

Game-Changing at Procter & Gamble

CEO A.G. Lafley talks about growth, creativity, and how P&G meets the innovation challenge

BY SCOTT D. ANTHONY

Innosight President Scott D. Anthony interviewed Procter & Gamble Chairman and CEO A.G. Lafley as part of a keynote session at the May 2008 PDMA and IIR Front End of Innovation conference in Boston. Lafley, co-author with consultant Ram Charan of 'The Game-Changer: How You Can Drive Revenue and Profit Growth with Innovation (Crown Business Books: April 2008), talked about the 171-year-old company's approaches to innovation success.

Scott Anthony (SA): A.G., let's start where you start your book. You talk about a phone call you received in 2000 where the person who called you asked, "Are you prepared [to take the CEO job at Procter & Gamble]?" Were you?

A.G. Lafley (AGL): I'm not sure there are any jobs that really prepare one for the chief executive's job, but there were a few things that I *was* well-prepared for. The first was I clearly understood the core purpose and values of the company, and that was important because everything we do, including the innovation strategy, is founded on that core purpose of meaningfully improving the everyday lives of our consumers. I had an instinct and a lot of experience with trying to put the consumer or

Space to Free the Mind

Shell GameChanger has been supporting small revolutions for 12 years now

BY RUSSELL CONSER

A man I deeply admired once told me that revolutions never come from inside the existing power structures. However, I have also learned that the cause of internal renewal is not hopeless, at least in business. Although Thomas Jefferson said that "every generation needs a new revolution," I believe that "generational-scale" revolutions are only necessary if we fail to create the space in which smaller revolutions can happen every day.

Our experience is that companies can create space for everyday revolutions through a structure that is outside the system, even while it is within the system. More than 10

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Accelerating Innovation

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Voices of Disruption

JUSTIN SIEGEL

Justin Siegel is CEO and co-founder of MocoSpace. Previously he was vice president of publishing for SkyZone Entertainment, leading the company's product strategy. He was also CEO and co-founder of JSmart Technologies, a leader in casual games and entertainment for mobile devices, before JSmart was acquired by SkyZone in 2004. He talked with Innosight's Lillian Zhao about leading a major mobile social-networking disrupter.

Q: What is MocoSpace, and how did you decide to start it?

A: MocoSpace (www.mocospace.com) is a social network that was built for the mobile phone. Jamie Hall (co-founder) and I started the company in October of 2005. We started the company because we saw three exciting trends.

One was what was happening online with social networks. We looked at what was happening with Facebook, MySpace, and Bebo—the traction that they were getting and what drove the excitement around them; we thought a lot of what drove their traction would transition very well onto a mobile phone.

Second, we were very bullish

on mobile internet in the US. We thought that surfing the Internet on your mobile phone would start moving to the mainstream.

The third trend we observed was that historically, mobile content and entertainment had been controlled by wireless carriers. That reminded us of the Internet in the mid-1990s. We thought that those walled gardens would start coming down as users got savvier and as business models evolved. People would start surfing beyond what the carriers were offering on their phone.

As a result, we built MocoSpace to be off-deck, meaning that there is not a link to MocoSpace preloaded on the phone. Instead, users must

go to their phone's web-browser and type in 'www.mocospace.com.' Unlike the traditional on-deck mobile services, which work with the carriers to bill customers for games or ringtones or wallpaper, our business model is ad-supported.



Q: How big and how popular is MocoSpace today?

A: By almost every data point, whether it's talking to carriers or gateway providers, MocoSpace is one of the largest sites accessed on the mobile phone in North America. We recently passed 3 million registered users. Those 3 million users are generating more than 1.5 billion page views a month.

Opera Mini, the largest downloadable web browser for mobile phones, issued a report earlier this year listing the sites they saw coming through their browser by traffic. MocoSpace was the third largest by traffic after MySpace (first) and Google (second). Yahoo ranked fourth and Facebook was fifth.

Q: What makes MocoSpace disruptive? How have you been able to successfully compete against MySpace and Facebook?

A: We're focused entirely on the mobile experience and innovat-

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Editorial Director: Scott D. Anthony

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ing around mobile. As a result, our product is much friendlier to mobile users.

MySpace and Facebook offer a very limited experience on the mobile phone, a small subset of what they offer on their websites. They've cherry-picked a couple of their most relevant features and ported those to the mobile phone.

The result is that you can't do much more than check your status and your messages. You can't go in and personalize your account, play games, listen to music, participate in instant communication, or even upload pictures or videos.

In contrast, you can actually do more with MocoSpace on the mobile phone than you can with the PC version of MocoSpace. On MocoSpace mobile, you can log in, create your account, customize and personalize it, chat, instant message, send e-cards out, play games, etc. Almost all of our features are features that MySpace and Facebook don't offer on their mobile sites, and so the mobile experience is much, much richer on MocoSpace.

Our sweet spot, to date, has been the millions of people who have limited to no access on a regular basis to a PC. These can be people who travel a lot for work, work in retail, work in construction, or whatever it is, they are not tied to a desk all day long. The mobile phone is a much more relevant device for them than a PC.

Q: What do users like most about MocoSpace?

At the end of the day, what drives a social community is its ability to connect people and facilitate communication among them. On MocoSpace, because we're trying to leverage the

inherent nature of the mobile phone, a lot of the communication-focused features are really popular. For example, instant messaging, chatting, leaving messages for each other, and leaving comments are all very popular features.

Q: What is your growth strategy going forward and how do you plan on continuing to compete against the incumbents?

A: We are going to continue to focus on innovating around the mobile front and trying to increase our lead over MySpace and Facebook. By focusing entirely on mobile, I think we can build a defensibility, or moat, around MocoSpace, which is the pure and deep mobile expertise that we have. We have a pretty strong lead right now in the space. I think we can continue to innovate faster, be more nimble, and apply all of our resources and focus to mobile.

I'm sure MySpace and Facebook are going to continue to invest more into mobile. However, at the end of the day, the vast majority of their business is on the web, which probably represents 99 percent of their traffic and revenues today. They still have plenty of work cut out for them as they continue to compete against each other and with the other web-based social networks. So while they recognize that there is a big future in mobile, for the foreseeable future, the core business they need to defend is on the web.

Q: What are your thoughts on the launch and adoption of devices with HTML web browsers, like the iPhone?

A: I think it's great for us as an industry, because these devices make

everyone want to surf more on their mobile phones. That said, a lot of people assume that these phones with HTML browsers, like the iPhone and the Instinct, will allow you to just surf the entire Internet. The reality is that websites still don't work very well on these browsers unless the site has been built specifically for the iPhone or for the mobile phone.

So I think these devices are great in terms of building awareness and usage, but they don't eliminate the need to be smart about your mobile strategy or build mobile-specific products. In fact, that aspect has probably increased because you have all these users and all this buzz now.

As I mentioned earlier, the Opera Mini browser does the same thing for your regular mobile phone as devices with HTML browsers do: people download the Opera Mini browser and it transcodes websites into mobile friendly sites. Even despite the fact that Opera is transcoding the sites and doing it really well, MocoSpace, as a pure-mobile site, is still the third most-trafficked site, according to Opera's statistics.

Q: What are your predictions on the future of social mobile networking?

A: My sense is that social networking is much more interesting on the mobile phone than on the PC, just because it's so portable, it's always with you, and everyone has a phone. The whole notion of connectivity, connecting, and socializing is core to what a mobile phone is about. Eventually social networking will be more popular on cell phones than on the PC. How long that will take, I don't know, but probably three years sounds about right. ♦

Innovators' Update: YouTube's Continued Struggles

The ongoing search for a new business model in online video

Each issue, we'll take a look back at a past Innovators' Insight to see how our analysis has held up. In this issue, we look at Insight #97, "The Limitations of Data." The insight described how difficult it is to forecast the performance of disruptive innovations. What has happened since?

Last summer there was a bit of a kerfuffle when one analyst's misdirected math led to wildly swinging estimates for a new advertising model for YouTube, the online video sharing site owned by Google.

Morgan Stanley analyst Mary Meeker's original forecast suggested the model—small overlay ads that run on the bottom of online videos—would contribute \$720 million in net revenue. Silicon Alley Insider analyst Henry Blodget kindly pointed out that Meeker had made a small error, meaning the actual estimate was a mere \$720,000. Meeker dug back into the calculations and provided ranges from \$76 to \$189 million. Blodget's own analysis suggested year-five revenues ranging from \$200 million to \$13 billion.

One year later, the only thing that's clear is that YouTube's financial performance is not meeting the expectations that led Google to pay \$1.7 billion for YouTube in 2006. The problem isn't traffic, with YouTube now reaching close to 60 million consumers a month. Rather, YouTube hasn't found a way to make revenue grow at the same pace as traffic.

Why have YouTube's revenues grown more slowly than projected? One key challenge is that Google's core business model—matching search terms to ads—hasn't naturally fit with YouTube's model.

When Google purchased You-

Tube, some analysts expected it could port that model to video, turning YouTube's traffic into a gold mine. Unfortunately, it's not that simple. The keywords that describe a video don't always provide sufficient information to guarantee a successful match with an advertiser's target customer or message.

For example, imagine a pet food company wanted an ad tied to the search term "dog food." While that search highlights vintage dog-food commercials, it also brings up a video spoofing disgraced NFL player Michael Vick, who's in jail for charges related to dog fighting, and one titled "Alert! Rat poison in pet food boycott China K9 Killers!" Pet food companies are not likely to be excited to be paired with these kinds of video.

All in all, Google only sells ads against about the three percent of YouTube's videos that are provided by or cleared by media companies. The other 97 percent is off limits.

Also, Google faces a classic quandary. The most "proven" money-making model for video advertising is to run short ads before or after a video plays (in industry lingo a "pre-roll" or "post-roll"). Extensive pre-rolls might cause angst amongst YouTube users who appreciate the ability to flip from video to video.

So YouTube is left with a huge audience but an uncertain business model. In some ways, this challenge

should feel familiar to Google—it debuted in the late 1990s as one of close to 20 different search engines. While superior technology helped Google succeed, what really allowed it to break free from the pack was its disruptive business model that allowed companies to bid to place text-based ads tied to specific search terms.

While Overture (acquired by Yahoo! in 2003) pioneered the model of auctioning off search terms, Google put together an end-to-end model that made it simple and effective for companies of any size to advertise online, creating a juggernaut.

Google doesn't appear to be innovating to the same degree in the online video space. Rather, it seems to be trying to force-fit models that work on traditional television or on the Internet onto video advertising. This approach—cramming old models into new spaces—rarely produces breakthrough results.

Google needs an innovative business model to realize the potential of online video. Meanwhile, contenders are emerging online. One, startup company VideoEgg, has introduced a series of online advertising models meant to deepen user engagement.

One such model places "widgets" at the bottom of an ad that allow users to see different versions of the ad or get more information. VideoEgg only charges advertisers if a consumer actually engages with an ad in some way.

VideoEgg's model might not be the answer, but overlays and pre-rolls probably aren't the answer either. If Google tries to force-fit old models onto online video, it will create space for a competitor to do to it what it did to Yahoo! and Overture.

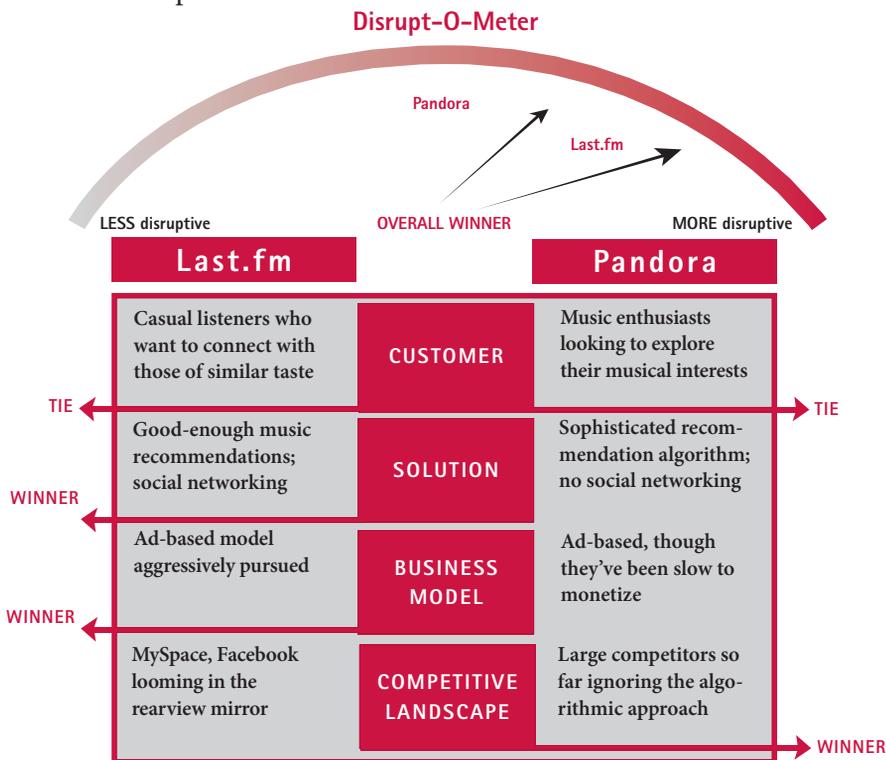
— Scott D. Anthony

Disrupt-O-Meter

Tale of the Disruptive Tape: Pandora vs. Last.fm

“Is company X disruptive?” Whenever we’re asked this question—and we’re asked it often—we run through a simple mental checklist that looks at the target customer, the solution, the business model, and the competitive landscape. In this issue, we use our “Disrupt-O-Meter” to analyze two Internet radio offerings: Pandora and Last.fm.

As subscription online music services futilely compete with iTunes, a different war is being waged in the free Internet radio industry. Pandora and Last.fm have been duking it out since 2005, when Last.fm and music recommendation system Audioscrobbler merged and Pandora debuted. Pandora’s database of 400,000+ songs, each analyzed and labeled with “genomic” musical traits, allows it to select songs via algorithm to fit user preferences. Last.fm offers songs recommended by other users with similar musical tastes. Which is more disruptive?



More Disruptive: Last.fm. The companies have similar business models—ad sales—though Last.fm, which was purchased by CBS in 2007 and attracts 21 million users per month compared to Pandora’s 11 million, has an edge there. Last.fm’s simple social-recommendation engine is much cheaper to maintain than Pandora’s labor-intensive Music Genome Project database, and it allows users to connect with others who share their music interests. The latter may be moot once MySpace and Facebook roll out music initiatives that each is reportedly planning. Pandora recently entered the mobile phone space, quickly followed by Last.fm. But such moves may just obscure the final reality: With the unveiling of Clear Channel-spearheaded Katz Online Network, it may only be a matter of time before both Pandora and Last.fm disappear quietly within major entertainment companies. — *Curtis Chan*

EMERGING TECHNOLOGY WATCH

Tiny, Low-Energy Processors May Power Implantable Medical Sensors

Researchers at the University of Michigan have made a processor that measures just one millimeter square and whose power consumption is so low that emerging thin-film batteries of the same size could run it for 10 years or more, according to *MIT Technology Review*. The processor uses only about 30 picowatts (one-millionth of one-millionth of a watt) of power when idle, and consumes only 2.8 picojoules of energy per computing cycle when active—about a tenth of the energy used by the most energy-efficient chips on the market. The chips (still in development) are an important step toward building implantable medical sensors that could one day measure blood-glucose levels in diabetics or retinal pressure in glaucoma patients.

Wireless Antenna Could Broadcast Signals Over Skin

A wireless antenna that channels signals along human skin could broadcast signals that would connect medical implants or portable gadgets. Such an antenna is under development by researchers at Queen’s University Belfast, Northern Ireland, according to *New Scientist* magazine. The new design’s ability to produce signals that move along skin makes it more efficient than existing battery-hungry technologies such as Bluetooth.

Laser Microscalpel Will Allow For Cell-Level Targeting

Engineers at the University of Texas at Austin have patented a laser microscalpel that allows a surgeon to operate on tissue one cell at a time, precisely targeting disease while leaving healthy surrounding cells undamaged, reports *MIT Technology Review*. Because they can destroy targeted cells without causing heat damage outside the target area, such tools have been used since 2003 by to perform laser eye surgery. But the lasers currently used are bulky and only appropriate for surface areas, such as the skin or the eye. The laser microscalpel will be capable of high-precision endoscopic surgery, such as destroying cancer cells scattered throughout brain tissue or operating on delicate tissues like vocal cords without damaging them.

years ago, Shell worked with Gary Hamel to create a program called GameChanger, modeled after the Silicon Valley venture-capital ecosystem (see "Bringing Silicon Valley Inside" by Gary Hamel, *Harvard Business Review*, Sept.-Oct. 1999).

Shell GameChanger continues to thrive today, long past the expiration date of most corporate innovation programs. This article aims to share our practical experience, not as a perfect model, but so that you may consider whether similar mechanisms might help your organization.

Background

Shell's long, proud history of leading technology-driven change in the oil and gas industry includes the development of the first bulk oil tankers in 1892 and a new class of aviation fuels in the 1930s.

Yet our most-often recognized achievement was a system developed over time, not a thing invented

on a specific date. By pushing the boundaries of exploration, drilling, and civil engineering technology continuously for decades, Shell led the industry from land out into the offshore waters—first into the shallow waters and then into the deep.

By the mid 1990s, Shell's Exploration and Production business (E&P) faced the challenge of many mature industries—an imperative to focus scarce R&D resources on the current business.

However, the director of Shell E&P R&D also recognized that if we only focused on today, more

risky breakthrough ideas might never be developed. He intuitively recognized concepts Clayton Christensen later wrote about in *The Innovator's Dilemma* (Harvard Business School Press, 1997), and he sponsored the creation of GameChanger as a complementary part of an otherwise-focused organization.

The GameChanger Solution

To create space that would free minds for innovation, Shell created

designed to be dynamic and flexible so that it could both amplify successes and truncate failures early.

GameChanger is an autonomous team of people who invest a separate pool of funds amounting to roughly 5 to 10 percent of the total R&D budget using a simple, fit-for-purpose, real-time process. Successful projects graduate for further development under a core R&D program, a license to another firm, or a new venture company.

These are the basic steps in the GameChanger process (illustrated at left):

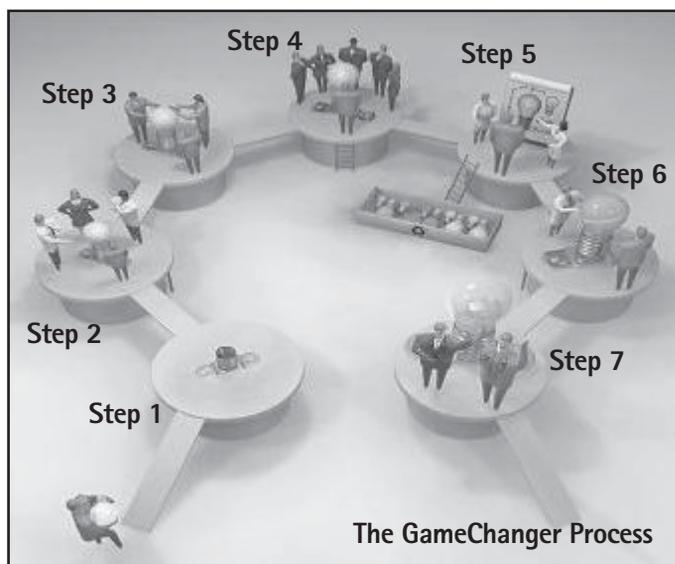


Image courtesy of Shell

Step 1: Idea Creation

Ideas can be submitted through a website by anyone in or outside of Shell at any time. We also stimulate new ideas by holding workshops on topical domains (e.g., "stranded gas") and maintaining active relationships with select universities worldwide.

Idea originators are called "Proponents" and are the central focus of the process throughout an idea's life. Each idea is also assigned a GameChanger team member as "Sponsor." If an idea has come from outside Shell, the Sponsor secures an internal co-Proponent.

Each idea is also assigned a GameChanger team member as "Sponsor." If an idea has come from outside Shell, the Sponsor secures an internal co-Proponent.

Step 2: Screening Panel

The Proponent presents his rough idea to a two-person Screening Panel chaired by the Sponsor. Panel members ask the Proponent questions to ensure understanding, then thank and dismiss him. Team members then immediately decide whether to grant minor funding

GameChanger, a separate process that could be used to set different priorities and establish social mechanisms to safely hear out crazy ideas, as well as assess them using suitable models and measures.

GameChanger was designed as a "proof-of-concept" process—i.e., only for the early stages of innovation. We discover an idea's merit by working with it, not just analyzing it.

In this way, experience, not assumptions grounded in orthodoxy, drives later decisions. Because GameChanger focuses on high-uncertainty projects, the process was

(\$15,000 to \$25,000) with which the Proponent can develop a more robust proposal, and communicate their decision and reasoning to the Proponent.

Step 3: Mature Idea

The objective of the Mature phase is to answer questions necessary to make a material funding proposal to an Extended Panel. Minor funding may be used to experiment, visit potential collaborators, or engage potential customers about the idea. Sponsors actively work with Proponents to sharpen their proposals into coherent, compelling plans.

Step 4: Extended Panel

In the Extended Panel—the core functional element of the GameChanger process—a Proponent presents his idea and plan to a body of six to 12 people with relevant experience. The group is purposefully diverse to help challenge orthodoxies. The group must include at least three GameChanger team members and at least three non-members, one of whom must represent a customer perspective.

After hearing the proposal, panelists ask questions, then offer comments about whether and why they think the plan deserves funding. After dismissing guests, GameChanger team members evaluate the idea against these criteria:

- Potential Value: What is the total long-term value impact on Shell if we assume success?
- Why Shell: Why is Shell in a good position to both create and capture value from the idea?
- Novelty: How different is the idea (those that have never

been done before score highest)?

- Doable Plan: Can a step-wise plan affordably resolve critical uncertainties quickly and cheaply?

The GameChanger team members then decide whether to reject, fund, or modify the plan. The Sponsor then communicates the decision and reasoning to the Proponent.

A few key aspects of Extended Panels are noteworthy:

Simple fit-for-purpose criteria. Although we consider whether an idea could work or not, success probability is NOT a criterion. Instead, the Novelty criterion inherently favors high-uncertainty ideas, and the Doable Plan criterion assesses whether the risk is manageable.

Peer review and recognition. The panel comprises a diverse peer group, so there is no hierarchy. In fact, it is not unheard of for some managers to be Proponents themselves.

Separation of advice and decisions. Panel experts' advice is weighed heavily, but is not binding for decisions. Sometimes the most interesting ideas are also the most controversial, and the team may choose to invest against advice. Over time, we have tuned our ears more to issues than to conclusions, and we always seek to ensure that the plan addresses issues.

Step 5: Execute Idea

If approved, staged funding is released to the Proponent according to the plan. During execution, Proponents are like CEOs of their own mini-ventures. Although they may take on a project full-time, most often they execute their project along-

side their current work.

Regardless, they are not left to fend for themselves. Most of our Proponents are scientists and engineers who may be less skilled or less interested in the business and commercial dimensions of their projects. So, GameChanger Sponsors act as multi-skilled consultants—they may be technical advisers in the morning, marketers over lunch, and an interface with lawyers in the afternoon.

Step 6: Tollgates

Projects return for a replay of the Extended Panel process at the Tollgates step, according to the staged funding plan. Over the years, we have come to learn that these tollgates are in and of themselves a part of the social journey for all players.

In order to build understanding and support in a group of people, we establish a permanent Advisory Board for each project. We have also learned that Tollgates are primary social events where momentum and understanding are either built or lost. Early participation of future stakeholders in Tollgates is thus key for later buy-in.

Step 7: Close-Out Panel

Upon completion of a project, a close-out panel is held, whether the project has succeeded or has failed.

For projects that failed to reach proof-of-concept, the focus is on capturing learnings. For successful ideas, the focus is on reviewing and validating a forward plan. Successful graduates require the approval of the R&D head to proceed. Authority over the actual forward plan for graduating projects rests with the receiving organizational department.

Our Experience

GameChanger has been an integral process at Shell for 12 years now. We have heard more than 2,000 ideas and graduated more than 200 projects.

A typical project spends about \$500,000 over 24 months, although this is quite variable. At last audit, about 40 percent of our core E&P R&D program has emerged or evolved from former GameChanger projects.

GameChanger expanded out of E&P long ago—GameChanger teams now exist in our Downstream business and at the corporate level. Roughly 70 percent of E&P GameChanger projects at any given time involve active collaboration with one or more parties outside of Shell.

GameChanger has helped keep Shell and the industry at the forefront of meeting the technological challenges of responsibly developing the world's oil and gas resources. Although many of our most compelling projects remain confidential, a few examples of successes are summarized in the sidebar on Page 9.

We believe the ingredients most responsible for our success are:

Executive-level support. Shell executives openly encourage people to take novel ideas to GameChanger, which helps to promote a “permission to innovate” culture.

Separate funds. Funding for radical innovation must be set aside up front, or novel ideas simply can't compete. Funding for GameChanger has ranged from 5 to 10 percent of the total R&D budget over the years.

Dedicated people. E&P Game-

Changer is a separate and dedicated team of roughly 10 people whose leader reports directly to the head of R&D. The team members' skills are complementary to the Proponents they support. Collective breadth and individual depth are required for credibility. Team members also need to have an opportunity-seeking mindset that tries to positively resolve uncertainty, not flee from it or be paralyzed by it.

Autonomous authority. The GameChanger team's autonomous authority to make investment decisions and steer projects should not be mistaken for organizational opacity or isolation.

Rather, as with financial markets, transparency is the price of autonomy. The team is open to input and challenge from all directions, but they have the right to make decisions that at the time may seem unusual to those outside.

Open but limited scope. In order for this autonomy to be both manageable by and tolerable to all parties, the team needs a scope with enough open space to explore, but which is still relevant.

In Shell E&P GameChanger, we will hear any new idea that could materially change the game of oil and gas resources, and *a priori* reject anything unrelated to it. Within this scope, we are not afraid to invest, and we have a good track record in ideas out of favor with mainstream thinking.

Open sources. GameChanger started as an “open” mechanism, but contained within Shell. However, as Henry Chesbrough demonstrated in *Open Innovation* (Harvard Business School Press, 2003), “useful knowledge is no longer concentrat-

ed in large organizations.”

It only took a few years to realize that we should be indifferent to the source of ideas and places to develop them. Although this required new commercial skills within the team, the basic process of maturing an idea remained largely the same. However, we do not invest in projects without internal co-proponents, as we find that collaboration—not outsourcing—is the source of value.

Although space limits detail on other essentials, our experience is that proactive portfolio management and regular leadership engagement are invaluable. Our portfolio management process focuses on both consolidating resources behind the most promising ideas and stopping early disappointments.

Leadership engagement is geared towards forward planning around emerging successes. GameChanger can thus continually be seen by senior Shell executives as a mechanism to float compelling options to the top quickly.

Key Learnings

A few things we have learned along our own journey are:

It's the people, stupid

Technology itself is hard, but our experience is that the greatest challenges stem from the human dimensions of radical innovation. A people-focused social process where groups of the right people can journey together is the heart of GameChanger's success. We use people to both support and challenge the development of ideas.

Learn by doing

Charles Dickens once said, “An

idea, like a ghost, must be spoken to a little before it will explain itself.” It is absolutely critical to resist the temptation to over-analyze radical ideas. Ideas are better understood by playing with them.

Doing so allows participants to understand an idea through experience, not assumptions. The ultimate essence of the GameChanger process is withholding final judgment of an intriguing idea until after it is experienced.

Be transparent, but fly below the radar

As noted earlier, transparency is the price of autonomy. However, we don’t confuse transparency for visibility. A common mistake is for people to seek too much visibility before they are ready for it. Like a child, selectively expose your idea to bigger challenges as it grows. There is no need to seek playground fights in kindergarten.

Create enough structure, but not too much

Having a structured process is precisely what allows a radical innovation system to exist inside a company. However, too much structure doesn’t leave enough flexibility to adapt to different ideas and circumstances.

Having a single panel process we use for all ideas is clearly central in our success, but if we prescribed it too much, it would fall under its own weight.

Step-Change innovation opens space for disruptive innovation

Although GameChanger was created prior to the emergence of the “disruptive” meme, in hindsight we

see that GameChanger has been effective for both step-change sustaining and disruptive innovation. Our experience has been that delivery of step-change sustaining innovation builds invaluable organizational credibility that helps further open space for disruption.

Final Thoughts

Innovation is undoubtedly a continual struggle—certainly an “unnatural act” for any institution. Gary Hamel likens corporate innovation to getting a dog to walk on its hind legs—it can be done, but only for as long as you “hold a biscuit in front of its nose.”

So perhaps GameChanger is best understood as a corporate dog biscuit—we don’t resolve the underlying dilemma, but we have thrived for more than 10 years by enabling the dog to dance along.

We now have a network of dedicated GameChanger professionals across the company—based in the US, Europe, and Asia—who are well-connected to innovative people inside and outside of Shell, and who act as catalysts, sponsors, and coaches.

Our fit-for-purpose process has a track record of generating a continuous stream of compelling new options for Shell. The process attracts great people with great ideas, and helps them make those ideas real.

More importantly, we don’t plot “generational scale” revolutions—we support little revolutions every day so that Shell can stay at the leading edge of innovation in a mature industry. ♦

Russell Conser leads the GameChanger program in Shell International E&P. He can be reached at russ.conser@shell.com.

EXAMPLE GAMECHANGER SUCCESSSES

EZIP

EZIP’s elastomers swell in the presence of water and help water-producing zones in mature oil wells automatically shut themselves off. In the first field trial, water production went down by 80 percent and oil production up by 600 percent. The technology is commercially available from a venture company called “SwellFix” (www.swellfix.com).

Algae Fuel

Natural algae are very efficient at making oil and can double their mass several times a day, producing at least 15 times more oil per acre than other land crops. Shell and a small company called HR Biopetroleum have now established a joint venture to build an algae oil pilot facility in Hawaii (www.hrbp.com).

Production Universe

Aimed at making it quicker and easier to optimize oil and gas production in a field, Production Universe, a new method of data modeling, is now deployed on Shell’s top assets worldwide, resulting in significant additional revenue.

Reactive Liner

Shell collaborated with Qinetiq to develop a new class of explosive charge that results in a bigger, deeper and cleaner holes between the well and the reservoir that can flow more oil and gas. The product, Connex™, is now available through a venture company called GeoDynamics (www.perf.com).

Accelerating Innovation

Established companies don't have to be at a disadvantage when it comes to rapid release of new offerings

BY MARK JOHNSON & JOSH SUSKEWICZ

This article is excerpted from the authors' chapter in From Strategy to Execution: Turning Accelerated Global Change into Opportunity (Springer, 2008). The authors would like to acknowledge the contributions of Innosight colleagues Scott D. Anthony, Adeline Ng, and Natalie Painchaud to the development of this article.

In today's environment, there is decreasing patience for slow-ramping innovation. In some contexts it is important for companies to seize first-mover advantage, while in others they need to follow fast, blunting the damaging effect of competitors' innovation efforts.

No matter the competitive dynamic, it is almost always helpful to get new products or services into market settings as quickly as possible, in order to enable rapid in-market learning and business model development.

Yet the new growth process is fraught with risks and challenges, and most smart executives know that even the most transformational growth businesses start small, growing slowly until they hit an inflection point and take off.

How can companies find ways to accelerate the time between the origination and full realization of an idea while running the gauntlet that so often causes great ideas to fail?

This article is excerpted from a book chapter in which we review

different ways to accelerate innovation, as well as methods of institutionalizing the processes and tools that make rapid and consistent new product development an engrained capability.

Here, we focus on one type of accelerating innovation: speeding up the time to launch in new, emergent, disruptive market situations.

Specifically, we will examine how teams for new ventures in uncertain environments can be structured and funded in such a way as to increase their chances of succeeding quickly.

We will look to global silicone provider Dow Corning's surprisingly dexterous creation of Xiameter, a new business unit that operates on a fundamentally different business model than its parent, to illustrate key principles of what it takes to get to market fast.

Structure: Setting Teams Up for Success

The best way to develop a disruptive product or service offering rapidly and get it out into the market is to set up a heavyweight team, grant it operational autonomy, and task it with complete responsibility for the project.

The team should have decision-making power, and should take it upon itself to break down and reconstruct processes so that they match the project's needs.

The team should be led by an authorized project champion with

enough power within the company to get things done. Team members should be co-located to avoid communications complexities and should be freed from other responsibilities so they can focus on one project at a time. In addition, team leaders should have the ability to staff up and down as needed.

The heavyweight team should be backed by explicit senior management support recognized throughout the organization, so that corporate antibodies do not interfere. Senior management can—and must—play an active role in accelerating innovation, especially at the early stages.

Additionally, the heavyweight team should have the power to break through corporate orthodoxies—within limits, of course—that might otherwise constrain it. Business-as-usual processes and corporate priorities can stagnate innovation efforts, if not stifle them entirely.

Successful companies are set up to perform in a certain way: to execute upon their business model. To that end they are methodical and incredibly skilled; our research has made it clear that incumbents will almost always win battles of sustaining innovation.

Yet, at the same time, these companies are big, lumbering, and, by nature, conservative. Therefore, they have trouble innovating at speed, especially if the innovation opportunity is potentially disruptive to their

core business model. They tend to struggle in situations that require nimbleness and flexibility.

In order to avoid this dilemma, teams focused on new, disruptive development should be kept at arm's length from the standard processes that drive the core business. This requires a senior-management mandate, corporate autonomy, and customized processes and allocations.

The team must also be given the freedom to “write its own rules”: to build its own team culture in order to rapidly seize an opportunity space.

Note that the most insidious rules are often unstated—the mid-manager dismissing an innovation idea by saying, “Oh, we don't do that,” or the momentarily inspired employee realizing, “but this will never pass spec.” These latent negative forces must be short-circuited.

Finally, teams should be staffed with employees with the proper “schools of experience,” a concept we've adapted from Morgan McCall's *High Flyers: Developing the Next Generation of Leaders* (Harvard Business Press, 1998), as well as Clayton Christensen's *The Innovator's Solution* (Harvard Business Press, 2003).

The most effective employees in any given situation are most likely to be the ones who have wrestled with—and learned from and succeeded in—similar situations in the past. The skills and intuition needed to succeed in a fast-paced environment of accelerated innovation are most reliably learned from experience, from attending the right “schools.”

In sum, an autonomous, focused, empowered, and appropriately ex-

perienced team will give you the best shot at first-mover advantage in uncertain, emergent, and disruptive situations.

Funding Motivation: 'Just Enough' Targeted Resources

Once the team is set up, the next challenge is to fund it appropriately. We advocate an approach by which companies grant new ventures “just enough” targeted resources—enough to be able to make progress and test key assumptions, but no blank checks, only *just* enough so

Even the most transformational growth businesses start small, growing slowly until they hit an inflection point and take off.

teams are under pressure to develop a viable business model quickly.

In essence, companies should consider themselves venture capitalists, parceling out targeted amounts of money based on results. Necessity, after all, is the mother of invention.

Scarcity and the pressure to earn the right to move forward will motivate creativity, force low-cost business model development, and, of course, kill underperforming projects before they become malingering black holes.

If taken too far, however, funding

scarcity will limit teams' ability to scale quickly. Management needs to strike a delicate balance: just enough resources when the project is still in an emergent discovery phase, but if and when the right business model emerges it should be fully supported and advanced.

When doling out money in a stage-gate process, companies must make sure to use the appropriate benchmarks to review progress. The product development funnel that works for a core business may well suffocate ideas that fall beyond the incumbent business model.

Just as teams pursuing innovation require autonomy to thrive, the course by which ideas are developed into products and services must be independent of business-as-usual processes as well.

To that end, distinct metrics will support rather than shackle innovation efforts. Core valuation tools such as “net present value” and “return on investment” work very well when evaluating existing markets and knowable, highly sustaining development efforts.

However, markets that don't exist can't be measured; don't let ratios built for core businesses restrain innovation efforts due to the misleading readings they are likely to produce.

Instead, companies should focus on progress-tracking metrics such as knowledge-to-assumption ratios, which are reflective of the development of the business idea, as well as both directional and actionable.

Indeed, this sort of “plan to learn” approach, which we adapted from Ian C. MacMillan and Rita Gunther McGrath's article “Discovery-Driven Planning” (*Harvard Business*

Review, July 1995), urges teams to focus on identifying and rapidly addressing risks and assumptions. This approach should guide strategic efforts.

Accelerating Innovation at Dow Corning

These principles are best illustrated by Dow Corning's rapid creation of its Xiameter business unit in 2002. As globalization gathered steam in the 90s, the company began to face commoditizing pressures and difficulty maintaining price premiums in certain market segments. At the same time, they were trying to figure out how to respond to the rise of the Internet and emerging e-commerce paradigms.

Historically, Dow Corning had been configured to provide personalized, high-value-added service throughout the sales process, and was therefore seemingly allergic to hands-off, automated sales processes. While the Internet threatened Dow Corning's core business model, it could also, if played correctly, offer a way out of the increasingly apparent commoditization trap the company found itself in at the low end of the market.

In order to address this unique confluence of threat and opportunity, an exciting but potentially threatening new business model was rapidly developed: Dow Corning set up an autonomous e-commerce unit, Xiameter, that sells bulk silicone products for 10 to 15 percent less than the prices established by its core business.

Xiameter launched in January 2002, six months after it was conceived. Within three months Xiameter had paid back all the money

invested in it, and within a few years had become a significant contributor to the company's suddenly much healthier bottom line.

So how did the Xiameter team innovate so quickly and so well? Interviews with key leaders highlight a few of the critical success factors:

- *Senior management commitment.* Senior management let it be known that they personally sanctioned the Xiameter team to break rules. They also put their money where their mouth was by providing funding, opening up corporate ranks for staff selection, and letting the team utilize key Dow Corning resources when necessary.
- *Stake in the ground.* Very early on, senior management decreed a launch date: January 7, 2002, no matter what. This deadline galvanized the team, forced focus and quick decision-making, and underscored the seriousness of the effort, opening doors and paving the way for rapid action. Finally, it encouraged a "good enough" mentality that allowed Xiameter staff to tackle problems collaboratively and move on without waiting for unattainable perfection.
- *Autonomy.* The team was completely removed from the normal Dow Corning system, and even physically located on their own floor in the corporate headquarters. Being fully autonomous facilitated the types of countercultural decisions required to innovate at top speed.

- *New culture.* Early on, the Xiameter team tore down the cubicles on their floor and arranged their desks in a circle around a fridge stocked with Coca-Cola. The fun, fast-paced, and exciting working environment they created encouraged rapid progress.

- *Selective hiring.* Xiameter team members were specifically recruited for their ability to succeed in the new division, not in the parent firm. Team members showed aptitude for decision-making, ability to operate in uncertain conditions, and commitment to change.

The Xiameter story shows that established, mature companies can succeed at accelerating innovation by leveraging the unique resources they have at their disposal to beat out nimble, disruptive entrants.

The key to success is recognizing that new, disruptive growth represents a distinct challenge from growing the core business, and that processes, tools, and resources must be customized accordingly.

As global competition heats up, companies in almost all industries are under increasing pressure to innovate at the pace and scale of the market. This imperative is challenging, but we firmly believe that the study of innovation has begun to surface patterns and yield insights that make accelerated and sustainable new market growth increasingly achievable and repeatable. ♦

Mark Johnson is Chairman and Co-Founder of Innosight. He can be reached at mjohnson@innosight.com. Josh Suskewicz is a Senior Associate at Innosight. He can be reached at jsuskewicz@innosight.com.

SIX POINTS TO REMEMBER

At the end of his interview with A.G. Lafley during the May 2008 Front End of Innovation conference, Scott Anthony cited these six takeaways:

1. In an age of disruption, growth is getting increasingly difficult.
2. Companies need to take the long view, and not give in to the temptation to focus on the short term.
3. The customer needs to be the center of the innovation equation. When Lafley took over as CEO in 2000, he said he saw too many managers on their cellphones, or buried in spreadsheets, in essence "showing customers their behind."
4. Experimentation is key. There's value in giving customers even crude prototypes to test an idea. Also, different parts of P&G approach innovation differently, and that's a good thing.
5. Complex organizations need to simplify to successfully innovate. Think "Sesame Street" simple.
6. The CEO has to be both the "Chief External Officer" to manage external pressure and the "Chief Innovation Officer" to push the innovation agenda forward.

the customer at the center of the business and innovation strategies. And I was at a company that believed innovation was its lifeblood, so our issue was not that we didn't believe in innovation or didn't understand that it was important.

Our challenge was three-fold. First was, we defined innovation way too narrowly. We defined it around the technologies, the chemistry, and we were sort of running a "push" innovation system.

Secondly, we weren't executing very well. We were running industry-average success rates and, in our industry, 80 to 85 percent of new brands and new products fail, so we were only succeeding 15 to 20 percent of the time.

Thirdly, we really weren't facing up to the realities of what had become a much more competitive, global, unpredictable, disruptive marketplace.

SA: You mentioned that, historically, 80 to 85 percent of innovations fail. An argument you make in the book and tried to drive at Procter & Gamble is that it need not be that way—that innovation is a process that you can manage. Can you describe that a bit more?

AGL: This is certainly one of the most important things I've learned in 32 years at P&G. The first thing we had to do was really define what we meant by innovation.

For us, we just don't have innovation until there's a customer who can actually purchase the branded product or service and use it. So, we're not talking about invention, we're not talking about ideation or creation, we're talking about trans-

forming that idea or that technology into a product or service that's a commercial success.

If that's the starting point, then you have to work your way back through the steps or the process that it takes to deliver that idea from inception to commercialization.

We borrowed a stage-gate system that was used by technology companies. The stages are ideation, concept, and prototyping, and then there's developing, qualifying, and commercializing.

The important thing about the process is that you follow it. The big problem was that we had business units that thought they were following the process, but they were really driving right through a gate, or driving around it, or just sort of opening it up willy-nilly. So we try to be very disciplined as we work our way through the gates.

The front end is the fuzziest and the least well-defined, and it's the most important to disruptive innovation. I've become a pretty big believer in getting the idea or technology to some relatively clear concept expression and some relatively crude prototype as fast as you possibly can, and then get that in front of prospective customers.

We've increased our success rate substantially, and it's driven the value of our portfolio of innovations up in terms of incremental new sales each year, sustaining sales, and value creation, which is what ultimately matters to the shareholder.

I don't think we should try to do much better, because if we do we won't be looking at big-enough ideas, at disruptive-enough innovations and big sustaining innovations.

SA: A lot of people think innovation is creativity, a “eureka moment,” and if you try to put too much process on it you crowd that out. How do you respond to that?

AGL: That’s probably the question I get the most often. First, in my experience with some of the most inventive people inside and outside P&G, it’s not really a “eureka moment.” Great inventors have a process, an individual process, and it usually involves connecting things that most of us don’t see the connections in. They get at it in different ways, but they tend to be naturally more curious. They tend to see more things as being possibly related or connected, and their mind is working its way through a creative process that enables them to come up with more ideas.

The second thing is, it doesn’t do any good to have an idea unless it can be expressed in a simple concept and demonstrated in a simple prototype because, in the end, it’s just an idea until you connect it with a customer. That’s a really important part of the process. For literally a few hundred dollars you can put together a very quick prototype, and if you have a hypothesis about who the prospective primary customer is, you can start iterating with that primary customer.

Finally, a lot of people don’t believe this, but it’s been my experience that our problem is not ideas. I have 138,000 employees around the world. They have a lot of ideas. And through our open innovation architecture in Connect and Develop, half of our innovations that go to market every year have at least one external partner, so we’re connect-

ing to a lot of ideas on the outside.

So ideas are not the issue. Our issue is getting the ideas clarified, prototyped, and sorted, and then, starting to put them through the pipeline of development and qualification.

SA: One of the big issues related to that fuzzy front end is “how do you actually know?” If you’re really creating new consumption, the market doesn’t exist, so it’s really difficult to measure it. How do you think through that, particularly in P&G, a very detail-oriented, process-driven place, legendary for its market research acumen?

AGL: Our businesses target somewhere between 10 to 20 percent, maybe a max of 30 percent, disruptive innovation. That’s a fairly ambitious percentage of innovation to come from real disruption, and that’s where the challenge is.

Again, we try to quickly get the idea translated into concept, quickly translated into prototype, and we try to do some of what we call “transaction learning,” where we simulate purchase and usage.

This is very important because it’s when you begin to understand who the prospect really is for this new product or service, will they purchase and for how much, and once they purchase, what’s the usage cycle like, what prompts repurchase?

Our business model is very simple—higher trial rates times higher loyalty or repeat rates—leading brands with leading margins and leading returns.

But to understand who’s trying at what rate, at what price,

under what circumstances—all of that is why we have to get into the transactional learning.

SA: You keep mentioning the customer, and you have this great visual in your book that really has the customer at the center of the innovation equation (see image on Page 15). What makes customer focus so much a part of the fabric of the organization?

AGL: Well, first, everybody says they do it, but very few do, and we’re still not doing it well enough yet. In 1998 when I came back from Asia, I saw that we all had our ears in our cell phones and our heads in our Blackberries, PDAs, and computer screens; we were consumed in meetings of all kinds. Where was our behind? Our face was internal and our behind was facing the customer.

So the first thing I tried was to get us out with the customer. We run programs like “Living It,” where our employees actually go and live with consumers for days—especially in developing and emerging markets—being in touch with the customer at store level. Then we started bringing consumers into our offices. We have live consumer labs going on every day, in virtually all the businesses.

One very quick story; I will never forget this. We used to do annual research in the laundry detergent business and every year consumers would rate the Tide powder cardboard package as excellent; excellent to shop; excellent for opening; excellent in use—on, on, on.

So, probably 27 or 30 years ago, I’m in basements in Tennessee, in Kentucky, doing loads of laundry with women, and after three or four

or five of these one-on-one sessions, I've realized that not a single woman has opened a box of Tide with her hand. Why not? You'll break your fingernails!

So, how did they open the box? They had nail files; they had screwdrivers; they had all kinds of things sitting down on the shelf over their washing machine, and yet they thought our package was excellent. And we thought our package was excellent because they were telling us our package was excellent. We had to see it and experience it.

Here's the problem—consumers cannot really tell us what they want. They can tell you why they like it or why they don't like it, but they cannot tell you what they want.

Nobody told us that they wanted Crest White Strips. Nobody told us that they were dying for a Swiffer. Nobody told us that Febreze would

make their life better. We have to understand what consumers can't articulate, and that's the reason we had to get out there.

What we're really trying to do now is to actually involve the consumer in co-creation and co-design in the earliest stage.

SA: So you have a highly systematic effort where you have people going out and engaging the customer in a different way, with the customer involved at the center of this game-changing innovation equation. Then you walk through these eight different elements that then support it (see image below). I wonder about the elements "Consistent and Reliable Systems" and "Enabling Structures." Again you've got this tension between systems and structure, and freedom in creativity. What's the role you see

for systems and structure? Where is it particularly important?

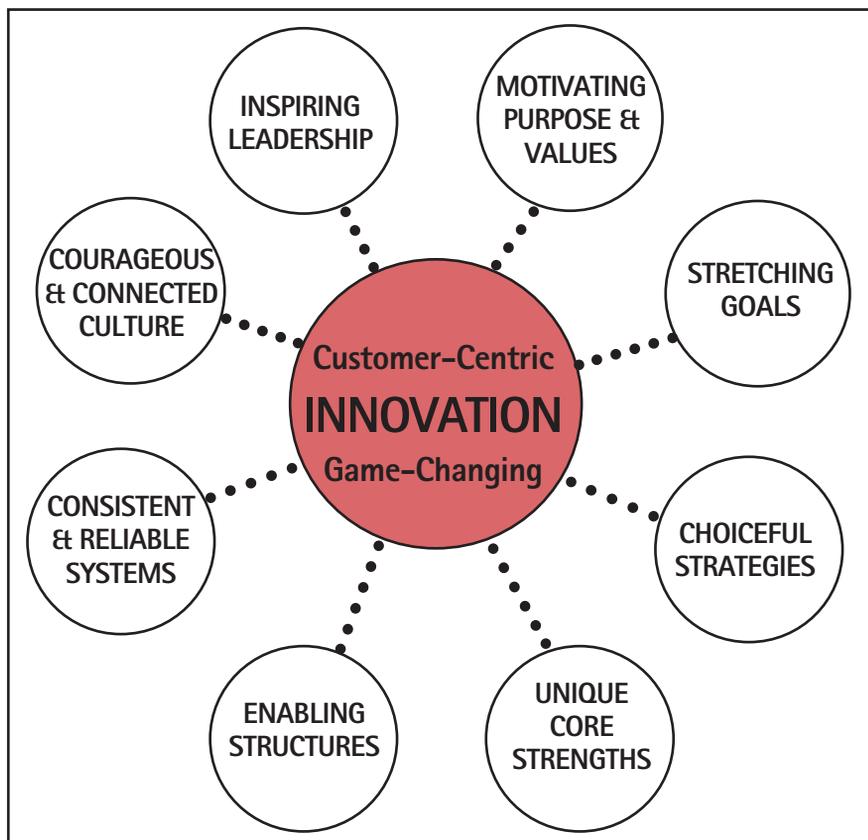
AGL: Well, it frustrates my teams, but on the structure side, my experience is to experiment. We really haven't found a single structure that works. I believe in the amoeba as the best model for organization, and what I love about amoebas is that they continuously change their shape to eat and survive. So I'm quite willing to go into very agile, very flexible organizational structures to facilitate innovation at various stages of development.

Some of our businesses have fairly well-defined new business development groups; some of our businesses form up around ideas or technologies; some of our businesses form up around what we call "domains" or "platforms."

We do run a corporate innovation fund and we are always looking for totally new businesses for P&G. As part of the open-innovation architecture and Connect and Develop, we've created an external business development group and we invest as sort of an angel investor in small, new technologies.

We've created "Clay Street"—which, frankly, we borrowed from the toy industry—a six- to 12-week experience where participants work the front end, the ideation end, and any business can send a team in. And we have an innovation center at Beckett Ridge that works the commercialization end, to help us understand how and where are we going to innovate when we go to retail.

So we've been very experimental; we'll try just about anything if somebody can give us a plausible reason



why they think it might deliver. And if something works, we stick with it.

SA: What we've seen in other places is that transformation doesn't happen in 12 or 18 months. At the same time, you've mentioned that growth is getting more challenging. How do you think about maintaining that balance in an increasingly turbulent environment?

AGL: You simply have to take the long-term view. I believe one of the principle roles of any chief executive is to balance the short-, the mid-, and the long-term. You simply have to make sure that you're sowing the seeds for the long-term health and prosperity of your institution.

We're already working on 2010 to 2020. We have an innovation portfolio pipeline that at least has a five- to seven-year time horizon, and in some of our businesses it has to be longer given the cycle of the business, so we're out 2012 to 2013, in that regard. But you have to do it.

And the last thing I would say is that while far and away the most important stakeholder is your customer, the second most important one is your employee base.

Ideas come out of your employees. That innovation comes, by and large, still, from your employees either internally or connected with external partners.

And then I believe if we take care of our customers, if we create more customers, we create more loyal customers, and if we inspire our employees, the results are going to be fine. So we'll take care of our shareholders, and then all the other stakeholders fall in place.

SA: P&G does seem to have in-

novation in its DNA, even if it was maybe a little bit hidden for a time. What advice would you give to people who might be in companies where innovation really isn't part of their DNA? How do they begin their transformational journey?

AGL: The first decision to make is strategy and business model. What do you aspire to achieve in your industry? What does it take to win?

I start with: Do we have to play the current rules of the game better to win? Do we have to set the rules, which aren't clearly set, and then play the rules better to win, or do we have to absolutely change the rules and then learn how to play the new rules better than somebody else?

Once you've thought about "what business should we be in?" you have three choices.

Number one is you're the cost leader; there'll only be one in any industry. That's a viable position, though it's not clear it's a long-term sustainable position.

You can choose a differentiation strategy, which is what we choose, which is customer-focused. That strategy is dependent on innovation to differentiate—disruptive, sustainable, commercial innovation.

Or you can choose a very focused niche strategy and try to find a place where you're alone and safe, or at least in a much less competitive niche.

But it starts with business strategy, and then you work through your business model. Then, and only then, if innovation is going to play a strategic role in your business model or your business strategy, you've got to commit to it. ♦

Scott D. Anthony is President of Innosight. He can be reached at santhony@innosight.com.

EDITOR'S NOTE

This is the last print issue of *Strategy & Innovation!* Biweekly digital delivery begins in September.

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