INNOVATION LEADER
ISSUE Nº 5 — SPRING 2017

Top 10 Cities for Corporate Innovation

PLUS:

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INNOVATION LEADER
Top Cities for Corporate Innovation
ISSUE Nº 5 — SPRING 2017

INNOVATION LEADER **FIELD STUDY**

Our Field Studies provide an engaging and collaborative forum for innovation executives, enabling them to visit other innovation spaces, share war stories, and benefit from the insight of their peers.

We've taken Field Study participants to more than two-dozen innovation labs and R&D centers at the world's best-known brands, including BMW, CVS, Fidelity, Google, Johnson & Johnson, MasterCard, Starbucks, Twitter, Visa, and many others. Join us at one of our next Field Studies.

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FIELD STUDY

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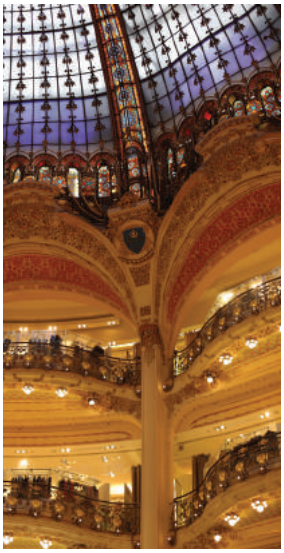

1 FIRST

2 PEER PERSPECTIVES

ON THE COVER:

Illustrator Martin Gee chose landmarks from each of our "Top 10 Cities for Corporate Innovation" list. The ferris wheel stumped us. (It's the SkyView in Atlanta's Centennial Park.) Can you identify Minneapolis? Detroit?

3 CASE STUDIES

4 GUIDANCE

Everything you wanted to know about working with startups, but were afraid to ask.

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"Alignment" is one of those words you hear a lot when people talk about innovation in big companies.

If you can only get alignment with the business units, with IT, the CMO, the folks in legal ... great things will happen.

But in any organization, there are plenty of dynamics that can prevent you from attaining that alignment. We wanted to explore those forces—and create a guide to dealing with them thoughtfully. So we partnered with XPLANE, the renowned "visual thinking" firm, to create the pull-out graphic you'll find between pages 48 and 49. We asked many of our friends working in corporate innovation and R&D to discuss the challenges of getting people in the core business, innovation groups, the startup ecosystem, and the marketplace aligned. (No doubt some of what they told us will give you a smile, like the CFO always asking, "What's the ROI?" You can tear out the page and surreptitiously slide it beneath her door ...) We also developed some discussion questions that will get you working toward knocking down barriers, creating new incentives for innovation, putting in place the right resources—and getting alignment.

This issue also takes you inside innovation and R&D centers run by Honda, GE, and Saint-Gobain, and explores the strategy behind new accelerator programs run by Groupe Galeries Lafayette, the French retailer, and the Los Angeles Dodgers. From our on-going series of INNOVATION LEADER Live conference calls, we've got highlights from our conversation with Karim Lakhani of Harvard Business School, one of the world's foremost thinkers on crowdsourcing.

Our next two live gatherings take place in Washington, D.C. and Boston, in June and July. (Details at innovationleader.com/events). Both those cities show up on our list of the top ten places in North America for corporate innovation activity, at #7 and #2, respectively. For our final event of the year, in December, we'll hit #4.

Got any quibbles with our ranking? Ideas for what else we should be covering? Drop me a note at the e-mail address below ...

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P.S. If you're not receiving (or seeing) our e-mail newsletter, visit innovationleader.com/email.

SPRING 2017 | ISSUE #5

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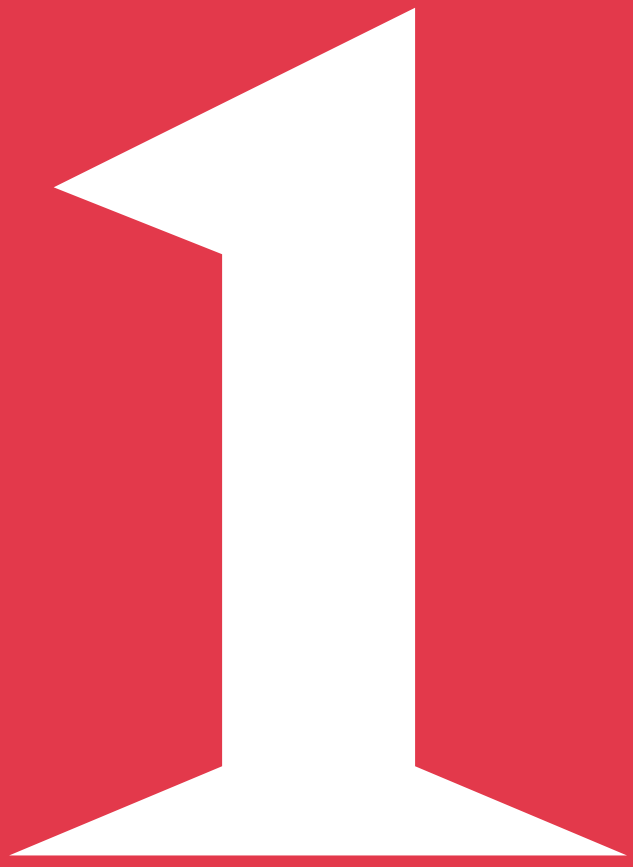
First



Spring
2017

10 Things That Prove Fatal to Innovation Initiatives

WE ASKED EXECUTIVES ABOUT THE COMMON CAUSES. ANONYMOUSLY.

BY SCOTT KIRSNER

IT'S A DEPRESSING TOPIC—THE FACTORS that can prove fatal to innovation initiatives.

Some play out suddenly, and others sap resources and support over months. Some of them are within your control. But others, like a CEO switch or big merger, are outside it.

To arm you with information, we compiled this list, with input from current and former innovation executives, as well as consultants who have watched programs coalesce and (occasionally) disband.

While the list isn't ranked in order of how likely each item is to be a "cause of death," everyone we spoke with agreed that the first two items are the factors they've seen most frequently.

01 **The innovation champion leaves the organization**, or moves to a different role with new priorities. No one else in a position of influence steps up, and the team loses its political support and "air cover."

02 **Market pressures**. Falling profits or stock price, increased competition, or organizational cost-cutting pull the organization's focus to near-term profits, with less attention to building capabilities.

03 **Team tries to do too much**—training, awards, new product development, building relationships with the startup world, etc.—and doesn't move the needle significantly on any one thing.

04 **Undermined by business units**. Example: When business units take on projects incubated by the innovation team or R&D group, they under-staff, under-fund, under-market, or simply abandon them.

05 **Mergers and acquisitions**. Company gets bought, merges with another company, or acquires a company that will take years to "digest." Integration takes precedence, and internal innovation loses resources and executive attention.

06 **Organizational impatience**. Initial enthusiasm wanes before there are impact stories or demonstrable results. A contributing factor can be that milestones or success measures are too ambitious, or too vague, so progress is not concrete enough.

07 **Poor staffing choices**. Either the innovation team is populated exclusively by internal staff who have no idea how innovation works; or entirely by innovation specialists/outsiders who have no idea how the company works.

08 **The innovation lab intends to cultivate ideas and strategic projects, but winds up serving as a showcase, meeting space, or visitor's center** to highlight the fact that the organization is "thinking about the future."

09 **C-suite cold feet**. When it comes time to make a big investment in a project or new business, which may require its own operating structure or threaten to disrupt an existing business, executive support vanishes.

10 **"Shiny new object" syndrome**. An innovation initiative is launched, goes through one project or cycle, and then doesn't continue to use the tool or method. Often, there is no defined leader (or team) with the time or incentive to keep things going. This often happens with idea challenges, training programs, awards programs, or "open innovation" and startup engagement efforts.

One of the executives who contributed to this list pointed out that at most companies, innovation is unfortunately viewed as optional and "nice to have," not a necessity. Surviving long enough to change that perception is Job #1 for innovation leaders.

ILLUSTRATION BY **James Yang**

How Much Should You Earn?

EXCLUSIVE DATA FROM OUR LATEST COMPENSATION SURVEY

BY SCOTT COHEN

If you want better pay, you may want to keep "innovation" out of your title. And avoid assuming the mantle of "Chief Innovation Officer" entirely.

That was one of the findings of the compensation survey we fielded from July 1, 2016 to Sept. 30, 2016, which analyzed the base pay and bonuses of nearly 250 executives responsible for innovation at large corporations.

The survey aimed to provide insight into how innovation executives at large companies are compensated. It included responses from a diverse group of individuals who are responsible for innovation within their companies. That included individuals running—and working on—innovation labs, R&D, strategy, accelerators, and a diverse range of programs aimed at yielding next-generation product and service offerings.

Since the survey included data from executives with disparate titles and reporting structures, we've tried to provide insight on how those individuals are compensated based on their seniority, departments, and even bosses.

For context, the average base salary of all respondents was $174,898. That includes individuals from the C-Suite down to the position of Manager. The average bonus comprised 30.1 percent of base salary, or $61,465.

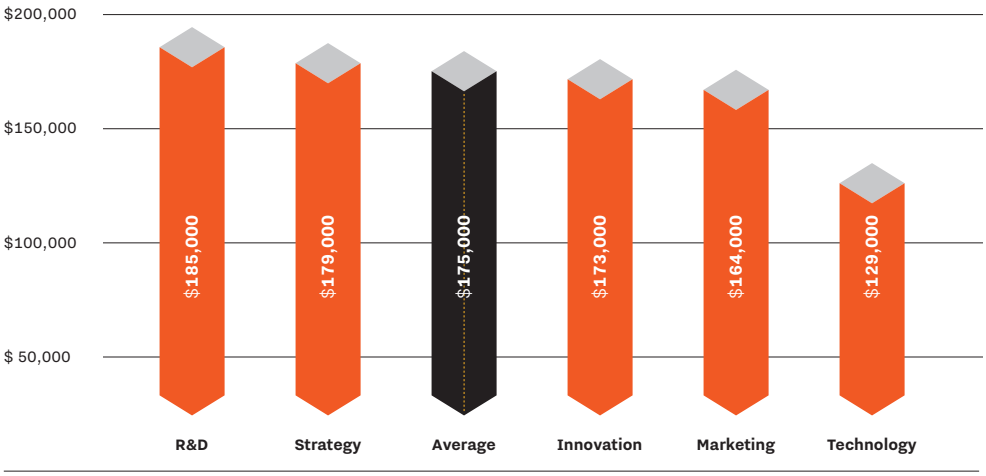
Innovation executives who had SVP or EVP in their title had an average base salary of $282,733; VPs averaged $194,759.

Among the more interesting takeaways from the survey:

▸ **CINOs Undervalued?** C-Level executives with responsibility for innovation made on average $223,458. However, C-Level executives who had the specific title "Chief Innovation Officer" were paid much less: $193,750.

▸ **Size of Company Matters** C-Level executives at the largest public companies (those with more than $10 billion in revenue) earned significantly more than their peers: At these

Average Base Salary of Respondents by Function



large companies, C-Level salaries averaged $336,667, with bonuses exceeding $150,000.

▸ **Bonuses Tied to Innovation** Executives are increasingly saying their bonuses are tied not only to company performance and individual goals, but innovation performance as well.

▸ **Strategy vs. Innovation** Executives with the title "Vice President" were better compensated if they had the term "Strategy" in their title. In other words, even if the role is similar, a "VP Strategy and Innovation" tends to earn more than a "VP Innovation."

▸ **Reporting Relationships** Directors and Senior Directors were better compensated when they were part of the R&D or Strategy organization. So a "Director of Innovation" reporting to an innovation group is typically paid less than other Directors—even those who might be doing the same type of work for a Strategy or R&D group.

▸ **Equity for Home Runs** Many of the respondents wanted their companies to consider option-like mechanisms to provide upside rewards to innovation teams.

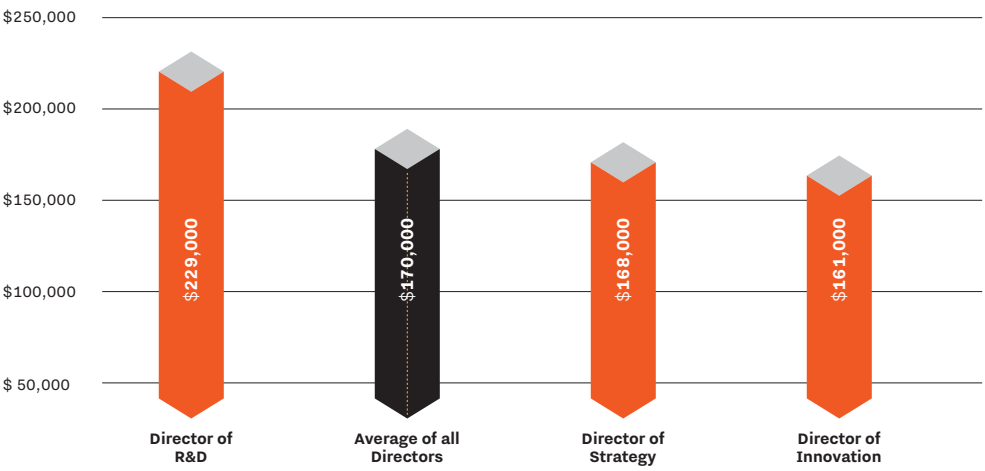
As part of the survey, we asked respondents whether they had recommendations on how companies should tie compensation to innovation.

"I do wish my company had a better 'home run' bonus system," one respondent from the consumer packaged goods industry said. "If I build something that completely changes the industry and is a major success, I don't see a bonus or compensation tied to that. It will help build my career, but it would be awesome to get monetarily rewarded."

"It would be ideal if compensation were tied to specific innovation metrics," noted the Chief Innovation Officer at a global consultancy, "but as a professional services company, we struggle with how to measure and track new service offerings." Another respondent echoed that sentiment: "Grants for innovation team members who create new revenue streams would be nice; unfortunately, it is not always easy to capture."

It's worth noting that several respondents recommended that companies avoid tying innovation to compensation. "Do not bribe people to innovate," said one respondent. "Instead, motivate people intrinsically." Another was concerned about the long-term impact of pay-for-performance. "Don't tie compensation to innovation," he wrote. "It will actually make people afraid of failure, and mediocrity will result." Others agreed with that sentiment. "I'd rather disassociate compensation [from] innovation," wrote another respondent. "It creates ... individuals who want to be the 'star,' which further dissuades actual breakthroughs." ●

Average Base Salary of Director-Level Respondents by Function



THE COMPLETE 24-PAGE REPORT, WITH DATA ON SALARIES AND BONUSES FOR MANAGERS UP TO C-LEVEL EXECUTIVES, IS AVAILABLE TO IL MEMBERS IN THE "REPORTS" AREA OF INNOVATION LEADER.COM.

View from the Verizon Innovation Center

Field Study San Francisco

February 2017

At our sold-out San Francisco Field Study, more than 75 innovation execs joined us for tours of Visa, Verizon, Yelp, Gensler, Hax Accelerator, and Autodesk. Along the way, we had some great discussions about topics like M&A, design thinking, recruiting, changing culture, working with startups, corporate venturing, metrics, and more. Our thanks to Moves the Needle and Imaginatik for their input and help.

Tim Hatch and Sean Riskin of Stanley Black & Decker

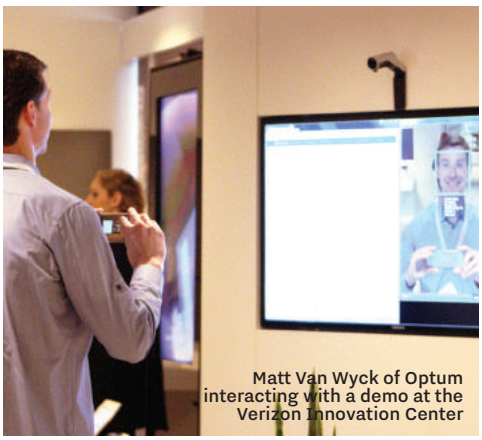
Meeting with biotech entrepreneurs at the IndieBio shared lab space

IL's Ellen Juskewitch and Tim Gorman of Verizon

Linda Elkins of W.L. Gore leads a session on labs, metrics, and measurement

Kellie Goodwin of Visa

The café area inside Yelp's headquarters



Matt Van Wyck of Optum interacting with a demo at the Verizon Innovation Center

William Salvatore of Edgewell Personal Care with Juan Pablo Sandoval of USAA

Alisa Mulhair of Target with Dan Kaiser of Cuna Mutual

Karen Liu of Microsoft

Attendees participate in an interactive activity

THE BIG QUESTION

How do you make IDEA CHALLENGES a repeatable program?

By **Sara Husk**
IMAGINATIK

An idea challenge is a structured process to collect new ideas from large groups of people—employees, customers, partners, or other stakeholders. Done right, they create multiple radiating benefits. The most obvious are all the new ideas that might otherwise have gone unnoticed by executives. But there are other powerful benefits, such as increased staff buy-in for new initiatives, and higher productivity and morale of a more engaged workforce.

Here's the problem: Idea challenges are traditionally treated as one-time events. Though they often deliver some success, organizations often struggle to take the challenge beyond the initial project, and into a complete innovation program. As a result, participants don't stay engaged, momentum is lost, virtual ideation often fizzles out, and innovation ultimately dies on the vine.

To solve the problem, many of our Innovation Central customers are treating idea challenges more strategically—transforming them from one-off projects to a programmatic component of a broader innovation program.

They're employing challenges, not as one-off events, but as an ongoing business tool that continuously feeds the idea pipeline. And what they're getting in return is deeper employee engagement, faster results, and greater business value.

Treat your idea challenges as a journey

The most successful idea challenges are not employed as one-off projects, but rather as part of an idea journey. The conclusion of an idea challenge is not the end of the project—it really is just the beginning. Here's what the idea challenge journey looks like:

Alignment

[FIRST SIX MONTHS]

The first step is alignment: Align stakeholders with the business outcome you're trying to achieve. Align the idea challenges with the business goals and strategies. Once you've achieved alignment, you can assign resources, deliver challenge training to challenge leaders, and launch the challenges.

Engagement

[YEARS 1-3]

Next, you can begin running challenges around the strategies you have in mind. The key here is to enable employee engagement over the long term. As you progress, you can improve and expand on the program by:

- Adding more engagement methods, such as Hackathons or Jams and more specialized innovation challenges
- Enabling the capability within individual business units
- Driving business processes improvement
- Tracking and reporting on business impact
- Share successes and lessons.

Value Delivery

[YEARS 3-5]

Over time, the question you want to be asking yourself is, "How do we maintain the momentum?" A key to sustaining your initiative over the long-term is to keep delivering innovation activities, and make sure that they are connected to company strategies, business unit goals, and core cross-company programs.

It's also important to measure and monitor results, share success stories, and continually look for new ways to improve engagement and content. Innovation management software can help you automate all of these to make your life easier.

Make Idea Challenges Business-As-Usual

Over time, as employees and leaders are engaged in successful idea challenges, you can merge your challenges into business-as-usual practices. By taking a strategic approach to challenges, you can establish idea crowdsourcing as "the" place for ideas across the entire company, and feed a rich idea pipeline that drives innovation results throughout your business.

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SARA HUSK (SARA.HUSK@IMAGINATIK.COM) IS CHIEF SOLUTIONS OFFICER AT IMAGINATIK, AN INNOVATION CONSULTING AND SOFTWARE COMPANY.

Innovation Leader Field Study Participants got to race one another at Porsche

Field Study Atlanta

April 2017

Our first-ever Atlanta Field Study took participants to the campus of Georgia Tech, Google Atlanta, Home Depot's HQ, the Porsche Experience Center, Delta Air Lines' "Hangar," and more. Sharing their expertise were executives from UPS, Turner Classic Movies, Southern Company, and Stanley Black & Decker. Thanks to our partners at Imaginatik and Digital Scientists for making it happen!

Bob Klein, CEO of Digital Scientists

TO LEARN ABOUT FUTURE GATHERINGS, VISIT INNOVATION LEADER.COM/EVENTS.

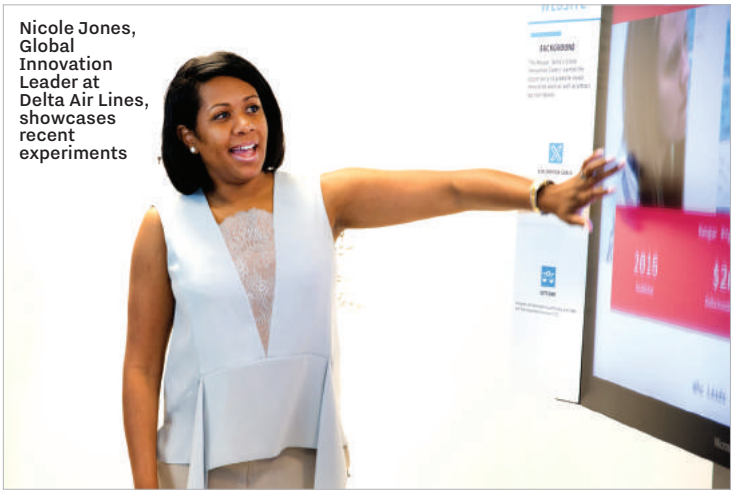
Brian Graham of Nationwide with Mark Daddi of Bayer

Rooftop espresso break at Tech Square

Invista Director of Innovation Nida Ansari participates in a customer observation exercise at Home Depot—using Legos

Renee Dye, Chief Strategy Officer at Navigant

John Donahue and David Crean of Anthem, left, with Greg King of Georgia Tech



Nicole Jones, Global Innovation Leader at Delta Air Lines, showcases recent experiments

Ken Durand, VP Product Innovation at Ericsson, and Greg King, Associate VP at Georgia Tech

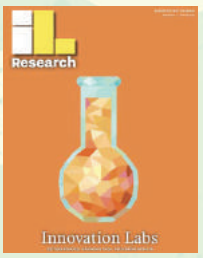
ExxonMobil's Russell Householder with Daniel Friedman of Imaginatik and David Graham of Altria

Matt Maxwell of Cancer Treatment Centers of America

NANCY TENNANT, formerly the Chief Innovation Officer at Whirlpool Corp., now teaches innovation leadership at the University of Notre Dame. She's also the author of the book *Unleashing Innovation: How Whirlpool Transformed an Industry*.

Tennant has been producing a series of insightful—and sometimes acerbic—slides that offer a look at how people *really* think about corporate innovation, which we're publishing in the next few issues of **INNOVATION LEADER** magazine.

RESEARCH
THAT MATTERS TO YOU



Innovation Leader publishes in-depth quarterly special reports on a range of topics suggested by our members. Past reports have dealt with compensation for innovation and R&D executives; metrics; program benchmarking; the lean startup methodology; business unit relationships; hiring; and connected products. Up next in 2017: reports on innovation governance and reporting, and best practices in scouting emerging technologies.

www.innovationleader.com/research/

NRG's Portable Power Kiosk

GOING FROM CONCEPT TO LAUNCH IN LESS THAN 18 MONTHS

BY SCOTT KIRSNER

Stacey Butler of NRG Go

NRG GO AUTOMATED KIOSKS, DEVELOPED inside the $15 billion energy company NRG, rent out fully-charged battery packs at places like nightclubs, concert venues, and shopping malls so that people can recharge their phones and tablets—without hunting for an outlet and plopping down next to it for an hour or so.

And it progressed from an initial concept to launch in less than 18 months, says Stacey Butler, Senior Manager of NRG Go.

NRG used the lean startup methodology for the project, developing a "minimum viable product" first and getting it out into the world for testing. For NRG Go, that meant buying some off-the-shelf powerbanks at first, and going to music festivals and other live events to try to rent them. "We had an employee who did it on a tabletop, with a for-rent sign and a price," Butler says. "We realized that people would pay to rent power, and we did some price testing. We found that the price was fairly inelastic, and we were able to validate customer interest and willingness to pay and their general love of the idea."

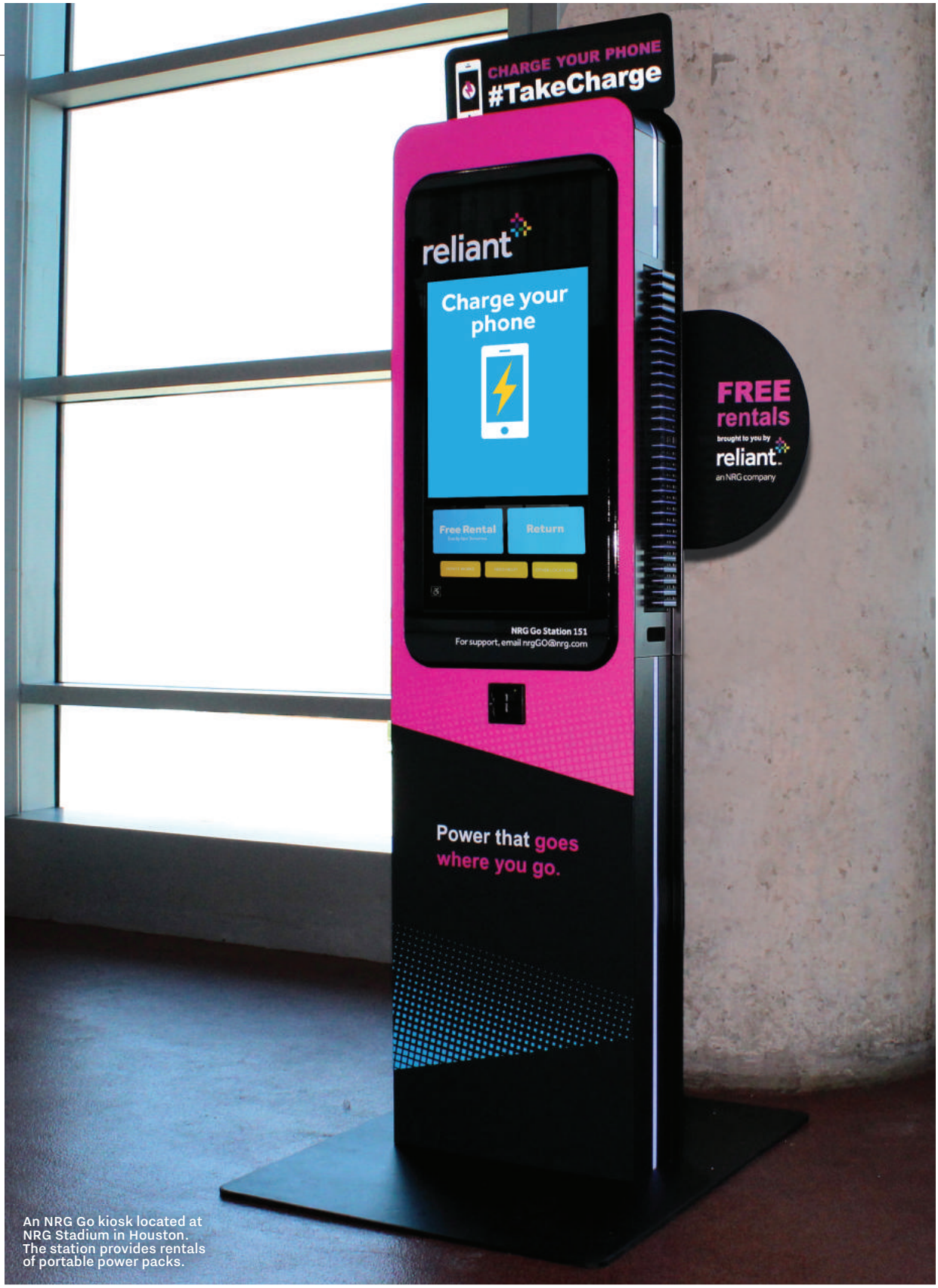
NRG Go was set up as a truly separate project, with a cross-functional team of between eight and 10 people working on it full-time. Butler says, "Being treated as our own startup freed us to behave and think differently."

There was no hand-off to another business unit within NRG for NRG Go's launch in the Houston market. "The original team has really been the ones to take this all the way across the finish line," Butler says, adding that she has drawn on expertise from throughout the company.

Within NRG, the NRG Go team is seen as having "blazed a new trail," Butler says. "This was the first time that lean startup principles were applied to something we conceptualized and then commercialized. And 16 months to take a hardware product from concept to being in venues—in the world of manufacturing and hardware, that's a pretty short cycle."

Butler's team is now focused on a national roll-out for NRG Go. And other companies have begun to inquire about licensing the kiosk technology. ●

Innovation Leader



An NRG Go kiosk located at NRG Stadium in Houston. The station provides rentals of portable power packs.

10 CITIES ON THE RISE

Where Corporate Innovation is Happening in North America

STORY BY SCOTT KIRSNER ILLUSTRATION BY MARTIN GEE


Toronto
NEW YORK
BOSTON
CAMBRIDGE
Los Angeles
SEATTLE
SAN FRANCISCO
SAN JOSE
MINNEAPOLIS
ATLANTA
Washington D.C.
Detroit

Back in the 20th century, companies believed that the best environment for innovation was an isolated and well-landscaped campus. Parking was plentiful, and often there was a reflecting pool or a trail through the woods, so that scientists and engineers could think big thoughts. ¶ The message was clearly, "Don't bother the researchers." ¶ But in the 21st century, the urban bustle is growing in appeal. In cities like San Francisco, New York, and Boston, you can walk a few city blocks from Visa to Uber, from MasterCard to Google, or from Fidelity Investments to General Electric. A quick coffee meeting with an entrepreneur or academic researcher is seen as more valuable than chatting about the prior night's baseball score with a colleague over java from the Bunn-o-Matic. ¶ It's hard, after all, to get a gut feel for the ever-present threat of disruption when you can't even see a single neighbor. ¶ General Electric chief executive Jeffrey Immelt made that point recently in explaining why he was moving the company's headquarters from suburban Connecticut to downtown Boston. ¶ "To look out the window and see deer running across, I don't care about that," Immelt told a gathering of his fellow CEOs in Boston. "I want some 29-year-old [graduate of] MIT to punch me right in the nose and say all of GE's technologies are wrong and you're about to lose." (While Immelt has begun mixing it up in Boston, GE's main research site in the U.S. remains in Niskayuna, a suburb of Schenectady, New York.)

Something similar has happened at Visa, where senior executives—including the CEO—can now be found working out of the company's waterfront offices in San Francisco, rather than its nominal headquarters in Foster City, 22 miles south. Or Pfizer, which has a Center for Therapeutic Innovation overlooking the East River in Manhattan—a few steps away from rival drugmakers Roche and ImClone. In Atlanta, in a single building, you can find innovation centers run by Southern Company, Delta Air Lines, Home Depot, Anthem, Panasonic, and AT&T. Reebok's new headquarters on the edge of Boston's harbor will be in the same building as a startup accelerator, MassChallenge, a new Stanley Black & Decker makerspace, and an architecture-focused innovation center run by the software company Autodesk.

All those cities rank high on our list of the top cities for corporate innovation in North America.

How did we build the list? We took into account five factors:

1. Global 1000 companies with R&D labs or innovation centers, and their R&D investment levels
2. Trend-setting tech companies with large partner ecosystems (e.g. Amazon, Facebook, Microsoft, Salesforce)
3. Startup density, including accelerator programs, incubators, and co-working spaces
4. The presence of top-tier research universities
5. Conferences, trade shows, and networking events that foster interactions among corporate executives, entrepreneurs, and academic researchers.

And while much of the action may be shifting to city centers, we did take into account research labs or innovation outposts located in the greater metropolitan area. That means, for example, that our analysis of Washington, D.C. includes adjacent locales like Bethesda, Maryland and Arlington, Virginia.

The list ...

San Francisco

1 Well before chip companies like Fairchild Semiconductor helped the peninsula between San Jose and San Francisco attain fame as Silicon Valley, companies like **Wells Fargo** (the PayPal of its day) and **Levi Strauss & Co.** (which made the first pair of blue jeans in 1873) were innovating here.

The original accelerator program, Y Combinator, holds regular "demo days" featuring startups that are developing electric airplanes and dermatology apps. **Walmart**

Tesla's highly-automated factory in Fremont, Calif. relies on more than 150 robots, including some of the largest in the world.

Labs employs about 2,500 people to build software for the retailer's digital channels, and a new incubator, Store No 8, will bring in entrepreneurs under the supervision of Jet.com founder Marc Lore, whose company was acquired by Walmart last year. **Target**'s Open House Store in San Francisco's South of Market neighborhood features an array of new connected devices, from Adidas' smart soccer ball to electric skateboards to coffeemakers. Not far off is a **Verizon Innovation Center**, focused on smart city technologies, and **Visa**'s One Market Center, where the company prototypes the future of payment with the help of its customers.

Vijay Sondhi, who oversees the innovation center, says that Visa's management team moved into the facility, in part so they can get a window on customer challenges. "I can grab our CEO [or] CFO at the drop of a hat," Sondhi told the audience at a recent INNOVATION LEADER Field Study. "If we have an important client visiting, they can stop by. That physical connectivity is important for building business relationships. Clients love it."

San Francisco stalwart Wells Fargo announced a major artificial intelligence initiative in February, and in March at the South by Southwest Interactive Festival, Levi's unveiled a collaboration with **Google**: a denim jacket for commuters with navigation and phone controls built in.

In Menlo Park, the venture capital firm **Andreessen Horowitz** brings in executives from big companies, often CTOs and CIOs, for new technology briefings from startups in the Andreessen Horowitz portfolio. Incubators like Plug and Play Tech Center and Rocketspace offer opportunities for corporates to rub shoulders with the entrepreneurs who rent space there.

Tesla is in the midst of doubling the footprint of its massive and highly-automated factory in Fremont, across San Francisco Bay, in part to support production of its lower-priced Model 3 sedan.

Other carmakers, including **Ford**, **General Motors**, **Volkswagen**, and **Mercedes-Benz** have their own R&D facilities peppered around the area.

In the world of entertainment, San Francisco can lay claim to **Netflix**, **Lucasfilm** (now part of Disney), **Pixar**, **YouTube**, and **Dolby Laboratories**, which constantly rolls out new technologies to cinemas and home theaters. Life sciences companies like **Celgene**, **Bayer**, **Illumina**, and **FibroGen** have flocked to the city's Mission Bay neighborhood to be close to the University of California at San Francisco—so much so that a 2016 headline blared "Biotech Hotspot is Running Out of Room."

Down in Palo Alto, **Stanford University**'s StartX accelerator helps students and alumni build companies, and the affiliated Stanford-StartX Fund has, as of 2017, invested in roughly 225 ventures. At Berkeley, open

innovation guru Henry Chesbrough teaches, writes, and helps oversee the Garwood Center for Corporate Innovation.

Let's not forget the companies founded by Steve and Steve (**Apple**), David and Bill (**Hewlett-Packard**), Zuck (**Facebook**), Gordon and Robert (**Intel**), Larry & Sergey (**Google**), Travis (**Uber**), and Ev and Jack (**Twitter**.) Or big conclaves like TechCrunch Disrupt, Dreamforce, Lean Startup Week, and Oracle OpenWorld. As a result, the Bay Area easily walks off with the top spot on our list.

Boston

2

Boston is short on Fortune 500 companies, so **GE**'s decision to plant its headquarters a short stroll from **Gillette**'s headquarters—the original developer of the "razor and blade" business model—was big news. GE's other neighbors include **Fidelity Investments**, the mutual fund giant; **Zipcar**, the car-sharing pioneer; **MassRobotics**, a shared facility for robotics startups; and **Bolt**, an investment firm and machine shop that supports early-stage consumer electronics businesses.

The city's universities serve as watering holes that bring together academics, entrepreneurs, and executives at larger companies; it's not unusual to run into **Harvard Business School** professor Clay Christensen, **Dropbox** founder Drew Houston, **Staples** CEO Shira Goodman, **Toyota Research Institute** president Gill Pratt, or **GE Ventures** CEO Sue Siegel at a campus event.

A big part of Boston's corporate innovation landscape are the biotech and pharma companies that cluster in the Kendall Square neighborhood, on the edge of MIT's campus. They include **Novartis**, which employs more than 2,000 people in Cambridge, **Pfizer**, **Sanofi Genzyme**, **Johnson & Johnson**, **Eli Lilly**, and **Shire**. A shared laboratory, **LabCentral**, offers sophisticated equipment to young companies—and is housed in a brick building that was once the private R&D lab of Edwin Land, founder of Polaroid Corp.

MassChallenge, an accelerator program founded by two former management consultants in 2009, has expanded beyond Boston to Israel, Switzerland, Mexico, and the United Kingdom. It also has a healthcare-focused spinoff, Pulse@Masschallenge, located not far from the city's hospital district and Fenway Park.

Outside of town, **Amazon Robotics** designs and builds armies of mobile robots that make the company's distribution centers more efficient.

The newest piece of the city's innovation puzzle opens this summer: an incubator called The Engine, created by **MIT** to support "tough tech" related to energy, robotics, healthcare, artificial intelligence, or advanced manufacturing. Run by Katie Rae, a former venture capitalist and Microsoft executive, it has $150 million to invest in startups founded not just by MIT students, professors, and alumni, but by "other people in the region, if they want to be in Boston," Rae says. "It's a very hopeful project, in my mind—investing in important ideas over the long-term."

Seedlings growing under LED illumination at the Greentown Labs shared workspace in Somerville, Mass.

New York

3

Manhattan has corporate HQs at practically every intersection, and the city is surrounded by R&D campuses run by companies like **IBM**, **PepsiCo**, and **Celgene**. Silicon Valley biggies like **Google**, **Facebook**, and **Microsoft** are tapping into the city's deep talent pool, and media companies like **ESPN**, **Viacom**, and **Bloomberg** jointly fund forward-looking projects exploring virtual reality and immersive video at the

NYC Media Lab in Brooklyn.

The venture capital fund **Work-Bench** provides office space and money to enterprise technology startups getting off the ground—and often brings in executives from big Wall Street firms to discuss the pain points they'd like to see a startup neutralize.

MasterCard prototypes the future of payments at a lab in Chelsea that opened in 2014; in SoHo, **Cadillac House** offers a coworking space and art gallery that invites consumers to re-evaluate the Cadillac brand; and on the edge of the East Village, apparel designers work in the back of a **Lululemon** "lab" store that opened in 2016. **XRC Labs**, an accelerator based on the campus of **Parsons School of Design**, brings in promising retail entrepreneurs and connects them with prospective partners like Lowe's, TJX, and Best Buy.

And the city, which is already home to several medical schools like **Columbia University** and **New York University**, is watching a new academic institution rise on Roosevelt Island, in the middle of the city's East River. **Cornell Tech**, a joint project of Cornell University and Israel's Technion, is already attracting some of the world's best grad students and professors in areas like human-computer interaction, artificial intelligence, and data modeling.

An outdoor patio at MasterCard Labs in Manhattan's Chelsea neighborhood.

Los Angeles

4 The epicenter of corporate innovation here is Burbank, where for more than 75 years, the Walt Disney Company has been staying one step ahead of the rest of the entertainment industry, diving head-first—ears first?—into talkies, Technicolor, television, theme parks, videogames, and the Internet. Not everything has been a victory—the Go.com Internet portal didn't endure, nor did DisneyQuest arcades—but the company never hesitates to experiment. That may mean asking the Imagineers to come up with an animated character that can banter with a live audience, or acquiring innovative rivals like Pixar, Lucasfilm, or Maker Studios.

At a conference last summer, Disney CEO Bob Iger spoke about the potential of virtual reality headsets and augmented reality glasses to become important new platforms for Disney. "Using technology to tell stories in much more compelling ways is very exciting," Iger said, "and to tell stories in different places—making characters come alive in a child's bedroom, for instance. You can imagine taking a walk in Tatooine and interacting with Star Wars characters." His favorite recent demo? A virtual Tinkerbell character that could fly around the room dispensing pixie dust.

Disney also runs an accelerator program for startups working on media and entertainment concepts; L.A. is also home base for accelerators focused on music, aerospace, healthcare, and sports—that last one linked to the **Los Angeles Dodgers** (see our story on page 62 for more.)

Over on the coast, in El Segundo, toymaker **Mattel** is investing in and acquiring startups, and launching products like a $300 3D printer for kids. Margaret Georgiadis, a former Google executive, took over the top job at Mattel earlier this year.

Unilever last year paid $1 billion for **Dollar Shave Club**, the subscription service that persuaded men to stop buying razors, shaving cream, and other grooming products at the neighborhood drugstore. It grew to more than three million subscribers with fewer than 200 employees. Thousand Oaks is home to **Amgen**, the world's sixth-biggest biotech by market cap, and over in Palmdale is the original Skunk Works, the secretive aircraft design lab owned by **Lockheed Martin**.

Oculus Rift, now part of Facebook, is working hard to popularize its $500 virtual reality headset. It has spawned a flock of startups eager to create virtual reality content—along with **Intel**, whose CEO announced in 2016 that it would open a virtual reality studio called the Intel Tech Experience Labs. While headquartered in Silicon Valley, **Netflix** has been revving up its creation of original movies and shows—and that operation is based in West Hollywood. The

company says it will spend about $6 billion making its own content this year.

The **Entertainment Technology Center** at the University of Southern California convenes players like **Fox**, **Paramount**, **Disney**, and **Sony** to consider the future impact of technologies like 3D content and social media. With the recent initial public offering of **Snap**, **Inc.**, maker of the Snapchat app, Los Angeles has a social media company it can call its own, not just "branch offices" of Yahoo and Google.

CalTech is one of the world's top research univeristies, and **NASA**'s Jet Propulsion Lab, originally founded by Caltech faculty, builds unmanned spacecraft and robots that explore the universe.

To bring things full circle, Disney made some of the original TV shows in the 1950s that helped build public support for the space program.

Seattle

5 Seattle's innovation scene is anchored by a pair of tech giants, **Microsoft** and **Amazon**. Microsoft's campus dominates the suburb of Redmond, with buildings numbered 1 to 127; Microsoft Research, co-led by Peter Kim and Jeannette Wing, is located in Building 99. Amazon is responsible for an on-going multi-billion-dollar building boom in downtown Seattle. A 36-story tower dubbed "Day 1" opened in November 2016, with more on the way. The name references a Jeff Bezos quote that at Amazon, everyone should always act as if it is the company's first day in business.

"Day 2 is stasis," Bezos wrote in a recent letter to Amazon's shareholders. "Followed by irrelevance. Followed by excruciating, painful decline. Followed by death. And that is why it is always Day 1." (Bezos' office, naturally, is in the new Day 1 building.)

Seattle is also home to two of Amazon's experiments in real-world retail: a bookstore and Amazon Go, a highly-automated urban grocery store.

The **University of Washington** boasts one of the country's top computer science departments. Two accelerator programs are located on campus—**Techstars Seattle** and the Alexa Accelerator, encouraging development of new software for Amazon's voice-driven Alexa platform—as well as **Startup Weekend**, which organizes events around the world that support participants as they create a startup in 54 hours.

Starbucks often pilots new store formats and technologies inside its headquarters, and **Nordstrom** has a track record of being one of few high-end retailers with a long-term commitment to innovation. Plus, there's a **Staples** software development lab, **Boeing** R&D focused on manufacturing technologies, and the Cambia Grove, a healthcare collaboration space operated by **Cambia Health Solutions**.

Prepping beans for roasting at Starbucks' Reserve Roastery & Tasting Room in Seattle.

NCR's future headquarters on the edge of the Georgia Tech campus.

Atlanta

6

Sometimes, all it takes is one committed catalyst to get a reaction going.

In Atlanta, that catalyst was the **Georgia Institute of Technology**, which in the late 1990s began buying up acreage and developing a blighted, underused zone between its campus and Midtown Atlanta. Atlanta has long been home to industry-defining global companies like **Coca-Cola**, **United Parcel Service**, **Home Depot**, and **CNN**, but this new neighborhood, dubbed Tech Square, became a petri dish for all sorts of new innovation activity.

The result is one of the few places in the world where you can ride an elevator or walk a few steps to go between 15 innovation labs run by companies like **AT&T**, **Anthem**, **Southern Co.**, **ThyssenKrupp**, **Panasonic**, and **Delta Air Lines**. The **Advanced Technology Development Center**, a tech incubator created in 1980, is also located in Tech Square, as is **Tech Square Ventures**, a seed-stage investment firm that often backs Georgia Tech spin-outs. In March, a group of companies including **Cox Enterprises**, **Invesco**, and **Georgia Power** created a new $15 million fund and accelerator called **Engage**. It's also located at Tech Square. **NCR**, the company that invented the cash register and also makes millions of ATM machines, is building its new headquarters complex nearby; it is in the midst of a shift from hardware to software and services, and CEO Bill Nuti has said he wants the company to be part of "one of the most dynamic tech communities in the world." It'll bring nearly 5,000 workers to the neighborhood in two phases, starting next year.

"At Tech Square, there's an active student community organizing events, and a whole tech entrepreneur set of programs and activities," says Greg King, Georgia Tech's Associate Vice President for Economic Development. "Then, you've got the corporate innovation centers and the events they put on. Having Tech Square has created a focal point and the ability to convene people that didn't exist before." And Atlanta as a whole, he adds, has become "a talent magnet for people from the Southeast and the rest of the U.S."

CivicX, an accelerator that helps launch social enterprises, oversees a 10-week program. Tech Village offers solo entrepreneurs and young companies a communal place to work.

Paper-maker **Georgia-Pacific** runs labs in the suburb of Decatur and an Innovation Institute focused on more sustainable and efficient packaging. Fast food chain **Chick-fil-A** offers visitors to its headquarters campus the chance to see its "Hatch" innovation center, which includes VR simulator spaces that allow it to test out new restaurant concepts and kitchen set-ups. **General Motors** runs an IT-focused innovation center in Roswell with about 1,000 employees.

And one of Atlanta's oldest companies, **Coca-Cola**, has been a committed experimenter in the entrepreneurial realm: while it closed down its Founders program last year, it continues to interact with and support startups through an initiative called **The Bridge**, which also involves partners **Turner Broadcasting** and **Mercedes-Benz**. Nearly 30 companies have been through that program, including one, **Bringg**, that helps smaller retailers restock their shelves with Coca-Cola products. A test of that technology began earlier this year in six countries.

Washington, D.C.

7

The federal government grabs all the headlines, but the Washington metro area has grown into a major innovation hub. There's the healthcare-focused **Sibley Innovation Hub** at Sibley Memorial Hospital, **Capital One Labs**, and **Marriott**'s "Underground" prototyping facility. Defense giants like **Raytheon**, **General Dynamics**, **Northrop Grumman**, and **Lockheed Martin** have a big presence here, and the Pentagon

The accelerator 1776 operates two locations in Washington, D.C.—one downtown, and this one adjacent to National Airport in Virginia.

is home to **DARPA**, the legendary advanced research agency founded during the Eisenhower Administration.

Consulting firm **Booz Allen**'s downtown innovation center has an intense focus on cyber-security and bleeding edge technologies—but also hosts educational and entrepreneurial events. And D.C.'s hometown paper, the ***Washington Post,*** has been undergoing a major digital revamp under its new owner, Jeff Bezos.

At the White House, a new **Office of American Innovation** is trying to upgrade federal systems, with input from the CEOs of Apple, IBM, Tesla, and Facebook. Not far from 1600 Pennsylvania Avenue, the startup accelerator **1776** provides mentorship and support for fledgling businesses targeting regulated industries or government agencies. President Trump hasn't yet dropped by for a visit, but President Obama did.

Last summer, **IBM** and the automotive startup **Local Motors** began testing a 3D-printed autonomous shuttle bus, Olli, in the National Harbor development along the Potomac River; it's also home to a Local Motors showroom and lab.

Down the road in Baltimore, there's an Innovation District, an annual Baltimore Innovation Week in the fall, and the headquarters of **Under Armour**, which has been shaking up the athletic apparel business.

Toronto

8 The Toronto-Waterloo corridor is so long—about 60 miles long—and traffic so bad that a commuter airline is planning to start 18-minute flights to get passengers from one end of it to the other.

But the traffic indicates a healthy economy, one that has been rebounding from the protracted decline of **BlackBerry Limited**, the Waterloo company that turned business execs and politicians into e-mail addicts in the early 2000s.

Much of the action centers on the **MaRS Discovery District** in downtown Toronto, a complex that is home to innovation labs run by **Manulife/John Hancock** and **Johnson & Johnson**, as well as a handful of venture capital firms and outposts of **Etsy** and **Airbnb**, the online marketplaces. Similarly, the **Communitech Hub** in Waterloo blends startups and bigger players like **Thomson Reuters**, the media company, and **TD Bank Group**.

Google has had an office in the city since 2012, and on the campus of the University of Toronto, the **Creative Destruction Lab**, with funding from **Royal Bank of Canada** and others, is home to about 50 startups focused on artificial intelligence and machine learning.

The **Xerox Research Center** in Mississauga, which has about 100 scientists who focus on advanced materials, is becoming a hub for that field, with a pilot production facility that startups can use. Co-located on Xerox's campus are the **Research Innovation and Commercialization Centre**, which supports startups, and **GreenCentre Canada**, which seeks to commercialize green chemistry breakthroughs from academia and the entrepreneurial world. Coming soon: the Canadian Centre for Advanced Materials Manufacturing, a 40,000 square foot national lab.

"I think Toronto and Kitchener and Waterloo will eventually be seen as a single cluster," says Paul Smith, a Xerox Vice President who oversees the research facility. "You could start to see this whole area becoming more like Silicon Valley."

Minneapolis-St. Paul

9 How could we not include the hometown of the Post-it Note, perhaps the most innovation-abetting scrap of paper ever? (50 billion of 3M's sticky squares are sold each year.) **3M**, with $30 billion in annual sales, spends about $1.7 billion annu-

ally on R&D—a number that has been growing in recent years. The company opened a new R&D lab at its St. Paul headquarters last year, bringing together scientists who work on everything from Scotch tape products to grinding tools used in mining, the company's original business.

Packaged goods giant **General Mills** has been one of the earliest and highest-profile practitioners of open innovation, using the **General Mills Worldwide Innovation Network** (G-WIN) to source solutions from outside the company.

In healthcare, medical device maker **Medtronic** has been developing an artificial pancreas to help diabetics manage their blood sugar levels, as well as a new wave of robots for the operating room. **TreeHouse Health** works with emerging healthcare startups, and insurer **UnitedHealthCare** has been collaborating with partners like **Pfizer** and the **AARP** to explore how older Americans are using wearable health and fitness devices.

Retailers like **Target** and **Best Buy** have been battling the headwinds in their industry, Target with an accelerator program and "connected home" showcase store in San Francisco, and Best Buy with a new program called **Best Buy Ignite**. Launched in 2016, it showcased cutting-edge products from startups—like pet cams and Bluetooth-connected padlocks—on the shelves of Best Buy.

There's also the **MN Cup**, a statewide competition for startups that doles out $2 million in funding, organized by the **University of Minnesota**.

"Minnesota is sometimes seen as a flyover, but there's a robust startup scene here, and you've got big anchor companies doing exciting stuff," says Scott Mark, Director of Healthcare Innovation at Medtronic. "There really is this growing innovation community."

Detroit

10

The Motor City doesn't make the list because of the breadth of industries doing R&D there, but rather because it is emerging as a hotspot for autonomous driving activity. This spring, **Uber** opened up a new research center focused on self-driving cars, and in 2016, the **Toyota Research Institute** set up a new facility and donated $22 million to advance artificial intelligence and robotics research at the **University of Michigan**. More than a dozen automakers use a 32-acre simulated city on one of the university's campuses, dubbed **Mcity**, for testing their autonomous vehicles. And while companies like Facebook may have a shinier "innovation halo," the three major carmakers headquartered in Detroit each spend more on R&D each year than does the social network.

The area is also home to fast-growing companies outside of the auto industry, like watchmaker **Shinola** and online lender **Quicken Loans**, as well as more than a dozen incubators and accelerators, including **Ann Arbor SPARK**, the **Green Garage**, and the **Tech Brewery**, located in a 19th century former brewery. There's also **Detroit Startup Week**, held in late May.

"The story in Detroit is that you can bring your city back from the brink by engaging the entrepreneurs," says Dave Drach of **Techstars**, which operates the Techstars Mobility accelerator program in Detroit, launched in 2015. ●

Up and Comers:

- Cleveland
- St. Louis
- Chicago
- Portland, Ore.
- Denver

In St. Paul, 3M opened a new $150 million R&D lab last year.

Peer Perspectives

2

Spring
2017

Why "Gretzky's Rule" Doesn't Work for Product Innovators

BY **KEN DURAND**, HEAD OF PRODUCT INNOVATION
AT ATLANTA IDEA FACTORY, ERICSSON

Ken Durand

PHOTOGRAPH BY **Tim Redman**

MOST OF US HAVE heard the advice that Walter Gretzky gave to his son Wayne, who became perhaps the greatest hockey player of all time: the key to success is to "skate where the puck is going, not to where it has been."

It's a wonderful statement about using everything at our disposal to look forward to the future, instead of the past. It has become one of the great PowerPoint clichés of our time. But few have questioned its validity in building out an innovation culture within a large organization. In reality, "skating to where the puck is going" (from now on known as the "Gretzky Rule") is undermining the high-impact innovation that product organizations want.

We need to first understand the environment that Gretzky worked within—the conditions that made it possible for him to be "where the puck was going."

1. The Rules of the Game: The sport of hockey organized its first formal rulemaking in 1917. All teams that compete agree to be governed by the same set of rules. Additionally, the various leagues around the world place referees on the ice with the teams to enforce the rules.

2. The Space of Play: The game of hockey is played in a confined space—the rink. Only approved players or referees are allowed in the space. All rinks have the same dimensions, the same line markings, and identical goals in which to score points. The puck is confined to this space—which greatly limits the potential locations where the puck can be now and in the future.

3. Scoring: There is universal agreement on how score is kept. If there is a question about whether a score has occurred, professional leagues generally employ video replay to assist the referees in making the right call, ensuring fairness to both teams.

4. Known Opponents: If you read articles about Gretzky's career, one thing will appear repeatedly: he had the uncanny ability to

know not only where his opponents were on the ice, but also to anticipate what they would do next. This ability extended not only to his opponents, but also to his own teammates (this is one reason that Gretzky had more assists in the NHL than any other player had points.) Gretzky was a student of the game and of the opponents he would face on the ice. He studied their tendencies, their weaknesses, and how to beat them. This allowed Gretzky to achieve a level of preparation that was second to none.

Each of these four factors played significantly into Gretzky's ability to intuit where the puck was going. Through exhaustive preparation and practice, he applied his immense talent to the circumstances of winning on the ice, and Gretzky did this better than any hockey player who has ever lived. So why should we not apply the Gretzky rule to our product innovation efforts?

Ask yourself these questions about your business:

- Are we (and our competitors) all agreeing to the same set of rules, and are those rules enforceable?
- Is the playing field known, and is the puck limited (naturally or artificially) to the confines of our field of play?
- Does the industry agree on the formula for measuring success and calculating winners?
- Are our competitors clearly known? Can we evaluate their tendencies such that they can be studied and beaten?

If these items are true for your business, then congratulations—you're working in a market where future outcomes are fairly predictable, and victory will be based on your forecasting abilities being greater than that of your opponent. In this situation, you are operating and innovating in a "Horizon 1" business (see McKinsey's *Three Horizons of Growth*) and the Gretzky Rule certainly applies, but more often than not, the outcomes you can achieve in this horizon are far from transformative. Often, you're in the position of managing decay and decline, or eking out a percent of growth here and there.

Most people, by contrast, operate in a market where outcomes are not so predictable; where the environment shifts on you regularly; or where you face newly-formed competitors that disrupt your entire business. Just think for a moment about the following examples ...

The Rules of the Game: Did Uber feel the need to acquire its own fleet of cars?

The Space of Play: Does Airbnb worry about the zoning rules or capital costs of putting up a building in a particular city?

Scoring: Is Tesla's stock value governed by traditional automotive industry production scale and sales objectives?

Known Opponents: Does Netflix concern itself with the same local carriage agreements or right-of-way access rights that cable and satellite companies have long dealt with?

In each of these examples, the outsider looked at the "rink," and then made the determination not to join the game everyone else was playing. Instead, they created entirely new rules, based on a new game, with highly-unpredictable outcomes. As a result, the forecasting and analysis that other companies rely on to "skate where the puck is going" became pointless.

"Energy and resources need to be shifted away from trying to divine the future... and toward building prototypes..."

Instead, we must learn the skills of discovery. Energy and resources need to be shifted away from trying to divine the future through traditional market research, and toward building prototypes and using them to gather customer feedback. Here are some of the changes that happen as part of this transition:

Less Prediction	→	More Experimentation
Less Administration	→	More Exploration
Less Market Research	→	More Customer Interaction
Less Features	→	More Agility
Less Analysis	→	More Passion

Hockey great Wayne Gretzky on the ice in 1984.

If you've worked in or around product innovation, you may notice a similarity to the lean startup methodology. The echoes are there, but my experience with the lean approach led me to a realization that is critical to success. Lean startup, as taught by Steve Blank, Eric Ries, and others makes the assumption from the beginning that the people on the team all share the right mindset. In startups, this is generally true, due to the risky nature of working for a company that needs to find customers and revenues fast—or go out of business. In most large enterprises, there's much more stability.

"Executives who are still formulating their innovation and product strategy with guidance from Wayne Gretzky's dad are skating toward irrelevance."

As a result, many gifted explorers fall out of those organizations (or are chased out), since they never really "fit" the corporate paradigm.

So the fundamental task of any enterprise product transformation program starts with having the correct team matched to the properly identified idea. There are two areas to evaluate and nurture.

1. Thinking Style: the ability to "reimagine outcomes" in an unpredictable world

2. Behavioral Style: a bias toward action

In addition, the company needs to offer the right incentives to get these teams to form—and operate—successfully. If it sounds challenging, it can be. It's one reason many large organizations choose to simply acquire innovation from the outside, via M&A, rather than invest in their own innovation capabilities.

IN CONCLUSION

Executives who are still formulating their innovation and product strategy with guidance from Wayne Gretzky's dad are skating toward irrelevance. They're playing hockey, while the rest of the world has moved on to Quidditch, or drone racing—games that don't take place on a two-dimensional surface, and feature all sorts of new rules.

The brilliant professor Dr. Saras Sarasvathy of the Darden School of Business puts it this way:

"To the extent that the future is shaped by human action, it is not much use trying to predict it. It is much more useful to understand and work with the people who are engaged in the decisions and actions that bring it into existence."

It's time to stop forecasting—and start experimenting. ●

PHOTOGRAPH BY B BENNETT/BRUCE BENNETT STUDIOS/GETTY IMAGES

"Go Where You're Loved": Intuit's Bennett Blank on Rolling Out Lean Startup

INTERVIEW BY **SCOTT KIRSNER**

Bennett Blank

PHOTOGRAPH BY **Justin Marr**

IF YOU'VE BEEN DEBATING whether or how to roll out the lean startup methodology in your organization, Bennett Blank of Intuit has a question: what are you waiting for?

"I can't tell you how many times I've talked [about lean startup] with other executives who are like, 'OK, we'll spend four or five months benchmarking it, and then we'll put together a program, and then we'll spend eight months creating the curriculum, and then we'll launch it next year,'" Blank told INNOVATION LEADER members during an IL Live conference call.

"That's the complete antithesis of the lean startup," he said. Instead, he suggests asking, "What can you do in the next 24 hours that drives lean startup into your organization? That's the lean startup way. Apply what you learn, and don't overthink it. Just get started."

Blank is an Innovation Leader at the $4 billion software company Intuit, which makes products such as QuickBooks, Mint, and TurboTax. Among his responsibilities has been designing and running a training program called Lean StartIn (the "in" represents intrapreneurs.) Blank is also featured in our June 2016 research report, *Lean Startup: Making It Work in Large Organizations*.

WHERE I SIT

I'm not actually in a business unit. I'm in our central organization, our CTO organization.

Our charter is really to help the entire company, all the business units, become more innovative and deliver for our customers. A lot of what I do is researching and experimenting with best practices in terms of culture, tools, process, and then sharing everything we learn with the rest of the organization.

That may be in the form of workshops. It might be in the form of strategy. It might be in the form of coaching, but our job is really to advance the company forward in terms of culture. My boss at Intuit is the Vice President of Innovation and Transformational Change.

In addition to innovation, we do a lot of culture transformation in partnership with our CEO and founder, who are both obviously very excited about making sure our innovation culture remains vibrant ...

ONE OF THE OLDEST STARTUPS IN SILICON VALLEY

We like to joke that Intuit is one of the oldest startups in Silicon Valley. We're at 30-plus years now, but would still like to think we're always looking towards the future. In the consumer software and small-business software space, it's a rapidly-evolving landscape.

If you're not staying on your toes, or looking at the future, and trying to invent it yourself, then somebody else will do it for you, and that won't be good for anyone ... Whether you're 30 years old or three years old, everyone is under the same pressure to constantly innovate and improve our customers' lives.

"DESIGN FOR DELIGHT" AND THE "LEAN STARTIN" WORKSHOP

We actually have a program called Design for Delight, which is our own internal version of design thinking, which had become quite popular at Intuit going back as far as 2007, when that program kicked off. That program has three pillars or principles that we lean on.

The first is customer empathy, so we strive to be customer-centric and put the customer at the center of everything we do. The second is going broad before we go narrow, which really just is encouraging folks to explore many opportunities and potential solutions before we settle on one. Then the third principle is rapid experimentation with customers.

The premise behind that, of course, is that we want to test those solutions we choose with our actual customers in a real-world environment, to see whether or not they're actually delivering the value that we hypothesized it deliver.

When Eric Ries and the other folks that are in the lean startup community started talking about a more formal way to think about this, it really fit very well with our rapid experimentation principle. I don't want to say it was easy, but it made a lot of sense for us to talk about in the context of some of the programs that we already had in place.

It really gave a boost to our Design for Delight program, and then also we were able to leverage the awesome book that Eric released [*The Lean Startup*] ...

From there, our "Lean StartIn" workshop is one of many different things that we did to try to institutionalize lean startup—the attitude that there's always something you could be doing faster to test those hypotheses, and encouraging people to be explicit with the hypothesis that they'd actually want to go test ...

Trying to move faster is one of the most important things you can do in an organization. Certainly, being clear about what you're trying to actually go test and learn from the market is something I've noticed a lot of folks struggle with.

They start with, "This would be a great idea because," and here's some data behind it, but at the end of the day, if you haven't created an experience to deliver on that concept, and then tested that experience, you're ultimately always going to be off-course. We saw that at Intuit as well, and thought that was a problem worth solving.

DEALING WITH RESISTANCE

I wouldn't call it resistance, but [early on we did get a lot of] questions ... Luckily, Intuit is very open to new things, so we don't get a lot of pure skepticism. What we do get a lot of is questions. Why would you do this? Why do you believe this would be better than what we do today? What are your own hypotheses?

Nobody wants to spend too much time, and spend more money than is required to deliver [something] late. Nobody wants that, so I think the first suggestion I would give folks as you start to talk about [lean startup] is, use the words and the lingo of your organization, in terms of the benefit it might provide ...

Of course, some of the details of how you do rapid experimentation in market, folks are nervous from time-to-time about how you would use a brand, and shipping a product that's minimum viable versus complete. What does that even mean?

We had a lot of conversations around, what does the minimum viable product look like that you could attach one of your brands to, versus something that would be a brand-new market idea ... Lots of conversations around, are there going to be legal ramifications? We're in the financial services world, and obviously it's more sensitive, and regulated, than some other industries.

Are we going to lose customers? Will they hate us? All that good stuff that folks worry about every day. We ran up against a lot of that. Again, not in terms of people telling us to stop, but just a lot of hard questions, which

Blank helps lead a design exercise with INNOVATION LEADER members at Intuit's Silicon Valley headquarters.

frankly, should have been asked.

I think one thing we did really well in early stages to bring those folks not just into the conversation, but we actually invited them to some of our early workshops and said, "You are now participants, and the problems that you're going to work with are solutions for the other people in the room..."

We had one person come in with the legal challenge of contacting customers. You might imagine reaching out to customers. Should anybody just be able to do that in a company? Those are very valuable contacts. Legal and branding folks said, "That should be controlled. You can't just let any employee go out there and start calling up customers."

At first blush, that seems a little bit crazy, but one of their teams that went through this workshop decided to ... put the word "product" in quotes. What they created was a series of guidelines for rapid experimentation teams. If you fell below the guidelines, you actually didn't have to get any approval at all. No approval from branding, no approval from legal. You could actually go run your experiments with customers, and contact customers, and have conversations with them without having to involve anyone.

Of course, that's very empowering for teams, and that kicked off the first round of opening the floodgates for folks to go out and actually communicate with customers.

$30 MILLION+ OF NEW REVENUE

Early on, the folks who were coming to our workshop were folks that wanted to explore new ideas, or really push the boundaries of existing products. In the process, they were actually able to get literally hundreds and hundreds of customers to test a wide variety of different products...

Intuit doesn't really have an R&D situation where we incubate and launch brand-new product lines. What we do a lot is adopt those things and move them into our existing core products.

Many new features and innovations that were proven in just a few days to have some merit...would then be adopted by the core teams that would then create those products as part of the core offering. We've had many success stories—I don't even want to use the word incremental innovations, because that makes it sound too small.

In the first 18 months or so [of the program,] it was $30 million plus in new revenue to Intuit that was attributed to ideas that went through the program.

I joked, at the time, that it was really just me and somebody else who were running these workshops, and they're already paying for us, so it's infinite ROI. Very big bang for the buck, just spending a few days learning how to do these techniques, and then applying it back to their day-to-day work...

Blank leads a tour of Intuit's headquarters.

If you ask anybody who's on those teams, they will say, "Yep, if I didn't have this opportunity to go test my idea, and I wasn't taught the tools and techniques of how to go do it in a fast, cheap way, my idea probably would've never gotten off the ground, because it never would have passed a more traditional funding barrier or product proposal pitch. We simply didn't have the certainty of ROI and the things required to get it done that way."

I think the second piece that I find most interesting is, that specific workshop is not about the output in terms of new products and markets, or this idea started here, and now it's over here generating X dollars. It was really about transformational change, and cultural change, and making sure that our employees understand what we mean when we say rapid experimentation, and what we mean when we say, "Put your idea to the test, or let's talk about things in terms of the hypotheses."

THE VALUE OF A SHARED VOCABULARY

A lot of those words—hypothesis, evidence, leaps of faith—those things weren't explicitly a part of our culture, and so it really helps to create a shared vocabulary around what an experiment actually is. When you're talking to your fellow employees about your work, you can say, "Well, I've got to be honest. In this case, it's just a hypothesis, and we don't know right from wrong, but we have a test to go get the answer, and here's what that test looks like."

Before, you might have had people saying, "Well, I out-analyzed you, and I am higher ranking, and so just take my word for it that this is worth investing in."

... That's the real win, when the culture gets shifted, and it starts to take hold in other places in the organization. You see huge, huge, huge improvement.

GIVING INNOVATORS AN ALLOWANCE

We've experimented with giving some [funding], and not giving some. ... In the early stages, we gave folks that came to our program a small budget. They would buy things like AdWords, or they could create templates, or buy a domain name—sort of small things they needed to do to actually put their product out in market. ...[Unlike Adobe's Kickbox program,] we gave not so much standard [amounts of funding,] but small chunks of money to people to actually build their experiments. That's where we focused our energy.

We would give in the hundreds of dollars. It's most important purely from the empowerment perspective. When you empower employees, they will do amazing things. Whether you give them $1,000, or $10,000, or $100, just giving them the money is an important part, and saying, "You can spend it on anything you want, on anything that's driving your experiment. It's up to you to make the call."

At Intuit, most employees have a corporate credit card, and so we would just earmark funds on that. It wasn't like a secret debit card, where you get to keep the money if you want, and you can spend it on what you want.

HOW THE LEAN STARTIN WORKSHOP LINKS TO THE BUSINESS UNITS

Anyone can come to the workshop. For example, we might have a team from QuickBooks who has a hunch that there's a different feature that they should be prioritizing,

or a different opportunity that they should be prioritizing, but they can't get started on that because of their pressures of their daily job. They'll come to a workshop, and experiment on the side with a new concept, or different way of doing it, which will prove to be better. Then they can just take that right back to their day job and say, "We're going to stop doing this, and do this other thing."

There is also a process where we connect to the teams that are working on ideas that are showing a little bit of traction with the senior business leaders. We try to get them to align [their idea] with the metrics that business is trying to solve for. One thing that's unique at Intuit, we have something called customer benefit metrics, and they're not business metrics. They're improvements in the customer's life.

If that idea is actually improving the customer's life in a way that is important to that product or business unit, they are usually open to at least having a conversation about it. Then, from there, it's to either be discussed as an add-on to something, or the learning is incorporated into the core product. If it's unique enough, it might exist on its own for a little while.

"GO WHERE YOU'RE LOVED"

...One of the tips I always give is, "Go where you're loved." Don't try to convince a giant business unit that has no interest in innovation to come to your workshop. Just create something very small, like 20 people. Our first event was 12 people, and we actually did it over a weekend, in the corporate offices, but on a Saturday and Sunday, for people who were passionate about startups. At that time—this is even before Eric's book came out—there wasn't necessarily time to do that, and take people away from their day jobs.

You've got to start small, go where you're loved, get a couple of like-minded people in the room, and then when you see success, start sharing that as quickly and loudly as you possibly can. You've got to bang your own pots and pans together.

At about our fourth event, we actually sent a note to our CEO saying, "You're not going to believe what's going on here. We started these workshops, and people are moving faster, with almost no money, and they're actually getting learning very quickly from the customers, and they're actually able to apply that back to the core products. We think that's exciting, you should come by."

It turns out he did, and he showed up. It was sort of a surprise to us, actually. He came for the final pitch of one of these two-day workshops, and he was blown away by what he saw, and very encouraging to the teams for having participated. You can imagine some of the teams are mortified that they were going to have to present in front of the CEO after being awake for two days.

"You can imagine some of the teams are mortified that they were going to have to present in front of the CEO after being awake for two days."

Then, of course, we started highlighting the results, and saying people who were coming to this workshop felt more empowered. They were more positive about their job. They now had the tools and resources to go do stuff, when they felt that there was something different Intuit should be doing.

We shared that with anybody who would listen. We were our own marketers. For those of you who are thinking about doing this, you will not have much help. That's what startups are faced with, and so you've got to apply these tools and processes to your own programs.

Bang your own drum. Nobody else is going to do it for you. Once you start to gain some traction, assuming it does, then those other folks will come to the party.

[If you're working on lean startup or other kinds of cultural change initiatives,] your customer is the organization, and so you have to have empathy for the organization, and understand that if people are trying to squash you, they're not doing these things irrationally. They're doing it for a very specific reason, and so you need to understand them as your customer.

If you're creating a workshop, or some way you're going to be hopefully changing the hearts and minds, there has to be a benefit to them for that. Don't go to the laggards in the organization and try to convince them to do this. Go to your early adopters, go to

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Blank models a prototype of a memory augmenting device.

your innovators, and target them directly. Start very small. The number one thing you can do is apply the lean startup mindset to this program.

RECOMMENDED BOOKS AND VIDEOS

For those of you who aren't familiar with Steve Blank—no relation to me—he's got a whole series of videos, hundreds of them talking about "search versus execute" and some of the corporate judo moves that you need to apply. I'd recommend anything from him. Of course, Eric Ries' book, *The Lean Startup* is great. We brought in someone named Brant Cooper in the early stages for us. He wrote a book called, *The Lean Entrepreneur*, which I found quite good. Ash Maurya has got some great stuff.

Lean Analytics is another book I really like...but I think ultimately Eric's book [*The Lean Startup*] captures the spirit of it, for sure.

"JUST GET STARTED"

I can't tell you how many times I've talked [about lean] with other executives who are like, "OK, we'll spend four or five months benchmarking it, and then we'll put together a program, and then we'll spend eight months creating the curriculum, and then we'll launch it next year."

That's the complete antithesis of the lean startup. No, what can you do in the next 24 hours that drives lean startup into your organization? That's the lean startup way. Apply what you learn, and don't overthink it. Just get started.

Today, when you're done with this phone call, you're going to have what, two-and-a-half hours before the end of the day? I guarantee you that anybody who's interested in lean startup can create an experiment in that amount of time. Maybe not execute it, but certainly create it. Do it by the end of this week, done. That's lean startup. If you can't do that, you maybe should consider trying something else.

I don't mean that in a mean way. I just mean you've got to live the principles yourself.

We didn't have [data or success stories] when we started. ... There's lots of articles written about lean startup, but you're going to have to create your own data. Again, that's the job of whoever's leading this program, to do that, and to be humble and honest with the organization: "We don't know this will even work, but hey, it seems other companies are making huge strides with it, so it's probably in our business to run an experiment. Let's do that." ●

INNOVATION LEADER **TEACH-IN**

The world's leading corporate innovators share best practices at our annual Teach-In, a two-day learning event in which corporate innovators from Global 1000 companies, including Fidelity Investments, Royal Caribbean Cruise Lines, Bayer, Marsh & McLennan, Anthem, TripAdvisor, ESPN, and more bring attendees "inside" their innovation programs and share lessons learned in interactive whiteboard sessions.

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Fashion forward

WHY GROUPE GALERIES LAFAYETTE LAUNCHED AN ACCELERATOR FOR RETAIL AND FASHION STARTUPS

INTERVIEW BY SCOTT KIRSNER

PHOTOGRAPH BY MILOS JOKIC

Spring
2017

Groupe Galeries Lafayette
Paris

To

get from Paris' flagship Galeries Lafayette department store, unveiled in 1912, to the Lafayette Plug & Play startup accelerator, launched in 2016, it's only about a 20-minute stroll down Rue la Fayette. ¶ The accelerator seeks to attract the best fashion and retail-oriented startups from around the world—as well as get pilots going with Groupe Galeries Lafayette, a 15,000-employee retailer with outlets from Paris to Beijing. ¶ But Edoardo Manitto, VP of Corporate Development and Innovation at the French retailer, knew that even a kilometer-and-half's distance could potentially kill the new initiative if he didn't establish the right connections between the company's core retailing business and the new accelerator. ¶ Groupe Galeries Lafayette is one of the largest European department store operators, with 56 locations in France, as well as international locations in Dubai, Berlin, Jakarta, and Beijing. The 120-year old private company is family-owned. It recently acquired several digital businesses, including InstantLuxe, an apparel reseller, and BazarChic, a private sale website.

The stained glass dome inside Galeries Lafayette's flagship store in Paris, opened in 1912.

Groupe Galeries Lafayette
Paris

We spoke with Manitto in January 2017 as part of our IL Live series of conference calls.

MY ROLE

When I joined the company [in 2014], basically the executives, the family, thought it was important to do innovation, but they didn't know much what it meant. So when I arrived, I had to create my own role.

I think for all of us with innovation in our titles, understanding the inner workings of the company is very important. Certainly, being sponsored or anchored at the top of the company is also important.

In my case, I report directly to the president of the group, who's the chairman and owner of the company. I think it's a precondition for success, because there are so many challenges and sometimes so much friction that if you're not strongly supported by the top, it's a very difficult role to carry out, to impact and to create some impacts.

STARTING A NEW BUSINESS

The idea behind [Cuillier, a business Manitto launched] was really to build on the specialty coffee trend, and build a new brand with physical stores. It was very much kind of "innovation lite," if we want to call it that. The going-in assumption of my role was, "OK, in innovation you've got to create new commercial concepts."

I said, "OK. Excellent." I've looked at the market. I've studied a few niches. I proposed a few ideas to the board. Since at the department stores we're also in hospitality, they said, "OK. That sounds like a good idea. Go off and develop the company."

We've opened the first one in our own location. [Now, it] has four independent standalone outlets in Paris. It's a first step for the company. It wasn't something that was too digital. It was actually very physical. It was far enough from their core business that it [fell] under the innovation umbrella.

From that early test, we moved on to better and bolder things—although I still do run and take care of that business, which is doing very well.

WHY REACH OUT TO STARTUPS?

We are very much a brick-and-mortar, 120-year-old iconic institution. We're slow, not agile. [We have] legacy systems. Everything you can think of in a traditional business, we represent.

At the same time, I was scoping [things] out, probing, trying to work with our executive teams, and trying to put them in contact with startups, presenting them new concepts, trying to inspire them, creating reports, bringing them research. Basically, in a nutshell, I was trying to shove innovation down their throat. That, in my case, didn't lead to anything very productive.

I said, "OK. That's not working." I sat down with the president, who said, "OK, we've tried 10 different initiatives, [and] none

Manitto working alongside entrepreneurs at the accelerator.

of them is taking off. We really need to do something radically different than what we've done. We need to build a separate organization. We need to create a real demand for innovation from the business, and we need it in a separate physical space."

We started working with this idea, and I quickly landed on this idea of putting our business, which is a globally recognized brand, at the center of an innovation ecosystem. Today, the innovation ecosystem is embodied and defined by startups.

We said, "OK, we've got to build something where we bring Paris, the fashion capital of the world, and Silicon Valley, the technology capital of the world, together. A program where we can learn, put our assets at the service of startups, and at the same time, profit from this relationship." We wanted to build a real exchange and channel of communication with this new ecosystem outside our walls, and try to understand what role we can play in it, how we can contribute, and how we can benefit."

I decided to build this innovation platform—because it's really more than an accelerator—called Lafayette Plug & Play.

I did due diligence before embarking

into this program. My going-in assumption was that Galeries Lafayette, as a retailer, as a global brand, could bring its industry competencies.

From the very beginning, I was looking for a startup expert, or an accelerator expert, or somebody that works with startups. I did some due diligence with companies here in France and some players in the US. When I met [Silicon Valley-based incubator] Plug & Play, we really clicked together.

I think our philosophy of bringing together the corporate, startups, VCs, and really creating an ecosystem around specific verticals—that was something that they'd already put in place at their head office in Sunnyvale, California.

[The cost to launch the program was in the] low six figures. I've also built a small fund with Plug & Play where we invest ... in a limited number of the companies. Unlike Y Combinator or 500 Startups or other incubators, we don't take equity coming in the program. The program for startups is completely free.

We give them a space. We give them all the mentoring. We give them all the advice. We [help them establish] relationships with our group and other corporates, and that's all free. It's obviously a very attractive proposition for them. With the ones that we feel have the most potential, we do invest.

CREATING AN OPEN ECOSYSTEM

What we're building is not a corporate accelerator. I actually believe that corporate accelerators are not very interesting, both for the corporate and for startups. Because they tend to be exciting initiatives for the first 18-to-24 months, then there's not real expertise behind it. They fall out of fashion very quickly.

"I was trying to shove innovation down their throat. That, in my case, didn't lead to anything very productive."

We are building an accelerator program, an ecosystem around our industry, where Galeries Lafayette is the anchor partner, the anchor sponsor today. But it's an open ecosystem. So we actively invite and welcome [participation from] other retailers, brands, in all their shapes and form, in all their channels.

[At] Lafayette Plug & Play, we're a small team of seven people. Our customers are the startups. We actually spend an enormous amount of time in the field getting to know the startups, creating a very qualified deal flow for our program.

We really go out to find the best startups. We don't solve for any corporate problems, at first.

If you solve for business problems, those business problems are very relevant, and they're today's problems, but you ... don't look for new business models. You don't look for the really disruptive innovation. That's what we try to do.

GENERATING DEMAND FROM THE BUSINESS

We launched in September 2016. We're [now] sourcing for a second batch. We've run the first three-month program. We had seven French, one US, one UK, and one Danish startup. We have physical space, so the program is anchored in a physical location. We have 10,000 square feet in the city center of Paris, where we have co-working, where we have the space for the accelerator program, where we run regular events, and so on.

When the executives come and the team comes [to that space], everybody gets excited. They really see things. They get to interact with the startups, with ideas that they haven't been exposed to before, and it's a safe environment. That generates this demand that did not exist before.

Innovation departments often tend to push innovation in the business. I've created a system that generates demand. The business now comes to me and says, "Oh, what you're doing is very interesting, very relevant. Can you help me do this?" Or, "Can we come and spend time in the space? Can we run our off-site in your space? Can you help me find a specific startup for my problems?" I say, "Of course."

We now have a CRM [database] of 700 startups. If an executive from supply chain comes to me, it's very likely that we have a startup that solves their needs. If it's not in our CRM, we go out and find it. Thanks to the partnership with Plug & Play, if we don't find it in Europe, we'll likely find it in the US.

BUILDING BRIDGES

I'm trying to build bridges at several different levels of the organization, and through sever-

The Corporate Innovation Ecosystem: Understanding the Players, Tensions, and Key Strategic Questions

XPLANATIONS™

Why is corporate innovation so difficult? A broad coalition of players, inside and outside of your organization, must be aligned for real innovation to take hold—and the different constituencies don't always share the same motivations and incentives. Use this map and the discussion questions below to engage the players, start conversations, and build a shared understanding of common goals, so that you can work together to make meaningful progress. Innovation Leader created this map in collaboration with the "visual thinking" firm XPLANE, and it's the first in a series that will explore innovation challenges from various angles. Got ideas or feedback? Email editor@innovationleader.com.

THE CORE

The core business is the source of profits and power. When it's doing well, there's little hunger for real innovation. When it's struggling, the first impulse is to cut costs rather than invest in new products and services. Without long-term support from executives in the core, innovation efforts fail.

1 CEO and Leadership Team
At some companies, a sole C-level executive is the key innovation cheerleader. Innovation groups benefit from broader support throughout the core business, though it's best to avoid creating a 20-person innovation committee that can find plenty of reasons to kill promising projects.

2 Business Units
Business units tend to want incremental ideas that can deliver revenue in the short-term, rather than disruptive innovations that might undercut the current offering.

3 IT, 4 Finance, 5 HR, and 6 Marketing
Some of these functions can slow the momentum of innovation teams, dwelling on risks or following "standard procedure." Some may feel they should own innovation. It's best to start cultivating allies early rather than late.

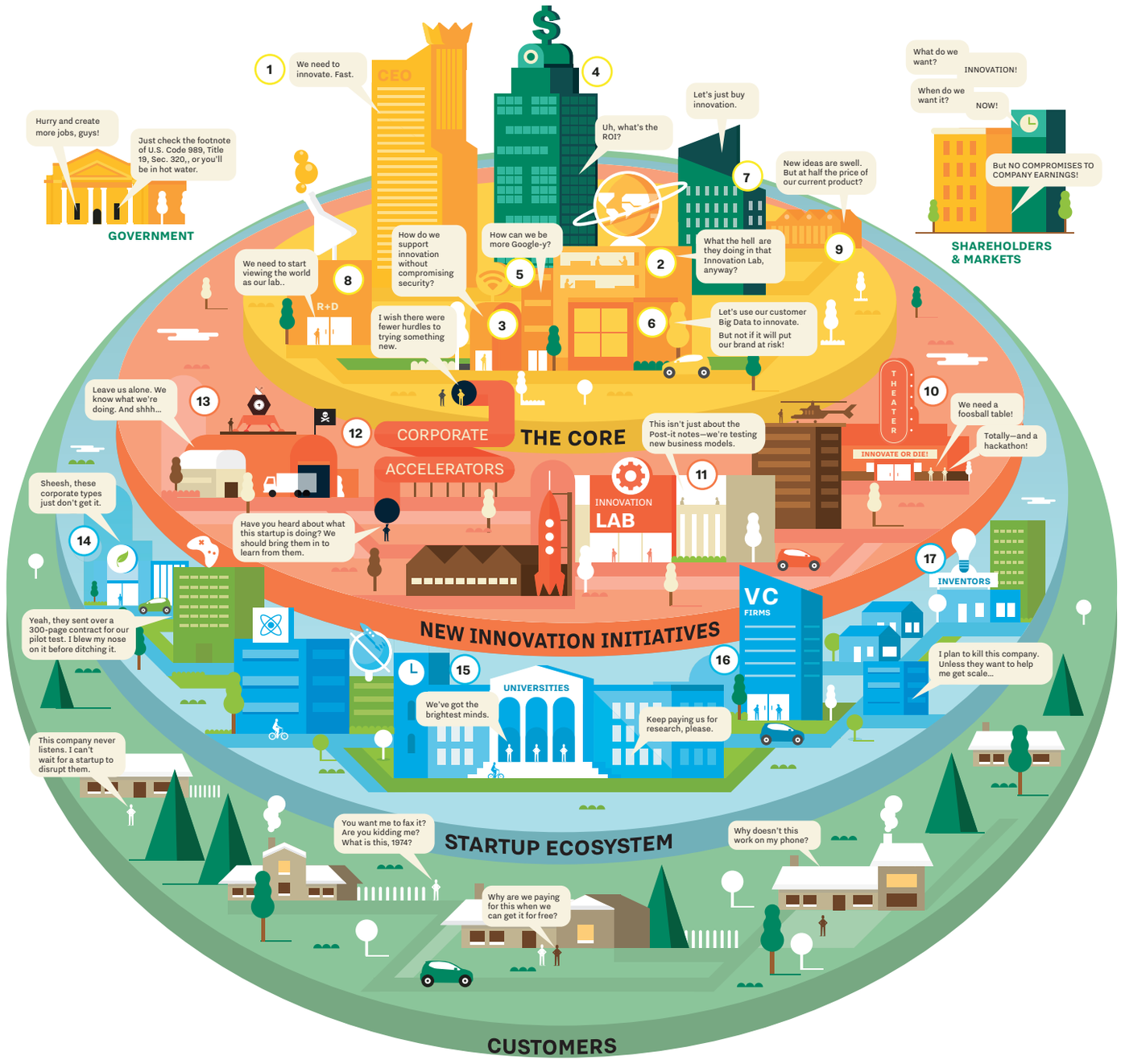
7 Corporate Development
"Buying innovation" through acquisitions is something many companies prefer over organic innovation, though the price can be steep and integration can be a challenge.

8 Research and Development
Companies with long-standing R&D groups sometimes feel frustrated. Should all ideas about the future of the business come from R&D? These groups can also be insular and reluctant to source solutions from outside the company. But R&D done right can attract top talent and create competitive advantage.

9 Sales and Support
Sales can be a rich source of insights about customer problems, which innovation groups would be wise to address. The sales and support teams can also gripe about selling something that's tough to support, priced too low, or relies on a different business model.

DISCUSSION QUESTION:

What incentives can you put in place for these constituencies to embrace new ideas and help launch them, rather than poking holes and withholding resources?



NEW INNOVATION INITIATIVES

Innovation initiatives tend to sit at the edge of the business, without the same resources or attention as the core.

10 Innovation Theater
Coming soon...the splashiest spectacle you've ever seen! Watch the CEO pass out trophies. Marvel as a visiting keynote speaker shares the secrets to brilliant ideas in 60 minutes or less. It can be exciting the first time around, but will people return for the sequel?

11 Innovation Labs and Incubators
At their best, innovation labs create a new place for exploring new technologies, building prototypes, and collaborating with customers. At their worst, they're Disney-esque showcases intended to impress visitors and prospective hires.

12 Corporate Accelerators
With the right structure and marketing, accelerators can attract startups working in your industry, and potentially spark investments, pilot tests, and partnerships.

13 Skunk Works
Insulated from near-term demands, this crew can focus on "blue sky" projects with major potential. The risk? Insufficient support from the core business when it's time for launch.

DISCUSSION QUESTIONS:

What is the expected outcome from your innovation initiative, over what timeframe? What resources will you need?

STARTUP ECOSYSTEM

With so many meetings, it can be tough for executives to escape the building. Innovation teams seek to change that dynamic by creating new ways to connect with 14 startups, 15 university researchers, 16 venture capitalists, and even 17 solo inventors who may supply winning solutions to a crowdsourcing competition.

DISCUSSION QUESTIONS:

How can you reduce the friction of working with outsiders, and position your company as the "collaborator of choice" in your industry?

CUSTOMERS

At most companies, sales and marketing departments feel like they "own" the customer relationship, but a growing number of companies embracing the concepts of "lean startup," "design thinking," or "customer co-creation" are allowing more employees to interact with customers. Even when this doesn't result in new revenue, it can strengthen customer loyalty, which is always a win.

DISCUSSION QUESTIONS:

What barriers exist to bringing customers into the innovation process? How can you quickly test new concepts with them?

INNOVATION LEADER **Learn more about these players and questions at www.innovationleader.com**

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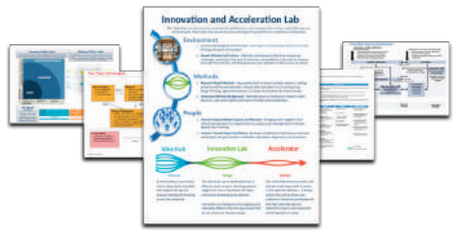
Executives-only learning events and curated, members-only conference calls, and visits to innovation labs.



Extensive and exclusive Resource Center, packed with checklists, innovation frameworks, spreadsheets, and more.

DISCOVER

Discover how other organizations are working with startups, building innovation labs, deploying lean startup, and more.

VALIDATE

Validate, compare, and justify your innovation budget, framework, strategy, metrics, reporting, and pipeline.

NETWORK

Engage in off-the-record conversations with other corporate executives to learn what has worked for them.

VISIT

Visit leading-edge innovation labs and spaces, such as Google, Fidelity, Visa, Ford, Pfizer, Twitter, BMW, and others.

MONITOR

Monitor emerging trends and technologies that will impact your company.

LEVERAGE

Leverage the collective experience found in our extensive online resource center of dashboards, spreadsheets, flowcharts, and checklists.

al different initiatives. First of all, our board is involved in the selection of the startups. We have a pipeline of 200 to 300 startups.

We whittle down to about 30, which then physically come into our space and pitch in front of our executives, in front of VCs, and in front of entrepreneurs. That's the first element. So the startups that are selected have already been in contact with our board.

Second level, mentoring—we have a comprehensive mentoring program where there are, again, VCs, entrepreneurs, industry experts, and our executives. They take an active interest.

We have a weekly schedule for the program, and we've dedicated Friday mornings to meetups with different teams [from] our group, where they can come. They can interact. They can discover. To do all this activity, I have one person whose only job is [being] the relationship manager between Lafayette Plug & Play and [the businesses of Groupe] Galeries Lafayette.

MEASURING SUCCESS

I've put a couple of very simple metrics [in place] from an engagement point of view. How many people are coming? How many people are coming back? How many mentoring sessions do we run? That was really the basics.

We wanted to create engagement between this activity and the business. [So the] second level is the number of pilots that we run. To be honest, before running this program, I couldn't put together any startup, however interesting it was, with the business.

We've accelerated 10 startups, and out of the 10, in three months, we had three live pilots, which was an incredible success. Three is enough. My goal actually was two.

All of [the pilots] are still running, and actually, one of them is becoming a contract.

'YOU'RE NUTS. I'M GOING TO FIRE YOU.'

I did [almost get fired before launching Lafayette Plug & Play.] Before getting it off the ground, I went to my chairman and I said, "My idea is [that] we run this program, [but] it's completely open. It's open to our competitors. There's no exclusivity. It's going to cost [this] much. Believe me, trust me, it's going to create engagement. We'll run pilots." Obviously, the big goals that I haven't talked about, [were that] we are really going to change the culture of the company. From an internal point of view, that's the big goal, and it's hard to measure.

At first, he said yes. Then he thought about it. He came back a few days later and he said, "You're nuts. I'm going to fire you." I said, "Hold on. Before firing me, give me another week and I'll tell you exactly why this is a great idea." I came back to him. Luckily, he didn't fire me and he went for it.

A 'GEAR' BETWEEN STARTUPS AND CORPORATES

There's nothing wrong with starting your own [accelerator] program, but [servicing startups] is a job on its own. Don't try to improvise it, because the startups will find you out very quickly. You'll get B- and C-grade startups, not very interesting. Your business won't get very excited, so it's not going to work, irrespective of how much money you put into it.

"Innovation departments often tend to push innovation in the business. I've created a system that generates demand."

It's not about how much money you throw [at it], but the level of quality [and] service that you can put into it.

If you want to join another program to interact with startups, I think it's a great idea. Especially in the US, there are loads of opportunities. Plug & Play runs 10 programs across 10 different verticals. We're associated with their brand in retail, but they run IoT, insurance tech, fintech. They've started food tech, media, mobility. They run a number of those, where they have multiple partners across the different programs. The great benefit is you get with your peers across other companies in your industry and other industries. It's like Innovation Leader—you get to exchange ideas, share ideas, share experiences and best practices, and you create a community.

I believe you need a filter or a gear in between startups and corporates. Because corporates have scale, but they are slow. They don't have speed. Startups have the speed, but they look to become big. What we think we're quite good at is being this filter in between the corporate and the startup and sort of creating this safe environment. We understand both sides, so we allow them to talk in a way that they both understand. ●

TO SEE THE SCHEDULE OF UPCOMING INNOVATION LEADER LIVE CONFERENCE CALLS, VISIT WWW.INNOVATIONLEADER.COM/IL-LIVE

How can you SPOT TOMORROW'S DISRUPTIONS, today?

By Scott D. Anthony, Clark G. Gilbert, and Mark W. Johnson
INNOSIGHT

In his landmark book, *Capitalism, Socialism, and Democracy*, economist Joseph Schumpeter famously introduced the idea of a "gale of creative destruction" upending market leaders and reshaping industries. Today, that gale blows fiercely indeed, with executives all around the world fretting about becoming the next cautionary tale of the damage inflicted by disruptive change.

Our new book *Dual Transformation* provides a playbook for leaders seeking not just to withstand that gale, but harness its energy. As the word "transformation" connotes, success requires that organizations change in form or substance. Transformation goes well beyond doing what you are currently doing better, faster, or cheaper. Think of liquid becoming a gas, or a caterpillar becoming a butterfly. Dual transformation requires simultaneously repositioning today's business (Transformation A) while creating tomorrow's (Transformation B).

Dual transformation is the toughest challenge a leadership team will face. And the longer you wait to begin the journey, the steeper the challenge. One of the cornerstones of the change literature is the parable of the "burning platform." The name references an incident on an oil rig in the North Sea in the 1980s. One fateful night, a loud explosion preceded the platform catching on fire. A worker →

made the brave decision to jump into the icy cold water. Miraculously, he, along with a handful of his co-workers, was saved. A burning platform now serves as shorthand for a major crisis that forces radical behavior change.

While a burning platform does indeed create the impetus for change, consider that worker's strategic choices. Jump and pray. Or get burnt to a crisp. That is not an attractive option set. Savvy executives have the courage to choose before the platform catches fire, giving them a much wider range of options.

Here are our suggestions for people looking to spot tomorrow's disruption today:

▸ **Go to the periphery**. The legendary science fiction writer William Gibson famously quipped, "The future has already arrived. It is just not very evenly distributed." Spending time at the edges or fringes of your industry increases the odds of spotting big changes early. Consider spending time with extreme customers, such as hackers, teenagers, or those in emerging markets. Or visit global innovation hotspots, like Tel Aviv, Silicon Valley, or Shanghai. You can also surf the periphery by looking at patent activity that shows important early-stage developments in corporate labs.

▸ **Learn experientially**. Executives in large companies often ascend to leadership positions by successfully executing and growing their company's core business. However, in today's world, leaders need to reinvent that model and discover tomorrow's. It's a bit cliché, but if you have grown up analog, it is hard to have the intuition to make sound decisions in a digital world. Going on field trips to innovation hot spots is a good start, but companies should also actively participate in potentially disruptive developments by investing in startups or creating internal incubators or accelerators. Beyond financial returns, these activities are great ways to accelerate learning and build leadership intuition.

▸ **Pay attention to anything that is doubling**. Faculty at Ray Kurzweil's Singularity University use the legend of Paal Paysam (otherwise known as the parable of the chessboard) to show the impact of constant doubling (or exponential change). The legend holds that the Indian deity Krishna, in disguise, played a chess match against a local king. Before the game started, the king asked Krishna to name the reward he would like if he won the game. The answer seemed simple: just a few grains of rice. A single grain of rice on the first square of the chessboard, two grains of rice on the second, four on the third, and so on. The king acquiesced. Upon losing the game, he quickly realized he had struck a fool's bargain. The eleventh square would be where Krishna would receive 1,000 grains for the first time. By the 15th, Krishna would receive 16,384 grains of rice. The 31th square is where the number crosses a billion; the 41st is where it crosses a trillion. Krishna revealed himself, and told the King he could repay the debt over time, hence the Keralan tradition of serving rice pudding to visiting pilgrims. For years, video rental giant Blockbuster discounted Netflix as a niche business, famously passing on buying the company for $50 million in 1999. Everything big starts small, and Netflix's rapid growth should have sent off disruptive alarm bells.

▸ **Think future back**. It's easy to dismiss small, peripheral developments today. In 2005, for example, one of us cited YouTube as an example of an emerging disruptor in the television industry to an audience of media executives. At the time, the site largely contained a bizarre mix of cat videos and pirated professional content (Google would acquire the company for $2 billion a few months after my talk). A skeptical audience member pointed out that the sum total of every video ever watched on YouTube at that point was less than the audience for a low-ranked prime time show on a random Tuesday evening. True enough in 2005. But less true in 2010, and decidedly untrue today. A future back approach, where you imagine yourself at least 5-10 years in the future, brings potential disruptors into sharper relief. Consider not what is, but what could be as underlying technological and demographic trends continue.

▸ **Involve outsiders**. It's now well known that humans suffer from a range of biases that lead to imperfect decisions. One of the most punishing ones is confirmation bias. Naturally, executives believe in the strategy they themselves formulated. Like all humans, those executives are primed to pay extra attention to data that fits their beliefs, and to discount data that runs counter to those beliefs. Involving outsiders—perhaps even individuals living in the periphery—can help to fight those biases.

Dual transformation is the greatest opportunity a leadership team will ever encounter. Disruption grows markets, even as it upends business models. When disruption strikes, it is the moment when a laggard can become a leader. It is the moment where massive new growth opportunities are created. It is the moment when business legacies are written.

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SCOTT D. ANTHONY IS MANAGING PARTNER AND **MARK W. JOHNSON** IS SENIOR PARTNER AT INNOSIGHT, A GROWTH STRATEGY CONSULTING FIRM. **CLARK G. GILBERT** IS PRESIDENT OF BYU-IDAHO. THEY ARE THE AUTHORS OF THE BOOK *DUAL TRANSFORMATION: HOW TO REPOSITION TODAY'S BUSINESS WHILE CREATING THE FUTURE*.

Case Studies

3

Spring
2017

BMW i Ventures
Mountain View, Calif.

Floor It

BMW BETS BIG ON THE FUTURE OF TRANSPORTATION

INTERVIEW BY SCOTT KIRSNER

PHOTOGRAPHS BY CAYCE CLIFFORD

Last

November, five years after starting a corporate venture capital group, carmaker BMW announced that it was quintupling its financial commitment, and expanding its field of interest. BMW said it will invest up to 500 million Euros over the next decade, across a broad swath of the tech landscape, from 3D printing to on-demand transportation to smart logistics. BMW also moved its US office from New York to Silicon Valley, and accelerated the decision-making process for making new investments. "You have lots of competitors for the best startups," explains Ulrich Quay, Managing Director of BMW i Ventures. "You can't wait for two or three months to get into those deals." ¶ We spoke to Quay recently about the thinking behind all of the changes.


Project 1.
Data Evaluation
RGB
Project 2
LDL
Neural Network
mapping
Ventures

BMW i Ventures
Mountain View, Calif.

▸ **EXPANDED SCOPE.** "When we were in New York, we had a very limited investment mandate—only mobility services. We're now able to invest in anything that's automotive or transportation-related. Mobility services is one out of eight sectors we're looking at right now. We can invest in the hot topics—autonomous driving, artificial intelligence, stuff like that."

"All of the changes in the automotive world are being triggered by software becoming increasingly important. Most automakers have a hardware history, and limited software expertise. They will all put a stronger focus on software—that means hiring internally—but also figuring out how it affects your business models... BMW wants to be on the front lines of all these new developments."

▸ **FASTER DECISIONS FOR NEW INVESTMENTS.** "Before, we had to seek corporate approval of everything we did. ...We are now a proper venture unit with complete autonomy that can execute [on a new deal] in one or two weeks. We only need to agree within our group."

"All of the changes in the automotive world are being triggered by software becoming increasingly important."

▸ **STAFFING.** The team is now about 10 people, with two in Europe and one in New York. Since moving from Manhattan to Silicon Valley, BMW i Ventures has been hiring new team members with venture capital and hedge fund experience. The office, in Mountain View, Calif., is co-located with a BMW technology group.

· **Reporting structure.** "We previously reported to the head of mobility services. Now

Samantha Huang, Uwe Higgin, and Ulrich Quay at work.

BMW has set a goal of fully autonomous driving by 2021.

BMW i Ventures is co-located in Silicon Valley with one of the company's technology groups focused on digitization and sustainability.

we report directly to the board—a steering committee that consists of three board members and the head of strategy. Before, we had a good relationship." But the new arrangement gives the venture unit ties to more parts of the company, with more of a long-term focus. "Now, it's overseen by the CFO, two board members most connected to venture investments, plus the head of strategy. It's a very good setup. They don't want to approve individual deals, but they see what our strategy is. We talk to them on a regular basis, and [have] two to three meetings each year."

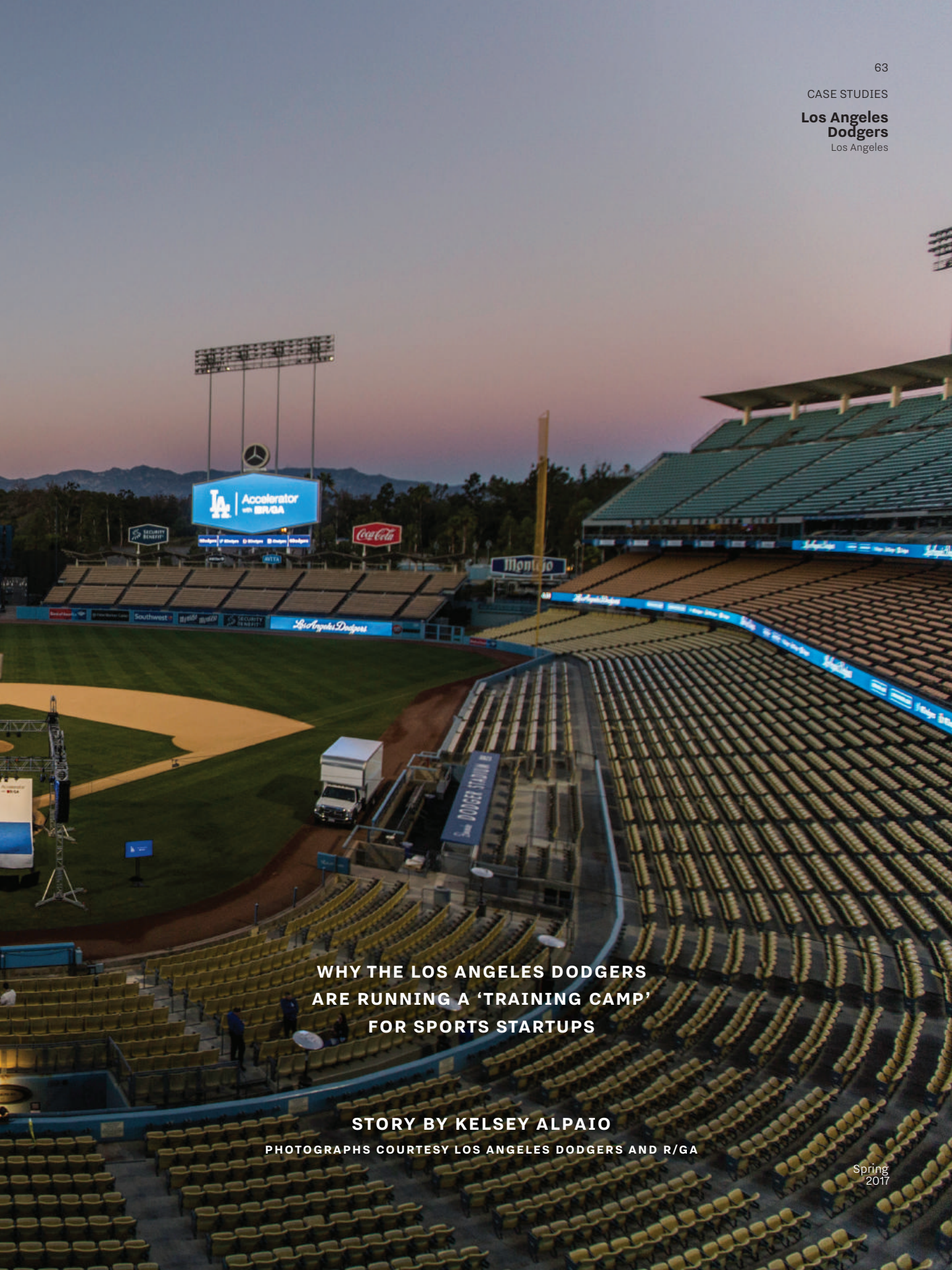
► **PLUGGING IN TO THE VALLEY.** "So far, we don't have a deal flow problem. [In the past], it was more a problem of coping with the deal flow, since we [had] only three people in the U.S. Now that we have more people, we can focus on spreading the word. We're doing door-to-door marketing on Sand Hill Road and other places [where venture capital firms are located], talking to them individually, and [trying to connect with all of] the VCs who are most interested in automotive. We just revised our web site, and we are increasing our presence on social. We're also hoping to do meetups in our office. We did them in New York, and they helped us become more known [among entrepreneurs there.]"

► **ADVICE FOR OTHERS DOING CORPORATE VC.** "Getting a long-term commitment by establishing a [dedicated venture capital] fund," as opposed to doing investments on a deal-by-deal basis, "sends a good message. Startups often ask about that," because it is a signifier that a fund will likely still be around when they need continued support, or another infusion of capital. "It helps to have high-profile sponsors that you interact with on a regular basis. It's easier to get engagement from other business units if you report to the board...there is accountability.'"

"So far, we don't have a deal flow problem. Now that we have more people, we can focus on spreading the word. We're doing door-to-door marketing on Sand Hill Road."

► **BUILDING THE PORTFOLIO.** BMW's investments so far have included Turo, a peer-to-peer car-sharing company that allows individuals to rent out their vehicles on an hourly basis; Zendrive, which seeks to use smartphones to encourage safer driving; Nauto, developing an artificially intelligent co-pilot; ChargePoint, which is building a charging network for electric vehicles; and Embark, a public transit information app that was acquired by Apple in 2013. ●

Here's the Pitch...



WHY THE LOS ANGELES DODGERS ARE RUNNING A 'TRAINING CAMP' FOR SPORTS STARTUPS

STORY BY KELSEY ALPAIO

PHOTOGRAPHS COURTESY LOS ANGELES DODGERS AND R/GA

Pro-

fessional baseball franchises excel at scouting promising players and cultivating them in the minor leagues until they're ready for the big show. ¶ But the Los Angeles Dodgers are unique in trying to do the same thing for startups working on sports and media-related ideas. ¶ What is now known as the Dodgers Accelerator got started after the team was acquired in 2012 for $2.15 billion by the investment firm Guggenheim Partners; Magic Johnson and movie mogul Peter Guber are also part of the ownership group. Tucker Kain was one of the key players in that transaction, and now serves as CFO of the Dodgers. In the five years since the deal closed, Kain has worked to infuse a culture of innovation into the franchise, whose heritage traces back to Brooklyn in 1883. ¶ "One of the things we came upon early on in our tenure was the opportunity to drive a culture of innovation," says Kain, "and use the ever-growing and vibrant startup ecosystem in sports tech and entertainment as not only a catalyst to drive the business forward...but also use it to catalyze a broader, more dynamic thinking within the organization as we thought about our issues and our problems, and how we might be able to solve that with technology."

Tucker Kain (center), CFO of the Los Angeles Dodgers, helped create the idea for the Dodgers Accelerator.

The Dodgers Accelerator is run as a partnership with R/GA, the New York City advertising agency that has worked with companies like Google, Samsung, and Nike. The program, which this year will accept its third cohort of companies, is located in Los Angeles and lasts around 90 days. (Its home base is near Los Angeles International Airport, about a half-hour from the stadium). It concludes with a "demo day" event on the field at Dodgers Stadium, but Kain contends that it is doing more for the team than just exposing executives to a different kind of pitching.

"What we wanted to make sure that what we instilled culturally at the Dodgers was that if you have an issue that's not solved today, there's ways to think creatively, approach problems differently, and come up with better or not currently existing solutions," Kain says. "In a relatively traditional industry where the processes and systems that people use have been pretty well-established and defined, the opportunity to give people the chance to think outside that individual box was particularly valuable."

PARTNERING WITH R/GA

R/GA has been involved with accelerator programs since 2014, when it partnered with Techstars to launch one focused on "Internet of Things" startups. The firm has since launched accelerators in hospitality tech, connected commerce, and—in the case of the Dodgers Accelerator—sports tech.

"We leverage financial capital with creative capital and relationship capital," says Stephen Plumlee, R/GA's COO and Ventures Managing Director. "The financial capital piece is very common for ventures and accelerator programs. We invest small amounts into the companies, and we get equity. [By creative capital, we mean that]

each startup gets hundreds of hours of time from a curated team chosen specifically for that startup. And the third component is what we call relationship capital. Our blue-chip clients come into these programs and work with the startups as mentors, advisors, and business partners."

The idea for a collaboration with the Dodgers sprang from two existing ties between the companies: Kain had served as a mentor in R/GA's Internet of Things program, and the ad agency had done data visualization work for the Dodgers.

"We both had this passion and focus on early-stage companies that were trying to innovate, create disruption, and make real change in various industries," says Kain. "We started talking about how we might be able to collaborate to bring the variety of resources that each of our organizations have into an individual program [for] early-stage companies." R/GA and the Dodgers ran the inaugural program together in 2015.

FINDING REAL PROBLEMS TO SOLVE

The Dodgers Accelerator is focused on tech startups creating products and services at the crossroads of sports, technology, and entertainment. In the first run of the program, the accelerator accepted 10 companies, carefully chosen by the Dodgers and R/GA to connect to some of the internal needs of both organizations.

"When you talk about bringing companies into the program, it really is an organization-wide effort to understand what problems these companies are trying to solve," says Kain. "What does that solution look like and how does it benefit the end users? In a lot of cases, people within our organization are the end users, and that gives us a pretty great line of sight into use cases and user stories."

Kain says it's not uncommon for the startups to form lasting partnerships with the Dodgers, post-accelerator. One startup that the Dodgers have continued to work with from the accelerator's first cohort is Kinduct, a data analytics company based in Halifax, Nova Scotia.

As Kain was recruiting startups for the first cycle of the accelerator, he was talking with colleagues at the team. "I got a call from the strength and conditioning coach of the team who had a pain point he was trying to solve, which was being able to digitally track, manage, and aggregate data on our players," he says. "This was a very clear use case and need on our side. That launched us into the process with Kinduct. We got to know the company, understood their broader vision, and realized that there was a pretty great fit for that company with what we were doing and how we could be helpful. So we brought them into the first program."

The Dodgers Accelerator workspace. The accelerator is located close to Los Angeles International Airport.

The program helped Kinduct refine its product, and eventually raise a $9 million investment round led by Intel Capital in 2016. Travis McDonough, Founder and CEO of Kinduct, says that participating in the accelerator was the "biggest and most influential business decision" that Kinduct has made as a company.

"It was a very exciting, collaborative, and

innovative atmosphere," says McDonough. "You had 10 companies, and dozens of entrepreneurs all in an open-concept office. Innovation and thought-provoking dialogue dripped from the walls... There was almost a training camp attitude. Everyone was there to learn, get better, and to try to improve... You took away so many important fundamental business principles after leaving every day of work. It really built the scaffolding for us for future successes."

McDonough says that since the accelerator, Kinduct has formed productive relationships with both the Dodgers and R/GA, and that the company has been on a solid growth trajectory.

"We probably had a dozen [professional sports] teams that we were working with [when we started the accelerator], but not in a really deeply collaborative way," says McDonough. "Since then, we've gone from probably 12 to 112 teams in the professional ranks, and it has been a steep curve ever since... Having a more public association with an organization like the Dodgers, it just bubble-wrapped us in credibility. It became a great leveraging tool to market it to other teams and organizations."

Plumlee says that R/GA has also benefited from partnerships created with some of

At the end of 90 days, participating companies give demo presentations on the field. Pictured above is the accelerator's first cohort.

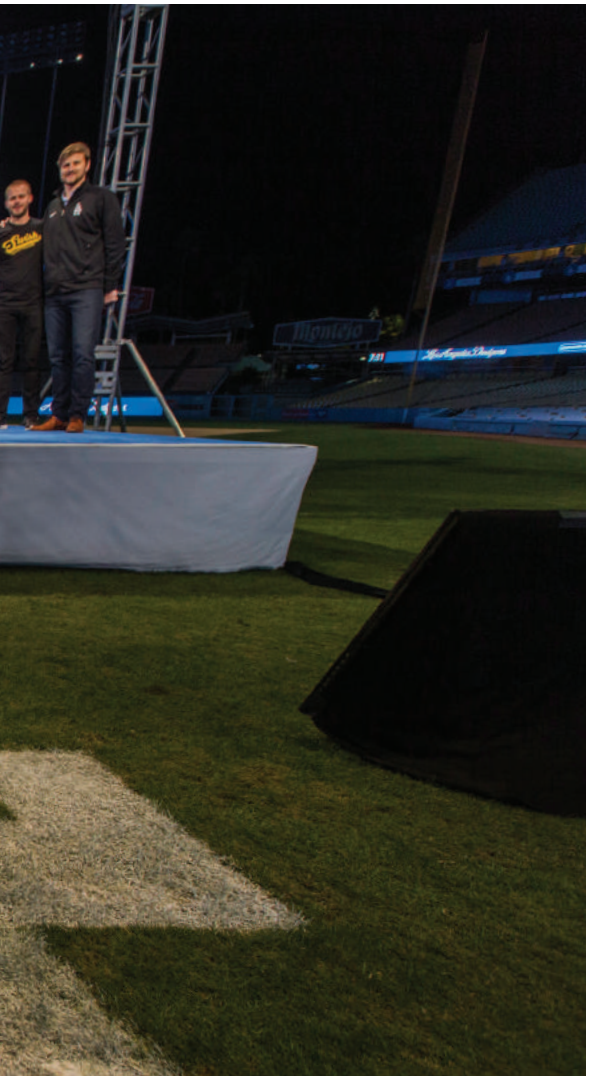
the startups.

"We work with many of the startups...in our core business," says Plumlee. "We bring them into our pitches for our own clients. We've implemented some of their technologies in our own space here in New York and elsewhere. The programs usually last 90 or 100 days, and during that time, we work very intensively with the companies. Even before a program, we spend three or four months doing outreach and deciding which companies make sense to have in our programs, so we become very familiar with the companies. By the end of the program, we know them very well. We know their tech, and we know what their service and products might be, and so we have a pretty good view into where we see opportunities not only to work with us, but more importantly to work with our clients. The programs function, in a way, as extended due diligence."

DON'T FORCE THE PARTNERSHIP

When it comes to trying to spur partnerships between larger organizations and startups, Kain says you can't force it; the startup needs to genuinely address a problem that the company recognizes it has.

"[We learned that a startup has to] be hyper-focused on the problem it is solving," says Kain. "It's not hard for a bigger company to bring a new, developing technology into their businesses if it really solves a core problem they have. We kind of identified that in the process with Kinduct. We had a clear demand, clear need, and so at some point, it's less about the company or the stage...and more about 'Can they solve the problem we have?' If you can be laser-focused on what value you create and how you bring that to bear in a way that your users and customers can capture it, I think the integration piece



kind of falls from that. If it's a scenario where it's unnatural or not a great fit, but you want to try and do it because of a variety of reasons other than the core business reason, that's where I think you start running into some potential problems and having difficulties integrating and getting buy-in from people."

SHIFTING THE FOCUS TO LATER-STAGE STARTUPS

The second cycle of the Dodgers Accelerator concluded in November of 2016, and the Dodgers and R/GA are now working to design the third program. Kain said they were intentional about building on the learnings from the first two cohorts.

"We've continued to innovate and iterate our own model," he says. "I think that's almost as important as anything we've done—making sure that what we do is truly speaking to the market and tailored to the needs of the companies, not something that's just programmatic."

One of the major changes they made was that the second class consisted of only five later-stage companies, instead of the 10 early-stage companies that made up the first class.

"What we realized was, at the very early stage, you're competing with more traditional accelerators that do company-building and help do the programmatic steps that it takes to grow a business from an idea," says Kain. "We [now] focus on a later stage where ideas have been solidified, products have been market-tested, and scale is in process or there's a clear line of sight to it. We can bring our networks to the process in a more targeted, consolidated effort and really work on business development, pilots, and things that can really prove product-market fit and opportunity for scale."

R/GA and the Dodgers put more work into carefully curating a class of startups, with an emphasis on bringing in ventures that could learn from one another.

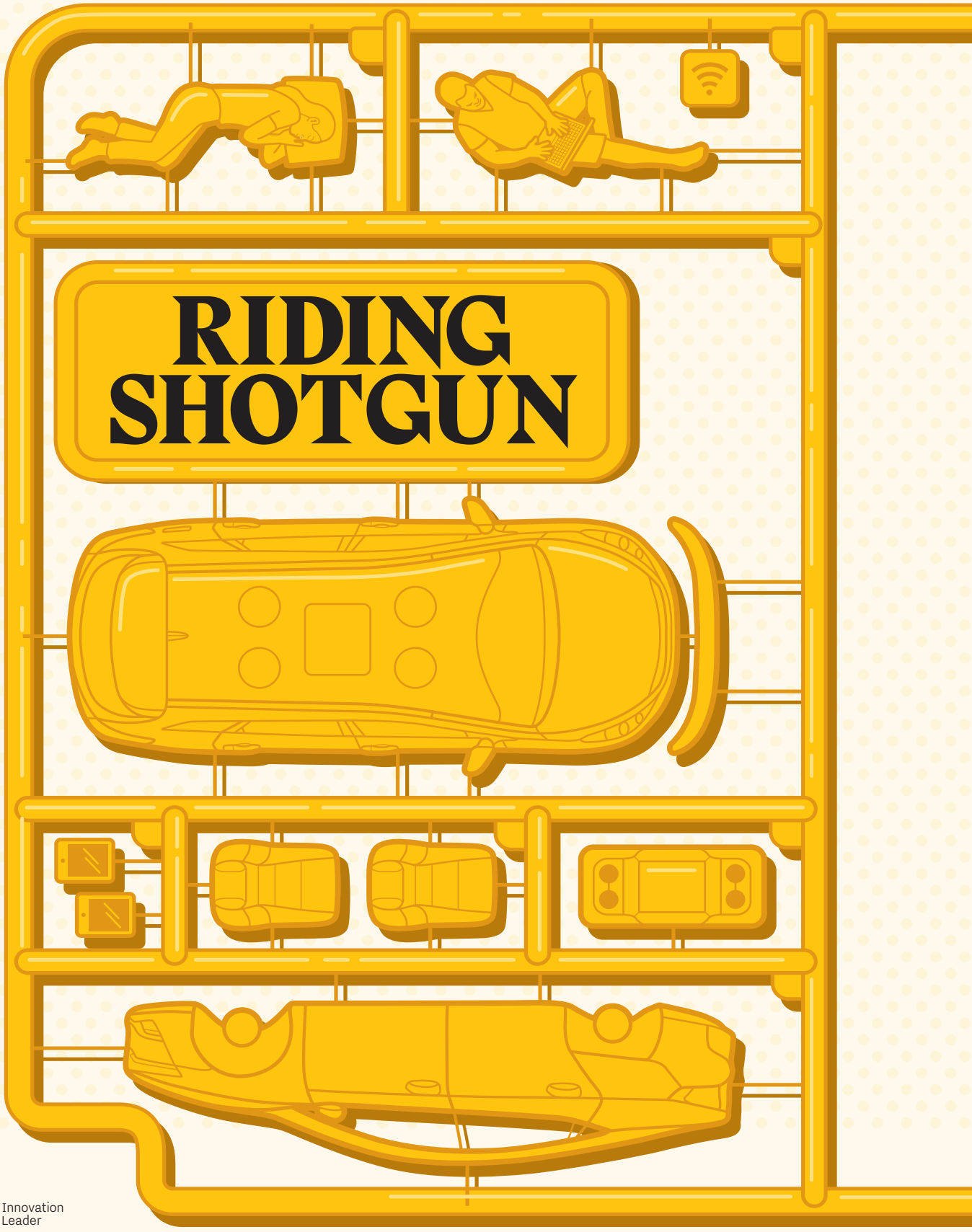
"We chose the companies [of cohort two] specifically around an idea about sports media," says Plumlee. "Three of the five companies—Keemotion, ShotTracker, and WSC—they're all in a complementary space. Keemotion does automated video capture, ShotTracker does automated data capture, and WSC does automated highlight reels. If you look at those three together, you're thinking about potential disruption of the sports media business, with applications way beyond just sports. We're curating companies or sets of companies around very specific ideas, rather than just a randomized collection of 10 startups."

And because the latest set of five companies were a bit further along in their evolution, they weren't required to relocate to Los Angeles for the duration of the program.

"In the first program, we asked companies to move to L.A. for three months," says Kain. "In the second program, we did not do that, because they're later-stage companies that were in the process of scaling and growing. We brought our network to the companies and helped them through strategic pilots."

So far, more than 1,100 companies have applied to get into the Dodgers Accelerator, and the 15 chosen to participate have raised $21 million in funding. As far as Kain and Plumlee are concerned, those are good stats to build on in the seasons ahead. ●

Stephen Plumlee of R/GA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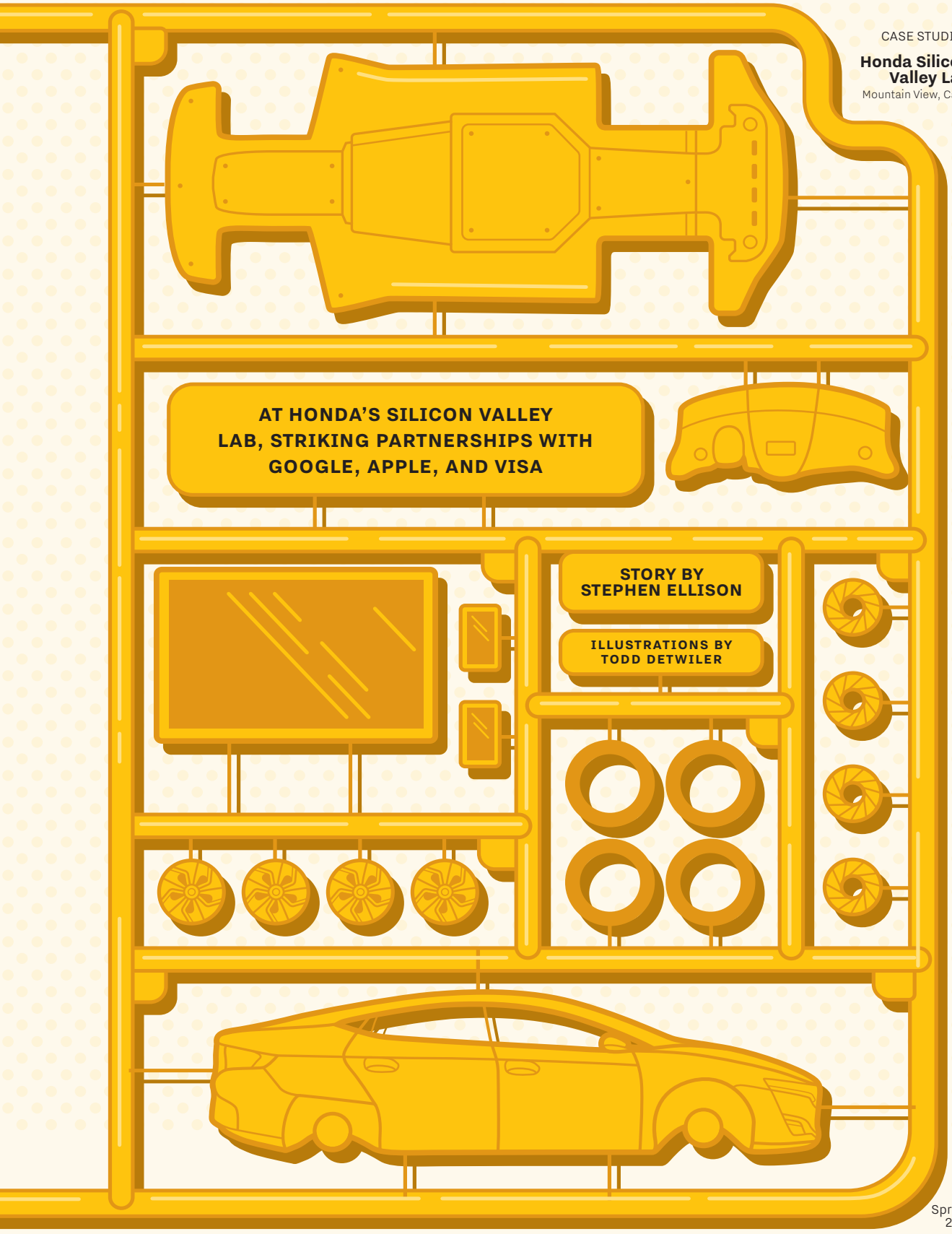


AT HONDA'S SILICON VALLEY LAB, STRIKING PARTNERSHIPS WITH GOOGLE, APPLE, AND VISA

STORY BY
STEPHEN ELLISON

ILLUSTRATIONS BY
TODD DETWILER

In Silicon Valley, the hype around autonomous vehicles and autopilot systems has been growing louder by the week. And Honda is determined not to be left behind: It has created a testing area with 20 miles of roadway on a former Navy base. ¶ But the carmaker's Silicon Valley Lab, not far from Google HQ in Mountain View, is also working on nearer-term goals: making the driving experience better and safer; connecting cars to the cloud; and bringing new kinds of apps and entertainment experiences into the vehicle. ¶ Naoki "Nick" Sugimoto is the senior program director at the Honda Silicon Valley Lab in Mountain View, California. His role involves seeking out and evaluating the latest technologies that could be applied to the automotive industry, as well as connecting with the startup community and crafting partnerships that can deliver value to Honda and its customers in a region rife with cutting-edge companies. Honda has had a presence in the Valley since 2000, but it opened a new facility in mid-2015. Sugimoto reports to Katsufumi (Kei) Nagatome, the Division Director for the Silicon Valley Lab.

While it began life as a computer science-focused research outpost, and then added a venture capital team in 2005, the Silicon Valley site is now a full-fledged innovation hub for the company. Sugimoto explained how it's set up.

AREAS OF FOCUS

Sugimoto's team is currently targeting four primary, overlapping areas:

1. **Internet of Things.** Connected vehicles will be a component of the IoT ecosystem, Sugimoto says, and Honda aims to create a cloud-based infotainment platform that can supply drivers with seamless access to information and media.

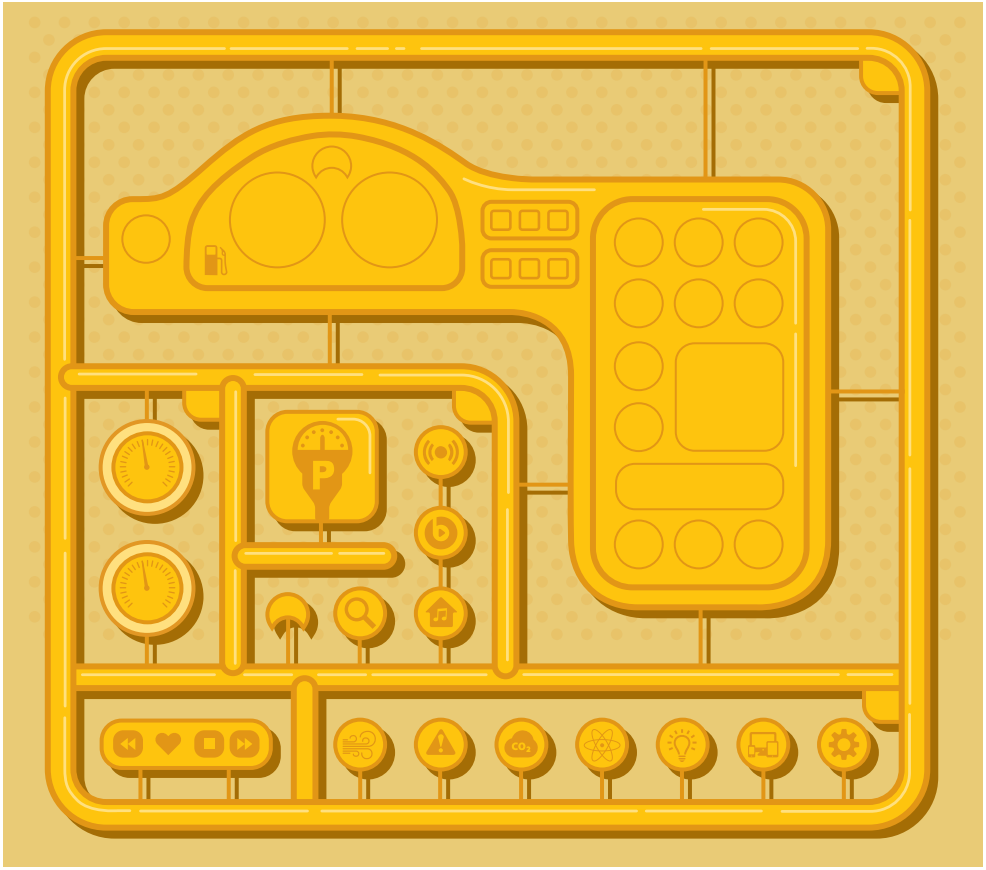
2. **Human-Machine Interface.** To make human interaction with Honda cars safer, easier, and more convenient, the lab team is working on prototypes of ideas that involve new kinds of sensors, displays, speech-driven applications, and tactile interfaces.

3. **Vehicle Data Business.** When the car is connected to the cloud, Sugimoto says, "we can actually see how those products are used ... and we can collect more data from our products." Then, the question becomes, "How can we use this data for the benefits of our customers in the future?"

4. **Apps and Content.** Honda is building a community of app developers and content creators. "Once our product becomes a platform for apps," Sugimoto says, "there will be many people interested in building the apps and that will create some new business opportunities.

ACCELERATING OPEN INNOVATION

The lab runs two programs that have helped to source innovations related to the above areas. Honda Xcelerator was established in July 2015 to provide resources for outside tech innovators. It supplies funding to create prototypes, mentorship, test vehicles, and a collaborative workspace "for tech innovators across all funding stages who seek to transform the mobility experience," according to the website. The second, Honda Developer Studio, was launched in November 2014 to get more software developers creating apps that would tie in to Honda's systems in vehicles—including not just automobiles and motorcycles, but also the new Uni-Cub "per-



sonal mobility device," a sort of self-balancing rolling chair for getting around indoors.

Working with Apple and Google has been a major focus for the lab in recent years. With Apple, Sugimoto's team launched a platform called Siri Eyes Free in 2013. It was the first product to come out of the lab, Sugimoto says. The project began with a conversation with Siri when it was still a startup, and Honda was seeking some sort of voice interface in its vehicles. When Apple acquired Siri and integrated it with its iOS, the project became much less convoluted on Honda's end.

"That was even better for us because putting the technology into a car takes a lot of time in terms of quality assurance—usually a few years," Sugimoto says. "But once it was put into the iPhone, all we needed to ask of customers was to bring their iPhone into the car—and we connect the iPhone to our car entertainment system. Drivers just press a button on the steering wheel, and Siri answers back through the car's speakers." (The feature initially launched in 2013.) Drivers feel as if Siri is riding shotgun and helping with their tasks, whether it's making calls, checking their calendar, sifting through emails, sending text messages, or playing music.

However, merely connecting Siri and the iPhone to the car wasn't a perfect solution, because all the commands and responses were still being displayed on the iPhone screen, which created a driving distraction. "So we asked Apple to turn off the screen and answer back by voice," Sugimoto says. "It's a special mode in Siri, and they named it Eyes Free mode because you don't need to look at it."

The lab continued collaborating with Apple to introduce even deeper integration with a technology called CarPlay, which launched in 2015 in the Accord and Civic. Essentially, CarPlay uses the car's dashboard screen to mirror what is available on the iPhone. "Our biggest concern was driver distraction, of

ADVICE ON PARTNERSHIPS

- Clearly understand and articulate the shared benefit of the partnership.
- Build trust through well-defined development goals and milestones.
- Agree in advance to how the resulting technology will be deployed and communicated.
- Be able to move at the same fast pace.

course, so we went through many testing processes and made sure it was acceptable from car industry standards," Sugimoto says.

Around that same time, the lab had been in talks with Google on offering similar technology for Android users. Sugimoto recalls the Internet giant's response to car companies back then: "No, we cannot do it because we don't have the bandwidth." As luck would have it, Honda lab's work in venture capital had created a connection to Android founder Andy Rubin, who was a senior VP at Google overseeing Android operations.

Rubin revealed to Sugimoto's team that he was involved with a private company outside Google working on that very idea, a company called CloudCar. Together they built a prototype car that connects with the Android phone, with all the applications—Google Maps, Google Play music, text messages, calls—rendered from the phone to the car. "Our product [people] got really excited, because Android was open source," Sugimoto says.

Honda's product team jumped on, and then Google decided to take over the project, creating a car team internally to see it through, Sugimoto says. The partnership shifted from CloudCar to Google, and Android Auto was announced at the 2014 CES. The product was launched in the Accord and Civic in 2015.

The lab developed yet another similar technology working with a small startup called Drivemode out of San Jose. Drivemode created an in-car user interface app, where a driver merely swipes the phone screen and can get functions like navigation, phone calls, and texts like CarPlay and Android Auto. The difference is it doesn't really use a car display—a user must attach the phone to the dash with suction cups or magnets.

From a safety perspective, Drivemode was not an ideal way for drivers to interact with information on the phone, Sugimoto says. "So we worked with the company to create our prototype product for cars and motorcycles without the need for touching the phone," he says. "On the steering wheel, you can actually use the Drivemode interface."

It's an alternative to a costly in-dash system that customers want, Sugimoto says, especially those in developing countries that may use only Android phones and may be new to car ownership.

RESOURCES FOR DEVELOPERS

The Developer Studio is another way for Honda to collaborate with entrepreneurs and developers on the next generation of in-car technologies, Sugimoto says. As with Xcelerator, the Honda Developer Studio provides external innovators with a number of resources, including funding for prototypes, test vehicles, a collaborative workspace and mentors, all with no strings attached.

It's an additional resource developers can use to accelerate their work, Sugimoto says. "What we are getting from this is an opportunity to see [what they're working on] and an opportunity to interact with them," he says. "And maybe some of their ideas are super-attractive to us and we may want to acquire them."

"From a developer's point of view, Honda is a great additional resource for them to use," Sugimoto adds. "We want to create that kind of win-win situation."

WORKING WITH VISA ON PAYMENT

The next product in the pipeline, Sugimoto says, is in-car payments, which entails a partnership with Visa. Teams from the lab and credit card company built a prototype app that runs in a smartphone and connects through Android Auto and CarPlay, Sugimoto says. It allows drivers to use their car displays as a payment terminal.

For example, when using a parking meter, a driver just sets the time they want to park and clicks a "pay" button at the bottom of the screen. "You don't need to get out of the car and take out your wallet," Sugimoto says. "And you can even get a warning [on your phone] about expiration about five minutes before [it happens]... so you can come back and pay—or, even better, you can do that from your phone."

"From a developer's point of view, Honda is a great additional resource for them... We want to create that kind of win-win situation."

"This is one example of a business opportunity that we created," Sugimoto adds, "and we are working with Visa to introduce this in our product."

Sugimoto also was excited about expanding the innovation program's reach, with a 2015 sponsorship of MassChallenge in Boston, a nonprofit incubator that brings together more than 100 startups in the Boston area, London, and Israel; and support for the November 2015 launch of OurCrowd, an Israeli equity crowdfunding platform. ●

Digital Collaborators

HOW GE FUSE IS PROTOTYPING NEW SOLUTIONS, WITH HELP FROM AN ONLINE COMMUNITY

STORY BY KELSEY ALPAIO

PHOTOGRAPHS BY PAUL ELLEDGE

At

Chicago's mHub, entrepreneurs, investors, engineers, and designers sit side-by-side. Nearby, 3D printers, laser cutters, and CNC machines work to crank out quick prototypes, while the in-house microfactory handles small production runs. ¶ This is home to GE Fuse, a new innovation platform and community focused on speeding up the development of new products for GE customers. Fuse is one of GE's many new approaches—from GE Ventures to GENIUSLINK and FastWorks, the company's internal lean startup initiative. GE's GENIUSLINK team, the company's open innovation and crowdsourcing experts, launched the Fuse business model. ¶ "The concept [of Fuse] is around sourcing different problems from GE customers and then working with an online community to solve those problems," says Amelia Gandara, the Community Leader for GE Fuse. "Once we have a potential solution, that's where I hand over these potential solutions to Deborah [Brown, Fuse's Rapid Prototype Leader] and her team, and they make those solutions a reality." Brown's role is to take potential solutions, prototype them, and then work toward getting a final product to the customer.

Amelia Gandara, the Community Leader for GE Fuse, works to engage and build Fuse's online community of problem solvers.

Deborah Brown, Fuse's Rapid Prototype Leader, works to take potential solutions, prototype them, and get final products to the customer.

Gandara works to engage and build Fuse's online community of problem solvers who ultimately help to address GE customer pain points via "projects" on fuse.ge.com. Within these "projects," there are different opportunities for community members, including brainstorm sessions, discussions, and challenges. Individuals or teams who submit a solution to a challenge have a chance to win cash prizes, have their solution prototyped and produced, and sometimes work alongside GE as their solution gets implemented.

We spoke with Gandara and Brown about the GE Fuse community, and the right and wrong ways to source solutions from an external community.

BUILDING THE COMMUNITY

"[Fuse is a] small team of four that operates out of a manufacturing co-working space," says Gandara. "That's part of the essence of what we want to do—bring the technical knowledge of GE and be surrounded by a community of other smart people, both physically and digitally."

When it comes to finding new community members to participate, Gandara says Fuse is still testing out different strategies. They've tried digital advertising, speaking at universities, and hitting the road to meet with possible community members face-to-face.

"We're reaching out and finding that our most engaged community members are engineers," Gandara says. "They're hungry for the context for the problems ... They want

CHALLENGES RUN BY GE FUSE

► **Speedy CT Image Delivery Challenge:** CT, or computerized tomography, is used to inspect objects during manufacturing processes in many industries to ensure they meet the desired specs. In many cases, thousands of large scans (up to 80 GB) generated daily need to be analyzed by offsite inspectors. The transfer of these large scans can take days, creating bottlenecks in the overall manufacturing process.

► **Consistent Images Challenge**: In the airline industry, routine maintenance of airplanes helps to make flying to your destination dependable and enjoyable. This routine maintenance includes periodic inspection of the airplane's engines. This challenge focused on ways to make the inspections more efficient and generate richer data for future maintenance activities.

► **X-ray Plate Adapter Challenge**: Historically, X-rays were cumbersome because they were taken and analyzed via film. Even with the arrival of digital X-rays, challenges still exist because of proprietary imaging capturing plates. This challenge is looking for ways to create a universal adapter for transporting X-ray imaging plates through a scanner.

to know what [a solution will be] used for, and they're asking for a ton of background information. They want to know that they're spending their time on something meaningful. And that's part of what we're doing by building this community."

The problems that are presented to the Fuse community come directly from GE divisions and their customers.

"The first group that's really investing in testing this out is within GE Oil & Gas—specifically, GE Inspection Technologies," says Gandara. "The first challenges we're focused on are around different inspection techniques, so even though the division is under GE Oil & Gas, we're inspecting everything from an oil pipeline that's in the field, to a pipe that's getting manufactured, all the way to jet engines that are taken out of service and have to be inspected."

When Fuse first launched, they published four "projects," or problems that GE Inspection Technologies was looking to solve for its customers. All four of these projects invited community members to participate in brainstorm sessions and discussion chats, but only one of the projects had an active "challenge." Challenges are where community members are asked to submit final solutions to the problem, sometimes with prize money attached.

While a challenge is active, the Fuse team works with GE subject matter experts to vet submitted solutions, and will eventually choose winners based on the viability of the solution.

"I'm really looking for the [solutions] that we can implement quickly," Brown says. "Even if they're potentially longer-term solutions, we would still take those ideas and pass them to a different research team. The message is we always want ideas to come in. The question then is, 'What can we prototype and manufacture to solve the problems our customers have?'"

DON'T PUSH FOR THE ANSWER YOU WANT

"Thinking about your customer is super crucial," Gandara says. "[The community] wants to understand a customer's true problem. And it forces us to not think about setting up a challenge in a way that we're already pushing people toward a solution that we think is correct. By properly discussing and relaying the customer problem and the pain point, it allows people to think through solutions from a lot of different angles."

WHAT HAPPENS WHEN YOU WIN A GE FUSE CHALLENGE?

There are several reward options for a team or individual who submits a winning solution to a challenge. GE Fuse provides monetary prizes, ranging from $500–$20,000 depending on the project. Additionally, Gandara says there are opportunities for challenge winners to form lasting relationships with GE.

"By properly discussing and relaying the customer problem and the pain point, it allows people to think through solutions from a lot of different angles. "

"We're trying to experiment as much as possible," says Gandara. "In the same way that we're experimenting with how we're finding different people who might be interested in being a part of the community, we're experimenting with the structure of our challenges as well. Our 'Consistent Images Challenge' for example, we have a two-fold path if you win. You can have an intellectual property exchange, or you can potentially go into a business arrangement where we'll have a joint development. We wanted to be very open to working with a variety of different people. We might have an individual who presents an idea and is very happy that they participated, but they have a full-time job or something else that takes up their time...We want to be able to work with those people. We just want to be as open to as many ways to get to a solution as possible, rather than restricting it to one challenge where we say, 'Hand us over everything; here's a prize at the end.' We believe there's a lot of potential. These relationships that we build with people might go beyond just the challenge into a co-development process."

MANUFACTURING WINNING IDEAS

"A lot of people have really creative ideas, but they don't necessarily know or understand what the manufacturing process would look like," Brown says. "And that's OK, because we do."

When a solution is chosen as a winner for a challenge, Brown gets to work with fellow GE engineers to start thinking about prototypes and the eventual manufacturing process.

"A big part of us being in this micro-manufacturing facility is to have the tools,

resources, and abilities right around us to [make products]," says Brown. "The products we're making are beyond what you would do with a DIY 3D printer. There's a metal machining shop, there's laser cutters ... We've got resources around us to actually make products."

And once a prototype exists, the Fuse team looks to quickly put it into a real-world environment.

"We've gotten to the point where we're saying, 'Hey, if we could put together a rough prototype, can we go out there and test it in one of our customer's lines?'" Gandara says. "And the fact that we're able to get to that point this quickly is a positive sign ... We're able to get to proof-of-concept much faster."

SOURCING IDEAS FROM A DIVERSE CROWD

While Fuse is headquartered in Chicago, the online community has been attracting participants from around the world. "We're in the middle of a judging phase right now, and ... we've seen a top group of entries from 6 different countries. And they're all coming from completely different perspectives. For example, with one of our most recent challenges, we thought we were iterating on a borescope, which is a tool used to inspect a jet engine. But just the way that people are thinking about it—they're iterating on different elements that we wouldn't have thought of by ourselves. Having that international perspective has been mind-blowing."

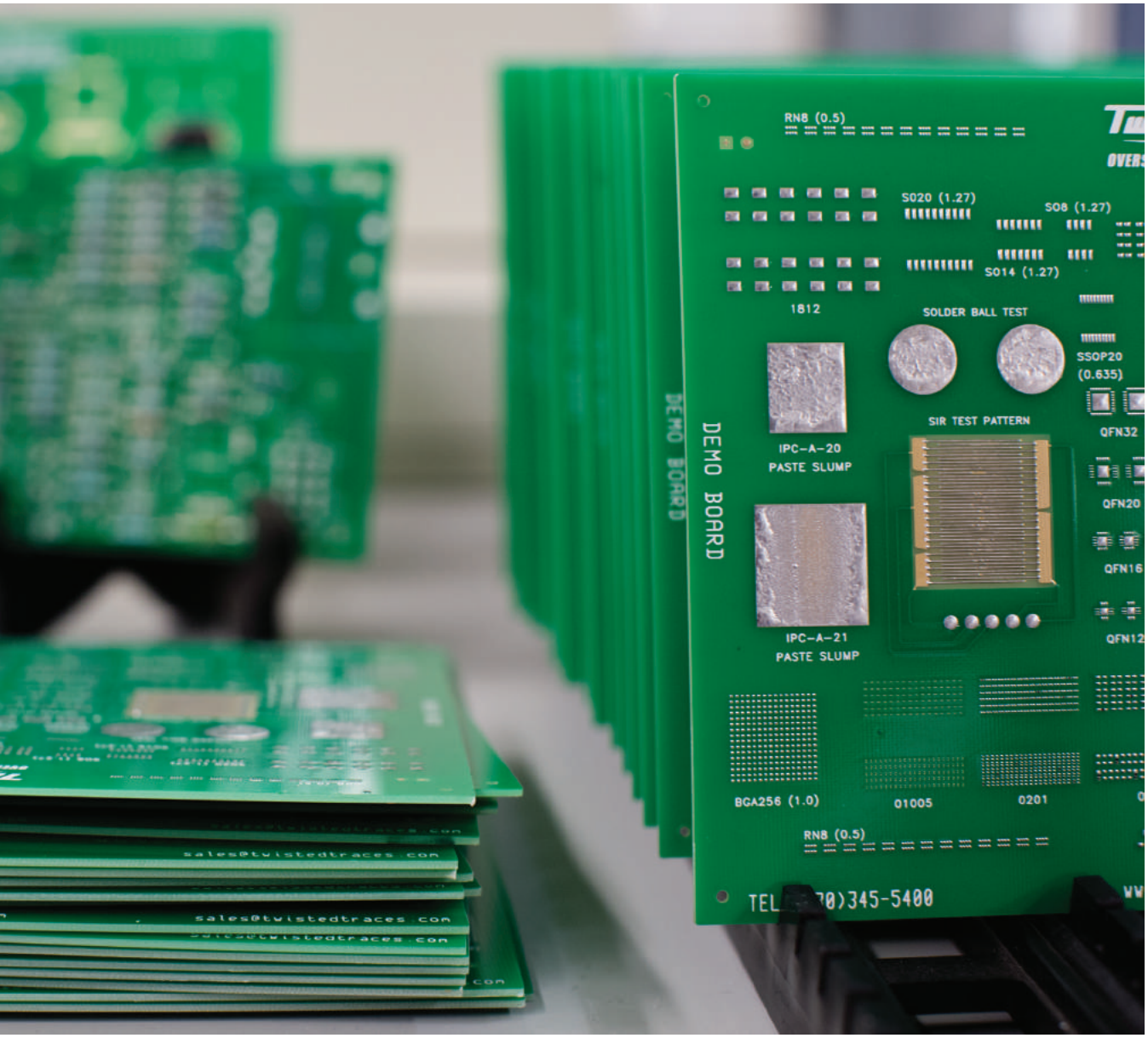
But Gandara and Brown says they try to put a blindfold on when it comes to selecting winners.

"Some of our teams are super young and some of them seem to be super experienced, but when judging it, I don't look at where the submission is from—whether it's domestic or foreign, the background of the person who's submitting it, or whether it's a team or an individual person," Brown says. "I really look at it for the technical material they're presenting."

QUESTION EVERYTHING, ITERATE FAST, BUT DON'T ALIENATE INTERNAL TEAMS

"We've learned to question ourselves, and question what we're doing and how we're putting forward these challenges," Brown says. "We're trying different scopes of challenges. Big challenges, little challenges, big prize rewards, smaller prize rewards, and I think we're learning ... what resonates with people. Being a smaller division, we can iterate fast. We [on the GE Fuse team] get together and we say 'What do we want to do? How do we want to run this challenge?' And then we clear it with legal and we're all good."

She continues, "We don't have to [say], 'Well everyone's not ready to meet until a week from Thursday, and that's when we're going to have our big committee meeting for how we're going to run this challenge.' Usually someone will just walk in and we'll start talking around our desks, which of course are all in a big open room, and the conversation can happen somewhat organically. We write a bunch of stuff on the wall and then Amelia



takes it and runs with it."

Despite their ability to iterate more quickly and make adjustments freely, the Fuse team still works closely with GE's internal product development teams, and believes that forging positive relationships with these teams is an important aspect of their work.

"We're out here to fail," Brown says. "We'll do a test and fail, test and fail. So by the time it gets to [GE's other product development teams] ... we have a clearer idea of how and what we will need to go into production... We're all learning through this together. I think any time you go to somebody and you say, 'We're here to solve your problem quickly,' there is definitely an openness to it. And a curiosity for what [the solution] is. I think within GE, there's a lot of curiosity as to how this is going to work."

"A lot of it is about the how you communicate," Gandara says. "What we're hoping to do is build strong relationships with our fellow product development teams ... We're here to test out what the product manager didn't have an opportunity to test out in the past. Maybe they would have loved to have taken this risk, but they didn't have the budget. So let us take that risk with you. We're working as partners, not competitors. We're not here to replace the brilliant engineers that already work at GE. We're here to help accelerate something." ●

Building for the

Innovation Leader

Future

SEEKING STARTUP PARTNERSHIPS AND SUSTAINABLE TECHNOLOGIES AT SAINT-GOBAIN

STORY BY KELSEY ALPAIO
PHOTOGRAPHS BY JASON GROW

Saint-Gobain
Northborough, Mass.

More than 350 years ago, Saint-Gobain, the Paris-based building materials company, was just starting out as a glass manufacturer. Their first customer wanted them to install the windows and mirrors in his new house. The customer? King Louis XIV. The house? The Palace of Versailles. ¶ Today, the company—a supplier of insulation, siding, roofing, and glass, among other products—operates in 66 countries and has more than 170,000 employees. So how has Saint-Gobain continued to innovate and change over the years? ¶ "There's an element within our DNA and within our R&D organization where we recognize that to be successful for another 350 years, which is our intent, we have to identify those things that are going to disrupt our current businesses," says Minas Apelian, Vice President of Research & Development and Global Director of External Venturing at Saint-Gobain and its subsidiary CertainTeed Corporation. "It's a balance between doing the work that we need to drive innovation across our existing businesses, developing new products, solving those problems, and then finding those things that are going to take us to the next level—that even threaten the existing businesses that we're in."

Todd DiNoia, head of Saint-Gobain's Northborough R&D Center.

One way Saint-Gobain is working to disrupt their businesses is through partnerships with various external incubators, accelerators, and startups. One such partnership is with the largest cleantech incubator in the United States, Greentown Labs, located in Somerville, Mass. Saint-Gobain is a sponsor and member of the Greentown Labs community, providing product donations, partnering with startups from Greentown, and using lab space at the facility to test new technologies. We spoke with Apelian and the Director of CertainTeed's R&D platforms, Todd P. DiNoia, about how the organization works with startups, partners with incubators and accelerators around the world, and promotes innovation internally.

WORKING WITH STARTUPS

One of the main programs Apelian runs as head of external venturing is NOVA, a unit dedicated to creating strategic partnerships between Saint-Gobain and startup companies across the globe.

"Primarily, what we try to find are opportunities where there's a synergistic relationship," says Apelian. "We have a lot of capabilities, we have market access, technical capabilities, as well as funding resources that can benefit a startup, and in turn, the startup can provide new ideas, inspiration for our teams, and help us to see new possibilities. We try to work together with them...and find ways we can both advance our interests. Sometimes it winds up [as an] investment, sometimes it ends up in joint developments, sometimes in a commercial agreement. ... We don't want to crush the startup. We're a $50 billion company, and so it can be a little overwhelming because we have to have governance and policies and procedures, which we need, but a startup doesn't exactly need the same thing. It's a bit of a fine line to walk, in terms of how to do that in a sensible way."

One startup that Saint-Gobain has partnered with through the NOVA program is the textiles startup, Brochier. Through this partnership, they created ONIRYS illuminated fabric, which combines fiberglass and fiber optics.

PARTNERSHIPS WITH INCUBATORS AND ACCELERATORS

Another way Saint-Gobain finds startups is by partnering with different incubators and accelerators.

"We try to find opportunities where the

Engineer Colleen McDowell works on roof membrane material in the lab.

Alan McLenaghan (left), CEO of Saint-Gobain SageGlass, and Minas Apelian, VP of R&D, at Greentown Labs, a cleantech incubator in Somerville, Mass.

incubator is proximate to us," says Apelian. "We want our people to be involved. It's great to support an incubator financially, and we're happy to do it, but it's better for us if we can become a part of that community. ...There's [also] proximity in terms of what the incubator is doing. Is it something where we can bring value, is it something of interest for us?"

A main focus of Saint-Gobain/CertainTeed's is creating sustainable building materials, which is what drew them to Greentown Labs.

If you're interested in developing "new energy-efficient sustainable technologies," Apelian says, "[Greentown Labs] is sort of center-of-the-fairway for us in terms of our corporate vision. Startups that come in and out of here are people with ideas that have the potential of fundamentally changing how you build buildings, how you design them, what they mean, and we want to be part of that. We want to help them to advance their ideas, and we're frankly inspired by what they do."

Saint-Gobain first partnered with Greentown Labs in 2014, agreeing to a two-year sponsorship where they would both operate and share research space in the Greentown facility and connect with the startup companies that are based there. .

"[Greentown Labs] is also uniquely positioned with their ability to prototype," says CertainTeed's DiNoia. "They are actually taking in startups that are building their first prototypes and products, so we're able to join them in the labs and help them on that piece of their journey."

Through this partnership, Saint-Gobain has collaborated with two Greentown Labs members in the form of investment, joint developments, or a commercial agreement:

Building Envelope Materials: A Greentown Labs start-up exploring innovative ways to improve the energy efficiency of old buildings.

Crowd Comfort: A startup that developed a unique and simple crowdsourcing application to gather real-time occupant input about comfort and other building information to improve efficiency and service levels. The Crowd Comfort app is currently being utilized at Saint-Gobain's Northborough R&D Center, in Northborough, MA.

The partnership between Greentown and Saint-Gobain was recently extended through 2019, as Saint-Gobain has agreed to provide product donations and building science expertise to support the construction of Greentown Labs' expansion site, the Global

Center for Cleantech Innovation. This new center, just a short walk away from Greentown's current location, will triple the size of the incubator.

Saint-Gobain also has significant partnerships with two incubators outside the US: Impulse Partners in France, which focuses on construction and energy, comfort in buildings, social housing, and more; and CUBO in Brazil, which focuses mainly on digital startups. Both partnerships have been in place for about a year.

INTERNAL INNOVATION AT SAINT-GOBAIN/CERTAINTEED

CertainTeed has five different product lines, each with its own R&D organization.

"Saint-Gobain has a large R&D center [in Northborough, MA]," says DiNoia, who leads the R&D group there. "The team there really focuses on upstream research, around the building space and the built environment. So we look at things relative to building science— energy, insulation, moisture, acoustics. Basically, any problem you would incur in an environment in a building."

The company also encourages individuals outside of the R&D centers to come up with new ideas.

"Projects start from the business," says Apelian. "We have strategies where we articulate a vision for where we see each business evolving. Then across our businesses, we have a vision around trying to build better living spaces, trying to find solutions for the world's problems. So, it's part following our insights around how the markets are evolving and part what the businesses are saying. But it's also a little bit about our own people looking at that and driving their own ideas, so challenging the businesses a little bit, stretching them and maybe making them even a little bit uncomfortable, and I think that tension is healthy."

There's also a mechanism in the company for allowing employees to submit ideas — and if they gain support, to leave their day-to-day responsibilities behind to develop them.

Apelian has only been with Saint-Gobain for four of its 352 years of existence. He knows there's the perception that a company with such a long history must be "a little bit conservative and slow moving," he says. "But there's a real passion to be able to encourage this kind of thing with the company. I think it comes from the fact of our long history of reinvention. [Innovation] is encouraged, and [DiNoia's] organization is trying to drive that within our North American building materials business, and we have pockets of it happening all around the company." ●

"We're a $50 billion company, and so it can be a little overwhelming because we have to have governance and policies and procedures, which we need, but a startup doesn't exactly need the same thing."

Engineer Aldo Glean tests acoustic materials in the lab.

Off-Road Robo

ots

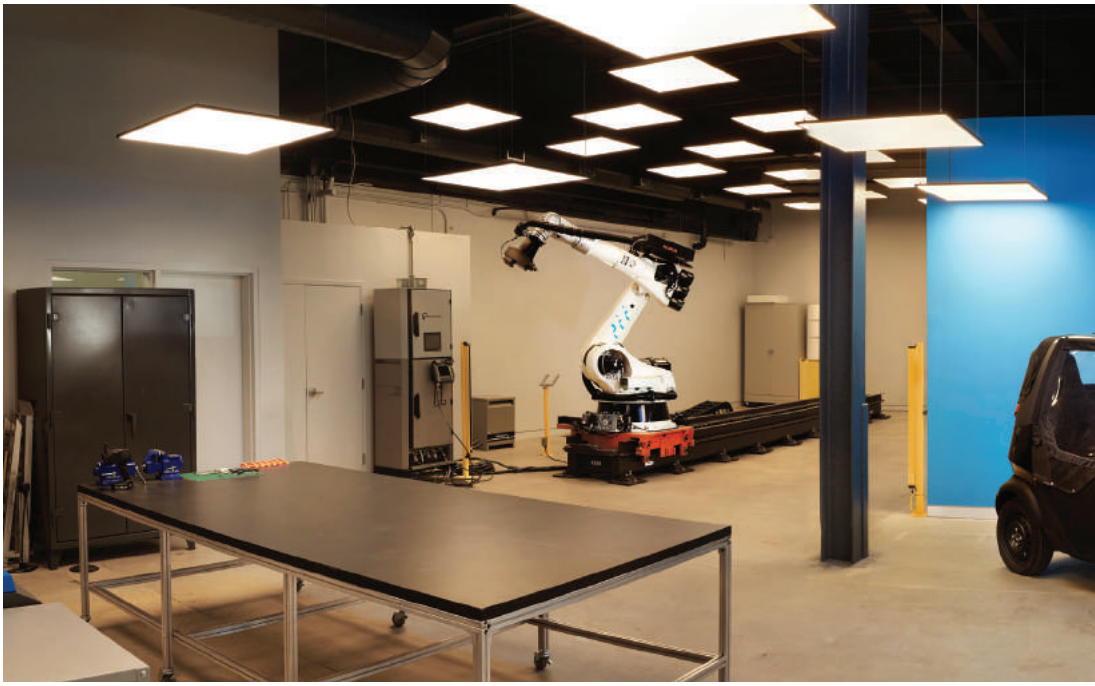
INSIDE A NEW LAB SET UP BY PIAGGIO, THE MAKER OF THE ICONIC VESPA SCOOTER

STORY BY SCOTT KIRSNER

Michele Colaninno is emphatic about what he didn't want from a new lab that the vehicle-maker Piaggio Group set up in 2015. ¶ "We didn't want to create just a think tank," says Colaninno, a director of Piaggio and chief executive of the company that owns it, Immsi Group. "We agreed that we must have an output that would be a physical product. It was not intended to be a research team." ¶ But while Piaggio, headquartered in Pontedera, Italy, is best-known for the scooters and motorcycles it produces—Vespa and Moto Guzzi are among its brands—the new lab, dubbed Piaggio Fast Forward, wouldn't necessarily be creating vehicles with two or four wheels that would travel on roads. "I don't think the evolution of mobility is still four wheels with an engine," Colaninno says. "The car is a 1900s idea." ¶ Among the challenges that Colaninno wanted Piaggio Fast Forward to explore were traffic congestion, pollution, and moving goods efficiently in dense urban areas—perhaps the next generation of a messenger zipping through gridlock astride a Vespa.

Gita, Piaggio's smaller cargo robot, travels at up to 22 m.p.h.—and can carry a case of prosecco.

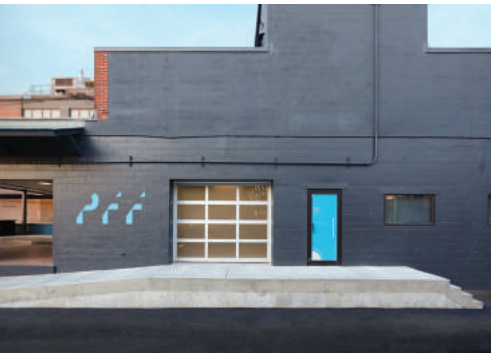
Piaggio Fast Forward
Boston



Piaggio Fast Forward's workspace is in an industrial part of Charlestown, Mass.

LOCATION AND STAFFING

Colaninno says that while Piaggio has operations in 100 countries, he wanted to put the new lab in the U.S.: "My customers are changing, and the U.S. is the place where everything started, in terms of consumer behaviors changing and retailing going from shops to the Net." They chose an industrial neighborhood of Boston, a city with deep engineering expertise, even though it has few ties to the automotive industry.



The leaders of Piaggio Fast Forward came from the worlds of academia, design, and entrepreneurship, and none of the 30 employees had previously worked for Piaggio. "Ninety percent of a success story is people," Colaninno says. "The team working here is perfect for analyzing the future, and understanding the customer needs for the future. It's a multicultural base, and multidisciplinary."

"We went around focusing on problems," says Chief Operating Officer Sasha Hoffman. "What pain points could we solve? Why don't people move more in cities? What are the limitations?" CEO Jeffrey Schnapp says that late 2015 was dedicated to "fully rendering and describing a whole set of conceivable vehicles. We gradually tried to shoot holes in them, and we got to Gita by process of elimination."

THE FIRST TWO PRODUCTS

Gita (pronounced jee-tah), the first product from Piaggio Fast Forward, is a cargo-carrying robot—or, as Colaninno calls it, "a productivity object." It can hold 40 pounds of payload, and it is designed not to travel independently, but to follow a human wearing a special belt. "We wanted to leverage humans as navigators, and create a high degree of comfort, so that this can be integrated into everyday life," says Hoffman. Gita travels at a maximum speed of 22 miles per hour, so it's fast enough to tag along with someone who is running or riding a bike.

"We wanted to be sure that the things it could do were meaningful—it isn't just a little shopping cart or a suitcase with a motor," Schnapp adds. "We want Gita to be an object like the Vespa was an object—it's functional, it does things, it's an efficient way to navigate tight spaces."

Piaggio Fast Forward unveiled Gita and a larger sibling, Kilo, at an event in Boston in February. (Kilo can carry up to 100 kilograms, or 220 pounds.) After showing an introductory video, Schnapp walked around the front of a gallery space, and Gita followed dutifully along—for the most part. Kilo carried gift bags for the attendees.

Pricing and a release date haven't yet been

announced; Hoffman says that the next six to eight months will be dedicated to "trying them out in a range of environments."

Colaninno envisions products like Gita and Kilo being helpful not just for a shopper carrying groceries home from the store, but also in a warehouse or factory floor. The robots can also perform security and surveillance tasks. For delivery purposes, a chain of Gitas or Kilos could follow one another in a convoy. Schnapp says the idea was to build "a platform for many things, not just solve one problem. Communities will hack them and do things we wouldn't even think of. My dream is that Gita becomes a 100 percent customized product, with customers asking us, 'Hey, PFF, can you do this with it?'"

Piaggio Fast Forward COO Sasha Hoffman (above left), and CEO Jeffrey Schnapp

INTERACTING WITH THE REST OF PIAGGIO

Piaggio R&D staffers from Italy have been traveling to Boston—and vice versa—as PFF has been getting up and running.

Hoffman says that Piaggio Group employees have been especially helpful on the design of Gita's braking system and balance.

"My major issue is making sure people speak to each other," Colaninno says. "It's the most difficult thing in managing a business."

And PFF has been consciously set up as a business. Every time that Colaninno or other Piaggio executives come to town, Hoffman says, "they ask about revenue, markets, business cases. They treat us like any of their other business lines."

Still, it's clear that PFF is focusing on the future in a way that's different from one of Piaggio's more traditional business units. "We wanted to create a space outside the fold of the parent company that would really be able to experiment with and model products for a world still emerging," Schnapp says. "It's not a world that travels on roadways—but it is a world where artificial intelligence and machine learning and robotics are all wedded to vehicle design." ●

INTERCEPTED!

A NEW INITIATIVE INSIDE JOHNSON & JOHNSON FOCUSES ON DIABETES—BEFORE THE DIAGNOSIS

STORY BY SCOTT KIRSNER
PHOTOGRAPHS BY GENE SMIRNOV

Ben Wiegand,
Head of Johnson &
Johnson's Disease
Interception
Accelerator

The pharmaceutical industry typically develops new drugs to help manage diseases. ¶ But a new project inside Johnson & Johnson posits a different model: what if you could identify people at risk of developing a disease, and create products to stave it off? ¶ The question is the driving force behind the Disease Interception Accelerator at J&J's Janssen Research & Development division in Raritan, New Jersey. It originated with Bill Hait, the Global Head of Janssen R&D, who wanted to test out a new paradigm for the pharma industry. Instead of "disease care," this would be true "health care." ¶ Already, notes Ben Wiegand, head of the Disease Interception Accelerator, there are a few examples of treating someone before they've been officially diagnosed. In one example, if a person has diabetes and high cholesterol, "we know that they're headed toward heart disease, and so we provide them a statin," Wiegand says. "We've made a tremendous difference in intercepting that disease before it happens. Same with aging and people having bone density issues—we give them Fosamax [to build bone] before they suffer a break."

GOING "OFF THE GRID" TO EXAMINE 80 DISEASES

Hait gave Wiegand, a former head of open innovation at J&J, free reign to "be off the grid, and be a separate group" in order to approach things differently. Governance of the new accelerator consisted of Hait and his Chief Financial Officer, Chris Picariello. "We make decisions faster than I ever have within J&J, and we have access to Bill 24/7," Wiegand says. "When we need to spend or make decisions, we have quick access to them. When we can show value creation, we can access more resources." They also keep the Chief Scientific Officer of J&J, Paul Stoffels, apprised of their progress.

"We wanted to explore what would the future of intercepting disease look like—the types of competencies and capabilities you're going to need," Wiegand says. Working with the consulting firm Innosight, Weigand says he began to "think through a 'future back' approach. Even though our first product might not hit the market until the 2020s, what are the success stories in 2016 and 2017 that will show that we're on the right path?"

A first step was examining more than 80 diseases to find those where there was a useful signal that could help identify people who were susceptible to developing a disease, and potential targets that a drug might hit to delay its onset. "We didn't want this to be a research exercise, and we wanted to avoid solutions that we would have to invent *de novo*, if we could," Wiegand says. That led to identifying six diseases "where we felt like we could identify people who were at risk, and we had at least a hypothesis about progression markers" that would indicate how quickly or slowly the disease was proceeding.

SMALL TEAM, LOW EXPENDITURES

The team, initially, was just Wiegand, who has a PhD in chemistry, and David Yazujian, who focused on strategy and operations. "We wanted to maintain a very small footprint because we're early in our process," Wiegand says. "We want to manage our capital outlay." In 2017, the DIA is just 11 of J&J's 127,000 employees. "We have lots of people at J&J with deep expertise, and very innovative people," he says. "At least 70 people are helping us on an on-going basis because they have ideas—they see this as the future. Our vision of transforming medicine resonates with people. They may send us people to talk to, or diseases to think about."

An early focus for the accelerator is Type 1 diabetes, sometimes called juvenile diabetes, which affects roughly 20 million people globally. It can be spotted early by examining a gene family called HLA, and Janssen is already conducting a clinical trial of a drug that is currently on the market for immune-related diseases, Simponi, to see whether the injectable drug can slow down the loss of pancreatic cells that secrete insulin; their death leads to problems processing sugar. "We're hoping to delay the onset while we work toward the ultimate goal: stopping progression toward the disease," Wiegand says, even if "the first thing out of the gate won't be the final solution." A phase two trial got underway in mid-2016.

The Disease Interception Accelerator seeks out collaborations with academic researchers and startups outside of Janssen's walls. "Today, we have 30-some collaborations in Asia, Europe, and throughout the U.S.," Wiegand says. "We want to work with the best people, whoever they are." The DIA's current model is

"one person per disease state," meaning one internal person searching out and coordinating with external entities; in the case of diabetes, the lead is Joe Hedrick, a former research leader at the JDRF, a nonprofit focused on Type 1 diabetes.

GETTING VARIED GROUPS TO WORK TOGETHER

To craft contracts for most of those outside collaborations, Wiegand's team got legal and finance help from the staffers at J&J's network of innovation centers, as well as other groups around the company. "We don't have our own contract, regulatory, or health policy groups," Wiegand says. "So we'll leverage J&Js infrastructure, until we hit critical milestones."

"When we talk to people outside the company, whether patients or consumers or doctors, they look at us as J&J," Wiegand says. "So they expect us to be working together. They assume there are no silos or divisions between the different organizations or companies here. That's what they expect, and that's what we're trying to work toward."

CONNECTING WITH PATIENTS

A big part of the DIA's approach has involved working with patients, patient advocates, and even people who blog about diabetes. Wiegand says he wants to build a community that will not only understand his approach, but provide input as the team tries to bring new treatments to market. The team has organized webinars and conference calls to explain what they're doing, answer questions—and ask questions of the participants.

"Most of these bloggers have kids with Type 1, or they're suffering from it," Wiegand says. "So we were trying to understand things like, what was your experience? When did you know you had the disease? If you would've known earlier, what would you have done? Would you have been willing to go through surgery? Take a medication? Would you help us get the word out? Now, even the Food & Drug Administration is looking for the perspective of the patient, and not just clinical data, when you submit something for approval. They want to understand what the trade-offs are. And we wanted to be sure the marketplace would be willing to accept what we were thinking about." Participants asked tough questions, and there was definitely some skepticism about whether the effort could succeed, Wiegand admits. But "we're trying to create a business not all by ourselves, but trying to get the community to come alongside," he says. That will take work, and the team is planning to organize another webinar for the patient community in 2017.

The DIA team is also working with national governments in countries like Singapore and Finland—countries that have a high prevalence of Type 1 diabetes, and have made high-profile commitments to develop treatments. "We're trying to get footholds in a few countries to prove that this model works, and then cascade it around the globe," Wiegand says. "Once you have those early proof points, it's easier to scale afterward."

Murray McKinnon, Global Head of Janssen Immunosciences (left), with Ben Wiegand and consultant Sandy Nissenbaum.

Diabetes isn't the only disease that the DIA is working to intercept; there are activities looking at cervical cancer, perinatal depression, cataracts, and others. And the expectation is that delaying—or preventing—the onset of disease won't just rely on pharmaceuticals, but may involve behavioral solutions, nutrition, exercise, or other approaches.

Bill Hait, the original catalyst behind the DIA, says that the project is delivering on his original vision. "The groundwork Ben and his DIA team have been laying during the last two years has the potential to change the way we look at health care forever," Hait says, "away from today's 'disease care' towards true health care in the future." ●

Guidance

4

Spring
2017

Karim Lakhani
Cambridge, Mass.

GO WITH THE CROWD

HARVARD BUSINESS SCHOOL PROFESSOR KARIM LAKHANI ON OVERCOMING RESISTANCE TO CROWDSOURCING

INTERVIEW BY SCOTT KIRSNER

PHOTOGRAPHS BY DIANA LEVINE

Karim Lakhani
Cambridge, Mass.

Karim Lakhani is one of the world's foremost authorities on tapping into the expertise of the crowd—whether that means employees, or all the smart people outside your walls. Lakhani is a professor at Harvard Business School and principal investigator at the Crowd Innovation Lab. He has also partnered with NASA, TopCoder, and Harvard Medical School to conduct field experiments on the design of crowd innovation programs. Lakhani was co-editor of the 2016 book *Revolutionizing Innovation: Users, Communities, and Open Innovation.* ¶ On a recent INNOVATION LEADER Live call, he discussed some of the cultural reasons people resist seeking solutions from the crowd; ways that crowdsourcing competitions can fail; whether to run competitions on your own or work with an existing crowdsourcing platform; and appropriate incentives. ¶ Lakhani also discussed the importance of having an implementation plan to spell out how you'll actually deploy good ideas and solutions that emerge from crowdsourcing initiatives. "Assume the solution

arrives," he said. "How will you test the solution, how will you implement the solution, and then what return will this give to you and your business, or in your operations?"

TWO WAYS TO THINK ABOUT THE CROWD

There are two categorical ways to think about crowds. One is to organize the external world—external innovators—in a community. One of the most successful examples of that we've seen has been in open source software.

Here, people self-select and choose to work on projects that they like, and contribute their code. When I first studied open source almost two decades ago, nobody thought that this was going to have any staying power or any kind of an impact in the software industry, which was at the time dominated by Microsoft, and by Sun, and by Oracle.

Today, of course, 20 years later, we now have Facebook, and Apple, and Google, both consuming lots of open source, but also contributing back to open source. The entire cloud computing infrastructure...has been helped by open source.

The other model [for crowdsourcing] is a prize-based content model, where a company or an organization has a problem that needs to be solved and is willing to pay money to people from outside the company to go at it. If you are successfully able to solve the problem, the company will pay you cash in return for the IP of the solution that you have generated.

I started looking at contests in crowdsourcing types of settings in 2002, when there was a burst of activity with companies like InnoCentive and TopCoder being established for science, engineering, and computer science problems.

WHERE DOES RESISTANCE COME FROM?

Our lab has now shown, in a variety of settings—Harvard Medical School, the Broad Institute for Genomics here in Cambridge, Pfizer, Scripps Research Institute, with NASA—[that the crowd is] cheaper, faster, better than the folks inside those companies.

Even in providing these unquestionable results, there's still a tremendous degree of resistance. I think I would put the resistance on [four] dimensions.

Everybody thinks that their problems are special to them and nobody else inside the world would be able to solve them. Everybody's their own special snowflake. They go, "We're so specialized that there's no way anybody else could help us."

The second is [that] there are always concerns about intellectual property and about secrecy. "If I reveal this stuff, my competitors will find out what I'm working on, and that's going to be dangerous, or that somehow I'm going to lose my IP rights on this as well."

In both those cases, I think they're actually categorically wrong. Most competitors already know what other people are working on. If I was to ask anybody who's on this call, "Tell me about your competitor. Tell me what they're working on. Who's working on those problems?" Most will be able to tell you those things.

[But] even if you learn that competitor X or Y is working on something, the amount of time it takes for you to replicate ... it actually is nontrivial.

This worry about competitors finding out is legitimate, but ... I don't think it stands to scrutiny. On the IP side, what I say is, "Look, both contests and communities are based on contracts." You establish contracts...as a sponsor of either contests or a community.

Because people volunteer their efforts, then the IP rights are based on what you feel the most comfortable about, and what you think is going to both encourage people to participate, and also allow you to capture value.

The third element is really a sense of identity. If you are a scientist, or an engineer, or a technologist in a company, you are going to be highly skeptical ... "What, some kid in Estonia is going to solve my problem? How can that be?" The NASA guy would say, "Hey, I'm the rocket scientist. There aren't too many people that can have access to microgravity. There's no way somebody will understand these problems or will be able to solve them."

The last thing is that the model of going to the crowd and waiting for a solution is inconsistent with the way we've run our own organizations.

Inside of our organization, there's a manager who defines a problem, who says, "OK,

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Jenny, Jim, and Joanne are going to work on these engineering challenges. I'm going to have a schedule. I spent a lot of time and effort thinking about hiring these people. I pay them. They are going to check in with me. Hopefully, stuff will get developed."

That top-down process is turned upside-down [when] we say, "I'm going to just put out a challenge, an incentive for the program, and I'm not going to care who gets to work on them. I'm not going to even limit who gets to work on these things. Somehow I'm going to get a working solution."

The dominant paradigm is a top-down one. A bottoms-up paradigm actually is very jarring. When you try to convince people that this is actually a legitimate way to organize, that also causes resistance, as well.

WAYS CROWDSOURCING CAN FAIL

A good example of community failure is if all you care about is the benefits to you as a company, and not to the people that are participating.

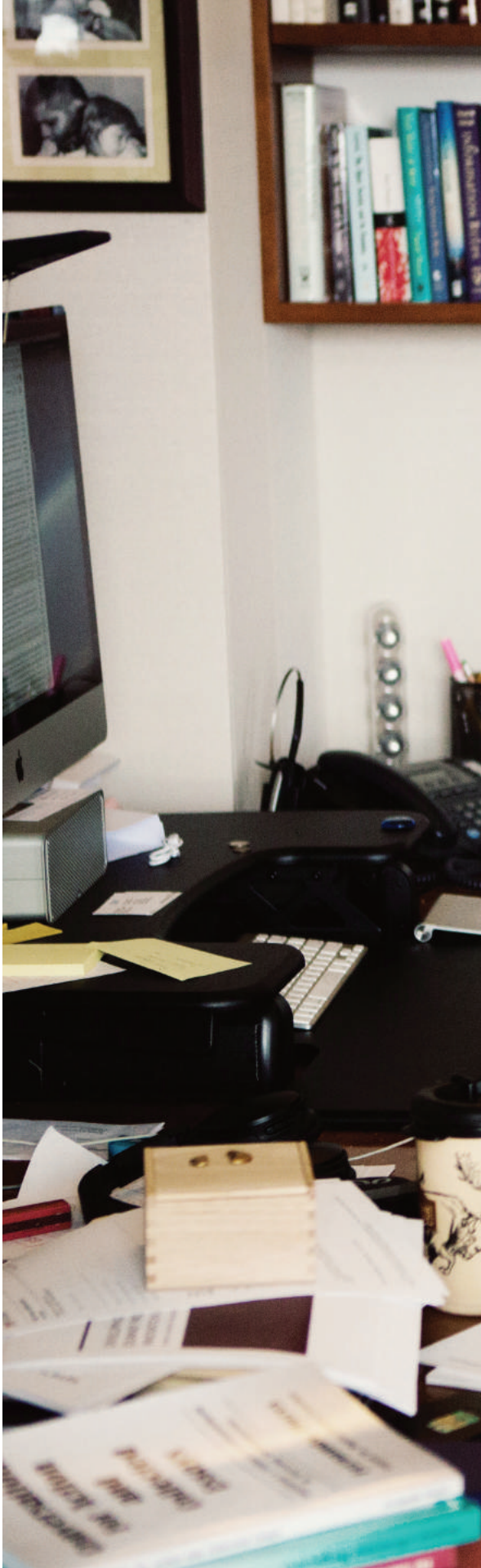
Let me give you one anecdotal example of it. Facebook, when it was starting up, was literally able to get language translations done for its entire website through a community effort. They said, "If you know a language, go on and translate these pages for us," and people did it.

And as they were scaling, they had enough contributions that they could cross-verify the translations through machine learning and say, here's the best translation for all the different features that they had on their website.

"If you are a scientist, or an engineer, or a technologist in a company, you are going to be highly skeptical... 'What, some kid in Estonia is going to solve my problem?'"

LinkedIn saw this and thought, "This is a great idea." But what they said is, "You have to apply to become a language translator. We're going to screen you." ... You are now making [it] a manager-employee relationship. That's not what this is. This is voluntary effort.

Just this one small tweak, they had so much outrage about this. This is about seven or eight years ago. [There was] so much outrage about the fact that LinkedIn was trying to get labor for free, but they wanted a manager-employee relationship with these folks. It just collapsed. The story has to be, when you're in a community setting, it really

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has to be one of value-sharing.

You're going to generate a bunch of value, and the participants need to be able to share in that value as well. For example, in open source communities, a big sign of failure that we see often is that when the company decides to have a private process by which they will admit code.

That lack of transparency destroys value for the community members, because then they just don't know how their efforts are going be returned into the working product. That can lead to failure. Again, the failure in communities is that we try to manage communities like we manage our employees.

The issue is that in the community setting, we have volunteers who are working on these challenges for intrinsic motivations, because they love to do these things; for extrinsic motivations, because they want to use a product or demonstrate to the world that they're good at making this product; or for social reasons, because [of] the mission.

On the contest side, one big failure we see is that we don't provide enough incentives for the challenge at hand. When I say cheaper, faster, better, we objectively are cheaper—almost a third or a quarter of what it might cost to be done internally, in terms of costs to create the software code that we develop through a contest. But you can't say, "Find me a cure for cancer and it's worth $10,000."

"On the contest side, one big failure we see is that we don't provide enough incentives for the challenge at hand...You can't say, 'Find me a cure for cancer and it's worth $10,000.'"

You have to respect the fact that if you are [working on] big problems, you are going to then provide ample incentives for people to benefit from them. In some cases, you as a company will extract the vast majority of the benefits because you have some specialized assets...

But you still need to be cognizant of the fact that people need to be rewarded both for the effort that they're exerting if they win, but also as a sign of respect. ...Your effort, if it's successful, is worth something.

HOW TO GET STARTED WITH CROWDSOURCING COMPETITIONS

[If you're] a company starting off in the prize setting, I would [recommend that you work] with these pre-existing platforms like Kaggle for data science, InnoCentive for scientific problems, TopCoder for software problems, Tongal for marketing challenges.

They already have hundreds of thousands of people, or millions of people, on their platforms that can absorb these challenges. If you are going to go on your own, and there are companies that do that, then make sure that you have the right marketing strategy to attract people to the problem.

For most companies, you're better off using these pre-existing platforms, because what do the platforms do? The platforms provide the crowd. They provide a mechanism to transfer money to somebody in Estonia and transfer IP back to you, and also expertise on designing the problem as well. That is part and parcel of what the platforms provide.

Even in our work [at the Crowd Innovation Lab at Harvard and with NASA], we never decided to build our own crowd. We've used InnoCentive, Kaggle, and TopCoder to help us reach the folks that they already accumulated so we can get our problems solved.

IMPLEMENTING WINNING IDEAS

We've been working with NASA for the past seven years now with their human exploration program. We have stuff now flying in the space station that we've developed through a contest platform—a food intake app for astronauts, how to best position the solar panels on the space station, how to better run their robotic arms, and so forth. When we first started working with companies and with NASA as well, what we noticed was that everybody wanted to pilot the project. They would say, "OK, I'm not sure this is going to work, so I'll just give a little funding and we'll see if it works." Then it would work. Then they're like, "Well, we're not ready yet to take this new approach and bring it into our organization."

After a year's worth of banging our heads against this, we said to our NASA colleagues and our NASA partners, "We're not going to help you run any challenges unless there is actually an implementation plan. Unless you know that once a working solution shows up—what will you need to do to actually implement this?"

... You need to force the sponsoring organization to really say, "Is this even worth it for me? I may have the funds [to run the

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challenge], but if it's not worth it for me to implement, then why am I even doing this?"

That's a nice filter. Assume the solution arrives. How will you test the solution, how will you implement the solutions and then what return will this give to you and your business, or in your operations?

The other part is that it gets the value story straight, but it also highlights what form of solution needs to come so that, in fact, it can be dropped in with minimal changes.

There are two reasons why the crowd process works so well. One is, we just simply get more shots on goal. For any problem we can get 30, 40, 50, 60 solutions, so if you think about it as a normal distribution of solutions, we can find the tail of solutions—those really high value, extreme value solutions, [with] lots of people working independently, versus any one company working on a problem... We just get more shots on goal, and we can achieve a high value solution this way.

We also get diversity. We get many different types of solutions. Sometimes what happens is that the companies go, "We never thought about a solution this way. This is a really good idea, but we don't have any way to implement this solution within our structure, so we now need to make changes to our processes to be able to adopt that."

WHO OWNS THE IP?

The best practice is that [the IP is] owned by the submitter until the prize money transfers. If you give the prize money, then the IP transfers over to you.

You could say, "I get exclusive use [of the IP]," or you could say, "You can use it for these kinds of applications, [as] the submitter," or you could say, "You can use it for whatever you want, but I get use of this solution as well."

TO SEE THE SCHEDULE OF UPCOMING INNOVATION LEADER LIVE CONFERENCE CALLS, VISIT WWW.INNOVATIONLEADER.COM/IL-LIVE

PRIZES AND INCENTIVES

I've just done a bunch of projects for internal innovation in some organizations. Let me just put on my professor hat for one second and tell you [that] what happens in an internal contest is you're asking people to work on a project for which they're not being paid. You're basically asking them to create an internal public good. All the economic theory says that public good creation needs subsidies. I have my job. I'm working 9:00 to 5:00. I'm working 9:00 to 9:00. All of a sudden the VP of Innovation comes to me and says, "Hey, I've got a great idea. Work on this internal challenge." I'm like, "What? Maybe I'll have motivation to do that, but the company needs to offer something as well." We've run field experiments inside of companies where we've seen that providing even an iPad goes a long way to drive participation.

Because you want to both signal the importance of this and the seriousness of this, but also it's a way to subsidize the effort that people are going to be making towards this and subsidize the public good creation.

I would recommend prizes—varied amounts of cash prizes. It doesn't have to be exorbitant, but it still has to be significant. But [you] also want "priceless prizes" as well. "If you win, you get to present your ideas to the executive committee." "If you win, you get to have dinner with our chairman." "If you win, you can take 20 percent of your time and work on this project, and we'll give you funding." There are many different ways to incentivize effort for internal things as well.

DEALING WITH 'NOT INVENTED HERE' SYNDROME

I work with our Harvard Medical School scientists to tell them that there is going to be somebody smarter than them outside the Harvard universe. They're like, "Come on, Karim. Don't waste our time."

What we say is, "Hey, let's just run the experiment. Let's just take a reasonable problem that you guys are working on, and let's put it out there. If it doesn't work, then great, you were right. You were perfect. If it does work, then we can go back and reevaluate our priors, and see if this is actually going to be useful at all."

I would recommend two things. One is to have a pilot strategy. Create the pilots, and pitch this as a complement—it complements their work, it's not a substitute for their work.

For any given problem, if you go out to an appropriate platform, you get to see the entire universe of solutions that exist. All of a sudden, for any one problem, you are now up to speed on all the different approaches that could work.

If you get a working solution—great, awesome. If you don't get a solution, then all of a sudden what you realize is that you now know all the different pathways that are not going to work. Either you come up with a better pathway, or you need to redefine the problem. That, in itself, is so useful when we're innovating. ●

INNOVATION LEADER **UNDERGROUND**

The Innovation Leader Underground is a small roundtable series for selected senior executives working in innovation, strategy, and R&D. By creating a confidential and off-the-record space, and facilitating highly-participatory conversations, we're empowering executives to share recommendations, insights, and guidance with one another. Participants will be asked to contribute topics and challenges in advance of each meeting so the agenda is relevant.

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UNDERGROUND

BRING ISSUES.
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Online Training Options

GOING GLOBAL WITH INNOVATION EDUCATION
BY SCOTT KIRSNER

ONE OF OUR MEMBERS in the financial services industry had a question recently about delivering online innovation education to a global workforce. She was considering both pre-recorded online courses as well as vendors who could conduct live virtual training. ¶ "We are primarily targeting training and learning resources for our broad, general employee population," she wrote, "but also looking at leader-level content as well." ¶ Here are the top options recommended by other members. (Note: As with all of our research efforts to gather information on behalf of Innovation Leader members, sponsors had no involvement with this project.)

IDEO

Design firm IDEO offers several online courses through IDEO U (most priced at $399), including "Insights for Innovation," which focuses on gathering the insights that fuel innovation; "Storytelling for Influence"; "Leading for Creativity"; and "From Ideas to Action," about prototyping and iterating.

www.ideou.com

INNOVATOR'S ACCELERATOR

Innovator's Accelerator provides access to webinars from leading innovation thinkers like Clay Christensen of Harvard Business School and Hal Gregersen of the MIT Leadership Center. The Accelerator is part of the Apollo Education Group.

innovatorsaccelerator.com

UDACITY

Udacity offers a free course on "How to Build a Startup" that introduces participants to the Customer Development Process and other principles of lean methodology.

www.udacity.com

CULTUREVATE

Culturevate offers training and a library of resources, templates, and book summaries for participants.

www.culturevate.com/innovation-solutions/#education

HBX

HBX, the online learning arm of Harvard Business School, offers a course in "Disruptive Strategy" created by Clay Christensen. Course is delivered over six weeks, and priced at $1,500.

hbx.hbs.edu

THE UNIVERSITY OF MARYLAND

The University of Maryland offers a set of five courses through Coursera (starting at $49 each) called "Develop and Launch Innovations within Corporations," focusing on topics like identifying opportunities, developing the business model, and getting others within the organization to think more entrepreneurially.

www.coursera.orgs/solutions

FUTURETHINK

Futurethink offers on-demand innovation training resources, including podcasts, videos, and PDF worksheets.

www.futurethink.com/tools

CONTENEO

Conteneo offers online courses in its "Innovation Games" approach to improving customer understanding.

conteneo.co/training

THE RISE GROUP

A member at a large consumer packaged goods company told us that they've used The Rise Group "to custom design some e-learning/webinar modules for us, to supplement the face-to-face course we've designed with them for innovation practitioners. We didn't look too hard at outside on line training, as we wanted this customized to our [particular] approach and tool kit."

www.therisegroup.com

COMMENTS FROM MEMBERS

"I think if you have dedicated internal innovation managers/leaders who are responsible for understanding and vetting the online resources and tools, as well as sustaining application of the innovation tools and methods beyond the initial online training experience, Futurethink and Culturevate are good resources."

"I don't believe you can have meaningful change and impact in the organization by simply telling everyone to take an online training course or read an article. Practical application to their specific projects and tasks in real-time is a must for people to change how they approach their day-to-day work."

INNOVATION PROGRAM LEADER, LARGE MANUFACTURER

"Our curriculum does have external, non-customized online offerings, specifically the IDEO online courses and Steve Blank's Lean Launch Pad class on Udacity. Of the [three online courses our member was initially considering], I think Innovator's Accelerator is the best."

INNOVATION CENTER HEAD, FOOD PRODUCER

"We looked at Culturevate and Innovator's Accelerator too, but we found them more theoretical than practical and that wasn't what we were aiming for."

INNOVATION VP AT A MAJOR INSURER

"We … piloted [Innovator's Accelerator.] The content was good, but the employees could not find the time to complete the work, and preferred a format where they could engage with each other."

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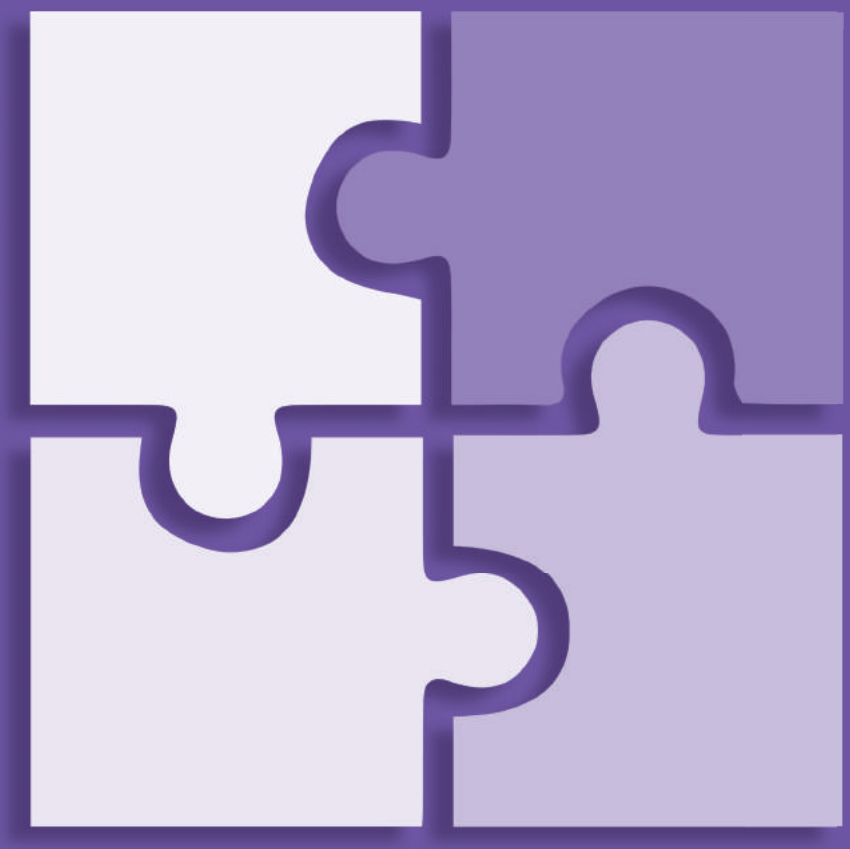

INNOVATION LEADER **THE NETWORK**

The Network is a one-day event for experts working in the world of corporate innovation. This includes consultants, software providers, authors, keynote speakers, workshop and seminar leaders, and other professionals.

Many professionals in this world tend to refer business to one another. We want to amplify that with a high-quality in-person event, as well as an online directory that participants will be able to refer to afterward.

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Sopheon's Accolade® software, services and best practices provide end-to-end decision support and process automation for the entire innovation management, new product development and strategic initiative lifecycles. The end result is business agility and increased performance of innovation investments required for long-term relevance in a fast-changing market. For the first time, businesses can access a single source of the truth across strategic innovation planning, roadmapping, idea and concept development, process and program management, portfolio optimization, resource capacity planning and in-market management.

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Spigit is the #1 ideation management platform, and enables you to harness the collective intelligence of your employees, customers and partners to solve today's problems, maximize tomorrow's opportunities and accelerate innovation.

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Strategos is a strategy and innovation consultancy founded by a group of talented professionals and Professor Gary Hamel. For over 20 years, we have helped clients across the globe developing game changing strategies, identifying opportunities for growth and embedding innovation at the heart of their organization. Our approaches, methods and tools enable a creative and systemic approach to strategy and innovation that have been time tested and proven to deliver results.

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Venture2 is a growth and innovation consulting firm with a unique ability to bridge strategy, capability-building and organizational transformation. Our clients include some of the world's leading corporations across a variety of industries. They rely on Venture2's specialized innovation and business process expertise, entrepreneurial methods and connections, and unparalleled implementation experience to deliver sustainable growth.

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INNOVATION LEADER FIELD STUDY

WASHINGTON, DC

The latest in Innovation Leader's series of Field Study learning expeditions takes 50 participants to Capital One's innovation lab, Marriott's "Underground" prototyping space, Lockheed Martin's Global Innovation Center, the AARP's new collaborative innovation center known as "The Hatchery," the 1776 startup incubator, and other sites and locations.

WWW.INNOVATIONLEADER.COM/DC2017/

▸JUNE 13-15

FEI EUROPE

LONDON, UK

FEI Europe 2017 focuses on the innovation process, from ideation through execution. Featured speakers include executives from PepsiCo, Airbus, Tesco, and Swarovski, as well as renowned composer Hans Zimmer.

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▸JUNE 19-21, 2017

INSIDE/OUTSIDE INNOVATION SUMMIT

LINCOLN, NE

A three-day experience bringing together startups and large companies, focused on questions like "How can startups and corporates engage each other to drive value?" and, "How do you identify and capitalize on the technologies & trends that are redefining markets?"

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▸JULY 14, 2017

THE NETWORK: AN IL SUMMER OFF-SITE FOCUSED ON GROWTH, COLLABORATION + BIG IDEAS

BOSTON, MA

A one-day event for experts working in the world of corporate innovation. This includes consultants, software providers, authors, keynote speakers, workshop and seminar leaders, and other professionals. The goal is to help participants grow their businesses and share what they're doing, seeing, and learning.

WWW.INNOVATIONLEADER.COM/THENETWORK

▸SEPTEMBER 26-28

INSIGHTS LEADERSHIP CONFERENCE

PALM BEACH, FL

The gathering spotlights what it takes to succeed now and identify what research firms must do to excel in the future. What skills must your employees master? Does your corporate culture need an attitude adjustment? How do you reconcile required scientific rigor with the need to test new methods and technologies? How do you meet the shifting expectations of clients? Featured speakers include Innovation Leader editor Scott Kirsner and Amy Webb of the Future Today Institute.

WWW.INSIGHTSASSOCIATION.ORG/CONFERENCE/2017-INSIGHTS-LEADERSHIP-CONFERENCE

▸OCTOBER 11-12

INNOVATION LEADER TEACH-IN

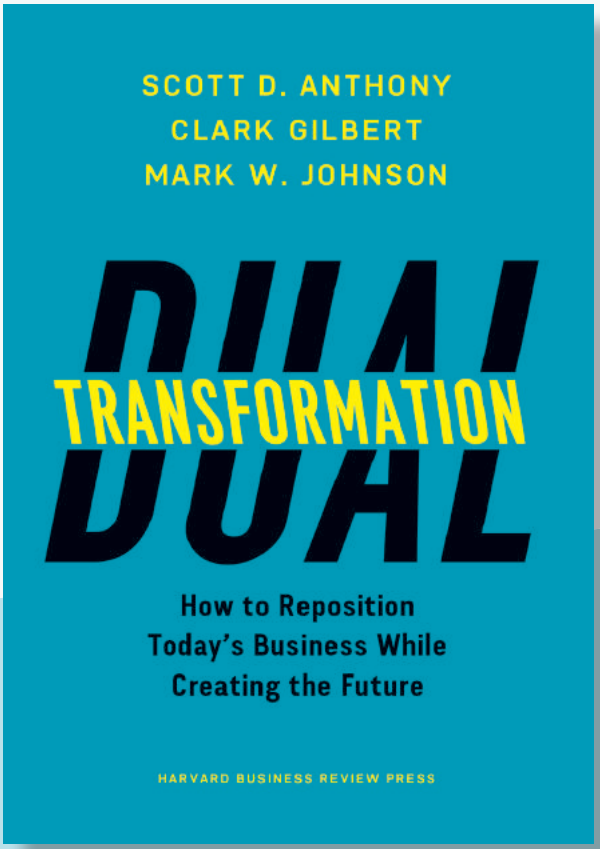
CAMBRIDGE, MA

The world's leading corporate innovators share best practices at INNOVATION LEADER's annual Teach-In, a two-day learning event for corporate innovators from Global 1000 companies. This year's event will feature content tracks for people in the first or second year of an innovation effort—the 101 track—as well as a 301 track for people who've had a program in place for three or more years. Speakers include executives from TripAdvisor, Fidelity Investments, ESPN, Samsung Ventures, and Bayer. This year, we're partnering with MIT's Industrial Liaison Program to host the Teach-In on the campus of MIT, including tours of several of their labs and meetings with MIT-related startups.

WWW.INNOVATIONLEADER.COM/TEACH/

TO LEARN MORE AND SEE A FULL LIST OF UPCOMING EVENTS, VISIT WWW.INNOVATION-LEADER.COM/EVENTS

FLIP THE INNOVATOR'S DILEMMA INTO THE INNOVATOR'S OPPORTUNITY



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