Best Practices Today for Innovation in Large Organizations

Special research report, in conjunction with the ILO Institute

July, 2015

avanade®
Results Realized

ILO INSTITUTE

Summary

As Innovation has matured as a corporate function, a three-part model is emerging as a best practice. Companies are blending these three core innovation practices:

1. A **"magnet"** program to award non-traditional sources of new ideas funding for fast, inexpensive market tests, overseen by an innovation board that includes senior operating executives who will receive hand-off of projects that prove their worth;
2. A **"scout and support"** function that uses the innovation toolkit to prioritize and accelerate already-emerging new ventures for traditional corporate departments; and
3. A **corporate accelerator** that creates a physical center for company outsiders – emerging small firms, academics, independent entrepreneurs – to work collaboratively with company insiders in a socially intense, time-limited environment with a strong focus on tightly-defined tough-to-solve problems.

Pull vs. push, discovery over prediction and open innovation

Reaching out to front-line staffers to "pull" their insights and ideas, rather than relying on the staff to "push" ideas to the center is an important practice. Two trials run by ILO in a retail environment and in a hospital demonstrated the strong value of workplace-intercept interviews – asking employees once a week, for six weeks, two key questions:

1. "What is one thing you did this week that made a customer happier than expected?"
2. "What is one thing you did this week that made your job a bit easier? "

Valuing discovery over prediction – as Toyota does in its production-information cycle, and the advertising-agency holding companies do to navigate emerging business models – means making many small bets to be able to service the full range of choices customers might make as they buy automobiles, advertising services, or any number of offerings in between.

Experimenting with open innovation models – using technology-driven platforms to tap challenge-driven resources outside the organization – is more than an option today: it is a must.

The greatest impact of open innovation is not cost savings, but increasing the scope and pace of development.

Most successful open-innovation programs begin with pilot programs promoting challenges across the company, calling for ideas and solutions from every function and level of employee, produce exciting early results, and are loudly celebrated, all to create a willingness to accept the new model as it expanded beyond the company's walls.

"We can solve a lot more problems, and even enter some new markets, based on this kind of sourcing, but we have so much sunk investment in the Research &Development function that when you net it all out, it's not really cheaper overall."
– Research &Development executive, IT sector

Contents

The New Three-Legged Stool for Corporate Innovation: The Magnet, Scout and Support, and The Accelerator

As innovation has begun to mature as a corporate function, many of the most effective large organizations with an eye toward innovation have embraced a three-part strategy for launching and sustaining innovation initiatives.

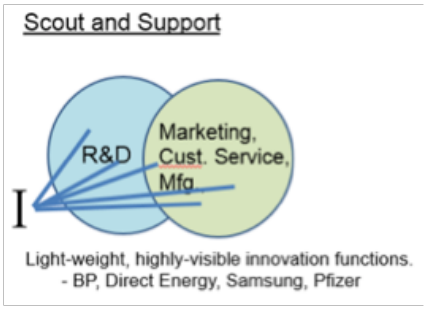
The Magnet

Several years ago, the ILO institute documented the "magnet" model for launching innovation inside large organizations and emphasized it as a core innovation practice – one of the three pillars of effective innovation practice. In the "magnet" model, an innovation board reviews ideas submitted from all across the organization to award between $5,000 and $50,000 to fund not more than 90-day sprints to prove market interest or internal value of a new product, process or business model.

Most trials will fail, but some will succeed – often unexpectedly, and the low cost of failure and short time frame means many more entries into the system, and some number of discoveries that would otherwise not exist.

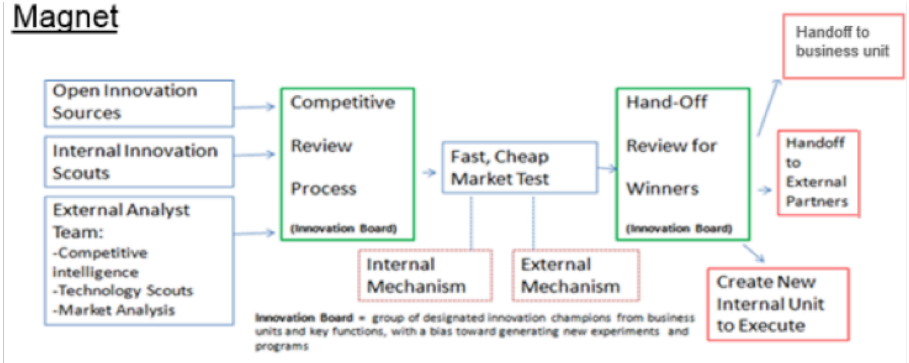
The key best practice is to ensure that the people on the receiving side of the hand-off for winning entries – the Chief Nursing Officer, the Head of Manufacturing, the SVP for Marketing – are around the table making the awards, and mentoring relevant projects during their 90-day sprints. Winners then know where to go to scale, and receivers are already invested in the value present, and more likely to welcome the chance to scale.

Scout and Support

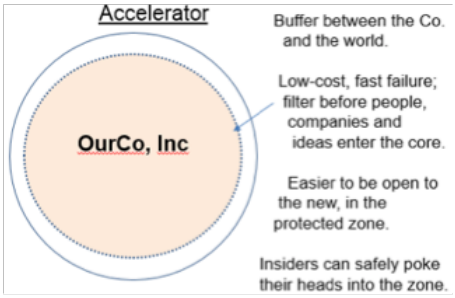


The second model here is the "Scout and Support" model, with a central innovation office established but thinly staffed, to ensure that the innovation function does not compete with other development functions across the company.

The innovation function receives enough money and people to continually scout in the organization for new ideas, products, services or business opportunities that fit strategic trends and can be ramped up faster and better with innovation-team support. It does not receive enough resources to develop its own skunk-works. Supporting high-potential, market-matching initiatives – often emerging from R&D, customer service, marketing and manufacturing functions – the innovation team supports, accelerates, but never competes with other internal resources.



The Corporate Accelerator



The third is the "corporate accelerator" model – a physical space that stands just outside the formal boundaries of the organization, but in a protected space that allows company staff to participate in fast-moving collaborative experiments without worry about IP, corporate policy limitations, or other concerns already vetted in the accelerator space.

These accelerators generally recruit – through a highly selective process – a "class" of start-ups or internal champions of new ideas. These players are given fast, formal training in product development and market testing, have strong mentors assigned, and about 90 days to prove the value of their offerings, with a well-managed hand-off at the end for more serious funding and development.

In practice

Today, we see the emergence of a balanced approach. The large organizations that are a little bit better than their peers, year after year, in sparking and sustaining innovation make investments across all three approaches, instead of focusing only on one or two.

Microsoft, for example, runs 100 "Microsoft Innovation Center" sites across the world – to identify opportunities inside and outside the firm for special support and short-term investment. It also runs a formal accelerator through an operating partnership with TechStars, and it has a series of contests, awards, and special-project budgets in line to support magnet programs.

AT&T has spent more than $100 million in its four Foundry accelerator centers, runs its TIP program ("The Innovation Pipeline") very much in the "magnet" mode, and dedicates a staff of 150 to a formal innovation program that combines elements of the "scout and support" model.

Bank of New York centers its "magnet" program around a high-profile annual innovation contest, runs a separate innovation budget of under $1 million annually to fund ideas and ventures that can prove value through a low-cost 90-day trial, and it preparing to launch its own accelerator.

The UAB Medical Center has built a formal "Innovation Board" precisely on the magnet model, runs its "Edge of Chaos" collaborative space including some elements of the accelerator model, and continues to build out a "Scout and Support" process through the office of its Vice President for Strategy.

The New, Light-Weight Innovation Model: Small Staff, Acceleration instead of Creation

In recent years, a number of the highest-performing companies in competitive, mature markets have adopted an unexpected model for a centralized innovation function: a small staff, a scouting and consulting outlook, and an emphasis on measuring success by driving new ventures and process improvements to greater impact, faster.

Global Pharmaceutical Company: $50 billion, 6 employee staff for worldwide innovation

One $50 billion/year global pharmaceutical company has an innovation department staffed by a total of six people, and led by a global Chief Innovation Officer.

"Because there are so few of us, we can't have our own agendas. We have to always be discovering, always looking for who has the beginnings of something we can help make real, move faster, connect across the enterprise to people who are looking for exactly that."

New England Investment and Advisory bank: a broader mandate, but smaller staff

At a major investment and advisory bank in New England, the head of innovation works with a staff of three and holds a broader mandate.

"We do build new things for the firm to use, and we do organize funding for new offerings. But we do this not with money that's already in our account and we get to allocate directly. We find or create things of compelling value, sourced internally or externally, and then we talk with the partners here and make the case for how this can have a big impact on our business and happen very quickly. That's our model."

Global electronics manufacturer: Raising the risk on the innovation team to avoid staff seeking stability

At this company's European innovation center, the former Director of Innovation, gave back half his budget to the firm, and promised that he'd reach a fixed return on the investment in innovation as a discipline within three years. He then began tracking each of about a dozen internal ventures it supported for ROI. He built a staff of nine for Europe, and the instability he built into the program was important to avoid adding staff looking for a safe and predictable place to work internally.

"We got there just in time. We had a big hit – you'd know it – that began registering with significant sales just three years out. We had projects fail – projects we helped shepherd and manage and validate – but most have succeeded because we do a lot pre-testing for projects that don't really become projects."

Pull versus Push

Innovation programs often try to address this imbalance by drawing information and insights in from the edges. Yet they tend to rely on volunteers at the front lines excited to share ideas with the center. That's a minority in just about all organizations, and a skewed minority at that.

We've found that running six-week programs to interview front-line staff – clusters of 30 staff, each interviewed one-on-one for less than a minute once a week, for six weeks – can create outstanding results by drawing in real cross-sections of insights from the full range of people engaged in making things work and making customers happy.

ILO ran two trials with member organizations – one at Baptist Health in Alabama, with a group of 30 nurses on a maternity service, and the other in the retail outlets at the Post Exchange on the Naval Airbase Oceana, in Virginia Beach.

For six weeks, on one afternoon each week, we intercepted 30 workers at each site for less than a minute each to ask two questions:

What's one thing you did in this past week that made a customer or patient happy beyond their expectation?

What's one thing you did this past week that made your job a little easier?

The first time we conducted the interviews, people were skeptical. A few had substantial answers, but many didn't. We asked folks to think about the questions, and let them know we'd be back each week for six weeks.

By the second week, people were less on-guard, and useful answers to the questions began to add up.

By the third week, a significant group of interviewees seemed happy to see us, and not only did the quality of the ideas seem to improve significantly, but a growing group of staffers at both sites shared that they'd been thinking about the questions during the week.

The results were impressive. We divided the hundreds of comments from each site into four categories: easy to implement and high potential value; hard to implement with high potential value; easy to implement with low potential value; and hard to implement with low potential value. Every week, that fist category had more than one clear and compelling entry.

The best outcome at the Naval Airbase was the creation of a new "Flagship Service" personal shopping assistance program, connecting volunteers with disabled shoppers. Retired servicemen and servicewomen, injured veterans, and others needing extra help shopping were often proudly assisted by shop staff – sometimes for an hour at a time. This care and support reflected the spirit of community on the airbase, and made everyone proud. It also kept staff from their assigned work for meaningful periods of time. Yet once the pervasiveness of the support became clear to managers, it proved easy to station a desk with volunteers to staff an official offering to the community – and it became big news, celebrated across the base. It was a big win at very low cost.

At Baptist Health in Alabama, a range of new practices and programs were launched out of our six-week front-line innovation program, many involving opening doors for community nonprofits who were actively looking for ways to provide services to low-income new mothers. They found powerful partners in the maternity nursing staff.

Even more important, during and shortly after the six-week program, Press-Ganey patient-satisfaction scores began to rise. Nurses reported that reflecting on the two questions we were asking them every week shifted their communications to a degree – they began thinking more about patient satisfaction, because they knew we'd be back to ask about it.

Valuing discovery over prediction

When the Datsun Motor Company brought its first production automobile to the U.S. market in the early 1960's, the company had very little sense of the culture of its potential buyers. The key executive in charge of the initiative was in fact one of the few company leaders with a strong command of English. And this proved to be a liability as well as an advantage: this gentleman was a great fan of the film My Fair Lady, based on the George Bernard Shaw play Pygmalian. More of a drawing-room farce than young-man's action film, it appealed to secure, educated Americans and had a particularly strong female lead played by Audrey Hepburn.

And yet that first production car from Japan rolling off the docks in the Port of Los Angeles had a great natural appeal to the low-income, adventure-seeking California young man just emerging as a new cultural icon: the surfer, the biker, the tough-guy beach crawler happy to drive a small, fast, cheap car with an oversized engine and few creature comforts. But the unfortunate brand name chosen by the film-loving English speaker at Datsun – "The Fairlady" – was a mistake, and became a symbol the Japanese auto manufacturing industry's inability to predict the marketplace in North America.

Over time, the ways that the Japanese auto companies adapted to this insight – Toyota more than others – proved a great strength (and the Fairlady did well over time as well – with a new name based on the production code of the car, the 240, eventually finding its heyday as the Datsun 280Z).

Toyota does not expect to be able to predict what its customers in North America want to buy – larger cars, or smaller; mini-vans or pick-up trucks or SUVs – and instead it produces at least on entry in each sub-category, and has invested in the world's more efficient production-information cycle. Every time a car is sold, the information from the deal travels to the production facility where the car is produced almost instantly, and production goals react to the sale. Rather than prediction, Toyota is fully invested into responding to what is sold – to discovery.

A similar approach to business-model issues and broader-gauge business strategy is clearly evident in the advertising industry. Dominated by a small number of multi-billion-dollar holding companies, including WPP, Publicis, Interpublic Group and Omnicom – the advertising industry faces a dramatic disruption beginning about 15 years ago. Each of these conglomerates generated billions of dollars anchored on three pillars of revenue: short television commercials, direct mail, and display advertising in magazines and newspapers. All three were under existential threat, and indeed all three ceased in the next decade to sustain the earnings that kept these corporations alive.

And yet these ad-business giants remain, and they continue to deliver solid returns to their shareholders. They've survived a stunning series of changes in their core business models.

All took part in an industry strategy that resembles Toyota's product-portfolio strategy, but at the business-model level. Look at any of the large advertising holding companies, like UK-based WPP, and you see a small number of flagship brands, like Ogilvy, Grey and Y&R, that remain flagship holders of major accounts, a middle layer of specialized firms like Bates (with strength in Asia) and eCommerce leader Salmon, and an ever-changing roster of dozens and at times hundreds of smaller agencies.

Those smaller agencies are a lot like Toyota's profusion of auto products: one of everything. What will the future

of mobile commerce bring? Which of a dozen possible paths for large-scale commercial social-analytics platforms will drive the deployment of creative messaging for large consumer products companies? The holding companies don't know – they can't know – and so instead of making a small number of big bets, they make a large number of small bets, and face the marketplace with a perimeter populated by just about every possible iteration of the future of advertising. As the market makes its choices, and delivers business to this small agency instead of that small agency, the holding companies became adept at moving capital and staff from the agencies that didn't win, toward the agencies that did.

They positioned themselves to have a bet on almost any option that would emerge as the winner, and as the agency holding companies learned in real time which play would win – as they made their discovery, rather than risking capital on predictions – they were able to deploy their resources, to lead their major accounts toward the future, and to keep their businesses afloat and heading toward the future.

The open-innovation model and current users

"In general I love the idea of open innovation... Crowd-sourcing is something that appeals to my leadership but I don't know how to get out of the gate with it." – Executive Director, Global Innovation, US-based cosmetics manufacturer

UC Berkeley business professor Henry Chesbrough published his book, Open Innovation, in 2005. In it, Chesbrough outlined the model of using resources outside the walls of a company to help invent new things and solve important problems, a process of innovation long-standing in some corners of American business, but not practical for most large businesses – until recently.

Some businesses, like book publishing, have employed a pure open-innovation model for centuries.

Since the invention of moveable type, prospective authors across the globe have been writing books for free, and then submitting the books to editors and publishing houses who select the books that have – the editors hope – the potential to make money, please readers, and advance human knowledge.

This is open innovation at its core: people outside the company's boundaries input great amounts of effort to solve problems potentially of use to the company. The company selects among the outcomes of those efforts to identify the very few highly valuable items on offer, and pays only for what is used. The company accrues the value of the broad input of talent and effort, but pays for only the perceived best of what is produced.

The old model of research and development had a small group of highly skilled people trying to solve the full set of an organization's problems and exploit the full set of opportunities before it. This new model involves using the full range of human talent outside an organization's boundaries to solve problems and seize opportunity.

While some organizations have been practicing open innovation in some manner for centuries, the rise of the Internet and related changes in the organization of formal work have make open innovation vastly less expensive and far more likely to yield value.

Slowly, the right organizational approaches and ways to frame problems and challenges are becoming clear through large-scale trial and error.

We are, without much doubt, in the very early phases of what will become a pervasive new way to connect human intelligence and create value in organizations large and small – the highly visible recent successes of companies like Procter & Gamble, and public enterprises like NASA, ensure that.

Three Main Modes of Open Innovation

Today, open innovation takes the form brokered networks, contests, and solution challenges that deliver highly focused value to companies and not-for-profit organizations willing to invest in a process that is slowly becoming standardized, and proving to be of enormous value.

Open innovation vendors fall into three broad categories:

1. **Operators of open innovation networks**, like InnoCentive and Yet2.com, who broker access to a managed network of "solvers."
2. **Providers of software and consulting services** to help source and develop ideas relying on internal innovation networks as well as broad segments of the public, like Imaginatik and Spigit.
3. **Software vendors** who build crowd-sourcing templates into their enterprise-wide offerings, like salesforce.com.

ILO's research into the internal decision-making process in large organizations considering open-innovation solutions makes clear how early we still are in the development of a fundamental new approach to corporate research and development.

Some organizations like Procter & Gamble, Hershey's, and Chrysler have been building external, open sourcing of key solutions into their operations for years. Others – like Estee Lauder, noted above – have made tentative moves, even to the point of establishing "open innovation" executive positions, yet

have not found comfortable approaches that fit their culture and organizational operations.

But these remain a small minority of large businesses. Most simply have not tried, and are not ready to try, any serious experiments with open innovation.

Yet that will surely change. The value has been proven, measured, and documented by sources as trusted as Harvard Business School – and the value is very large. Open-innovation tools are becoming less expensive and more readily available. And, slowly, a cohort of managers experienced in open innovation is spreading across the global corporate landscape.

The Executive Director of Innovation at a US-based cosmetics manufacturer pins some of his hope for moving forward on the fact that his firm has a new global head of innovation, newly recruited from Procter & Gamble, the first highly visible, multi-billion-dollar for-profit company to publicize significant, formal, sustainable use of open innovation approaches, through its "Connect and Development" program, beginning in 2000. (See a detailed discussion of P&G below).

Five Important Early Lessons
Among the key lessons to emerge from ten years of slow but steady development of open-innovation best practices:

1. **Open Innovation generally does not lower costs, but rather expands the boundaries of potential, successful operation.**

   "We can solve a lot more problems, and even enter some new markets, based on this kind of sourcing," one R&D executive from the IT sector tells ILO, "but we have so much sunk investment in the R&D function that when you net it all out, it's not really cheaper overall."

2. **Some problems or challenges are well suited to the open-innovation process, but others are not.** Great strategic importance of a particular problem or challenge will not make it a better fit, so traditional tools are important to retain. The open-innovation model is not and will not be a replacement for traditional R&D across the board, but is a powerful additional mode of action, a replacement for some traditional R&D.

3. **Intellectual property protection issues are a major concern to open-innovation novices, but have not proven to be significant barriers.** Solutions to these challenges are at hand in most instances.

4. **Protection of company secrets is a harder problem to solve with open innovation.** Many firms will not bring certain problems to public networks for solutions for fear of tipping their hands to their competitors. Some make such effort to mask the ultimate use, or the identity of the solution-seeking organization, that then process is undermined to a degree.

5. **The hardest part of the open innovation process is defining the problem or opportunity to be addressed.** The problems have to be very specific, and to contain a clear set of parameters and expectations while still leaving room for valuable surprises. Developing problem statements is an art new to most large organizations, and a hard one to master – yet it is perhaps the most decisive element of the process.

Getting beyond the IT department with open innovation
Many IT departments enjoy building their own tools to support open innovation among highly skilled technologists. Making open innovation work outside of the IT department – and fostering communication and collaboration among non-technologists – has led to the launching of a number of important vendors who create user-friendly outreach tools, and identify and recruit populations of problem-solvers to participate.

In 2002, pharmaceutical company Eli Lilly created InnoCentive as an internal project to test the idea of organizing external problem solvers. Almost ten years later, it is now a carefully cultivated network of about 200,000 individuals with a broad and deep range of technical skills, mobilized to solve problems posted by companies and non-profits that pay fees ranging from $20,000 to $75,000 to engage the solver community.

Other open innovation network operators today include **Yet2.com**, and **NineSigma**; vendors including **Spigit** and **Imaginatik** offer innovation-management software along with a managed network of solvers, though the cultivation of the network is such a specialized task that InnoCentive remains the most respected of operators, and takes that as its business focus.

Some customers of InnoCentive offer many ongoing challenges, and build virtual "pavilions" that include a broader range of competitive and organizational background to help solvers succeed.

NASA at InnoCentive
Beginning in 2003, U.S. space agency NASA decided to invest in a series of open-innovation programs to help solve practical problems – and to do more. NASA's Office of Innovative Partnerships, led by Doug Comstock, devoted his group to the broad challenge of helping to build out a civilian infrastructure for the business of exploring space, circumventing the traditional defense-contracting model. A network of thousands of small vendors was the goal, Comstock told ILO, and expanding open-innovation programs was the targeted path to reach it.

Today, NASA uses both InnoCentive and Yet2 as external networks, as well as the less formal TopCoder community, with a long-standing and deeper commitment to InnoCentive.

"We have created the NASA Innovation Pavilion on the InnoCentive open innovation platform," NASA explains, "which, to date, has had four challenges (three from Johnson Space Center and one from Langley Research Center). In 2009, we developed an open source competition on the TopCoder community resulting in the writing of 3,500 lines of code and drew more than 1,800 entrants for the posted NASA challenge. These results are currently undergoing evaluation.

"NASA partnered with InnoCentive, Inc. to provide the public with the opportunity to solve difficult problems facing the U.S. space program in human health and performance.

"Solutions to the challenges on the NASA Innovation Pavilion will not only benefit space exploration, but may also further the development of commercial products and services in other industries. The first three challenges posted for one of the pilot projects have attracted more than 1,100 potential solvers across 64 countries."

In early 2013, NASA doubled down, creating the position of open innovation program manager, held by Nick Skylandt who explains that "we're now taking the approach from the inside where we ask ourselves 'what are the challenges that NASA's trying to solve that we haven't been able to address for one reason or another?' How can we take those challenges and offer them to people outside of our own organization, as well as people inside our organization, by using open innovation platforms with the goal of aggregating those solutions for the benefit of NASA."

Ed Happ, Geneva-based Chief Information Officer of the International Federation of Red Cross and Red Crescent Societies is typical of many senior managers interested in the power of open innovation.

Inspired by Microsoft's successful efforts in running challenge contests for students around the world – Happ tells ILO he has been very impressed by the fact that submissions of strategies for reaching the United Nations Millennium Development Goals came from 150 countries – Happ tells us that

"This year we are looking to launch a Red Cross/Red Crescent technology contest to engage skilled technology volunteers at technology companies and to help seed a mobile phone 'apps store for good,' from which we hope to create our own funnel of prototypes from which some incredible solutions will come."

Happ is not planning to hire any consulting firms, or engage an outside vendor beyond low-cost features available through existing technology purchases or licenses.

Look Inside, or Look Outside?

Alph Bingham, former head of external innovation at Eli Lilly and founder of InnoCentive, told ILO there are handful of decisions that can help with choice of developing a technology inside or outside the bounds of an organization. These are the discussions that should happen at the beginning of the open-innovation decision-making process.

1 Is the technology confidential and is it a core capability or IP that cannot be compromised?

Bingham believes companies are still overly conservative in how they classify a core or strategic competency. "It doesn't come from legal," he notes. "The legal side usually has a good understanding of the risk and how to mitigate for it. It comes from scientists."

2 What stage of understanding the problem are you at?

If you are at the beginning of this process – for example, I need a cure for cancer –then you are probably not ready to send the problem to an external community of innovators or even to look outside in general. If you are at an advanced stage, that's a better problem for an external community, Bingham tells ILO.

3 How rich is the solution space?

If the solution space is small—in other words there are only a handful of possible ways to solve this problem—you are better off developing the answer inside, or contracting with a single university professor to solve the challenge. If the solution space is rich, it is a good problem to send out or post on InnoCentive, NineSigma, or other solution networks.

Bingham tells ILO that "we often spend more time helping new partners figure out how to define a problem in the right way to make the external model work. It's hard."

The Head of Research and Development for a multi-billion-dollar Europe-based agricultural-products company has worked with InnoCentive for several years, and explains that problem-definition is the hardest part of the process at first.

"Problem definition is an art and a science that we knew very little about before making this a priority. Asking the right question is very, very hard. It's very new for our people. We have to help them see the process steps, see how the solvers hear the problems. The first thing to recognize is that it's not a predictable

process – it's almost impossible to predict which problems will be solved. Ones you thought would be easy go unsolved. Many really scary hard ones get solved almost before your eyes.

So you need to work through the process of defining a problem very carefully, with clear parameters, and a strong sense of what avenues have been tried and what the lessons have been from those efforts.

Then you have to be ready to see interesting submissions from the solvers – maybe a clear solution, but maybe some surprisingly helpful half-answers that we can take back inside and get value from. It's a two-way process, and establishing the expectation of a kind of dialogue, of attentiveness to the potential for interesting surprises, is very important.

North America
Seattle
Phone +1 206 239 5600
America@avanade.com

South America
Sao Paulo
Phone +55 (11) 5188 3000
LatinAmerica@avanade.com

Africa
Pretoria
Phone +27 12 622 4400
SouthAfrica@avanade.com

Asia-Pacific
Sydney
Phone +61 2 9005 6772
AsiaPac@avanade.com

Europe
London
Phone +44 (0) 20 7025 1000
Europe@avanade.com