

# ADAPTING TEST & LEARN FOR “INTERNAL STARTUPS”



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**H**aven't we all been heard saying something like, “I could kick myself; I almost bought Apple stock in 1999.” Or heard a colleague complain, “I can't believe they [competitor X] launched that product; we thought of that five years ago!” As most of us have (painfully) learned at some point, there is a real difference between having an idea and taking action toward realizing an idea. When it comes to innovation – and many other things in life – moving from idea to action can mean the difference between being so-so and so, so good.

Getting from concept to market success is where strategic innovators take the most risk. Strategic innovation entails significant impact internally and externally. The move from concept to market success is where we make the real investment. It is where we face real market feedback, where we grapple with the most uncertainty and where we confront the real possibility of failure.

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The good news is that new systematic approaches exist to improve our odds of getting from concept to market success while minimizing risk along the way. The entire strategic innovation ecosystem – companies, consultants, service providers – all benefit when the methods and tools for innovation raise the quality of outcomes and lower the odds of failure.

This white paper will explore two such systematic approaches in detail, Test & Learn and Inovo's adaptation of Test & Learn, the Demand-Design Tango™. We will share several pitfalls in applying Test & Learn to strategic innovation in large companies, referred to as “internal startups,” and show how the Demand-Design Tango™ can help avoid them.

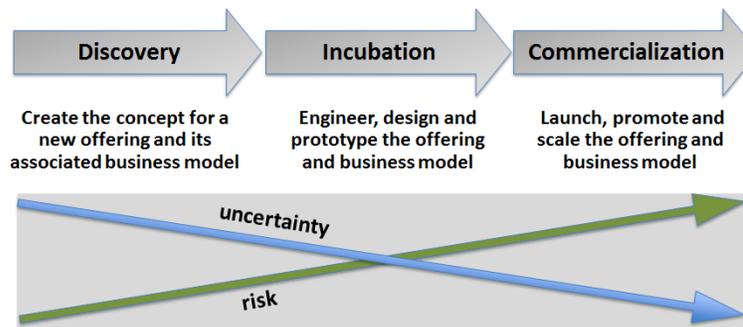
## **A Foundation for Strategic Innovation**

Strategic innovation, also known as *breakthrough*, *disruptive* or *radical innovation*, generally refers to innovation that has a significant level of external impact on the market or the world. The descriptor *strategic* is intended also to strongly convey the significant degree of internal impact for the innovating organization. As such, strategic

innovation requires a different mindset as well as different principles, methods and skills than more incremental, sustaining types of innovation. For a more detailed understanding of this topic, refer to our white paper, *Strategic Innovation*, available at [www.TheInovoGroup.com](http://www.TheInovoGroup.com).

Strategic innovation traditionally has been defined with three primary phases of activity: Discovery, Incubation and Commercialization (figure 1).

**Figure 1**  
**Traditional Strategic Innovation Process**



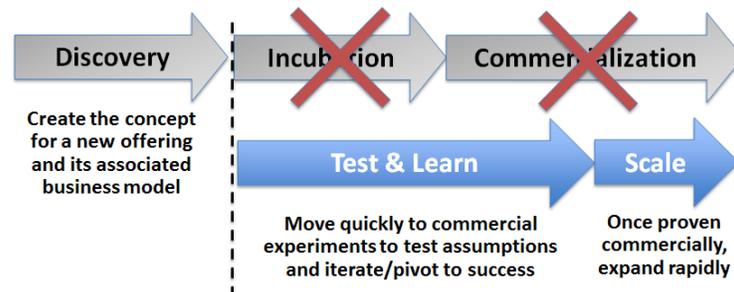
At the start of Discovery uncertainty is high and risk is low. In other words, we face many unanswered questions, but not many human or financial resources have been invested yet. As the work proceeds, questions are answered so uncertainty decreases, but project risk increases because resources are being invested at increasing rates.

### **Test & Learn: A New Approach to Incubation and Commercialization**

The Test & Learn approach has emerged from the Silicon Valley startup community over the past five years as a means for entrepreneurs to manage uncertainty, reduce risk and improve the odds of success with their startups. Recently, large companies have also begun adapting the Test & Learn approach to strategic innovation. We refer to these strategic innovation efforts within large organizations as "internal startups." However, while Test & Learn offers a useful mindset and methodology that large companies can use for strategic innovation, it requires some adaptation to accommodate the natural differences between true startups and internal startups.

For instance, in true startups, the Discovery phase, by definition, has already been completed; the early-stage company has a beginning concept already in hand. In essence, the Test & Learn approach was developed as a replacement for the post-Discovery Incubation and Commercialization phases (figure 2).

**Figure 2**  
**Modified Strategic Innovation Process**



Large companies, by contrast, must undertake a distinct Discovery phase of work to generate the startup opportunity and must also then manage an often challenging transition into Test & Learn.

By the end of the Test & Learn phase, we have an offering and a business model that has been proven in the marketplace and also proven to be sustainable by the company. The Scale phase is mostly a matter of adapting the opportunity to additional segments or geographies to enable broader adoption. This is not without its challenges, but for the purposes of this white paper, we will focus on Test & Learn.

Proponents of Test & Learn include Steve Blank,<sup>i</sup> Eric Ries,<sup>ii</sup> and Alexander Osterwalder.<sup>iii</sup> Let's call their collective methodologies the Test & Learn Approach, or TLA. The TLA goes something like this: The startup entrepreneur has a vision of a specific innovative offering and/or business model, as well as an approach for achieving that vision. The precise manifestation of the actual offering and its related business model emerge through an iterative process of testing with potential customers in some approximation of the eventual marketplace and, ultimately, the actual marketplace. The entrepreneur learns from these tests and adapts (or "pivots," as Ries would say) as necessary to optimize the "product/market fit."

In essence, each test aims to resolve at least one uncertainty, and the startup learning journey will succeed or fail according to how well each of the uncertainties is tested. The entrepreneur does not declare failure until the vision has been proven wrong – or the clock or funding runs out. This is different from the traditional approach, in which thorough planning, analysis and development are conducted with the expectation that the first version tested in the marketplace will be a very close approximation of the optimal one. It is essentially a gamble on the "big bang" outcome – the smashing success that takes the market and competitors by storm. This is the stuff of business legend... and mostly of business fiction. In the highly uncertain startup

world, the traditional approach usually leads to missed expectations, disappointment, investor fatigue and failure. In large companies, it often leads to budget and schedule overruns, launches that fail to meet expectations and internal organizational strife.

The foundations of TLA have their roots in the principles of Lean Thinking,<sup>iv</sup> which were first developed and practiced by Toyota in the 1970s. Toyota first applied Lean Thinking to manufacturing, and the TLA proponents – Blank, Ries and Osterwalder – point to Lean Manufacturing as their inspiration. One of the foundational principles of Lean Thinking is the elimination of waste (*muda* in Japanese). In the application of Lean to startups, *waste* is all the resources invested in a fully formed product, service or business only to realize that it was the wrong offering and/or the wrong business model.

We at Inovo believe Lean Thinking also is relevant upstream of Test & Learn, starting with the Discovery phase. While waste elimination may not seem essential for a strategic innovation program (many questions raised, yet few resources committed), it is in fact critical. The value of waste elimination lies less in cost reduction in the normal operational sense than in the conservation of precious financial and human resources. When confronted with a vast white space of opportunity, an organization must be able to discover and exploit its hidden opportunities within real constraints, and this is not possible without a Lean approach. And since these opportunities are often new to the world and/or new to the company, uncertainty related to the new offering and business model remains high not only during Discovery but right through Test & Learn. The greater the degree of uncertainty, the more important a Lean approach becomes. By contrast, the traditional linear stage-gate model is a reasonable approach to highly predictable situations typical of sustaining, rather than strategic, innovations.

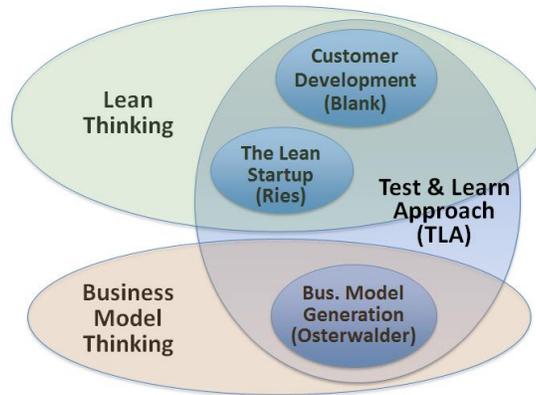
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Along with Lean Thinking, Business Model Thinking plays an equally large role in TLA. Business Model Thinking forces innovators to look beyond the offering itself to include all of the aspects of constructing a new business where none previously existed – the channel, the partners, the target customer segments, the revenue model, etc. A schematic view of how the methodologies work together to create a comprehensive Test & Learn approach is shown in figure 3.

**Figure 3**  
**A Schematic View of the Various Approaches**



The proponents of TLA have smartly recognized the relevance of Lean Thinking for startups and entrepreneurs. By doing so, they have broadened the application of Lean Thinking and made it accessible and relevant to an audience that probably has not had much exposure to Lean concepts. Thanks to Osterwalder’s contributions, the TLA proponents also have broadened the application of Lean beyond the new offering to encompass the entire business model.

The TLA proponents have asserted that the mindset and methodologies, originally developed for true startups, are translatable to internal startups in large companies. As Blank wrote in an article in the May 2013 issue of *Harvard Business Review*, "...despite the methodology’s name [The Lean Startup], in the long term some of its biggest payoffs may be gained by the large companies that embrace it."

### **The Pitfalls of Test & Learn for Internal Startups**

We agree that TLA has relevance and importance for large, established companies undertaking strategic innovation, but the application of TLA within these organizations is not without pitfalls:

1. **Business model diversity** - A nearly unlimited variety of business model types exists, and the strategic innovator must be able to select the right methods and tools for a particular offering's associated business model. The innovator also must make it compatible with the larger organization upon which the new innovation will rely for resources and support.
2. **Organizational complexity** - The TLA emerged as a framework for startup companies, either venture-funded or bootstrapped. Large, established companies are different in fundamental ways from startup companies,

and the strategic innovator must adapt TLA to accommodate these differences.

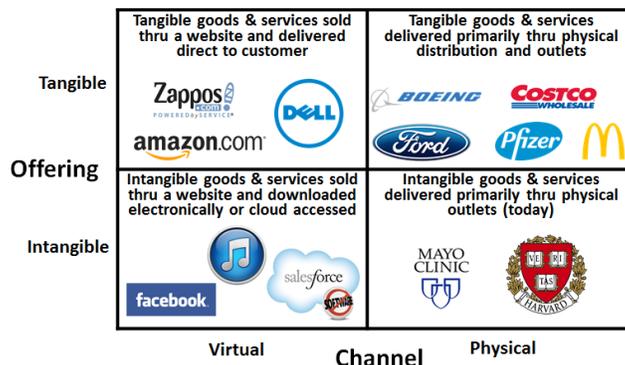
3. **Discovery transition** - When startups get initial investor funding to embark on a TLA program, they usually are further along in their development of the offering than opportunities coming out of a large company's Discovery program. Large companies need to ensure that opportunities are ready for the heavier resource investments TLA demands.

Let's examine each of these three pitfalls more closely.

### 1. Business Model Diversity

The methods and techniques required to support TLA vary greatly because business model types vary greatly, spanning tangible and intangible products distributed through virtual and physical channels. For instance, imagine how different Test & Learn would have to be for a mobile gaming app like Angry Birds, a pharmaceutical such as Lipitor, a large electromechanical system like the Boeing 787 Dreamliner or an institutional service offering such as medical education (figure 4). In addition, business models are becoming more complex as companies blend the intangible, tangible, virtual and physical into systems.

**Figure 4  
Business Model Diversity**



How innovators assemble methods and tools into an overall TLA phase of work will vary greatly among the diverse types of business models. Three primary factors determine how business model type impacts Test & Learn:

- **Degree of invention** - When the new offering's level of invention is high, iterations on the product development side can take a long time.

However, market-side assumption testing need not come to a halt during these periods. In fact, such testing can provide valuable input into the invention process and also can inform the minimum viable product or prototype. The ecosystem that determines adoption is much broader than the customer or end user, and innovators can glean valuable information about the ecosystem (for example, regulatory constraints or intellectual property barriers) during these extended invention periods.

Finally, the expected invention time often can be short-circuited by scanning the landscape for available technologies or technology development partners. Using this strategy, Inovo recently helped a large consumer packaged goods client identify a material technology that significantly advanced the client's development of a promising new product. The new product was in the market in less than two years from concept, likely cutting two to three years off R&D time. In *The Lean Startup*, Blank stipulates that TLA should only be applied *after* the work of invention is complete and, therefore, it only relates to demand-side uncertainties. We at Inovo believe this is too simplistic and limits the potential of TLA. Indeed, invention can – should – be incorporated into a company's overall TLA program.

- **Cost of prototype construction** - When the cost of prototype construction is high, going deeper on customer and ecosystem research in advance of full system investment reduces investment risk. Inovo recently helped a Fortune 50 client test assumptions about the use of a proprietary plastic composite to replace wooden railroad ties. By engaging with experts across the railroad industry ecosystem, we were able to help the client discover early on that its proposed offering was insufficient along a key but unrecognized performance dimension and therefore would *not* be adopted. The client quickly made the decision to cease product development efforts, which preserved significant resources. The client then redirected those resources to projects with higher probabilities of success.

In some instances, *in silico* models of adoption can help innovators correlate design variations to customer and ecosystem needs and desires. Computer-generated models are no substitute for in-market testing, but they can tighten up the definition of the minimum viable product and reduce costly prototype design iterations. A few years ago, Inovo built an adoption model for the electric vehicle market to support product design

efforts of an electric vehicle battery manufacturer. This was the only feasible way for a battery producer to gauge market adoption of the end-user product.

It is also possible to test individual elements of a complex system and piece together the market responses to build a complete picture. There is a risk that the sub-system responses will not be "additive," but this approach can be superior to taking one large risk with a complete system prototype. We are not talking so much about a minimum viable prototype as we are a set of minimum viable subsystems. As an extreme but illustrative example, Boeing tests seat design with passengers, cockpit design with pilots and galley design with flight attendants rather than wait for a fully constructed aircraft prototype.

**We are not talking so much about a minimum viable prototype as we are a set of minimum viable subsystems.**

- **Cost of in-market testing** - Sometimes "in-market" testing is difficult, costly or even impossible. This is true in many business-to-business situations as well as in certain industries such as the pharmaceutical industry. In these situations, as in the previous case of costly prototypes, it also can make sense to invest time and effort in deeper ecosystem understanding and in *in silico* adoption models prior to investing in prototypes and in-market testing. Again, this is no substitute for testing, but it can tighten up the target market definition and eliminate costly in-market test iterations. Several years ago, Inovo developed adoption models for an agricultural seed company to correlate seed traits with the needs of various consumer personas. This helped the client gain confidence in the decision to acquire a new seed technology where in-market testing of a prototype would have been impossible.

Yet another effective way to manage the risk associated with the three factors discussed above is to seek financial, product development and/or commercialization partners who can share the risk and perhaps quicken time to market. For example, Inovo currently is working with a carbon fiber part manufacturer to build an entirely new business in the automotive sector. Inovo is helping the client identify, screen and develop partnerships with OEMs and Tier 1 suppliers who are well positioned to co-develop the client's early trial offerings. These partners will benefit from early and exclusive access to a leading process technology in an emerging area of industry development.

## 2. Organizational Complexity

The second pitfall regarding the translation of TLA to corporate strategic innovation relates to the real differences in culture and business processes between a true startup and strategic innovation within a large, established company. As Steve Blank has said, “A startup is not a small version of a big company,” recognizing the very real differences between the two. Some of the key differences include

- **Coordination** - Startups are simple organizations with few layers and shallow functional divisions. Large companies are complex structures with many layers and deep functionalization. Orchestrating a "startup" activity within a large company is a complicated task, and doing it quickly enough to achieve adequate speed-to-market is a significant challenge. This is especially true for strategic innovation, which, more likely than not, involves significant changes to the company's established organizational rules and processes. Inovo has found that constructing cross-functional and multi-level teams with graduated accountabilities and active involvement in the project is the key. It takes a lot of effort and patience to manage this complex team structure, and it requires a conductor who not only appreciates its importance but also has the political and leadership skills to do so.
- **Decision-making** - Startups have one or few decision-makers, and they are well aligned around a simple goal. Large companies have many decision-makers, often in a matrix structure, and goals are not always well aligned. Decisions to adjust, pivot or proceed within a large company are difficult to make effectively while maintaining alignment. At Inovo, we have found that the use of online voting tools to gather opinions and preferences in advance of decision-making events is a great way to cut through politics and posturing and also to broaden the conversation. For strategic innovation, we believe the reliance on the judgment of senior executives and/or scientific gurus alone is a risky proposition, because their intuition typically is derived from experience in the existing business and technology domain. It also greatly helps to

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employ meeting facilitation practices that interrupt the usual way in which technical or administrative seniority tends to bias conversations and decision outcomes.

- **Portfolio management** - Startups generally have one offering and one business model to manage. Large companies have many offerings and, **quite** possibly, multiple business models. Large companies are not just making decisions about one opportunity but must make portfolio decisions across multiple opportunities on an ongoing basis. One of the assessment tools developed and used by Inovo evaluates opportunities along two axes – "should" we do it and "could" we do it – to assist in these kinds of portfolio decisions. We also use opportunity "canvases" to monitor and maintain a healthy distribution of opportunities by risk level and across the domains being explored. These tools help keep focus where it belongs – on the best opportunities – and avoids disruptions that occur when funding is pulled and moved to "more attractive" opportunities.

We can mitigate some of these challenges by physically separating the internal startup and protecting it from the core business' preoccupation with short-term results. These internal startup teams can be housed in standalone facilities and/or allowed to bypass multiple levels of executive management in the reporting structure. However, it is neither possible nor advisable to make this barrier impermeable. Resources, funding and knowledge should regularly pass through the barrier and, consequently, we need to navigate the issues of coordination, decision-making and portfolio management. The trade-off is a very favorable one for the internal startup when these issues are managed well.

### **3. Discovery Transition**

The third pitfall when translating TLA to large company strategic innovation concerns the way in which large companies come into the Test & Learn phase. Generally some form of Discovery program generates one or more strategic opportunity concepts. These Discovery efforts can range from half-day (or shorter) brainstorming sessions to six-month (or longer) formal Discovery programs. In the latter case, opportunities can begin to approximate the level of definition that a true startup might have in order to attract funding but, in most cases, still fall short. There is often a great temptation in established companies to cut to the chase and short-circuit due diligence. An action orientation generally is a healthy one when it comes to TLA, but some caution is appropriate, too. An extra two- to three-month deep dive into an opportunity concept to validate the likelihood of adoption or the feasibility and availability of technology can

save a lot of time and cost for Test & Learn. Knowing when you know enough is the “art” part of the art and science of strategic innovation.

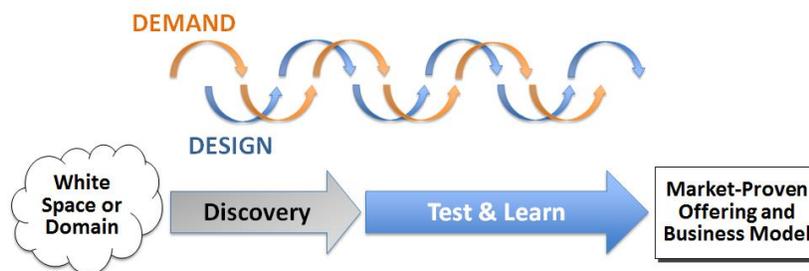
TLA is an important component of any large company’s strategic innovation initiative. That said, it requires a healthy respect for the breadth of business model types. Innovators also must design and tailor their Test & Learn efforts with the proper methods and tools to account for organizational complexity and to enable a well-timed transition from Discovery into Test & Learn.

### **The Demand-Design Tango™ Approach to Test & Learn**

When Inovo is brought in to work with a client in the Discovery phase of strategic innovation, we employ the ADOPTS™ framework, which stands for Active Discovery of Opportunities and Predictive Testing of Solutions. We have developed and refined ADOPTS™ over more than 12 years and, from the very beginning, the framework has taken a Lean approach to Discovery. In fact, it is fair to say that ADOPTS™ itself evolved from a Test & Learn approach through continuous experimentation across a broad range of industries, from consumer goods and professional services to industrial supplies, and across a broad range of innovation types – simple applications, platforms and complex system solutions.

Within the ADOPTS™ framework, one of the Lean methodologies we employ is the *Demand-Design Tango™*. The Tango methodology can be used from the start of Discovery all the way through the Test & Learn phase, as we migrate from the abstraction of a white space or opportunity domain to the precision of a real market offering and enabling business model. Throughout the process, we cycle back and forth between testing Demand side uncertainties and testing Design side uncertainties. It is one continuous, unbroken and iterative process. In fact, break points between the three phases are somewhat artificial. Decisions to change course, whether relatively small or relatively large, are happening throughout the process (figure 5).

**Figure 5**  
**The Demand-Design Tango™**



Any successful innovation is essentially a Design "peg" that fits very well into a Demand "hole." The Design peg can be a product, service or process along with its accompanying business model. The Design side represents the part of the domain ecosystem that contributes to the offering and its business model. The Demand hole can be an unmet need or unfulfilled desire and can be conscious or unconscious. The Demand side represents the part of the domain ecosystem that determines adoption (which is *not* usually limited to the customer or end user). For example, the iPod is a design peg that fits very well into the music portability demand hole. But the strategic opportunity represented by the iPod was far more complex than just the device and the consumer. The Design side included the enabling iTunes digital song library and the formation of partnerships in development and production for both the device and the digital music. The Demand side included the channel partners in the music industry who supported the iTunes business model and without whom the iPod would not have succeeded.

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**In the strategic innovation process, Demand and Design proceed as two dance partners, bound together but in a constant state of movement and tension.**

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The term "tango" is an apt metaphor for this methodology. The tango originated in Buenos Aires and Montevideo in the late 19th century. The original "Argentine Tango" has evolved into many variations as it has crossed continents and generations. In all its forms, it remains a fiercely emotional dance characterized by closely held positions, rigid and improvisational at the same time. This requires the highly synchronized coordination of steps and close verbal and physical communication between partners. In the strategic innovation process, Demand and Design proceed as two dance partners, bound together but in a constant state of movement and tension. During Discovery – and all the way through Test & Learn – Design is formed and shaped to meet the conscious and unconscious needs and desires of Demand. However, dominance shifts back and forth over time between Demand and Design as critical path uncertainties move from one side to the other. The next step is not always known until the previous one is taken. We may need to resolve a Demand side uncertainty before we can make our Design side adjustments and vice versa.

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**Dominance shifts back and forth over time between Demand and Design as critical path uncertainties move from one side to the other.**

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The innovation tango proceeds from the moment the music starts at the beginning of Discovery until the end of Test & Learn. As we proceed on a project we are developing both the offering itself and its associated business model. Our methodology for the business model elements is adapted from the construct of Osterwalder. Each

business model element can be related either to the Demand side or the Design side of an opportunity, and some elements relate to both (figure 6).<sup>vi</sup>

**Figure 6**  
**Business Model Design Elements**

Demand Side	Design Side
<ul style="list-style-type: none"> <li>• Customer Relationship</li> <li>• Brand</li> <li>• Customer Segments</li> <li>• Channels</li> <li>• Revenue Streams</li> <li>• Revenue Velocity</li> </ul>	<ul style="list-style-type: none"> <li>• Cost Structure</li> <li>• Margin</li> </ul>
<ul style="list-style-type: none"> <li>• Key Partners</li> <li>• Key Activities</li> <li>• Key Resources</li> </ul>	

In our approach to opportunity development, we are continuously addressing uncertainties (assumptions or hypotheses to be tested) on both the Design and Demand sides of the opportunities, inclusive of both the offering *and* business model. At any given point in the development of an opportunity, there may be greater uncertainty on the Demand side or on the Design side. Each uncertainty requires an action to resolve, and often this action requires some creativity to develop. On the Design side, these developments relate to changes in Design performance, features and/or aesthetics. On the Demand side, the developments relate to changes in the target customer and how to test the new Design feature with end users as well as the broader adoption community.

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Many uncertainties must be tested as a strategic innovation project team moves back and forth between the Demand and Design sides of the Tango. The importance and relevance of these uncertainties varies greatly according to the nature of the opportunity. We note some of the more common uncertainties in figure 7.

**Figure 7**  
**Examples of Uncertainties to Be Tested**

Demand Side	Design Side
<ul style="list-style-type: none"> <li>• What is the end-user response to a minimum viable product or more advanced prototype?</li> <li>• Are customers willing to pay my price?</li> <li>• What is the overall ecosystem response to my proposed business model?</li> <li>• Will the new offering be consistent with my intended brand positioning?</li> <li>• How large are the segments to which the solution appeals?</li> <li>• Which performance claims will resonate and at what levels of performance?</li> <li>• Will customers recommend this to others?</li> <li>• Can I move from a niche or lead user segment to a broader market?</li> <li>• Are commercial partners available and interested?</li> </ul>	<ul style="list-style-type: none"> <li>• When will critical technologies be ready?</li> <li>• Are there patents that limit my ability to offer the solution?</li> <li>• Do cost projections hold up to detailed design?</li> <li>• Are there regulatory barriers to proposed design solutions?</li> <li>• Are development and/or production partners available and interested?</li> <li>• Will key performance claims be possible?</li> <li>• Which technology options are optimal?</li> <li>• What is the optimal mix of design features?</li> <li>• Can I achieve the full scale cost targets that I built into my plans?</li> <li>• Can I adjust the design to appeal to a broader segment of the market?</li> </ul>

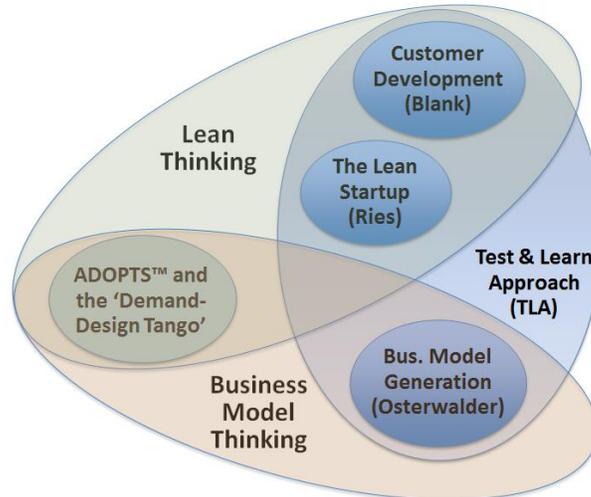
There is also a vast array of methods and tools available to the innovation project team to address these uncertainties. Many of these methods and tools are listed in figure 8. When and how to use them is the central challenge during the Demand-Design Tango™ and the entire strategic innovation process.

**Figure 8**  
**Demand-Design Tango™ Methods & Tools**

Demand Side	Design Side
<ul style="list-style-type: none"> <li>• Direct engagements with demand side experts, influencers &amp; end users</li> <li>• Virtual or physical ethnography</li> <li>• Online concept testing</li> <li>• Design of experiments</li> <li>• User experience design testing (panels, video, animation)</li> <li>• Wizard of Oz testing</li> <li>• Minimum viable product testing</li> <li>• Prototype testing</li> <li>• Split testing</li> <li>• Alpha/beta testing</li> <li>• Point of sale mockups</li> </ul>	<ul style="list-style-type: none"> <li>• Direct engagements with design side experts</li> <li>• Patent search</li> <li>• Solution effects development</li> <li>• Business model canvas</li> <li>• Technology roadmapping</li> <li>• Opportunity roadmapping</li> <li>• Total cost of ownership modeling</li> <li>• Simulation</li> <li>• Bench testing</li> <li>• Pilot testing</li> <li>• Five whys</li> <li>• TRIZ-type feature modification</li> </ul>

In the Demand-Design Tango™, just as in TLA, there are two conceptual themes at play: Lean Thinking and Business Model Thinking (figure 9). We believe the Demand-Design Tango™ methodology offers an even more robust way for large companies to take a strategic innovation from initial hypothesis to market success, from the start of Discovery all the way through Test & Learn.

**Figure 9**  
**A Schematic View of the Various Methodologies**



**Key Demand-Design Tango™ Principles**

We at Inovo and the clients we work with adhere to two key principles as we pursue the Demand-Design Tango™ in any strategic innovation program. The first principle is awareness at every point in time of where the greater uncertainty lies. Is it on the Demand side or the Design side? By forward mapping the uncertainties, we have a means of assessing them in a logical manner, even though we know this forward map will be ever-changing as we gain knowledge and resolve questions. These are subtle distinctions, and where the greater uncertainty lies is not always clear. The take-away here is to have these conversations and to seek honest, objective answers.

The second principle of the Demand-Design Tango™ is simultaneous focus on both sides of the Tango, paying attention to Demand side uncertainties even when the Design side uncertainty is more pressing, and vice versa. Activity on one side does not cease while the priority is on the other side, although activity might be modulated to avoid unnecessary expense – for example, while waiting for the outcome of an assumption test. In many instances, learning on one side will inform concurrent experimentation and testing on the other side. As with the tango dance, regular communication between the Demand and Design side "partners" is critical.

In some situations, Demand side iterations are difficult, long and costly. Consider the user testing requirements in the pharmaceutical industry. In some situations, Design side iterations are difficult, long and costly. Consider the development requirements of Boeing’s next generation of airliner before it ever gets its first user test. In other situations, both Demand and Design side iterations may be simple, brief and

inexpensive (mobile phone apps). It is important to recognize these differences and to have a robust means for managing the Demand-Design Tango™ for each situation. As difficulty and complexity rise, so does the importance of forward mapping the obstacles and alternating one's focus from the Demand side to the Design side and back again.

### **Summary**

There's a wide chasm between having an idea and executing it in a way that leads to success in the market. The bridge over this chasm is constructed of methods for managing uncertainty and risk. A Lean approach to strategic innovation, such as Test & Learn, is an especially effective way to manage this uncertainty and risk. The mindset and methods of Test & Learn were born in the world of true startups but are rightly finding application for internal startups within large companies.

By adapting a Test & Learn approach, Inovo uses its Demand-Design Tango™ to systematically address the uncertainties inherent in any new-to-the-world and/or new-to-the-company strategic innovation initiative. The Demand-Design Tango™, along with the overall ADOPTS™ framework, builds on TLA. It helps large companies address the complexities of their organizations, the variety of business models that exists in many companies' portfolios, and the timing of the transition from the Discovery phase to the Test & Learn phase. It's an iterative approach that, like the Tango dance itself, requires both rigor and flexibility, knowledge of the steps and the ability to discern how and when to improvise. Such an approach can mean the difference between a widely adopted new product or service and a costly mistake. Not only does the innovating organization benefit from success; so, too, does the entire market ecosystem.

## Notes

<sup>i</sup> Blank, S. *Four Steps to the Epiphany: Successful Strategies for Products that Win* (second edition), K&S Ranch, 2013.

<sup>ii</sup> Ries, E. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*, Crown Business, 2011.

<sup>iii</sup> Osterwalder, A. and Pigneur, Y. *Business Model Generation: A Handbook for Visionaries, Game Changers and Challengers*, Wiley, 2010.

<sup>iv</sup> Taiichi Ohno, James Womack, et al.

<sup>v</sup> Blank, S. "[Why the Lean Startup Changes Everything](http://hbr.org/2013/05/why-the-lean-start-up-changes-everything)," *Harvard Business Review*, May 2013, <http://hbr.org/2013/05/why-the-lean-start-up-changes-everything>. Retrieved January 14, 2014.

<sup>vi</sup> These business model elements are adapted from Osterwalder and Pigneur, as described in *Business Model Generation: A Handbook for Visionaries, Game Changers and Challengers*.

## About The Inovo Group

Founded in 2001, Inovo is an innovation consulting firm based in Ann Arbor, MI, that helps the world's top organizations succeed at strategic innovation.

## About the Author



BRIAN CHRISTIAN is one of the Founders and the President of The Inovo Group.

Prior to founding The Inovo Group, Brian spent eleven years at Whirlpool Corporation, where his last role was Vice President of Global Product Development. In this position, Brian was responsible for profit & loss, global product strategy, and four engineering centers around the world for Whirlpool's dishwasher category. During Brian's tenure, his home-cleaning category introduced a number of important innovations, including the in-sink Briva dishwasher, the drawer dishwasher, and the "turbo zone" dishwasher. In this role, Brian caught the 'innovation bug' and left Whirlpool to build an innovation consulting business in 2006.

Brian's professional experience also includes five years in general management consulting at Booz & Company as well as eight years in the petrochemical industry, serving in various product research & development roles in multiple locations around the world.

Brian holds an MBA from the University of Chicago and a Chemical Engineering degree from the University of Michigan.

