

This article is an excerpt from the book *Innovation Tournaments*, Harvard Business School Press, 2009. The book is available from Amazon, CEORed, Barnes & Noble, and other retailers.

## **Innovation Tournaments**

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[www.InnovationTournaments.com](http://www.InnovationTournaments.com)

Innovation makes fortunes. A robust return on equity for a large firm is 20 percent per year. Contrast this with the returns for these innovations:

- Zocor, Merck's cholesterol drug, has contributed gross profits of more than \$10 billion on an investment of about \$500 million.
- Apple sold more than 100 million iPod portable music players in the first six years after the portable music player's 2001 introduction. The iPod and the online iTunes store have generated over \$30 billion in revenue for Apple. Remarkably, Apple spends a *lower* percentage of revenue on innovation than most of its competitors.
- The movie *Harry Potter and the Sorcerer's Stone* had a budget of about \$125 million. Five years after launch, it had created over \$1 billion in revenues for Warner Brothers Studios. The creator of the Harry Potter saga, author J.K. Rowling, has seen an even greater payoff. She has become a billionaire thanks to books, movies, and merchandise based on Harry's adventures.

Harry Potter and the Sorcerer's Stone brought Warner Brothers Studios in excess of \$1 billion. How did other Warner Brothers movies launched during the same period fare? Remember *Chasing Liberty* or *The Big Bounce*? Or how about *Exorcist: The Beginning*? If not, don't worry, you aren't alone. Few people saw them, and the studio likely lost money on those projects. Moreover, when Warner Brothers made *Harry Potter*, it also analyzed thousands of other pitches for movies, developed hundreds of scripts, and seriously considered launching another dozen or so movies. Few of them made it to the box office, much less made money. Thus, for Warner Brothers, or any studio, successes like *Harry Potter* are the exception. But for a successful innovator, *exceptions* are the goal. When it comes to innovation, money is made by exploiting a few exceptional opportunities, not by pursuing many merely good opportunities.

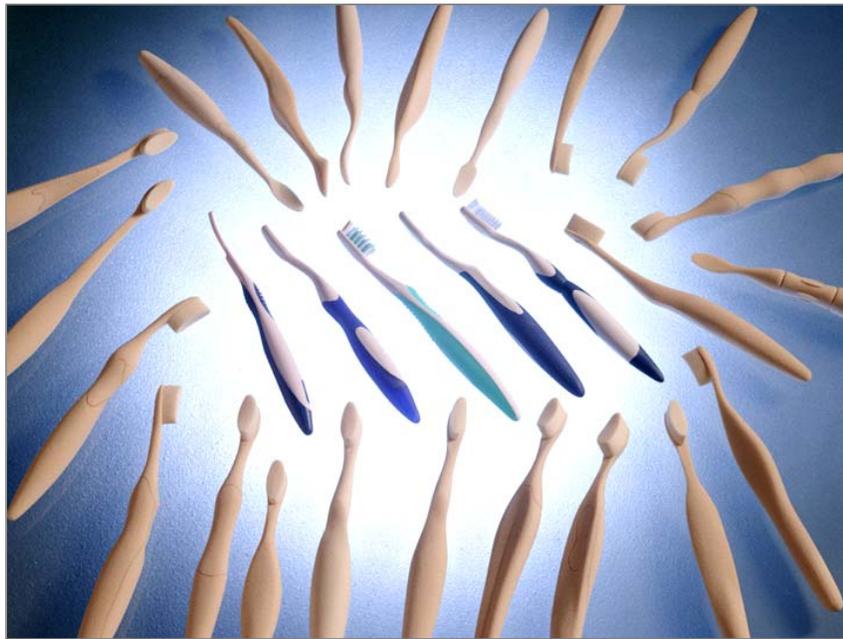
## **Innovation Tournaments**

How do companies find exceptional opportunities? From the perspective of the naïve outsider, opportunities for blockbuster innovations appear to be flying sparks—unpredictable and uncontrollable. But before they became full-fledged projects, back when they began as a chemical cocktail in a Petri dish or a sketch on a napkin, exceptional opportunities competed with many other opportunities to become one of the chosen few. Witness the following examples:

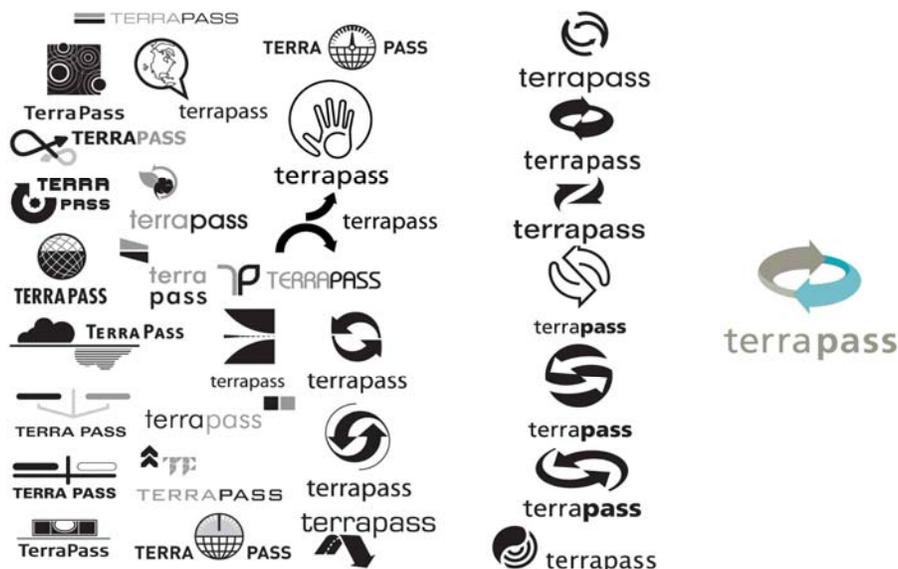
- In its search for a new drug, Merck screened about 10,000 chemical compounds. Preclinical trials were started for more than a dozen of them, a handful were tried out in humans, until the

chemical compound simvastatin, which we now know as Zocor, emerged as the winner, beating the other candidate compounds in safety and efficacy.

- Exhibit 1 reflects the process used to find the handle for the Oral-B Cross-Action toothbrush. The exhibit shows the dozens of foam models that Oral-B's designers built and the five molded prototypes that it tested with consumers. Consumers liked the design in the middle of the exhibit best, and it enabled Oral-B to redefine the premium segment of the manual-toothbrush market.
- Exhibit 2 shows the logo designs considered for TerraPass, a service that allows consumers to offset the carbon emissions of their automobiles, air travel and homes. The logo chosen by the company (far right) has worked brilliantly. Yet this logo did not come from a single creative flash. It emerged as the winner over dozens of competing concepts.



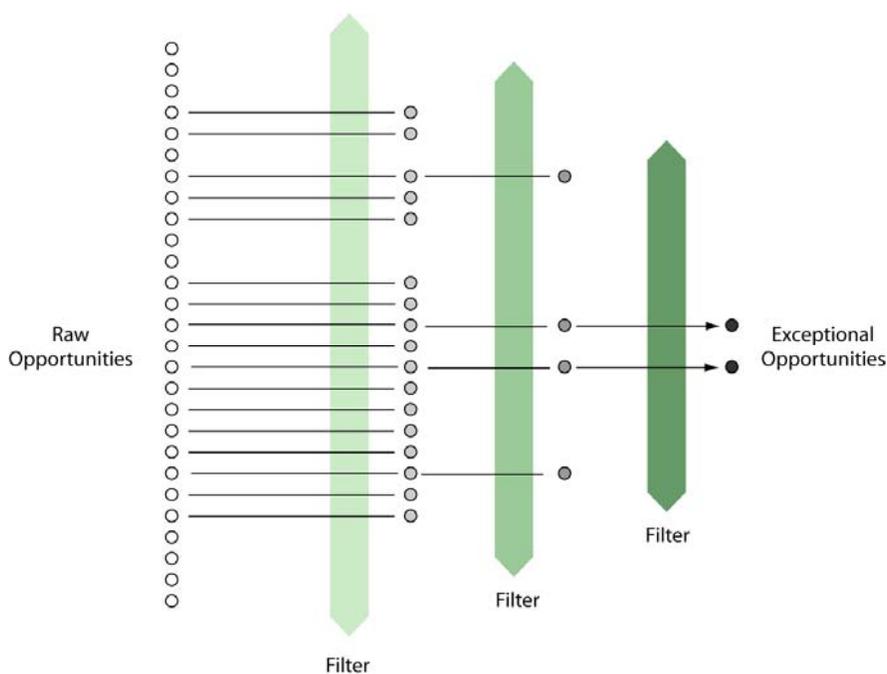
**Exhibit 1.** The development of the Oral-B cross-action toothbrush involved the structured exploration of dozens of forms. Oral-B's designers prototyped and tested five concepts (shown in center of image) before selecting the final design. Source: Lunar Design.



**Exhibit 2:** The innovation tournament leading to the TerraPass logo started with hundreds of ideas, of which about 30 were tested. They were winnowed to the circulating-arrow theme in the first round of the tournament, ultimately leading to the design at the far right. Source: Lunar Design.

In virtually all cases, exceptional opportunities are discovered through *innovation tournaments*, a process in which many raw opportunities are considered at the outset and only the best survive selection. An innovation tournament, just like its counterpart in sports, usually consists of multiple rounds of competition. It begins with a large set of opportunities (“contestants”) that are compared with each other. A filtering process selects a subset to move to the next stage (into the “playoffs”) and, from those, picks one or more winners. This logic is summarized by Exhibit 3. Tournaments are common corporate innovation processes, but they also pervade other human endeavors including sports, entertainment (e.g., the reality television programs *American Idol* and *Survivor*), and the process of selecting elected officials in democratic societies.

Corporate innovators, whether they’re creating movies or molecules, often refer to the tournament process as their *innovation pipeline* or their *innovation funnel*, but neither of these metaphors works perfectly. Whatever goes into pipelines and funnels gushes out, which should not be the case for an effective innovation process. Indeed, most of what goes in the innovation process never emerges, but rather is winnowed out so that only a few exceptional opportunities remain.



**Exhibit 3.** Tournaments begin with a relatively large number of “contestants” and apply filters in a series of rounds in order to identify “winners.” Effective innovation tournaments result in exceptional opportunities.

### Creation of opportunities

Innovation tournaments are comprised of two basic activities: creating a pool of opportunities and selecting winners. An innovation opportunity is a hypothesis that value can be created. An opportunity may be a newly sensed need, a newly discovered technology or a rough match between a need and a possible solution. For a pharmaceutical company like Merck, an opportunity might be a new chemical compound that appears to control blood sugar. For a consumer-products company like Procter & Gamble, it might be a new cleaner suggested by a customer. Or for a materials company like 3M, it might be a new polymer with unusual properties. An opportunity is only a *hypothesis* because uncertainty dogs the dreams for its success. Two examples of opportunities, each summarized on a single slide, appear in the following exhibits.

The first (Exhibit 4) is the creation of an email or text-messaging system to remind you to pamper and praise your spouse, while also providing suggestions on how to do this. The second is a do-it-yourself wireless doorbell (Exhibit 5). Note that, in both cases, the creator could describe the opportunity on a single page, sometimes by combining text and graphics.



**Submitted by:** TechGuy  
**Date:** Aug 10, 2006, 1:08 am

## Spoil My Spouse

**The Idea:**  
This idea comes from the simple fact that men are insensitive and don't remember to do nice things for their wife to show that they care (and women can always do better too). When you join Spoil My Spouse you will be subscribed to daily/weekly/monthly emails or SMS that give you an idea of something you can do to make your spouse happy. Such as bring her flowers, go home from work early, spend less time on Cambrian House, etc. The ideas would be crowdsourced and run through its own IdeaWarz to make sure they are quality. An idea like buy your wife flowers would of course be sent with an ad to send flowers. Birthdays, Anniversary, Mother's Day, etc could all be added with special email reminders sent out before and on those days (with more targeted advertising). Later this could be expanded to remind bosses, friends, etc of things they could/should be doing.

**I thought of this idea when I was...**  
I try my best to do nice things for my wife, but I could always use new ideas or suggestions on what else I could do. Not to mention reminders to keep doing it. Plus, who wouldn't want their spouse getting an email reminder of something nice they could do for their spouse?

**Exhibit 4:** An opportunity articulated via the web-based innovation network Cambrian House. (<http://www.cambrianhouse.com>).

### Wireless Doorbell



Slim execution of existing idea – eliminates large external enclosure.  
Simple tube for single hole installation.  
Requires single AA battery.  
Requires single 1/2in (12.5mm) hole.





**Exhibit 5:** An opportunity a do-it-yourself wireless doorbell. The icons in the lower right refer to the firm's assessment of the opportunity relative to four criteria: its novelty, patentability, development risk, and gross margin potential.

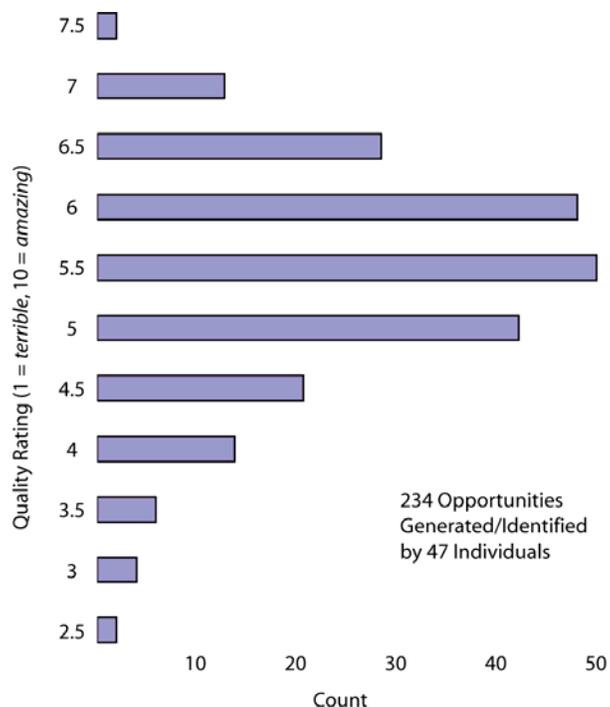
You can generate opportunities *internally* through the creative efforts of your people or you can look to *external* sources. Our research shows that across industries, about half of the innovation opportunities are created internally. Another quarter comes from interaction with customers and new customer requirement. The remaining quarter of opportunities reflects new competing products, insights from suppliers or a company's sales force, or from collaboration with universities or independent inventors.

## Selecting winning opportunities

A collection of untested opportunities isn't particularly valuable to a company. A few will become marketable innovations, but many more will fail. You wouldn't want to swallow a chemical compound from Merck's preclinical research labs, nor attend a concert by a randomly selected first-round contestant of the talent competition *American Idol*. In addition to identifying opportunities, the creation of value requires a selection mechanism, a filter that eliminates a large number of the lower quality opportunities, allowing only the most promising opportunities to survive.

## Not a Six-Sigma process

As part of our research on innovation tournaments, we developed a web-based software tool that creates a quantitative measure of the quality of an opportunity at earliest phase of innovation. We have used this software, which we call "The Darwinator," across a wide array of settings, ranging from professional services to building supplies, and from wellness-related venture creation to strategic initiatives at a business school<sup>1</sup>. Exhibit 6 shows an example of the resulting quality measures for a set of 234 opportunities generated by 47 individuals seeking to create a new venture. Like the statistical properties of many other populations, these innovation opportunities exhibit a bell-shaped distribution. There are many middling opportunities and only a few exceptionally good ones. Across all the industries in which we have applied this analysis, the lesson has been the same. For every exceptionally good opportunity, companies identify a few solid opportunities, and dozens of mediocre ones.



**Exhibit 6:** Quality distribution for 234 opportunities

If we think of the creation of opportunities as a business process, we might conclude that the process characterized by Exhibit 6 is in need of some major quality improvement. After all, generations of quality gurus have taught us to eliminate variance from our processes and to move them towards *Six Sigma*

capability. In fact, in managing operations, you do typically prefer a process that generates 1000 acceptable parts and no defects over a process that creates 5 exquisite parts and 995 defects. This kind of performance would, however, be a terrible outcome for an opportunity creation process. You'd prefer to produce 5 truly exceptional opportunities and 995 lousy ones rather than 1000 merely good ones. In innovation, you'll pursue only a few of the opportunities you create, and that handful of exceptional opportunities will create the value that you derive from innovation.

### **Key managerial decisions**

You're probably already using innovation tournaments without realizing it, possibly to address challenges other than innovation. You almost certainly run them when, for example, searching for a new executive, a new product name, or a new enterprise software system. If you're like us, you might even use tournaments to determine what car to buy or where to spend your next vacation.

The central question is not whether to use tournaments but rather how to manage them to identify exceptional opportunities. Consider an innovation tournament you have run in the past and ask these questions:

- How many opportunities did you consider at the outset? Do you know if you considered enough?
- How much variation was exhibited in the candidate opportunities you considered? Were the contestants varied enough?
- How many rounds of filtering did you use to identify the winning opportunity? In each round, how did you decide how many opportunities to move forward?
- To what extent did you compare opportunities against each other versus apply an absolute quality standard to determine which you moved forward?
- In what ways did you engage the community outside your organization in the process of identifying and selecting opportunities?

Most companies that we have worked with have not made deliberate managerial decisions about these questions, which means their innovation tournaments end up being managed informally, if they are managed at all. Here we describe five key decisions you can make as a manager to increase the performance of your innovation tournaments. We then outline how to apply these ideas immediately to run better tournaments.

### **Increase the Number of Opportunities**

If you produce more opportunities, you'll see more exceptional ones. The logic behind this is simple. On average if you can find one 7-foot tall person among 100,000 people, you will find two 7-footers among 200,000. Increasing the number of opportunities is thus a key lever in finding the exceptional few.

Identifying and generating more opportunities offers benefits, but also incurs costs. How do you know if you are considering enough? Confidence in the number of opportunities you consider can be instilled by answering these three questions, which we'll then illustrate with an example.

1. **What would be the cost of generating and evaluating twice as many raw opportunities as you do currently?** Answering this question requires that you first estimate how many raw opportunities you currently evaluate for every innovation launched in the market. You then consider the sources of your raw opportunities and what level of resources would need to be invested to create or identify twice as many raw opportunities.
2. **What is the difference in economic value in your industry between an average innovation and one that is one standard deviation more profitable than average?** If there is a substantial number of innovations in an industry, as in the movie business, you can easily calculate a statistic like standard deviation of profits. If you work in an industry for which there is a paucity of data, you will probably be best off estimating this value based on the judgments of several experts.
3. **How critical is the quality of the raw opportunity in determining economic value in your industry?** In some industries, the raw opportunity dictates most of the economic value of the innovation and the innovation process merely reveals the intrinsic properties of the opportunity (e.g., pharmaceutical development). In other industries the raw idea is merely a starting point and subsequent innovation activities determine a substantial fraction of the eventual value of the innovation (e.g., the movie business). Usually you can subjectively judge whether your industry is more like movies or more like pharmaceuticals in this respect.

Once you've answered these questions, you can judge whether you should be considering more raw opportunities. Based on our experience, for companies first posing these questions the answer is almost always that they should consider more opportunities.

To see this logic in action, consider the case of a maker of commercial heating, ventilation, and air conditioning products. The company's business development team normally considers about 50 ideas per year for new products and services. The team could double the number of opportunities it considers by running an annual opportunity workshop and by actively soliciting ideas from employees. The cost of these activities would be a total of about \$50,000. Based on historical evidence, the company's average new product or service contributes about \$12 million in net present value, and the standard deviation of the value of new offerings is also about \$12 million. For this company, the raw opportunity dictates the size and growth of the market for the new offering, which determines a substantial part of the economic value of the innovation. Thus the raw opportunity largely determines whether the innovation results in \$12 million in value or \$24 million or more. The calculation of these values suggests that doubling the number of raw opportunities considered would need to only shift the profit potential of a single innovation by less than half a percent of a standard deviation to justify the cost. Here, the potential benefits are so much larger than the costs that a more sophisticated analysis isn't needed; the company should clearly be fueling its innovation tournaments with more opportunities. By considering 100 raw opportunities instead of 50, the company is highly likely to discover at least one opportunity that results in profits that more than justify the increased costs of generating the additional opportunities.

### **Increase the *Variance in the Quality* of Your Opportunities**

Increase the *variance in the quality* of your opportunities, without sacrificing the average quality, and you'll generate more exceptional ones. This is a mind-bending implication of statistics. Variability is normally anathema to process improvement, but it's exactly what you want in opportunity creation. The reason variance increase the performance of innovation tournaments is that only a very few exceptional opportunities will be pursued. The rest will be abandoned. Remember, you'd prefer to produce 5 truly exceptional opportunities and 995 lousy ones rather than 1000 merely good ones. Thus, the average quality of opportunities is of little concern; it's the extremes that matter.

If you were in search of six sigma process capability, and thus if your goal were to eliminate variation from the opportunity identification process, you would most likely use a consistent process for this activity. You would rely on the same sources of ideas, and you would use the same criteria for screening these ideas. Now, turn this argument on its head: if you want to increase the variance in the quality of the opportunities you identify, you want to be as inconsistent in your process as possible. You can achieve this by searching for ideas in places that have previously not contributed to your innovation process and by applying screening criteria different from those you have used in the past.

#### **Search where you have not searched before**

Opportunities for innovation come from many sources and the more you can utilize different wellsprings, the more will you increase the variance in quality. Consider the success story of the energy drink Red Bull. The Austrian entrepreneur Dietrich Mateschitz created an impressive business with sales of 3.5 Billion cans of the sweet and caffeinated fluid in. But he didn't invent it, nor do we believe that such an exceptional innovation could have been invented inside the R&D labs of the big beverage companies. The original recipe for Red Bull was developed in Thailand by a company called TC Pharmaceutical and sold under the Thai name 'Krating Daeng.' Truck drivers, construction workers, farmers, and other people who worked long hours liked to consume it to forestall fatigue.<sup>2</sup>

Mateschitz worked in Thailand for a German toothpaste company. On one of his trips to the country, he tried Krating Daeng and found that it helped ease his jet lag. In 1987, he adapted the recipe to Austrian tastes by adding carbonation and cutting the sweetness. Sales soon took off. Opportunities will not knock at your door – instead, you have to seek them. Like Mateschitz, successful innovators benefit from seeking opportunities in diverse locations. Here are some approaches that foster diversity:

- *Import ideas from geographically isolated regions:* just as Red Bull was an idea imported from Thailand, the initial idea for Starbucks coffee shops was imported from Italy. We often see this approach in the media and entertainment industry where successful TV formats are often imitated and adapted to new geographic regions (the French TV show “Nouveau Star” and the German show “Deutschland sucht den Superstar” are basically imports of the *American Idol* idea). Thus, actively scan different geographic regions in your industry for new trends and opportunities.
- *Identify small companies with niche products that have the potential for broader market appeal:* several years ago, the small Californian company Gyration developed a hand-motion sensor technology for television remote control. A niche market, at best. Yet, soon after, the gaming

company Nintendo found this opportunity and envisioned the enormously larger market potential within the gaming category. Nintendo went ahead and acquired this technology for use in the Wii video game remote control and the Wii became an enormous success, selling more than 20 million units by the end of 2007.

- *Find lead users and independent inventors and leverage their innovation:* Lead users are people or firms that have advanced needs for products or services that are not being met by other companies. Independent inventors often create new opportunities at universities or in home workshops. The majority of inventions by individuals lose money and, even looking across all inventions as a group, independent inventors lose money on average. These groups of people innovate out of passion, to meet their own needs, and for the excitement of pursuing the small chances of enormous returns. Independent innovation is thus an abundant source of opportunities, which as a group exhibit a great deal of variation in quality.
- *Scan various news outlets for new inventions and technologies:* Viktor Gordeyev, a Russian aircraft engineer, wanted to run and jump without tiring, so he conceived a way to marry running shoes with tiny gas-powered engines and pogo-stick like pistons. His invention, which resembles stilts more than shoes, enables a runner to move at 22 m.p.h. But the Russian army claimed the shoes, and they languished as a classified secret for years. After they were declassified in the mid-'90s, an entrepreneur tried to commercialize them, but they never caught on. The story was, however, reported in the *New York Times*. And, stories like this appear daily in the business press, technology journals, and various trade publications. Gas-powered running shoes, as whacky as they may appear, are just the kind of high variance opportunity that should be detected by an effective innovation process.

### Seek opportunities that cause large amounts of disagreement

In the first rounds of an innovation tournament, you and your management team are likely to subjectively evaluate opportunities. Say you are scoring them on a scale of 1 to 5. You can vote with stickers, by using web-based software, through audience response keypads, or by entering tallies in a spreadsheet.

Consider two opportunities that have been evaluated by a panel of five experts.

Opportunity	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5
Cardinal	3	4	4	4	3
Blue Jay	1	5	5	1	5

Most companies would advance Opportunity Cardinal to the next level of development. On average, it obtains slightly better scores (average of 3.6) by the panel of raters. Yet, no one in a panel of five experts can see any blockbuster potential in Cardinal. In contrast, the average rating of Opportunity Blue Jay is slightly lower (average of 3.4), yet, three out of five experts see something truly exceptional in this opportunity. We are not arguing that Blue Jay is a guaranteed success. To the contrary, with two experts

voicing strong concern, it is far from a safe bet. But strong opinions, including strong levels of disagreement, may be early indicators of exceptional opportunities.

### **Shape the “Funnel” Based on Cost and Uncertainty**

Tournaments are comprised of two basic processes: the identification or creation of opportunities and the selection of the highest-quality opportunities among the candidates. An effective selection process must fulfill two requirements:

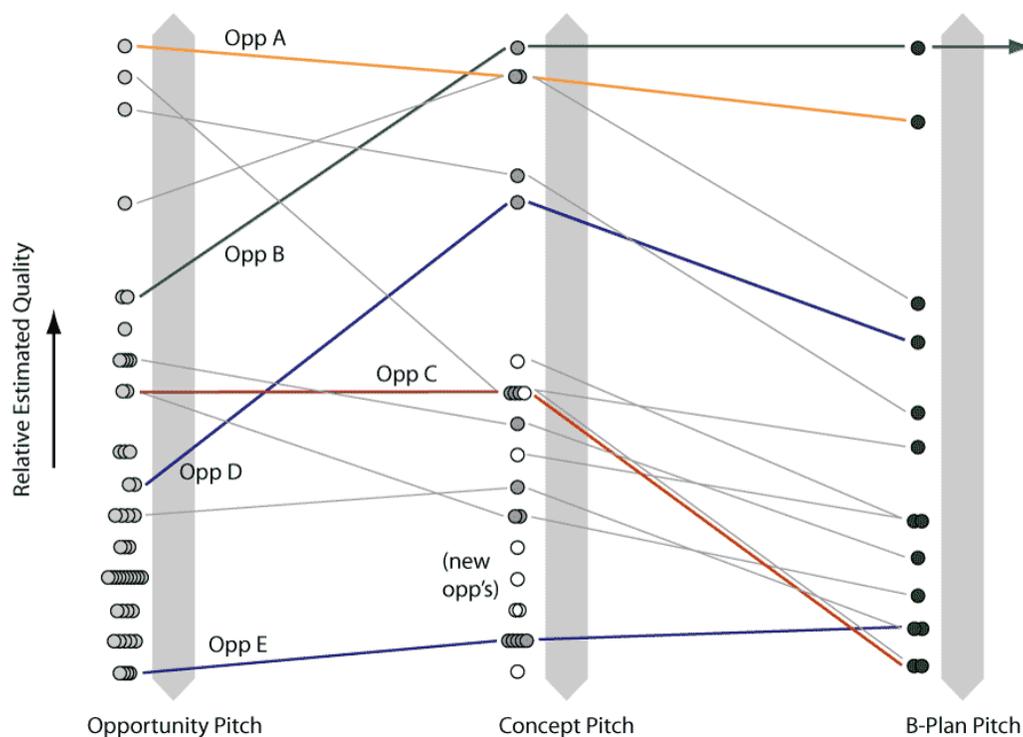
1. Given many opportunities to be evaluated, the selection process must be *efficient*. It must be cheap and fast, favoring the use of imperfect information over extensive analysis and data collection.
2. In order to contribute to the creation of value, the selection process must also be *accurate* despite the uncertainty that still clouds the prospects for a particular opportunity.

These two requirements, efficiency and accuracy, are in tension with each other. On the one hand, given the amount of work associated with in-depth review, you would prefer to filter opportunities based on a quick cursory evaluation. On the other, given the opportunity costs of killing a great opportunity, you would prefer to consider carefully each opportunity in great detail.

You can resolve this tension by evaluating opportunities in multiple rounds. From round to round, you narrow the field of opportunities. That enables you to be very efficient when you are eliminating the obviously weak opportunities and be more careful as you assess the fewer, higher-quality remaining ones.

If you could reliably pick a winner from the available raw opportunities, your innovation funnel would start wide and then narrow to a single opportunity at the first filter. This would be a happy state of affairs, allowing you to save the trouble and expense of pursuing more than one opportunity through multiple phases of development.

Ponder, however, some data from an innovation tournament that we conducted. Exhibit 7 shows the fate of about 50 raw opportunities as they moved through three phases of the tournament. The first phase culminated with a brief pitch; the second, with a more detailed concept pitch, and the third, with the presentation of a full-fledged business plan. At the end of each stage, a group of 50 raters scored each opportunity. In the exhibit, we've arranged the opportunities vertically according to these scores. The raters filtered the opportunities based on both the quality scores and on the enthusiasm of teams to carry an opportunity forward, which is why some of the poorly-rated opportunities move forward. (As often happens, new opportunities arrived during the later phases. These are shown as the eight open circles at the Concept Pitch phase.)



**Exhibit 7.** The relative quality of opportunities at three phases of an innovation tournament for developing a new venture. (The open circles represent opportunities that arrived during the second phase.)

The trajectories of opportunities A and E make sense. Opportunity A scored well from the beginning and continued to do so through the development of a business plan. Opportunity E flopped initially and never improved. (In this case, one person championed the idea and wanted to pursue it regardless of its quality score.) Opportunity B, however, was underappreciated initially, ranking only fifth highest, yet emerged as superior by the business-plan stage. Opportunity D also improved substantially, rising from the lower part of the field to fourth overall. Opportunity C, on the other hand, started in the top half and sank. (In this case, the team learned that the technology was infeasible.)

The top opportunity, Opportunity B, as rated in the business-plan phase, is being commercialized. We don't know what would have happened with the other opportunities if they'd received further investment. But we can clearly see that, had we picked a single raw opportunity from the outset, we would most likely have missed Opportunity B. If we had picked either the second or third highest rated raw opportunity, we would have fared even worse, missing all of the top four opportunities.

The shape of the funnel—the fraction of opportunities carried forward in subsequent phases of the innovation process—is a resolution of two tensions. On the one hand, you face tremendous uncertainty about the eventual value of an opportunity, so you'd like to advance as many opportunities as possible until you've resolved that uncertainty. On the other, developing opportunities is expensive, and so you'd like to carry as few forward as possible to save money.

The uncertainty you face as an innovator arises not only from your lack of knowledge about the need you are trying to address and the solution you are striving to develop. Some of it comes from your inability to

predict the future. Markets morph for reasons beyond our reckoning. One of the benefits of carrying more opportunities forward is that you give yourself flexibility, allowing you to respond to changes in consumer tastes, competition, and technologies.

One way to apply your filters is as follows. Begin by picking the highest-quality opportunity based on your current estimate of quality. Then, consider the next highest rated one and answer two questions:

1. What is the cost of pursuing this opportunity through the next phase of development? This is the substance of budget analysis and project planning, and is usually a fairly easy question to answer.
2. What is the chance that this opportunity will emerge as one of the most valuable of those under development? This question is much harder and not usually amenable to formal analysis.

If the cost of developing the opportunity is relatively low and its likelihood of superiority high, then you add it to the set of candidates to be pursued in the next phase. This logic can be applied successively to each opportunity until you are confident that you are not eliminating an eventual winner by not carrying that opportunity forward.

### **Apply Absolute Hurdles and Relative Comparisons**

The very idea of a tournament conjures up images of contestants vying for advantage. But most tournaments include a mix of *absolute* quality hurdles, which opportunities must clear, and *relative* comparisons in which the best opportunities in a group are selected for further development. For example, in the casting show *American Idol*, the staff initially screens a huge number of contestants against the absolute criterion of reasonable singing ability. Only later, after hundreds of thousands of candidates have been winnowed to fewer than one hundred, do the judges and the audience apply relative comparisons. Most tournaments involve both relative and absolute evaluations. Each approach has pros and cons.

Relative comparison lets you factor construction of your innovation portfolio into your selection process. You can match the number of opportunities selected with the capacity of your pipeline. Relative comparison also introduces competition among opportunities, which forces advocates to burnish their opportunities and clearly articulate their advantages. With absolute hurdles, in contrast, firms sometimes drift towards lax quality standards and thus flood their pipeline with marginal opportunities.

Of course, relative comparison can sometimes lead to the advancement of weak opportunities, too. Maybe you've hit a dry spell in your opportunity creation activities. If so, relative comparison can lull you into believing that the opportunities that you've selected promise exceptional value. After all, they won in your carefully constructed and rigorously implemented competition, even if in reality, the tournament attracted a weak field. Conversely, in a strong field, opportunities may be eliminated that, under more normal conditions, would stand out. Relative comparison can also be unwieldy when considering hundreds of alternatives, and usually makes sense only when considering fewer than 50 opportunities. A final disadvantage of a relative comparison is that it can slow down the innovation process. You may fail to advance an amazing opportunity quickly enough because you're waiting until it can be compared with dozens of others or discussed at your quarterly review meeting.

### **Crafting a sequence of absolute and relative filters**

The advantages and disadvantages of absolute and relative filtering can be exploited through a judicious sequencing of filters in your innovation tournaments. Absolute hurdles should be applied early on to winnow hundreds of opportunities down to dozens. Once dozens of opportunities are under consideration, a hybrid approach can be pursued in which opportunities that are truly exceptional based on absolute quality standards are “fast tracked” and allowed to move forward immediately, but the remaining opportunities are evaluated relative to each other to allow for portfolio planning and the benefits of competition among alternatives.

### **Comparing apples and oranges**

Chances are that you face a mix of opportunities representing differing levels of uncertainty in technology or markets, especially if you have not explicitly limited the scope of your innovation tournament. Addressing this diverse mix of opportunities with a single tournament is unwieldy. How do you compare an opportunity to launch a global satellite network for mobile communications with another project aimed at adding two new colors to existing cell-phone models? Given the diversity in the mix of opportunities, you generally want to sort your opportunities into different buckets based on the time horizon for the innovation, and then use relative comparisons of the opportunities within each time horizon.

### **Open Up Your Tournaments to the Outside World**

One of the reasons for the success of *American Idol* is that it offers an open and democratic avenue to celebrity. Anyone may audition and anyone may vote on who will move on to the next level. Why is this open approach not taken to the selection of vehicle concepts in the auto industry or molecular compounds in the pharmaceutical industry? We have discussed two key functions of an innovation tournament, *creating* opportunities and *selecting* the exceptional opportunities. Consider some examples of how companies have opened the process of creating and selecting to the external community.

The home shopping retailer QVC organizes a product road show, which visits 10 cities in the United States each year to screen new products. Inventors are invited to pitch their ideas in front of a panel of QVC’s managers – inventors with ideas that do not seem promising are dismissed quickly (and without the public humiliation that is associated with some early drop outs in the American Idol contest). Other inventors are encouraged and supported in the further development of their ideas, often leading to new products in QVC’s assortment. Similarly, Staples has recently created a system that allows consumers to submit product proposals to the company. In return, consumers are given royalties if their idea becomes a commercial success – a clear win-win situation with inexpensive ideas for Staples and financial rewards for the most creative consumers.

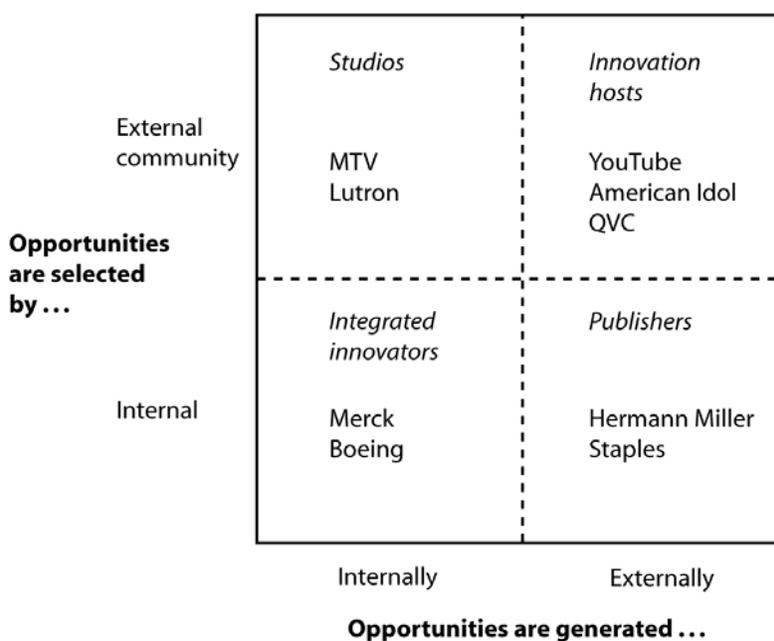
The main benefit of these tournaments is that they quickly though inexpensively create a broad range of opportunities from a very diverse set of entrants. These opportunities can subsequently be refined by professional development teams and be tested by traditional market research. Tournaments also often leverage the non-financial motivators of many of their participants: the thought that “their idea” would

make it into a commercial product has substantial intrinsic value to many participants in part because they typically would not be able to substantially benefit from the innovation if kept proprietary.

Just as opportunities can be generated internally or externally, they can also be selected either internally or externally. As with generation, you'll need to make a decision about what your nexus of selection will be. While Staple's customers generate the ideas externally, the company selects from those ideas internally. In contrast, Lutron Electronics, a major producer of lighting controls, allows for external selection, effectively making its customers the judges of its innovation tournament. Lutron has thousands of products on the market, many of which are exploratory offerings that, if popular, can become major lines of business. External selection can also be done with customers voting directly on proposed future innovations that are presented online.

If you combine the questions of "Where are your opportunities created?" and "Who makes your selection decisions?" you end with four possible organizational configurations, shown in Exhibit 8. In the upper right, you see a company like QVC. QVC uses innovation contests to find promising products created by small firms and independent inventors. It then offers air time, often at hours when only the hardcore shoppers and insomniacs tune in, to gauge initial customer reaction. Why second-guess the customer using costly market research when you can just count how many products they order?

As we move away from the upper right corner of the exhibit, the level of internal innovation increases. Being internally focused can reduce the variety of a firm's ideas, but it brings the benefits of coordination and efficiency. At the lower left, the innovation process is largely carried out internally.



**Exhibit 8:** Organizational configurations for generating and selecting opportunities, moving from mostly internal in lower left to mostly external in upper right.

Four organizational configurations thus emerge:

- **Integrated innovators:** Innovation happens within the firm, often within a single department. This approach assists in the construction of an efficient portfolio and enables the innovator to target its efforts where they best support its strategic direction. The process can be tightly controlled.
- **Studios** are experimentalists. These innovators rely on direct market evidence for selection. They generate opportunities internally but test them in public forums and markets to determine which ones deserve further investment.
- **Publishers** excel at selecting rather than creating. They leave opportunity generation to others and count on their insight into consumer behavior to inform their selection decisions. Publishers exist outside of the media industry. Hermann Miller, the office-furniture seller that introduced the popular Aeron chair, fits in this category. It largely relies on external opportunity creation. Likewise, some large pharmaceutical companies contract with other firms to do early-stage research or monitor biotech startups and try to acquire the ones that devise promising therapies.
- **Innovation hosts** simply serve as marketplaces where innovation germinates. QVC belongs in this category and so do many media sites such as YouTube or Newgrounds where externally created content is published and then selected based on audience opinion.

As we outlined above, we argue that every organization benefits from searching for new opportunities across a range of different sources. As far as an evaluation of opportunities is concerned, the more complex and fast paced a company's market environment, the more it benefits from trying its opportunities in the market as opposed to guessing how its market might react. Moreover, declining costs of small scale market launches also favor an external experimentation strategy. Since in most industries speed and complexity of many market environments have increased over the last years, while the cost of focused market launches have decreased, we believe that many organizations would benefit from opening up their innovation tournaments to the outside world and thereby move towards the upper right in Exhibit 8.

### **Better Tournaments Now**

An important idea in organizational change is the "small win." You seek to accomplish a meaningful objective without a huge investment of time and money in order to get people excited, to create buzz, and to build momentum. We've found that a one-day innovation workshop can provide just the sort of small win that you need to kick start the use and improvement of innovation tournaments in your organization. An innovation workshop is effective because it can engage a relatively large number of people in the process quickly, because it communicates the key ideas of innovation tournaments, and because it typically leaves the participants clamoring for more. It also can result in some exceptional opportunities.

Groups of 15 to 40 employees should participate in the innovation workshop. For small organizations, this might account for a big chunk of the staff. For bigger ones, you might organize multiple workshops.

Either way, recruit as diverse a group of participants as possible. Mix employees across various departments. Don't hold one workshop for marketers and another for accountants.

Exhibit 9 provides a reasonable schedule for a workshop, requiring about five hours, not including breaks. It should start with opening remarks from a senior executive stressing the firm's commitment to innovation, innovation's role in the company's future, and the charter of the workshop. The charter focuses the workshop on some strategic priority for your organization, such as identifying new business opportunities in a particular market. The workshop leader then provides an overview of the tournament structure.

	<b>Time Line for Innovation Workshop</b>	<b>Preparation for workshop</b>
0:00	Welcome, introductions, and workshop charter.	Craft charter. Invite 15-40 employees.
0:15	Overview of tournament structure.	Form groups of 4-5 persons each.
1:00	Opportunity generation as individuals and groups.	Prepare voting method. Create emergency stimuli sheet.
2:00	Groups select opportunities for presentation and articulate each opportunity on separate sheet.	Set up flip charts for capturing opportunities.
2:30	Opportunity pitches.	Arrange wall space for posting opportunities.
3:15	Voting.	Have a bell ready to enforce 2-minute rule.
3:30	Identify roadblocks to next phase of tournament.	
4:30	Define action plan.	

**Exhibit 9:** Preparation steps and timeline for a one-day innovation workshop.

The participants then focus on generating opportunities. We've found it most productive to let people spend about 20 minutes working alone, without discussion, to generate opportunities. Most people are able to generate a handful of opportunities on their own. For those who struggle, you can hand out "emergency stimuli" that often will dislodge some good ideas. Exhibit 10 is an example of an emergency stimuli sheet for a workshop focused on new venture opportunities in the field of health and wellness.

### Emergency Stimuli

- What do you expect to be the major societal trends in the next 10 years? What new needs for health and wellness will be created by these trends?
- What unique products and services are being offered in peripheral geographic or regulatory markets? Might some of these services be offered in the mainstream markets?
- Which products and services are highly fragmented and might benefit substantially from being rolled-up into an integrated firm?
- What premium product or service might be taken down market and delivered directly to consumers, say through a Wal-Mart or other mass distribution channel?
- What is a source of personal frustration for you with respect to health and wellness? How might this frustration be better addressed?

**Exhibit 10:** A set of “emergency stimuli” like this can nudge the thinking of workshop participants.

Next, convene groups of four to five participants and ask them to discuss the opportunities that each individual conceived, and to then generate additional opportunities through group discussion. Each group then picks, from the entire set identified, its best opportunities to share with the entire workshop group. Normally, each individual will present one opportunity (a “pitch”), but that opportunity need not be one that the individual originated. Each individual usually describes one opportunity on a single sheet of paper or a slide. Flip chart pads work well for this, as the large sheets can be used to present the opportunities as well. Each opportunity is posted on the wall of the workshop room, and assigned an identification number, usually just by numbering the sheets with a marker going around the room.

All pitches should adhere to the 2-1-0 rule: a maximum of two minutes for presentation, exactly one opportunity per sheet of paper or slide, and no discussion of the opportunities during or after the presentations. These may seem like draconian rules, but the goal is to screen many opportunities quickly, not to make perfect decisions about each one.

After all presentations, the workshop participants vote on the opportunities which they believe can result in the most value for the organization. Many different voting methods are possible. Two methods we have found successful are wireless keypads for electronic voting (i.e., “audience response” technology) and “sticker voting.” With electronic voting, the workshop leader steps through each opportunity and audience votes (usually on a 1-9 scale) are recorded. With sticker voting, each participant is given 5 or 6 colored stickers to apply to the potentially most valuable opportunities. When sticker voting, you should have a “shopping phase” in which participants decide on their votes and then designate a time at which point votes cast as nearly simultaneously as possible.

After the votes are counted, arrange the opportunities in order of the support they garnered and review the results. Invariably lots of discussion will ensue. You can then discuss the steps needed to advance these opportunities, as well as the strengths, weaknesses, and opportunities for improvement in the process.

**From one-day workshop to routine process**

A workshop is a great way to introduce innovation tournaments and to identify some good opportunities. However, a one-day workshop by itself is not usually an adequate investment in innovation for an organization. The workshop serves as a catalyst for demonstrating that exceptional opportunities can be identified through a straightforward organizational process. The workshop can also generate excitement that can be channeled to put in place the permanent organizational processes required to identify and select exceptional opportunities on an ongoing basis.

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<sup>1</sup> The Darwinator software is freely available to readers at [www.darwinator.com](http://www.darwinator.com).

<sup>2</sup> Wikipedia, "Red Bull," Wikipedia, the free encyclopedia website, [http://en.wikipedia.org/wiki/Red\\_bull](http://en.wikipedia.org/wiki/Red_bull), accessed July 2007.