$40M / Series B (Lead)	—
	Apr, 2016	Managed by Q	\$25M / Series B (Lead)	M.G. Siegler
	Mar, 2016	Juicero	\$70M / Series B	—
	Mar, 2016	Cockroach Labs	\$20.25M / Series A	—
	Mar, 2016	MapD	\$10M / Series A	—
	Mar, 2016	Percolata	undisclosed amount / Venture	—
	Mar, 2016	Skyport Systems	\$30M / Series C (Lead)	Dave Munichiello
	Mar, 2016	Cambridge Epigenetix	\$21M / Series B (Lead)	Tom Hulme
	Feb, 2016	Forty Seven	\$75M / Series A	—
	Feb, 2016	ThousandEyes	\$35M / Series C	—
	Feb, 2016	Rani Therapeutics	undisclosed amount / Series D	—
	Feb, 2016	ARMO BioSciences	\$50M / Series C	—

Graph Insights

Co-Investments with GV:

KPCB Kleiner Perkins Caufield & Byers 34

SV Angel 34

Andreessen Horowitz 29

SEE ALL

Categories favored by GV:

CB Mobile 73

CB Internet 40

CB Enterprise Software 38

SEE ALL

GV's Current Team worked at:

Google 23

JotSpot 4

YouTube 3

SEE ALL

Figure 9
Most Active Corporate Venturers 2013
Source: Global Corporate Venturing,
2013 Data Analysis

Organisation	Deals	Organisation	Deals
Intel	146	Hearst	9
Google	78	Novo	9
Qualcomm	69	Saudi Aramco	9
SR One (GlaxoSmithKline)	32	Citi	8
Samsung	>30	Nokia	8
IDG	29	Reed Elsevier	8
SAP	24	Energy Technology Ventures	8
AOL / Crunchfund	24	Celgene	7
Deutsche Telekom / T-Venture	23	SingTel	7
GE	21	Ascension	7
Norwest Venture Partners	21	Lux Capital	7
Cisco	19	Mitsui	7
Novartis	19	Motorola Solutions	7
BP Ventures	18	Citrix	7
Amex Ventures	16	VMware	6
Juniper Networks	15	Northgate Capital	6
Comcast	15	ConocoPhillips	6
Siemens	15	Legend	6
Salesforce	14	Microsoft	6
Verizon	14	Rakuten	6
In-Q-Tel	13	Roche	6
Bertelsmann	13	Tencent	6
CyberAgent	13	Tengelman	6
Goldman Sachs	13	Robert Bosch	6
Itochu	12	Amgen	5
Softbank	12	Johnson & Johnson	5
Advance Publications / Conde Nast	11	NRG	5
NTT Docomo	10	Roche	5
Time Warner	10	Tata	5
O'Reilly	10	PayPal	5
General Motors	10	Alibaba	5
		Mitsubishi UFJ	5
		Merck	5

24 Investing in Breakthrough Chapter 2

9 APPENDIX INTERVIEWS

9.1 Interview with Ph.D. Cassin R., Senior Business Strategist.

According to Cassin, organizations that are the most engaged in CVC and IVC are those operating in industries where there are high competition and importance on technology advancement. For instance, these business strategies are very present in the tech industry. Nevertheless, it does not mean that they are meaningless for other sectors. In fact, other industries should start learning for tech-based sectors as it is just a matter of time before these innovative business strategies become crucial to all sectors. Corporate venture capitalism enables the organization to diversify its risks by investing in several startups. CVC allows the monitoring of innovations and technologies in development. It is an expensive initiative as it is an equity based acquisition. Usually, the organization becomes a minority shareholder. R&D are often involved in CVC as they provide valuable insight on due diligence, but also on the technical and the strategical value that the startup brings to their organization.

IVC is hard to document as it is often confidential. Corporate labs are the starting place for innovation and corporations tend to be secretive on their new launches. In contrast with CVC, IVC's benefit is the capability to innovate in a controlled environment. IVC relies on internal resources making the cost incremental as part of the operation expenditure. IVC's role is to identify white spaces by leveraging opportunities through various markets and users' research techniques. There is sometimes confusion between R&D and innovation lab, Incubators and accelerators. The role of internal innovation is not only to rethink the technology but also the business model in a new whole perspective. Both CVC and IVC require patience and substantial investment. They are complementary strategies that have proven its efficiency.

9.2 Interview with Ph.D. Oliver T, Senior Business Strategist

There are different ways for an organization to stimulate innovation. However, it is important to understand that there is no one size fits all model. Therefore it is crucial to assess the company's capabilities and the type of innovation it is seeking. In other words, there must be a fit aspect between the innovation strategy and the organization. Otherwise, there are good chances it would fail. For instance, some companies are better at incremental innovation than at disruptive innovation. Copying an existing model and executing better than the inventor implies innovative thinking on the execution level rather than on the business idea. For instance, Zoolando was successful in replicating the Zappos Model but with better execution.

The decision depends on the organization's forté. Is the company better in integrating the innovation or creating it; Fast Follower or First Movers. To innovate, the organization has to create value by leveraging its ownership advantage.

In theory, organizations that don't have the capacity to innovate internally via lab/incubators/accelerators, would prefer acquiring more creative organizations. This strategy is common in the pharmaceutical industry. However, for innovation to flourish, there must be integration with the buyer. But unfortunately, research shows that mergers and acquisitions often fail in reaching their anticipated synergies leading to bad returns. In addition to stimulating innovation internally or acquiring innovation through M&A, there is a third option allowing the access to development through the licensing model. The latter enables an organization to innovate with some restrictions when compared to the previous models. Unfortunately, the access to innovation does not lead the organization to become more innovative but rather it gives it only the access.

Innovation happens phase by phase as opposed to the Three-Horizons of Growth. Oliver argues that you can't predict the third horizon (H3) unless you are living the second horizon (H2). The concept of forecasting the future is speculative and is not necessarily the right approach. The idea of diversification of product portfolio targeting the (H3) is a hedging strategy and not an innovative one. Innovation is always one step at a time and should be related to the core business for it to create value.

9.3 Interview with David D., Serial Entrepreneur

David doubts on the efficiency of intrapreneurship. He believes that the engine for success in any entrepreneurial venture is the level of personal risk/reward. This key factor is absent in cooperation as there is little personal risk involved when compared to entrepreneurs. The worse that can happen for an employee is losing his job as opposed to losing his home and savings as an entrepreneur. According to David, intrapreneurship is nowhere near entrepreneurship unless the organization can mimic the entrepreneurial setup.

9.4 Interview with Jordan T., Senior Venture Capitalist

Today, the average time for companies listed in the S&P index has dropped from 67 years to only 12 years. This slide is due to the fast pace of the new technology tossing the previous one. Organizations have been disrupted and replaced faster than ever.

Regardless if it is CVC, IVC, JV or R&D, innovation is a mindset leveraged by culture. Innovative companies are those that believe that failures are lessons that lead to the breakthrough. A company can't innovate if it is afraid of losing what it has. In other words, innovation involves high risks. Corporate Venturing is part of the organization innovation ecosystem. It is not CVC or IVC, but rather CVC within IVC. It is important to understand that access to innovation through CVC or other types of M&A do not make the organization innovative. The only way to become pioneer is by creating a culture of

collaboration and innovation through a dedicated corporate lab that has the role to incubate ideas, accelerate commercialization and explore joint venturing opportunity.

According to Jordan, each industry has its own reasons for corporate venturing. The Fin-tech industry is very active in CVC and IVC as a reactive strategy to catch up on the competition, but also to stay at the forefront of technology. Pharmaceutical companies focus on acquiring new drugs rather than developing it internally due to the high cost of R&D. Hence, it is more cost effective to leverage their distribution, marketing, and sales infrastructure.

Co-syndicating with VC firms can be both challenging and complex. According to Jordan, the problem when dealing with corporations is their desire for control with a request such as the right to the first refusal. The involvement of the incumbent is not always the best option for a startup as it might limit its growth by restraining them for exploring some avenues that won't fit the corporation's vision such as working with the competition. However, working with Google Venture and the Intel Venture are examples of successful co-investment cases due to the arm's length relation with the VC firm. It is important for the corporation to have a knowledgeable expert dealing with the VC firm because he knows the guidelines and the industry's best practices. Co-syndication with a VC firm on a particular project is one way to engage in CVC; there is also the option for a corporation to invest in a VC fund that operates in the field of interest. This approach allows the corporation to access a broad range of portfolios and scout on the ground.

One of the main investors of John's VC firm is a major bank. Even though the relation is with the bank's finance department, the goal is not only for financial return but also for monitoring the industry, promoting the brand of the bank and their services. When the startup begins scaling, its financial needs grow as well, and the bank will be at its side.

Today, several funds exist mainly in the following industries: IT, Health/Life Science, Clean Tech and Industrial. The process starts when the Corporate Venture specialist approaches VC firms that operate in the target industry. There are three options to work with a VC firm: co-syndicating, acquiring or partnering with one of their startups in a commercial agreement where there is a revenue/cost sharing.

9.5 Interview with Steve T., Senior Venture Capitalist

Corporate venturing is a trend where more and more corporations are taking the leap. As Jordan mentioned, the involvement of a corporation in the process is challenging for the startup as well as for the VC firm. Startup founders are not always happy when a corporation is on board because of their concerns to be forced to comply with regulations that they don't endorse. From some startups' they may perceive that corporations can become an obstacle for growth if they get too much in the startup way. VC firms are also not very keen on the co-syndicating idea due to the corporation's unreasonable request sometimes. As Steve puts it, companies are excited at the thought of co-investing with a VC firm by becoming a minority shareholder in a promising startup. But plans change quickly, and the CVC idea transforms into an acquisition when the corporation realizes its limitation of control under a CVC agreement.

Echoing Jordan's point, there are different ways to access innovation and get insight on the latest technologies in development. Besides co-syndicating with a VC firm on a project, a corporation can invest directly in a VC firm. This gives the company the necessary insight on all startups that the VC firm holds in their portfolio. According to Steve, corporations are opting for CVC as a strategy to become the disruptor instead of being the disrupted. The example of Ford investing heavily in Lyft, the competitor platform of UBER, is an exact case where the incumbent tries reversing these roles.

9.6 Interview with Sean V., Senior Venture Capitalist

Sharing the same point as his VC colleagues, Sean says that there are two types of CVC. The first is an experienced CVC such Google, Intel, and GE, which are very

familiar in deal pricing and structuring. Often these CVC were former VCs from Silicon Valley who know the industry's practices on making the co-syndication process seamless. Also, they are very active and fruitful in creating synergies between the corporation and the startup. In contrast, CVC from smaller organizations who rarely do any corporate venturing tend to lack the expertise in deal structuring. This can complicate the process due to their unfamiliarity in this field. Often, they opt to be passive investors with a minority observer's seat. According to Sean, CVC has to be both strategically and financially driven. It can be initiated by the business unit through the corporate venturing arm or vice versa. There is no one CVC model. Some corporations de-risk their investment by choosing a mature technology that would be leveraged across their well-established distribution channels. But there are also companies that prefer the technology risk instead of the sales one. In either case, the startup needs to be grown enough so it can't be crushed by the incumbent's culture.

The timing and the level of maturing depend on the sector. For instance, pharmaceutical industries are willing to invest in an early stage for data analytics tools, an average stage for medical devices but in a mature stage when it comes to molecules. The cases where the corporation ends up buying the startup is when the technology becomes very related to the core business and integration become inevitable. For the same invested amount, monitoring the industry dynamics can be achieved by co-syndicating with a VC firm but also investing in funds that give the corporation the insights it is seeking through quarterly reports. It is important for the corporate venturing representative to be involved and active in the startup and the VC community. It gives privileged access to hot deals before they become public similar to any industry when the insider has the edge over the general public. Connecting with VC allows the corporation to spin off some of its R&D as well.

9.7 Interview with Thomas D., Director of a Corporate Innovation Lab in the Media Sector

The Innovation Lab at this cooperation started in 2012 with the gathering of new media enthusiasts to discuss emerging technologies and trends. Since then, the meetings happen once every two weeks at a dedicated space. These meetings are supplemented with conferences by fellow employees who are the subject expert of the addressed topic. In other words, these discussions are based on themes allowing participants to interact, engage and implement what is relevant in their work.

In 2013, the New Media Research Department introduced the accelerator program. It enables all employees regardless of their roles to participate by pitching an idea that solves a current problem. These ideas are submitted via a platform reserved for the corporation's staff called "Accélérateur d'idée." Once ideas are presented, a group of moderators assess the proposed solutions, and in some cases, request additional information or ask for modifications to better comply with the program's guidelines. With the help of an external consultant, the selection committee selects the best 3-4 ideas that are later presented to the committee through a demo day. The winner is then assigned the necessary resources to build his prototype; there is a \$25,000 budget dedicated to the purchase of material, the participant's extra hours invested in the project, and any related fees. According to Thomas, it is important to advise managers that their resources will be working partially on an entrepreneurial project that is outside their daily duties.

While working on developing the prototype, the team has to report to the committee weekly on the advancement of the project and whether they need help or not. Once the prototype is developed, and the project is over, the purpose of this program is to find the suitable department that sees enough potential in the idea to invest from its own budget

and take the prototype to the next level. The accelerator program runs 3-4 contests per year with an allocated budget of \$100,000 (\$25,000 for each contest).

In addition to the lab and accelerator, there is the R&D. The latter focuses on technology research such as Virtual Reality content. It centers less on business innovation but rather on the integration of an identified technology based on a substantial business opportunity.

The corporation is also exploring the introduction of a new incubator program by hosting early stage startups and providing them with the necessary expertise and infrastructure in exchange for equity. Obviously, the startup should be relevant to corporation's core business. Today, the Innovation team is small in financial and human resources. However, the success of its accelerator program in bringing new ideas to the market has led high-management to multiply by 5 the 2017 annual budget.

Besides bringing new ideas to life, the department's goal is to engage employees and stimulate their creativity and passion through these entrepreneurial initiatives. It is also important for the corporation to leverage its innovation mindset by being active in the startup community through various collaboration. One of the innovation lab goals is to change their image as a traditional, massive and a bureaucratic organization that lacks fresh ideas.

9.8 Interview with Francois R., Director of a Corporate Innovation Lab in the Manufacturing Sector

There are many types of innovation depending on departments and business units. The one we will be addressing is the new product development unit. It is a bottom to top innovation where engineers signal to their superior the area for improvement or opportunity; the superior assess the demand first then submit to the new product

development unit which analyzes the request more in-depth through a rigorous checklist. The new product development team is a diversified team that involves marketers, business analysts and related personnel. The goal is to ensure that the proposed innovation brings tangible value to the end user and is feasible within a reasonable timeline and budget. In other words, it is important to evaluate the outcome vs. the investment.

Once the project is approved, the new product development unit designates a team of experts who will be responsible for executing and delivering the project until its integration.

There are four types of innovations:

- The integration of new technologies and connectivity that improve the user's experience
- The development of new features in partnership with suppliers and partners that reduce production cost or time
- The development of new business and manufacturing procedures that improve efficiency
- The development of new technologies that comply better with new regulations.

In conclusion, innovation is related to the core business. There is no interest in searching for new applications by exploring new ways. It is rather an exploitation driven innovation where the focus is very defined on tackling a very specific issue in a structured process.

9.9 Interview with Caroline R., Director of Innovation in the Media Sector

Caroline Roys is the VP Innovation at one of the most recognized media company in Quebec. She is in charge of introducing new technologies and business models through

its diversified internal team of thirty formed of analysts, researchers, developers, and technologists. The innovation is also driven by the firm's corporate venture arm through the finance department. The sponsorship of the famous Notman House, which is a space for incubators and accelerators, allows the media/publishing firm get first access to developing technologies and ideas. Caroline's involvement in the startup community enables her to obtain valuable insights. Besides its social purpose of helping young entrepreneurs develop their MVPs, Caroline and the Corporate Venture team assess potential startup for either an acquisition or a minority shareholding. It is interesting that the equity is in exchange for media dollars, a way to mitigate the financial investment.

Most of the innovations are for short-mid terms that focus mainly on the core business and some adjacencies while staying within the same sector as opposed to a major Quebecor telecommunication company that is investing in new industries exploring new avenues. The innovation projects are either triggered by the business unit based on a market need or insight or by the innovation unit.

The organization is also involved in joint venturing based on a cost/profit sharing especially with european firms that have a complementary solution/product that fits the Quebecor market. The allocated innovation budget of several million is broke down in CapEx for test/market validation and OPEX for salaries, overhead, and related direct cost. According to Caroline, the organization has been using CVC, IVC and JV strategies in parallel since 2014. Their goal is to extend their internal innovation in the coming years to include incubators and host hackathon events to stimulate the outside-In Innovation.

9.10 Interview with Michael A. Senior Corporate Strategist

Corporate Innovation can be calculated as opposed to what many people think, the formula of the innovation index is the following:

Five years revenue from new products divided by total revenue. For instance 3M's innovation index is 39%. It is a clear indication of the importance of innovation for 3M. The main innovation is delivered by the R&D along with different innovation-related programs. On the other hand, CVC is less about innovation per say but more about growth when it has a strategic and a financial goal. It is an options type strategy for an organization to monitor the industry, and have first-hand acquisition of startups that shows a good fit.

There are three types of growth either by targeting a new customer segment, developing a new geography or a new product. Growth and innovation are two separate strategies.

Innovation aims to change behaviors of the customer either with a new technology or a new business model. It is a brave new world for an organization to create a new product and find new applications. According to Michael, R&D is very efficient in developing new products in an existing application. CVC's strength is to find adjacent applications using existing technologies. Joint Venturing, which is Michael's preferred approach is a very promising strategy when an organization takes a leap in a new industry that requires a modified product.

Joint Venturing consists of two companies; one has the technology, the process, and the product capabilities and the other has the market, user, and the distribution knowledge. The JV partnership can be either by creating a new company 50%-50% model, licensing or OEM.

It is important to assess the organization DNA and its leadership mindset, as there is no one model fits all. Innovation strategy has different tools that are customizable accordingly.

9.11 Interview with David Menard, the Product owner at a major software/It corporation

The innovation process is a traditional R&D department that operates in an agile environment. It is an iterative model where product features are improved by integrating new advanced technology that empowers the core business. The average timeframe of R&D projects is around 2-4 months; the newly developed features are regularly tested by users for constant feedback. It is a typical agile/stage gate model as described earlier. User's insight are fed to R&D via each product owner who acts as the user advocates when it comes to User's needs. Even though this large software firm does not have any business incubation, it does run a social initiative that empowers artists with their creativity. "Artist in Residence" is a space where this corporation offers an infrastructure and the tools needed for artists to liberate their senses without any equity in exchange. According to David, the firm does not have any corporate venture arm but a fund to encourage the usage of one of their product by incentivizing users financially. It is promotional fund rather than an innovation fund.

The innovation strategy is strictly focusing on the core business by capitalizing on R&D on the one hand and acquisitions on the other hand.

To David's point, these kinds strategies (CVC, IVC, JV) are not widespread in the industry yet. Today, the R&D remains the only propeller for innovation. The introduction of these strategies has to be initiated from the inside, most probably for a product manager/owner who successfully convinces an influential VP to sponsor a test project. These concepts have to be deployed gradually by starting small then expanding the model to other business units.

David explains the difference between the Lab and the R&D. The latter feed the lab that feeds the product managers when the technology is mature enough for commercialization. The lab features R&D products that are available for users to use under certain conditions, the lab's products are valuable solutions that end up not being integrated on a product or commercialized on a wide scale.