

# *Demystifying innovation*

Take down the  
barriers to new  
growth

*For CEOs today, innovation to fuel growth is not merely a consideration, it's an expectation. Now is the time to understand your organisation's capacity to innovate.*



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# Section 1

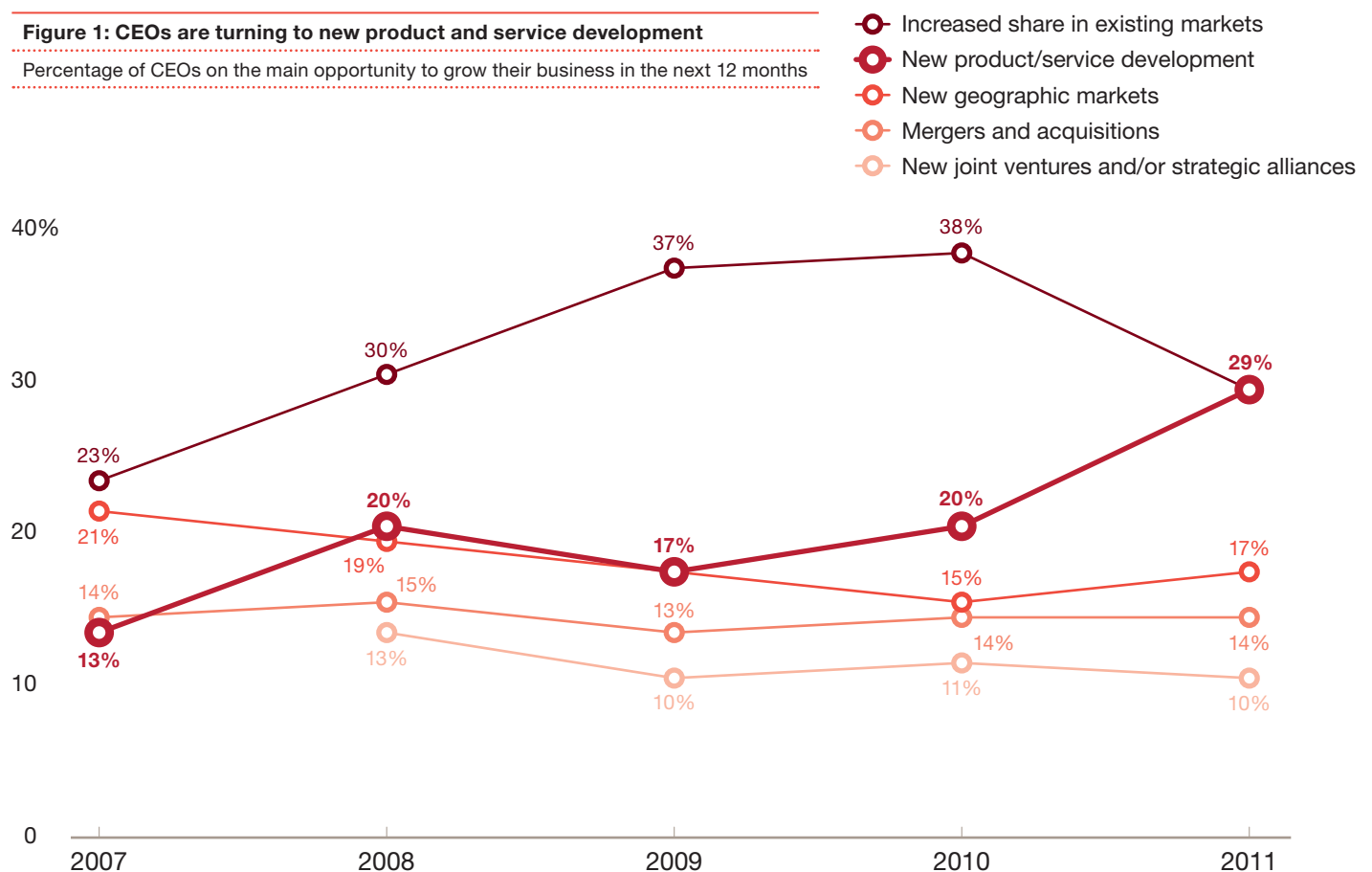
## The innovation imperative

*Whether you're in Minneapolis or Mumbai, it's clear the Internet is changing the way we live our lives and conduct business.*

Happily, most of these changes deliver more choices with better pricing for consumers, and far greater access to new markets for businesses. Yet we know change is also disruptive. The accelerating pace of change is a major reason why CEOs polled for PwC's 14th Annual Global CEO Survey believe innovation is now as important to growing their businesses as expanding in existing markets (Figure 1).

**Figure 1: CEOs are turning to new product and service development**

Percentage of CEOs on the main opportunity to grow their business in the next 12 months



Source: "Growth re-imagined: Prospects in emerging markets." PwC 14th Annual Global CEO Survey. <http://www.pwc.com/ceosurvey>  
Base: 1,084 (2007), 1,150 (2008), 1,124 (2009), 1,198 (2010), 1,201 (2011)

## ***Innovation is high on the agenda for 2011 in virtually all industries***

It's highest in industries where technologies are rerouting customer expectations, or where convergence is impacting business models deeply. For example, 43% of CEOs in the pharmaceuticals, and entertainment and media sectors, believe their greatest opportunities for growth this year lie in new products and services, against 29% of all CEOs. The economics of their businesses are changing rapidly, and these leaders are rushing to adapt. As a result, they are re-imagining ways to target growth, and that includes new, more open approaches to innovation. A majority of entertainment and media CEOs (57%), for example, expect their company's innovations will be co-developed with outside partners.

Drug makers know they also need to encourage more collaboration among industry, academia, regulators, governments and healthcare providers. These changes are increasingly taking place in a global context: 41% of pharmaceuticals and life sciences CEO expect the majority of their innovations will be developed in markets outside the country where they are based.

Over the past two decades, over a billion new consumers have entered the market economy, mostly in emerging markets. That's where the action is, in the eyes of CEOs, regardless of their home market. As a result, businesses seek innovations that will lead to competitive advantage in the right markets. Those reliant on mature markets need to differentiate, while those based in emerging markets are moving up the value chain to lessen their dependence on cost advantages they know can be fleeting.

## Who is investing in innovation and why?

### CEOs: Innovation for my company means

	The main way to grow	Efficiencies for an edge	Significant revenue opportunity
By industry	1	2	3
Communications	49%	41%	43%
Entertainment & media	43%	17%	33%
Pharma & life sciences	43%	15%	36%
Business & prof. services	41%	12%	26%
Forestry, paper & packaging	35%	12%	8%
Technology	34%	34%	42%
Chemicals	34%	34%	29%
Transportation & logistics	32%	40%	33%
Metals	32%	32%	25%
Insurance	32%	30%	28%
Industrial manufacturing	32%	26%	33%
Automotive	28%	38%	36%
Total financial services	26%	31%	28%
Consumer goods	25%	25%	33%
Retail	21%	20%	19%
Oil & gas	20%	33%	24%
Utilities	19%	15%	11%
Engineering & construction	18%	23%	19%

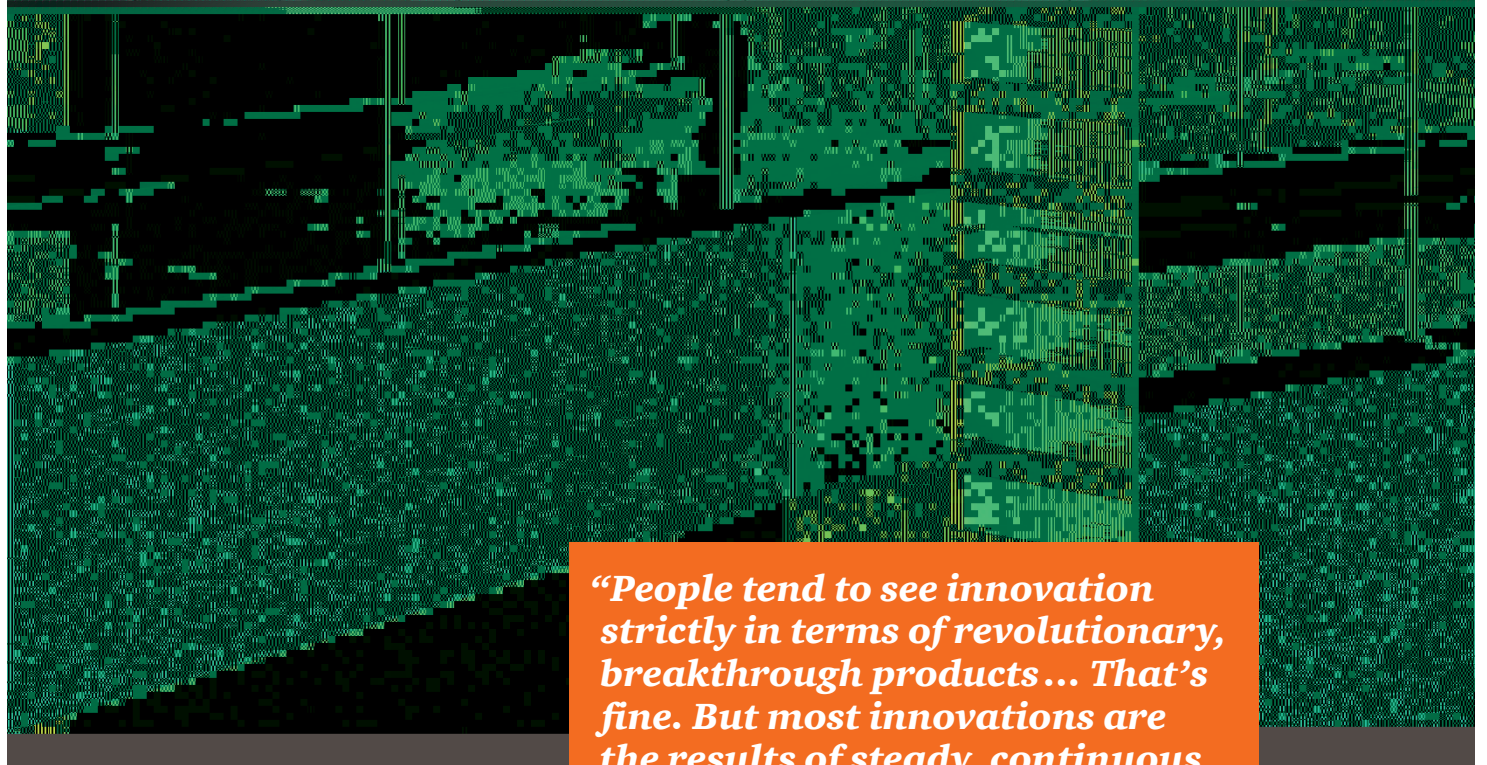
Innovation is a matter of survival in sectors where advancing technologies and changing customer demands are driving strategic change to business models. For others, investing in innovation provides the means to secure competitive advantage and/or the promise of new revenue.

	The main way to grow	Efficiencies for an edge	Significant revenue opportunity
By region	1	2	3
China/Hong Kong	39%	50%	37%
Germany	39%	31%	25%
India	38%	13%	23%
Mexico	34%	26%	31%
United States	33%	23%	38%
Brazil	28%	33%	43%
Canada	28%	30%	30%
Russia	26%	35%	32%
United Kingdom	25%	22%	25%
Japan	23%	23%	19%
France	12%	32%	32%

Source: PwC 14th Annual Global CEO Survey 2011  
Base: 11–153 (industries), 31–108 (regions)

1. Percentage of CEOs who say new products and services are their company's main opportunity for growth over the next 12 months.
2. Percentage of CEOs who strongly agree their company's innovations will lead to operational efficiencies that provide a competitive advantage.
3. Percentage of CEOs who strongly agree their company's innovations will lead to significant new revenue opportunities.





*“People tend to see innovation strictly in terms of revolutionary, breakthrough products... That’s fine. But most innovations are the results of steady, continuous improvement.”*

Paul Polman, CEO, Unilever

## Section 2

# Innovation misconceptions and course corrections

*For CEOs today, innovation to fuel growth is not merely a consideration, it's an expectation.*

Innovation clearly has moved beyond allocating resources for men in white coats working on mystery projects in isolated labs. Rather, innovation now encompasses the continuous need to improve and re-invent products, processes and services and even brands. That task involves a lot more people – inside and outside the organisation – with more rigorous processes, structures and practices to ensure that expectations are met. In all, 78% of CEOs surveyed believe innovation will generate 'significant' new revenue and cost reduction opportunities over the next three years. To put the responses in perspective, the National Science Foundation found that only 9% of an estimated 1.5 million for-profit companies described themselves as active innovators in 2006–08,<sup>1</sup> revealing a gap between where most companies are – and where CEOs want to go.

So how do successful innovators create the processes, structures and practices to move the handful of viable ideas from among the thousands circulating within all organisations all the way to implementation?

In this report, we have combined the experiences of our clients with our own research to identify the attributes common to innovative organisations. We'll begin by breaking down some of the misconceptions surrounding innovation.

### **Misconception #1: Innovation can be delegated**

Not so. The drive to innovate begins at the top. The CEO sets the tone that defines the most deeply held assumptions of the organisation, and that alone will determine whether a culture of innovation can thrive. Looked at another way: If the CEO doesn't reward innovation, protect the process or change internal relationships to foster innovation, the effort will fail.

Operational excellence is necessary to run the business of today, but the CEO must also create the business of tomorrow. This dual focus creates tension across the organisation. Nowhere is this better illustrated than by the experience of 3M in the early 2000s, when the company launched a Six Sigma approach to cut waste and improve efficiency. The effort was successful – costs went down and profit rose – yet there was an unexpected downside: top line growth stalled. Specifically, revenue growth from innovative new products ceased to materialise the way it used to. To 3M's credit, new leadership rectified the problem – not by eliminating the lean-discipline cost approach, but rather by mitigating its influence on innovation processes. This has restored the company's reputation for reinvention.<sup>2</sup>

<sup>1</sup> National Science Foundation's 2008 Business R&D and Innovation Survey (BRDIS), InfoBrief, October 2010. <http://www.nsf.gov/statistics/infobrief/nsf11300/nsf11300.pdf>

<sup>2</sup> 'Embracing unpredictability: Where will your company's next innovation come from? You may never be able to guess the answer, but new modeling tools can foster the right environment for success', Bo Parker, Chris Wasden and Alan Morrison, PwC Technology Forecast, Issue 1, 2010. <http://www.pwc.com/pt/pt/incentivos/imagens/brochura-Embracing-unpredictability.pdf>

CEOs must help the organisation value failure and use it effectively to learn and thereby improve their companies' innovation capabilities and culture. "Management's job is not to prevent risk but to build the capability to recover when failures occur," wrote Ed Catmull, president of Pixar and Disney Animation Studios in the Harvard Business Review. "We must constantly challenge all of our assumptions and search for the flaws that could destroy our culture."<sup>3</sup>

Innovation by its nature cannot be controlled directly. But CEOs can influence innovation by supporting a culture that nourishes and rewards fresh thinking. Southwest Airlines and Internet shoe retailer Zappos are well-known examples of effective innovation to improve customer service and loyalty. Both outpaced established rivals in very competitive industries. How? By building the right culture, Zappos CEO Tony Hsieh has said. When companies get the culture right, other elements such as the customer service or innovation all fall into place.<sup>4</sup>

The goal for the entire leadership team in an innovation environment then is to celebrate failure, enable it to happen fast, and to learn from the failures to explore other options that improve the quantity and quality of ideas that could lead to innovation. It is not enough to be a sponsor and instruct others to take the lead. You must lead, because a failure to innovate is a failure of leadership.

### ***Misconception #2: Senior and midlevel managers are the natural allies of innovation***

Managers may not be the enemies of innovation, but they're not the natural champions either. Their focus on improving profits through ever greater operating efficiency encourages them to reject new ideas that detract from these perpetual improvements. Companies tend to promote executives who successfully operate the largest parts of the organisation, often under a tight cost discipline. Innovation, however, often occurs at the periphery – close to the pain points where changing customer demands are first felt.

A global insurance business encountered this middle-management effect when it surveyed 5,000 employees across all organisational levels, geographies and major divisions. In the end, the people most interested in being innovative were those in the senior leadership and those at lower levels. Those in middle management were the least interested and the most resistant to innovation. They found innovation disruptive to their day-to-day activities and felt it got in the way of running an efficient operation – which is what they were paid to do. The company's leadership recognised that the inherent tension stifled innovation. They had never created any expectations or incentives for middle managers to innovate. In fact, they had unwittingly done just the opposite.

### ***Misconception #3: Innovative talent works for the money***

Innovative people are motivated by the rewards that will come with a successful launch. Yet pay packages alone will not determine the outcome of an innovation effort. Measures to improve retention of innovative employees should include many non-monetary rewards such as recognition and a degree of autonomy. These are important components of a culture that fosters innovative thinking at the outset. Empirical studies looking at new offering launches, as well as VC success rates, have suggested as a general rule that only 1 in 1,000 ideas will ever yield money for the company. Firms need a clear incentive programme, framed around front-line employees to reward successful innovation and engage employees to think about their role in improving the business. Both Google and 3M embrace approaches that allow innovative individuals and groups to spend some of their time harnessing their passions.

Businesses are putting these steps in action: PwC's CEO survey shows the top CEO response to addressing perceived talent shortages is to add more non-financial rewards. We find that the most successful innovators are liberal with praise and recognition. Unlike money, which is a scarce resource, organisations can create an abundance of praise and recognition to reward employee innovation.

<sup>3</sup> 'How Pixar Fosters Collective Creativity', Ed Catmull, September 2008, Harvard Business Review. <http://hbr.org/2008/09/how-pixar-fosters-collective-creativity/ar/1#>

<sup>4</sup> See, for example, "From upstart to \$1 billion behemoth, Zappos marks 10 years", Las Vegas Sun, 16 June, 2009. <http://www.lasvegassun.com/news/2009/jun/16/upstart-1-billion-behemoth-zappos-marks-10-year-an/>



Innovation itself is an approach to employee engagement. Top talent wants to work for companies with reputations (as well as rewards) for innovation, so building that reputation for innovation helps a company become an employer of choice. People like being creative; it's a basic human interest that leadership ought to tap into and harness. This is particularly relevant as skill shortages rise to the top of CEOs' concerns. Talent shortages are becoming the 'new normal' and are likely to remain so. Establishing a culture that embeds innovation into the organisation and its employees will attract and retain the best talent (Figure 2).

The 'Millennials' generation, today's 'digital natives,' may require engagement strategies of their own. Companies that adopt some of the Millennials' behaviour, and the collaboration and social media tools that they use to exchange ideas, will be well positioned to unleash these leaders of the future. "With Generation Y coming into the business, hierarchies have to disappear. Generation Y expects to work in communities of mutual interest and passion – not structured hierarchies. Consequently, people management strategies will have to change so that they look more like Facebook and less like the pyramid structures that we are used to," Vineet Nayar, Vice Chairman and CEO of HCL Technologies, told PwC.

**Figure 2: CEOs face a limited supply of candidates with the right skills**

Q: Considering the talent required for the success of your business over the next 3 years, what are the key challenges you expect to face?



Source: PwC 14th Annual Global CEO Survey  
Base: 1,201 CEOs surveyed globally

#### ***Misconception #4: Innovation results from lucky accidents***

If only it were so. It's a fact that innovative people and companies spend most of their time running up blind alleys and taking wrong turns. Yet, crucially, they are also disciplining the creative process, increasing the chance that some of their ideas will score. What they do differently is work in structures and apply practices that are designed specifically to deliver innovations successfully and quickly. The innovation discipline increases serendipity to increase the odds of success with every shot on goal.

Most innovation is not radical. Leadership should not disparage smaller-scale innovations. The non-stop discussion of disruptive, transformative, and radical innovation within the business community and academia tends to create the impression that if it isn't radical then it isn't an innovation. It creates unrealistic expectations with regards to the volume and nature of innovations that organisations will bring to the marketplace. As Paul Polman, CEO of Unilever told PwC, "People tend to see innovation strictly in terms of revolutionary, breakthrough products – technologies to sequester carbon emissions or microchips that can process data 600 times faster. That's fine. But most innovations are the result of steady, continuous improvement."

Much of what we see in Apple's iPhone and iPad products, for example, is a breakthrough combination of many incremental innovations. The concept of using a tablet with 'finger interactions' did not arise with the iPad. Yet Apple's approach to systematically attacking challenges until the device met a minimum performance standard, and to marry it to an applications management infrastructure in the iTunes Music Store and the AppStore, led to disruptive innovation. Radical innovation usually results from a combination of features, functions, distribution and value that often, but not always, leads to a new business model.

With companies counting on innovations to create new revenue opportunities, and to improve productivity,

it's time to create a process designed to filter ideas quickly and advance the best ones to execution. The most successful organisations marry creativity and disciplined execution systems in a way that enables them to flex the focus depending on the opportunity they are addressing.

PwC has broken down the innovative process into four phases. Market discipline through market feedback and testing are incorporated into each to reduce the impact of internal thinking and consensus on the innovations. Moreover, the process structurally and operationally separates early stage innovations to give them freedom and flexibility to adapt, iterate, and morph into commercially viable solutions before bringing them into the mainstream once they achieve established milestones (See diagram on right for the four-step innovation process).

### ***Misconception #5: The more open the innovation process, the less disciplined***

Many organisations are keen to adopt more open approaches to innovation, and are reaching outside their companies to customers, suppliers, and partners in new ways. Close to 40% of CEOs from across all regions expect their company's innovations will be co-developed, the survey shows. In part, these business leaders are tapping into an established tradition behind a more open approach in some industries – think of the automotive supply chain, where automakers rely on suppliers to continuously improve

components ranging from seat belts to brakes, and everything in between. What's changing is that more businesses, in varied sectors, are moving towards collaboration. The attractions are manifold and based on a growing acceptance that the rate of change and the complexity it creates means that no one organisation has enough of the right people and enough resources to innovate on its own.

P&G, for example, has set a target for 50% of revenues to come from innovations that have their genesis from outside sources. "Today, nearly every new item we bring out was produced with at least one partner somewhere in the world. So, for example, we co-locate scientists from partner organisations and from our organisation in the same laboratory. It's amazing what you can do when you knock down the barriers in an organisation or the barriers between organisations," Bob McDonald, Chairman of the Board, President and CEO, The Procter & Gamble Company, told PwC for the survey.

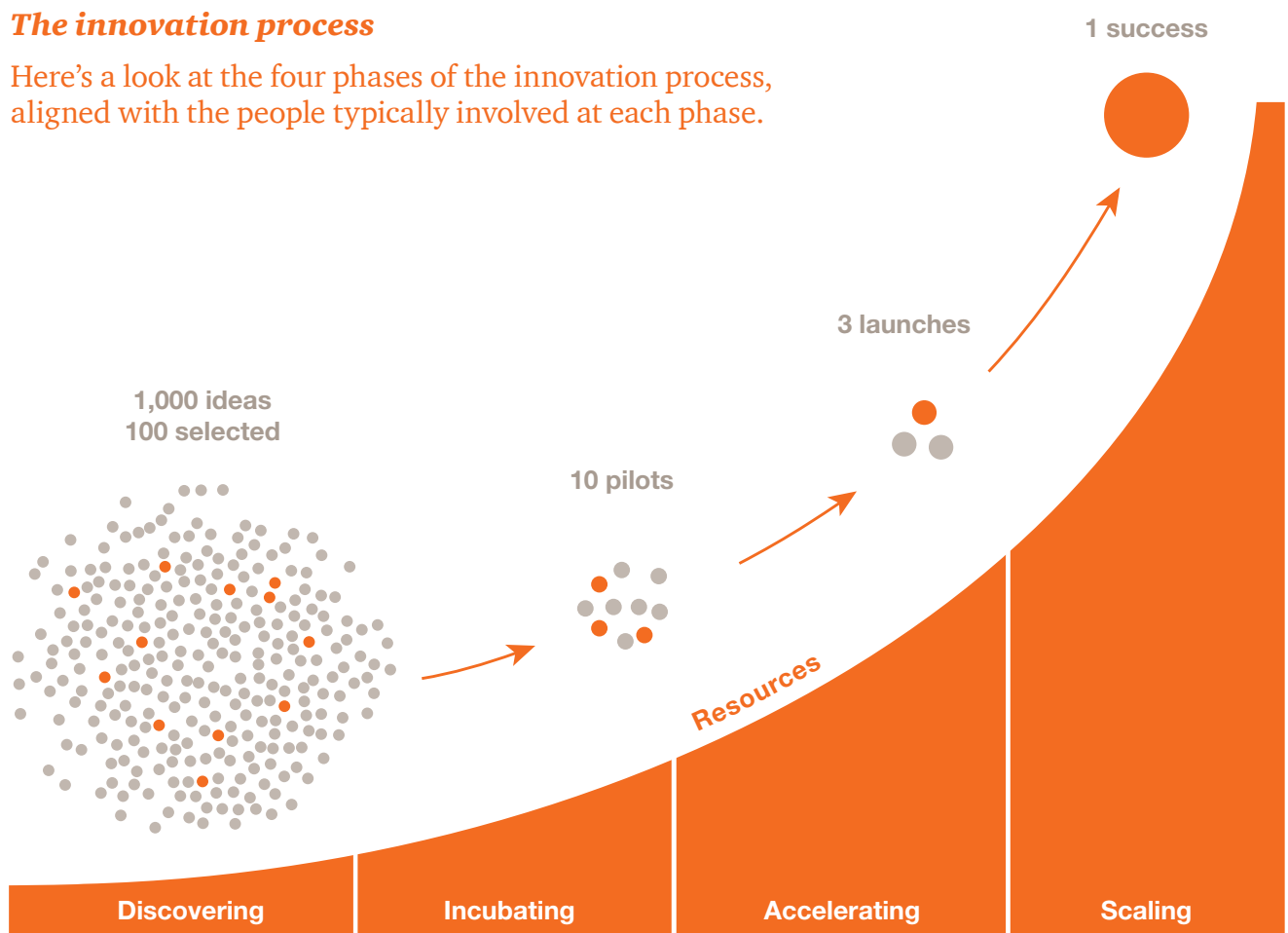
Many are looking across the supply chain to boost new development as well as to customers and even competitors. Hewlett-Packard CEO Leo Apotheker said some offerings in its new online applications store would be sourced internally but that H-P will also offer applications from outside the company, adding "we can't create all of this innovation by ourselves<sup>5</sup>."

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5 'H-P CEO Takes the Stage,' Wall Street Journal, 15 March, 2011.

## ***The innovation process***

Here's a look at the four phases of the innovation process, aligned with the people typically involved at each phase.



### ***Discovery phase:*** ***Team creates proof of concept***

Ideas and problems are explored, identified, screened and selected. They are sourced from customers, suppliers, partners and other external organisations as much as from employees. The sources, in fact, are as varied as there are different business needs. Emerging trends are also scanned. P&G, for example, uses ethnographic research to learn how products are used. Customer panels, demographic studies and other techniques are used to better understand customer pain points and to generate innovation options that remove them.

The enterprise discovery team that supports this phase of the innovation process is generally a small group of 10–15 people, as we've found at clients with successful innovation teams (and as is true of our own team). It's not a committee of the half-committed part-timers, but rather a working group dedicated to helping inventors and innovators refine and advance the best ideas. They're also not just engineers or marketing people. Ideally, this group has a range of innovation, commercial and technical experience. They've often spent time in product development or marketing strategy, or have worked for start-ups, for example.

### ***Incubation phase: Prototypes determine technical feasibility***

Good ideas need to be further refined, developed and tested to see if they are technically feasible and make business sense. This is the purpose of this phase – developing the business case. Companies differ in how they select ideas to be incubated and where the incubation takes place. Some rely on subject matter experts outside the company to help filter and select ideas. Others use their own employees as a proxy for potential customers. Still others adopt evaluation criteria or scoring methodologies that weigh risk, return, feasibility and restraints and other relevant metrics. The key principle here is that most innovative ideas need to have some structural separation from the day-to-day business to be further developed and tested, and the incubator, whether inside the business unit, enterprise, or external provides the protection and support the innovation needs to advance towards commercialisation.

The incubation team is good at project management, and will often have design capabilities so that they can re-design components of the idea to re-test in the host environment. Members and resources are drawn from other departments for technical expertise, and to agree on a budget to conduct a market test.

This phase must have senior sponsorship, as various departments within the company have to sign up to help. It also can require substantial funding. Some team members as well as the original inventor may stay involved throughout the whole process, but they don't have to. As an example, a global financial services organisation developed an incubation process that selects five to seven good ideas each year. The company's innovation team provides a project manager while various departments and partners provide near full-time resources to create the pilot and /or prototypes.

### ***Acceleration phase: Pilot programmes test commercial feasibility***

Just as most of the ideas didn't survive the discovery phase, most don't survive incubation. Those few that do are now ready to be piloted in a limited commercial launch to evaluate and improve their commercial viability. Thus, they are most focused on specific changing customer needs, market segments or system improvements. Some companies may use surveys, interviews or focus groups with customers in to improve the value proposition and commercial success in this phase. The best test of commercial success, of course, is a targeted commercial launch of the products and/or services.

More formal structures and practices are adopted at this stage as the innovation moves towards the disciplines and practices that are well-understood within the organisation. However, this transition phase must remain flexible enough to modify the product, process or service at any time to meet the emergent market's needs. Here, the innovation has a fully dedicated team, which generally leverages those support functions from the rest of the enterprise. The acceleration team is solely focused on creating a market-ready product in a controlled and limited launch that will likely need modifications after market launch.

### ***Scale phase: The innovation is fully integrated into the organisation's processes***

The final step: Mass commercialisation and mass marketing innovations. By now, the innovation is refined enough to slip into mainstream of the organisation devoted to marketing and selling products and services.

There is no doubt organisations are struggling to determine how to best exploit greater customer access and input with minimum disruption to current production processes. Some companies are adding incentives for outsiders to submit ideas. GE launched its Ecomagination Challenge in 2010, backed with \$200 million in seed capital for the best ideas or start-ups for the power grid. GE said it formed a dozen new partnerships, as a result.

Advances in collaboration tools, like social networking, are accelerating open innovation. Within their organisations, companies can deploy internal social networks along with collaborative tools to develop interactions that go far beyond just a network of specialists. Social tools connect people who are 'loosely tied' to the problem-solving challenge. When the open collaboration process works, these loosely connected people successfully translate the problem in their own context and suggest how to solve it.

Significant variations to the open model exist. Businesses are seeking to adopt the model that shelters where they think they can extract the value from their innovation without

shutting out external contributors or supply partners. Some are open in the discovery phase, but try to be very closed in the scaling phase. Medical device makers, among others, use that model. In a truly open model, companies not only take things in, but spin things out that they don't believe they can turn into value. Sometimes it may make sense to bring the innovation back in at a later date.

Transitioning to a more open approach on innovation can be difficult. Companies are very concerned about giving away their intellectual property (IP) if they share in an open system, which causes lawyers to get involved to help protect and secure their IP. One company spent over 18 months negotiating with a partner over the terms for an open approach to specific innovation challenges. Still controls are often in place even in the most open systems. Google, for example, remains committed to the open source platform for its Android mobile operating system, and encourages device makers to customise features. But the company recently reiterated its requirement that device makers conform to certain specifications, in order to prevent fragmentation.

While innovation is a knowledge-intensive activity, companies can innovate without creating entirely new knowledge. Much of what needs to be discovered or created in terms of knowledge already exists, either internally or externally. Experts on innovation have shown that many barriers to successful innovations can be resolved by applying existing knowledge correctly and transferring it from one domain to another. This is why the best innovators and inventors tend to be those that have a broad range of experience from which to draw upon. And the process is getting easier; software products are automating the search and recognition process with semantic search engine technology.<sup>6</sup>

### **Misconception #6: Businesses know how much innovation they need**

Business leaders need to ask themselves: How much growth does the firm need from innovation? This involves considering how much growth will be driven by existing products and services, and how much is required from new offerings, business models, processes, distribution and marketing strategies. Furthermore, leaders must calculate how much inorganic growth the company needs. This simple analysis has become increasingly important as most companies focused on developed markets expect low single digit organic growth without innovation. Innovation is the engine that must fill the gap to get them to double-digit growth.

***"Today, nearly every new item we bring out was produced with at least one partner somewhere in the world."***

Bob McDonald, Chairman of the Board,  
President and CEO, Procter & Gamble

<sup>6</sup> 'Can innovation be disciplined without killing it?' PwC Technology Forecast, 2011, Issue 2.  
<http://www.pwc.com/us/en/technology-forecast/2011/issue2/features/innovation-disciplined.jhtml>



## ***How much innovation do you need?***

A stable industry is de-maturing when at least two of the following five situations arise:

### ***Core customer behaviour changes.***

The accelerating uptake on electronic book formats offer a dramatic example from the publishing industry. E-book sales, as a percentage of the book market, more than doubled to 8.32% in 2010.<sup>7</sup>

### ***Core technologies to produce the product or service change.***

Video-on-demand, video-sharing sites like YouTube, Netflix and peer-to-peer file sharing are among the technology-driven disruptions to traditional models of content distribution and to advertising revenue for broadcasters and music companies.

### ***The number of large competitors interested in the same market is on the rise.***

The rising interest among automakers to grow in China offers an example. In the US, consider the number of IT companies like Cisco, Intel, Microsoft and Google, to name a few, that are interested in getting into healthcare.

### ***Significant change in government regulation is underway.***

Clearly, regulatory change is impacting financial services and healthcare providers in many countries.

### ***Access to the customer is lost.***

The company who is “first” in the demand chain often wins. In the last decade we’ve seen new players emerge, like Amazon, Apple and Google, who have permanently changed how businesses reach their “end” customers, making them vulnerable to these new interlopers and at risk to de-maturity.

Of course, the marketplace – not just your firm – dictates the pace of change. If innovation in the outside world is advancing more quickly than at the company, the company will eventually fail.

Firms in industries where new technologies are substantially changing business models require disruptive innovation to survive – think media, retail, healthcare or telecom. We call this process of disruptive change ‘de-maturity,’ because mature industries are becoming more vibrant

again. Some previously stable industries are in the process of de-maturing now. Others will follow in five or ten years. Think of the effects of the \$67 Chotukool refrigerator, launched in India by Godrej & Boyce, on the white goods business, while refrigerators in the US routinely cost around \$800.

De-maturing industries are more likely to be disrupted by innovation because customer needs, along with the competitive landscape, are in flux. As we’ve mentioned, the level and rate of innovation needs to be set by the

CEO. For example, if the CEO seeks to create five new, billion-dollar businesses in the next five years, that puts in motion a completely different set of organisational moves than if the goal were only incremental growth. In substantially de-maturing industries, leadership needs to be willing to cannibalise its current businesses, because competitors are already doing so. It’s something that most leaders are not willing to do.

<sup>7</sup> Association of American Publishers. <http://www.publishers.org/press/24/>

## Misconception #7: Innovation can't be measured

Innovation can and should be measured. Leadership needs to identify some ROII – return on innovation investment – measures to establish

support. Thus, innovation should face the same rigour as applied in other areas, with the understanding that there are very high levels of uncertainty and risk in the early phases. Innovation can be managed like any other portfolio of capital investments: Allocate resources, set out the milestones.

PwC advocates measures in multiple dimensions. More robust and broad measurement allows an organisation to see how it's doing to better manage and discipline the innovation process. It identifies gaps in performance that it can close by applying leading practices to drive improvement.

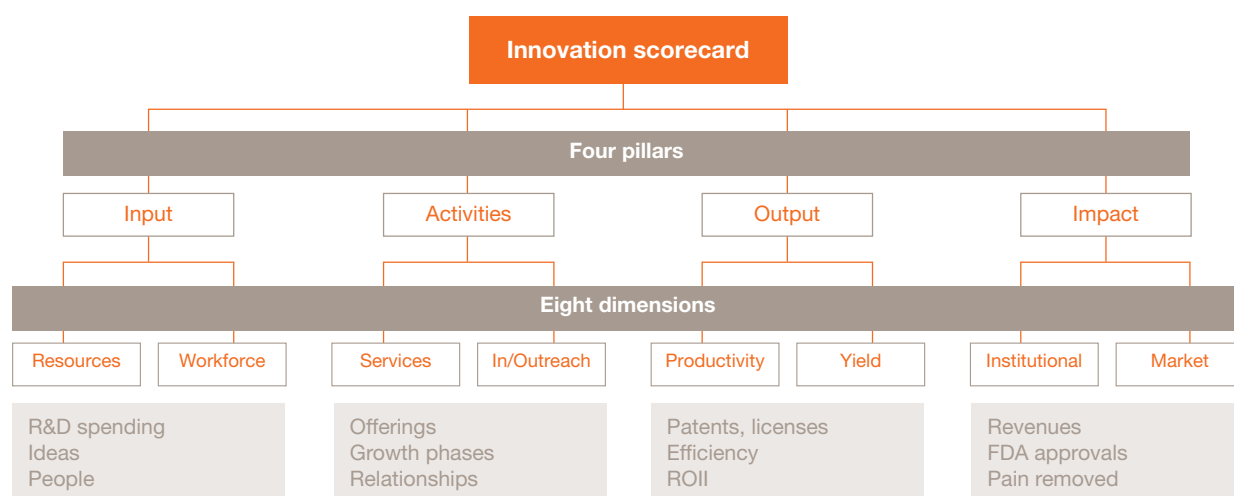
## Measuring your innovation effectively

PwC created an Innovation Scorecard in 2010 to measure the technology transfer office efforts at fifteen academic medical centers. The university environment is ahead of most corporations in supporting and measuring innovation, in this regard. The corporate world, looking for better ways to support and accelerate innovation, can learn a lot from leading practices applied in the university setting.

The Scorecard measures the innovation performance across four pillars and eight dimensions. The first pillar, Inputs, measures the dimensions of resources, and the workforce that supports the inventors and the commercialisation process. The second pillar,

Activities, measures the dimensions of services offered by the technology transfer offices and how they reached both inside and outside the university to develop and commercialise innovations. The Output pillar measures the efficiency and productivity of the technology transfer efforts. The final pillar, Impact, measures the overall effect of the innovations on the institutions, the market and society.

Technology transfer offices that applied leading practices had shorter times to 'go or no-go' decisions on inventions and patents and also had higher levels of inventor engagement, which resulted in the improved success and impact of the office as measured by revenues generated.





*In the end, the best talent will migrate to those firms that have inspiring goals, along with process, culture, incentives and investment that seeks out exciting innovation-driven growth opportunities.*











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# How PwC can help

*From strategy to execution, PwC's innovation specialists translate boardroom strategy into achievable business value.*

## **We help you:**

1. Develop new market-oriented growth strategies to make the most of new and existing product, service and process innovations across multiple dimensions of your organisation.
2. Effectively and efficiently manage your innovation process leading to long-term competitive advantage and sustainable growth for your organisation.
3. Execute change programs which embed behaviours that support an innovation culture – including strategic conversations to align leadership teams, idea generation techniques and build innovation competency.

## **How you benefit from our work**

**Enterprise innovation:** PwC's Innovation Lifecycle Management Framework enables leaders to modify organisational culture to instill innovation into the DNA of employees throughout the organisation. We help identify gaps between current structures and leading innovation practices to create the processes and culture that enables spontaneous innovations to emerge and become commercialised.

**Innovation growth:** Successful growth strategies are based upon commercialising incremental, substantial and radical innovations that deliver new sources of value. We help leaders identify and measure market failure and pain points that need to be addressed through new innovations. We then help to design and develop innovations with compelling value propositions and quantify their potential short-term and long-term benefits to the organisation and its stakeholders.

**Lower costs:** Our approach decreases the learning cycle time and increases the number of shots on goal at lower cost per innovation. We do this by helping leaders apply Innovation Discipline to their strategies so that they reduce costs, improve operations and achieve their growth goals in a lean, tax-efficient manner.

**Improved retention:** The focus on innovation will improve your people experience and therefore improved retention of talent. Because our focus is around the empowerment of your workforce as your innovation engine, this is not about structural change but rather recognising the power of an innovation-led culture.

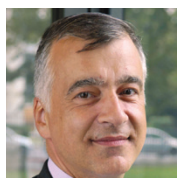
**Reduced risk:** Our approach enables fast, frequent, frugal failure to accelerate the commercialisation of innovation and thereby reduces the risks of investing resources in strategies that are merely novel rather than genuinely innovative.

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