

corporate startup lab  
A CMU Swartz Center Initiative

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# CSL FOUNDATIONAL RESEARCH

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# INTRODUCTION AND OVERVIEW

Before the Corporate Startup Lab was a lab, it was a group of people asking questions about where and how startups and entrepreneurs could succeed. We had a hunch, now a firm belief, that startups can exist and thrive in any type of environment, even inside of large organizations. But the reality of what it takes to achieve entrepreneurial success inside a corporation was obviously similar in some ways (such as talking to customers to understand their problems better) and different in other ways (such as how to fund growth). So a team led by this report's authors set out to answer two fundamental questions:

- How are corporate startups similar to, and different from, traditional startups?
- How *should* corporate startups be similar to, and different from, traditional startups?

To answer these questions, we spoke to hundreds of people involved in executing and leading corporate entrepreneurship and innovation efforts in dozens of large companies from North America and Europe, spanning sectors including technology, financial services, industrials, healthcare, and more. The bulk of the research (both interviews and analysis) was done during the second half of 2017, with more conversations and refinements happening on a continuous basis as we learn more. The core findings from 2017 have remained unchanged, though our understanding of the nuances involved in creating successful corporate startups has grown.

For the purpose of this work, we started by defining “startup” in the language of the Lean Startup movement: “A human institution designed to create new products and services under conditions of extreme uncertainty.” We defined the entrepreneurs we were interested in studying as people trying to make the world a better place by creating transformational new products or services. These definitions make no assumptions about the location or organizational context of entrepreneurial efforts. A “corporate startup” is fundamentally similar to a “traditional startup,” and we wanted to learn more about the differences so we could help entrepreneurs thrive in non-traditional environments.

# INTRODUCTION AND OVERVIEW

Throughout our research, we looked at successes and failures of both individual corporate startups and broader innovation programs alike. Studying the approaches and outcomes of varied innovation efforts, and hearing feedback and stories from the people involved, we identified three consistent features that are overwhelmingly associated with improvement in innovation. These became our three universal principles. They are:

1. **Validate the riskiest elements first.** Entrepreneurs that were disciplined about prioritizing their learning and experimentation based on what hypotheses and assumptions posed the greatest risk, if incorrect, to their business idea were consistently more likely to succeed in the long run. Essentially, trying to quickly kill all but the best ideas made both individual entrepreneurs and larger innovation programs more likely to find the best ideas and bring them to market.
2. **Distinguish between failures in process vs concept.** When failure of an idea is seen as a failure of the team working on it, management incentivizes entrepreneurs to push forward inferior ideas and/or winds up punishing people for applying entrepreneurial best practices.
3. **Understand the anticipated value of an idea.** Large companies have the benefit of being able to see their startup efforts from a portfolio perspective, but they need to think more like a venture capitalist and less in terms of traditional valuation models that are designed for incremental growth.

Beyond these three universal principles, we also observed five ways that innovation approaches differentiate themselves. While some interviewees claimed that their approach on one or more of these dimensions was absolutely necessary, we've encountered examples of entrepreneurship succeeding at many points (including extreme ones) along these **five dimensions of differentiation**.

# INTRODUCTION AND OVERVIEW

1. **Who is responsible for innovation?** Is entrepreneurship everyone's responsibility, or the job of a select few?
2. **What motivates entrepreneurs?** Are the incentives financial, internal, social, or something else?
3. **How incremental vs transformational should the ideas be?** What's the window in which corporate entrepreneurs are expected and allowed to operate?
4. **What constrains which ideas can be pursued?** Different companies have varied philosophies regarding how constrained vs unconstrained their entrepreneurs should be, but it's important to identify any constraints regarding timelines, budgets, and even in which industries employees are allowed to pursue new ideas.
5. **When do you build vs partner vs buy?** This is the least controversial dimension, as almost all large companies do all three, but when to employ what strategy varies by corporate culture and individual leader. When do you work internally to build what you need, when do you reach out to partners, and when do you acquire what you need to move forward?


It should be noted that while we've observed successes with almost any answer to these five questions, we do not claim that any combination of these answers can work, as we've yet to collect enough evidence to speak with certainty about how all the different answers could work together (or not). It is possible that answering one question one way can have implications for the right way to approach another.

Finally, when pursuing a chosen strategy, it is important for leadership to communicate the answers to these questions to their teams. When the answers to these questions are unknown, or there's disagreement over what the answers are, innovation efforts wind up wasting time and resources on misunderstandings and confusion. This lack of clarity, if allowed to persist, eventually impedes teamwork and undermines group culture. For startups to thrive in large corporations, innovators need to be on the same page, and collaborators need to be on the same team.

# THREE UNIVERSAL PRINCIPLES

We've taken a deep dive to learn directly from the corporate entrepreneurs at leading companies in fields ranging from fintech to medical devices

ONE



**Validate the riskiest elements first**

## Guiding principles for every corporate innovation program to consider

Instead of setting out to build everything at once and hope it works out, the best companies take an iterative approach validating key hypothesis about the idea and only at that point making additional investments to validate more things.


TWO



**Distinguish between failures in process vs. concept**

The best corporate innovation programs draw a distinction between failure as a result of not following the right process vs failures that really come from ideas being invalidated. Failure due to faulty process is a challenge that needs to be addressed and invalidated ideas need to be accepted with zero impact on the career trajectory of the people involved.

THREE



**Understand the anticipated value of an idea**

Unlike other initiatives inside a company, where calculations like a simple Net Present Value can be calculated, corporate innovation programs are more challenging to predict the value of prior to launch. The best organizations look at these investments of capital and employee's time differently for innovation projects.

# FIVE DIMENSIONS OF DIFFERENTIATION

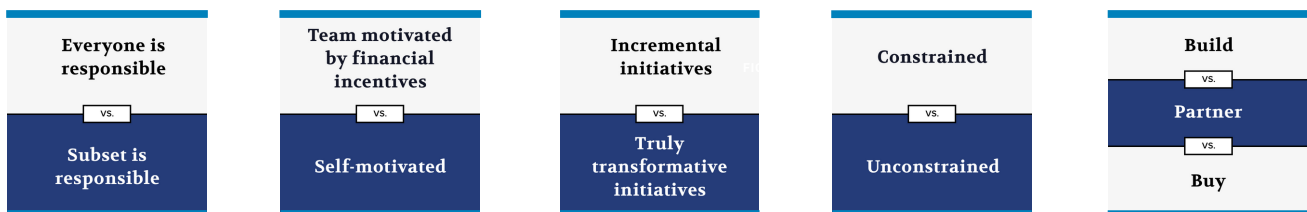
## WE FOUND THAT THERE ISN'T A "ONE SIZE FITS ALL" APPROACH TO INNOVATION.

These are 5 dimensions along which corporations distinguish their approaches to innovation. None of these have a "correct" answer. Success stories exist at widely separated points along every single one of these dimensions, even though plenty of people who have enjoyed success at one extreme of one of these dimensions will claim that they have the right answer.

While there are no right or wrong answers on any one of these dimensions, we do NOT yet know if there are COMBINATIONS of answers that might work especially well or poorly. We just don't have enough data to say for certain. It's also possible that certain company cultures are better fits for one choice versus another.

The important thing is to be clear about where you stand as an organization. Your innovators should know the answers to these questions. If employees don't know what they're supposed to be doing and what's expected of them and the process, it makes it very hard to consistently produce good results. You would be relying on some combination of luck and finding/retaining exceptionally motivated and gifted innovators.

The following Five Dimensions are important to consider when putting together your corporate innovation programs.



## DIMENSION ONE

### Who is responsible for innovation?

- Is innovation the responsibility of one group? (E.g., Disney Imagineers)
- Is innovation the responsibility of anyone with a good idea? (E.g., Valve Corporation)
- Companies don't have to be on one extreme. (E.g., Google wants any engineer to have the opportunity to be innovative, but for Google X employees it's their full time job)
- If multiple groups are responsible for innovation, each group might have some differences in how the remaining questions are answered.

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Where does responsibility for innovation lie? In some organizations, through a combination of corporate training, recruiting and executive sponsorship, the goal is to reimagine everyone's job in a way where they are being innovative (or at least given opportunities to be innovative). In other organizations, the responsibility for innovation falls on particular subsets of employees explicitly tasked with being the innovators for the company. Innovation is explicitly part of these employees' job descriptions, and in many cases, their entire job is to work on developing and validating new products, services, and businesses.

## DIMENSION TWO

### What motivates your innovators?

External vs. Internal

- Some groups are dogmatic that financial incentives are required: if they want entrepreneurial results they need to give people entrepreneurial upside. Usually this means large financial upside.
- Some groups are dogmatic about the opposite: people will come up with good ideas and make them happen because they want to, and the way to get innovation is to give those people freedom and support. Some would say the “reward” is having your job be the corporate startup you created. Others say making the world the way it ought to be is its own reward.
- Upside is never as high as with traditional startups, but downside isn’t as low either (job stability, benefits, et al).
- There’s lots of middle-ground here, and not every incentive needs to be financial.
- Employees should know, and managers should have an answer to, “If I make the company a billion dollars, what’s in it for me?”

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Many organizations feel that the success of a corporate startup depends on the corporate entrepreneurs sharing substantially in the upside potential of the new innovations and businesses. They see financial incentives and the promise of at least somewhat entrepreneurial returns as essential to attracting and/or motivating the right employees to work hard on validating new business ideas and bringing them to market.

Other organizations feel equally strongly that direct financial incentives are not required, and that innovators are internally motivated by a desire to change the world, to fix problems, and/or to create new and better things.

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## DIMENSION TWO CONTINUED

These innovators are more commonly rewarded with increased freedom to pursue and explore as they take ideas and turn them into their jobs.

Both can work, as can models in between. The relationship between risk and reward is inherently different in a traditional startup compared to a corporate startup, but the differences range from moderate to extreme.

## DIMENSION THREE

### **Incremental vs. Transformational**

- This is a dimension where companies don't pick points, but rather, they define a range in which to operate.
- Innovators need to know how incremental is too modest or too close to existing businesses. They also need to know how big a leap is too big.
- The mix of bigger swings and smaller swings is also important.
- Culture, politics, and management can play a role. Even when big swings are desired, sometimes small wins are necessary to gain momentum, demonstrate the value of a team or program, or secure budget for more ambitious projects.
- The CSL believes many companies are systematically underinvesting in transformational innovation, and we encourage people to take a more
  - This is just a tendency, though, and it does not mean that taking bigger swings is right for every company. Many organizations build impressive businesses on hundreds of incremental innovations (e.g. Toyota, Staples).
- More transformational ideas also tend to be both higher risk and higher reward.

## DIMENSION THREE CONTINUED

This is a dimension along which companies don't pick a point, but rather, define a range in which to operate. On the lower bound, companies have to ask and answer how incremental is too modest or too close to existing products or services. On the upper bound, companies need to answer how ambitious and risky corporate startup ideas can be.

Culture, politics, and management can all play roles in appropriately bounding where companies invest along the spectrum. Small wins may help gain momentum, prove a team, or secure support for more ambitious projects, but the likely upside is often lower. The most transformative ideas have the biggest potential, but they're usually the riskiest as well.

There are many different successful strategies for determining the mix of incremental and transformative innovation investments. The most common obstacle to success, however, seems to be risk aversion causing companies to lean heavily towards the incremental end of their appropriate range (whatever the range may be). This is where it's important for management to align resources with priorities while ensuring that employees can safely take risks.

## DIMENSION FOUR

- This is similar to the previous dimension, in that companies need to define what's "in bounds" and "out of bounds" when it comes to the ideas pursued.
- Some companies want to define domains very narrowly, whether for a specific team or challenge, or for an entire innovation process.

## DIMENSION FOUR CONTINUED

- Other companies want employees to pursue ideas in almost any domain, and are willing to find outside partnerships or run off-brand experiments to learn what they need.
- In regulated markets, legal frameworks often provide the initial set of constraints.
  - Constraints can also be financial, geographic, technological, chronological, or customer-based (e.g., “focus on only these three segments”), among others.
- Constraints can be useful tools or stifling restrictions depending on how they’re employed.

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Despite often having superior resources, large organizations have constraints that simply don't apply to traditional startups. These constraints not only define what type of ideas can be pursued, but how teams are able to pursue them.

When deciding what ideas to pursue, companies may want to define bounds on the types of ideas and customers new business ideas should target. Some organizations tell employees to imagine without limitations, while others give instructions to stick to core competencies, existing brand credibility, and/or their current industry.

There can also be constraints around how the ideas get pursued. For example, a traditional startup can experiment and fail many times before reaching success, but established companies face serious reputation risk when doing the same. Companies often put rules and best practices in place to protect existing lines of business while still working on what comes next.

## DIMENSION FIVE

### When do you build vs partner vs buy?

(Build, Partner, Buy)

- Some companies are devoted to building whatever they need, leveraging internal resources from different places in the company. This maintains both ownership and secrecy, but it does draw on finite resources and capabilities (which has its own implications and constraints).
- Some organizations seek to create fruitful partnerships wherever they can. Joint ventures with other companies and partnerships with academic institutions are common ways to achieve this. A lot of creativity and cross-pollination can happen here, but it usually means operating out in the open and potentially giving up some advantages and ownership/upside.
  - One feature that seems consistent across successful partnerships: managing expectations early and well.
- Some organizations seek to buy what they need first. This can mean buying products and services from other firms, hiring talent, investing in promising startups through a corporate venture fund, or even acquiring entire companies to incorporate into new ventures. Some companies see deep pockets as a chief advantage of corporate entrepreneurship over traditional entrepreneurship and attempt to leverage that advantage where possible.
- While most sufficiently large companies settle on a mixture of all three and let situational needs drive strategy, we've observed very strong preferences among managers and entrepreneurs within those organizations.

## DIMENSION FIVE CONTINUED

Some innovation groups are very committed to building new products and services predominantly or even exclusively leveraging internal resources. The obvious advantage to this is that it provides the greatest amount of control over the projects, but often run into constraints.

Other innovation groups have developed fruitful partnerships with other companies, startups or even academics. These partnerships, when implemented correctly, can be an amazing accelerant, but they also add stakeholders. Managing all parties' expectations upfront is critical.

Finally, some groups augmented their innovation activities through a combination of corporate venture or mergers & acquisitions. While expensive, this is a great technique to quickly add technical capabilities (either forward-looking or when playing catch-up). Sometimes this "buy" strategy is about acquiring technology, physical resources, or even intellectual property, while other acquisitions are more about bringing the right team on board.

The largest companies tend to do all 3 of these things with some regularity, but within a company, different groups lean in different directions (sometimes as a function of the objective, and sometimes as a function of the team and approach).