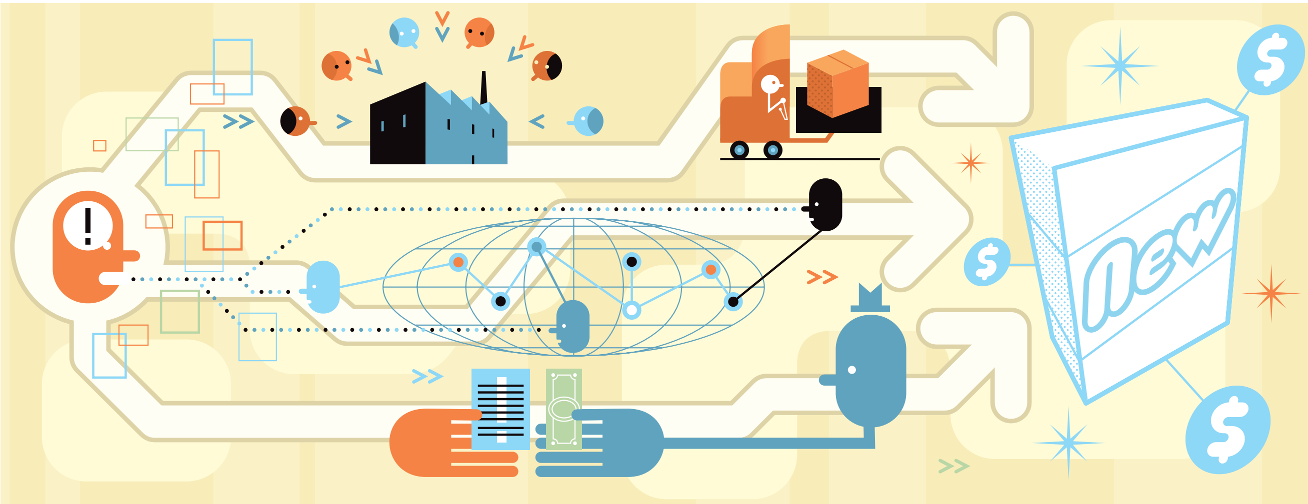
THE BOSTON CONSULTING GROUP

Innovation 2006



BCG | SENIOR MANAGEMENT SURVEY

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Executive Summary

The Boston Consulting Group recently completed its third annual global survey of senior executives on innovation and the innovation-to-cash (ITC) process, which covers the many interrelated activities involved in turning ideas into financial returns. The process goes well beyond ideation and new-product development to include such issues as portfolio management, life-cycle management, and organizational alignment. A total of 1,070 executives, representing 63 countries and all major industries, responded to the survey. We thank them for their participation.

This executive summary highlights some of the survey's high-level findings. The body of the report explores the implications of the findings and provides greater detail. It also offers a framework to guide managers as they think about how to turn their ideas into bottom-line results. For additional information, please see the list of contacts at the end of the report.

Some of the report's key findings include the following:

- Innovation remains a top strategic focus for many companies, with 72 percent of the executives we surveyed ranking it a top-three strategic priority versus 66 percent in 2005.

- Seventy-two percent of respondents said their companies will increase spending on innovation in 2006.

- At the same time, many executives—nearly half of those surveyed—remain unsatisfied with the financial returns on their companies' investments in innovation.

- Executives consider Apple Computer, Google, 3M, Toyota Motor, and Microsoft the world's most innovative companies, with Apple the clear leader.

- Globalization, organizational issues (such as metrics and measurement, structure, and people), and leadership remain three of the biggest challenges facing companies that are seeking to become more innovative.

James P. Andrew
Senior Vice President and Director
Worldwide Leader, Innovation and Commercialization Topic Area

The Outlook for 2006: More Spending—and the Quest for Higher Returns

Our latest annual survey on innovation, conducted in early 2006, yielded a number of new insights on companies' efforts to foster innovation. At the same time, there were several consistent themes that carried through from the previous two years. The overarching message, in particular, remains constant: most companies are strongly committed to innovation and consider it critical to their success, perhaps even their viability. And they are willing to pay for it. But many seriously doubt they're earning sufficient return on their investment.

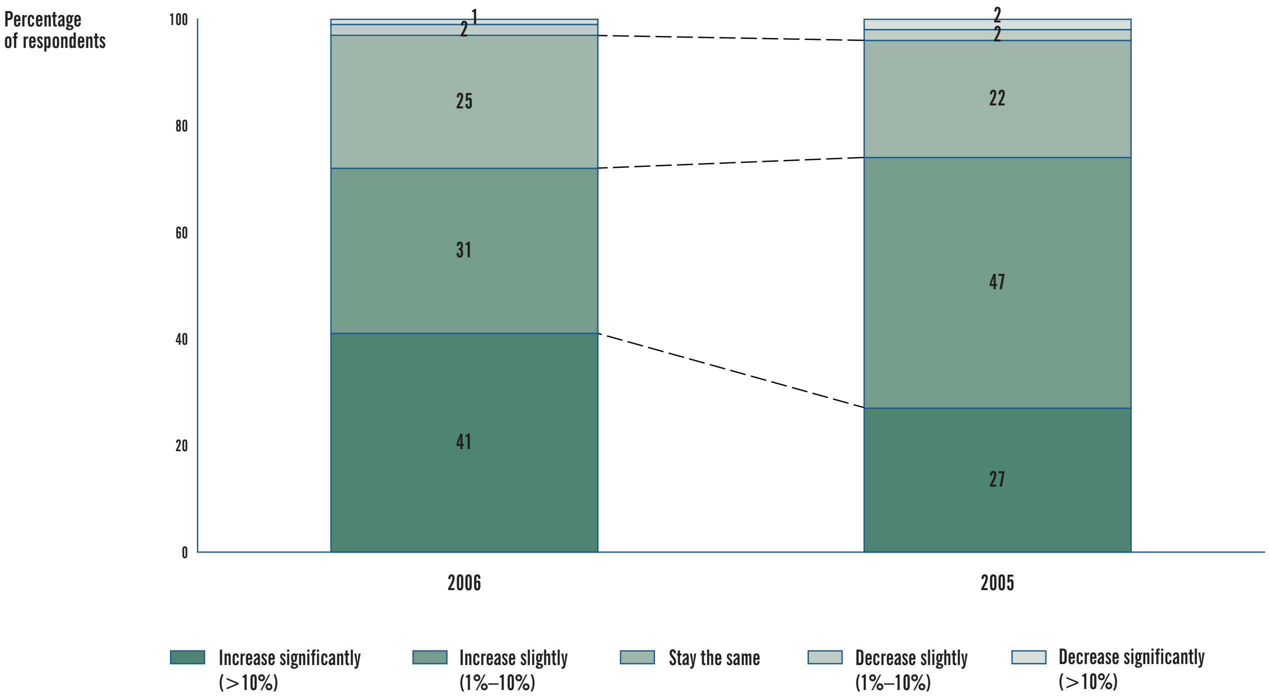
First, a snapshot of spending plans. Nearly three out of four executives said their companies would increase year-over-year spending on innovation in 2006, on par with last year's response. And a large and growing percentage of respondents—41 percent, versus 27 percent in 2005—said they planned to increase spending significantly (that is, by more than 10 percent). (See Exhibit 1.) This increased willingness to spend reflects the steadily rising degree of importance executives are attaching to innovation and organic growth. Indeed, 72 percent of respondents identified innovation as one of their company's top-three strategic priorities. Forty percent said it was their *top* strategic priority, compared with only 19 percent in 2005. (See Exhibit 2.)

Companies are increasing their emphasis on innovation for good reason, it turns out. Innovation, our research shows, translates into superior long-term stock-market performance: the 25 most innovative companies (as defined by our survey respondents) had a median annualized return of 14.3 percent from 1996 through 2005, a full 300 basis points better than that of the S&P Global 1200 median. (See Exhibit 3.) The driver of that outperformance was these companies' ability to expand margins at a superior rate without sacrificing growth: innovators increased median profit margins by an annualized 3.4 percentage points per year over the ten-year period, versus 0.4 percent for the median Standard & Poor's Global 1200 company. And they

EXHIBIT 1

MANY COMPANIES ARE SPENDING MORE ON INNOVATION...

How will your company's investments in innovation compare with last year?

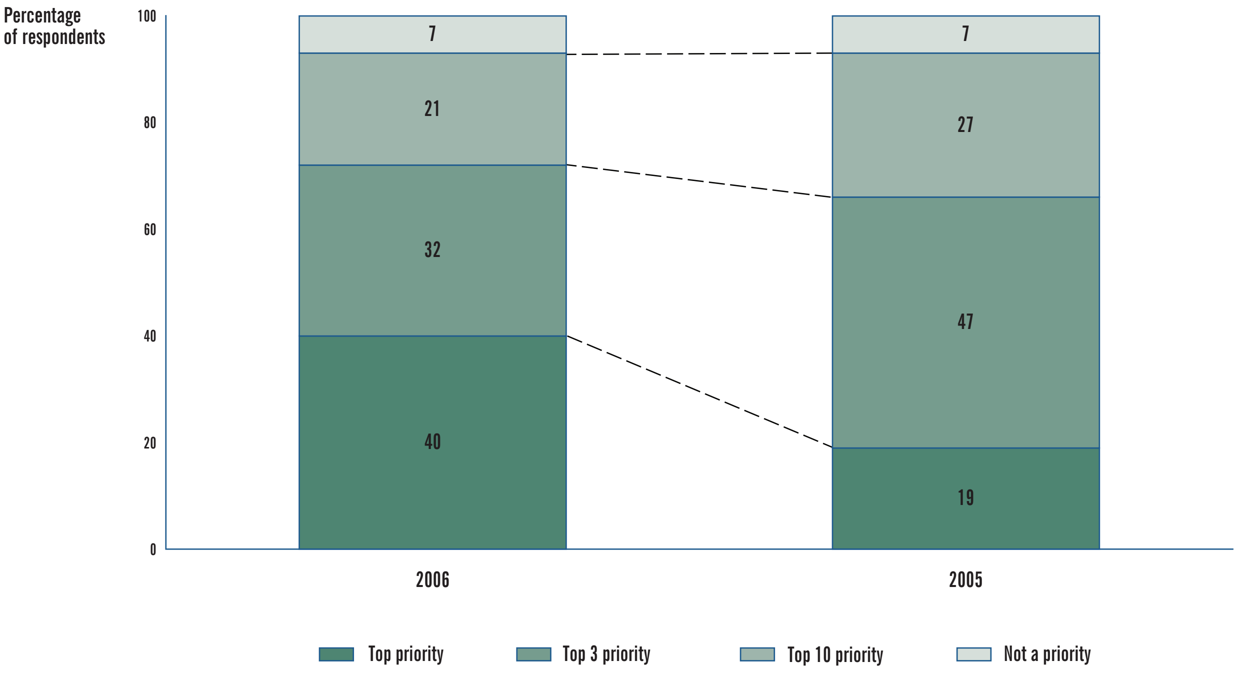


Sources: BCG 2005 Senior Executive Innovation Survey; BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 2

...AS INNOVATION BECOMES A GREATER PRIORITY

Where does innovation rank among your company's strategic priorities?

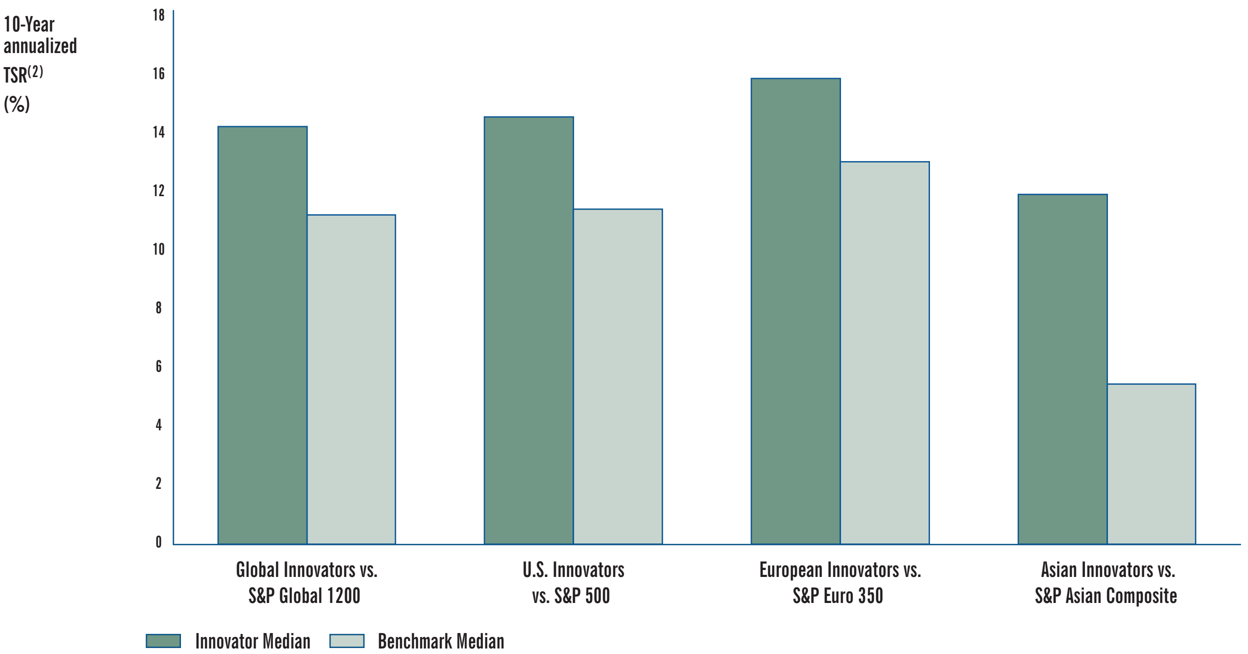


Sources: BCG 2005 Senior Executive Innovation Survey; BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 3

INNOVATIVE COMPANIES HAVE SUPERIOR LONG-TERM STOCK-MARKET PERFORMANCE

Total shareholder return for innovative companies(1) versus relevant benchmarks (1996 through 2005)



(1) As identified by survey respondents. "Global Innovators" encompasses the top 25 companies identified overall. The U.S., European, and Asian groupings encompass all of the companies domiciled in those respective countries/regions that were identified as innovative by respondents from those respective countries/regions.

(2) Total shareholder return (TSR) is defined as capital appreciation (i.e., change in share price) plus dividends.

Sources: BCG 2006 Senior Executive Innovation Survey; BCG ValueScience analysis.

did this while keeping revenue growth on pace—9 percent per annum—with the index median.

Spending More, Yet Dissatisfaction Remains

Plans to boost spending were fairly consistent across geographies. By industry, media and entertainment companies had the most aggressive intentions, with fully 84 percent of respondents saying they planned to increase innovation spending and 56 percent planning to increase it significantly. A relatively high percentage of companies in the telecommunications, consumer products and retail, and health care industries also planned to boost spending significantly. Energy companies proved the most conservative, with 56 percent expecting to raise spending and only 15 percent planning to raise it significantly. (See Exhibit 4.)

Although companies are digging deeper into their pockets to spur innovation, many continue to question the effectiveness of that spending. In fact, nearly half of the respondents we polled were unsatisfied with the financial returns on their investments in innovation, a percentage little changed from 2005 (though an improvement over 2004, when 57 percent of respondents expressed dissatisfaction). (See Exhibit 5.) Reasons cited were numerous, ranging from difficulties in accurately gauging costs and, ultimately, returns, to cultural issues that stifle productivity and squander resources. By industry, dissatisfaction was highest among industrial goods companies, with 56 percent of respondents saying they were unhappy with their return on investment. (See Exhibit 6.)

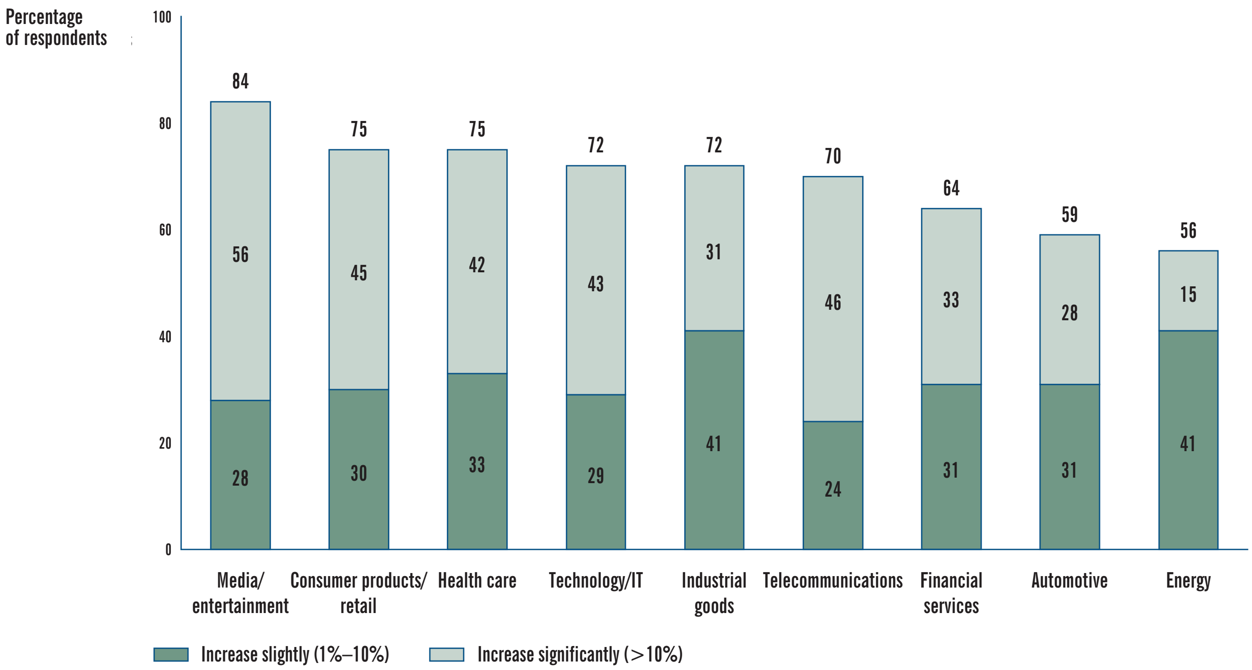
Additionally, only 52 percent of respondents considered their company's innovation capabilities—the people, processes, resources, etc., necessary to turn ideas into cash—to be superior to those of their competitors. Though this is a slight improvement from 2005, when 48 percent of respondents considered their companies to have superior capabilities, it still indicates how significant the challenge remains for most senior executives.

Taken as a whole, then, the above paints a mixed picture. On a positive note, companies' ongoing

EXHIBIT 4

MEDIA AND ENTERTAINMENT FIRMS PLAN THE BIGGEST PERCENTAGE INCREASES IN SPENDING

How will your company's investments in innovation compare with last year?

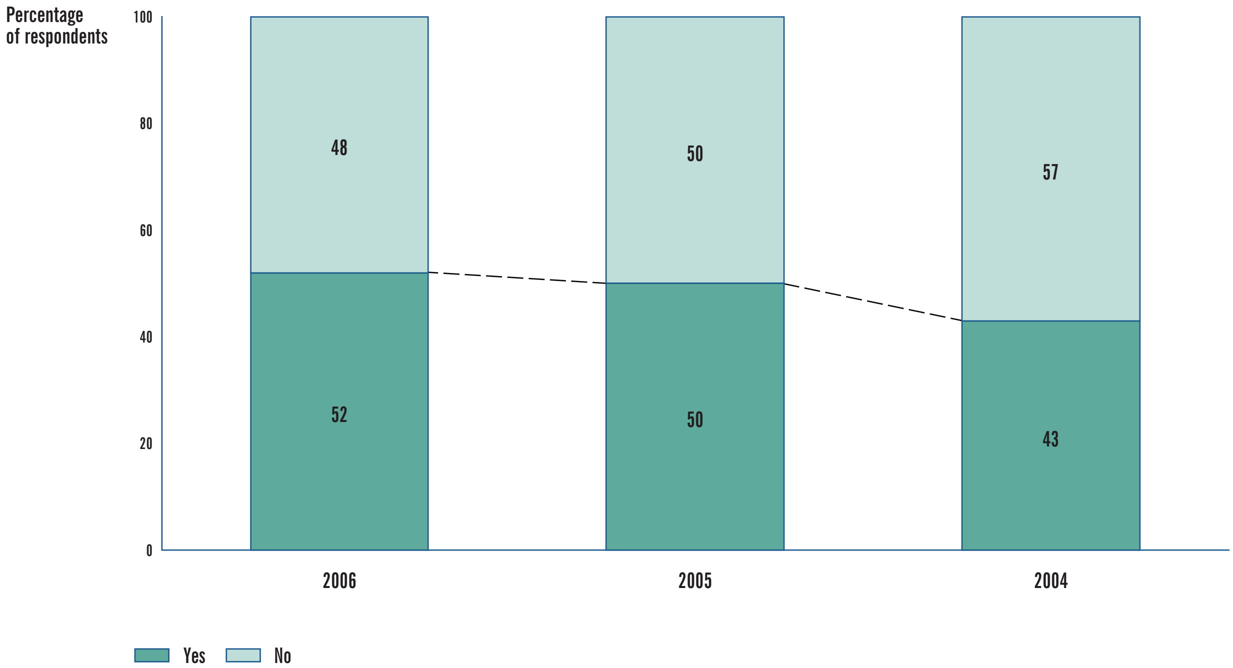


Source: BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 5

DESPITE SOME IMPROVEMENT, DISSATISFACTION WITH THE RETURN ON INNOVATION SPENDING REMAINS HIGH

Are you satisfied with the financial return on your investments in innovation?

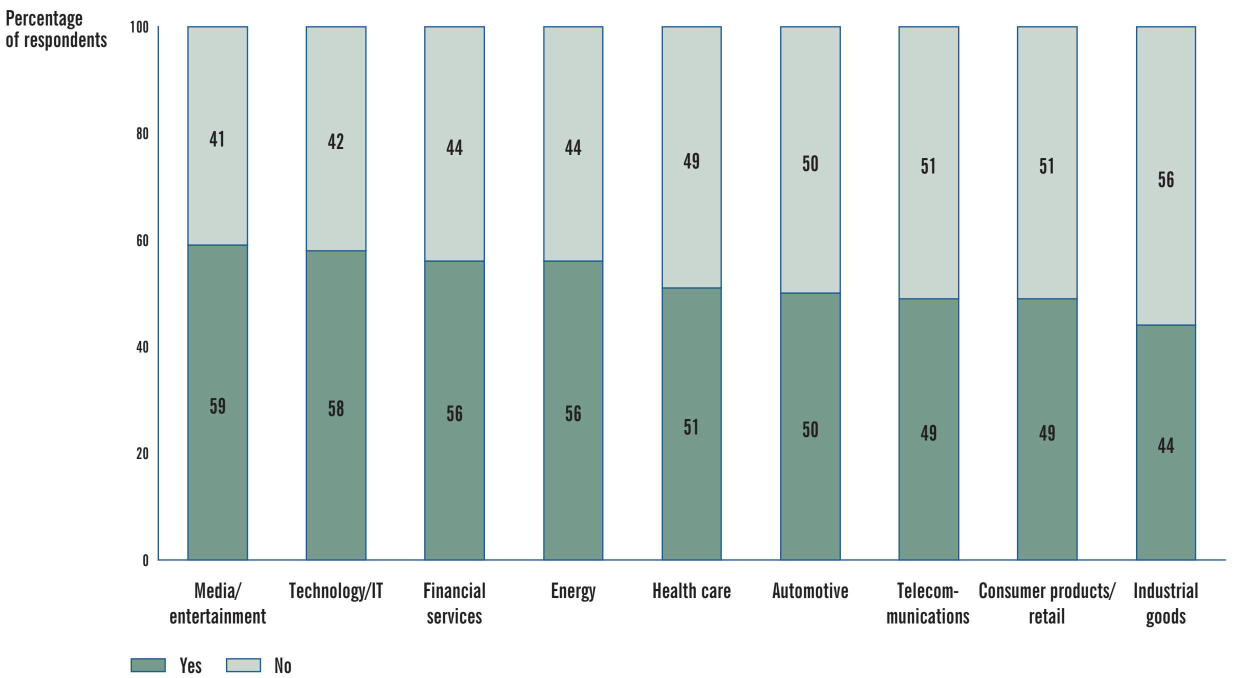


Sources: BCG 2004 Senior Executive Innovation Survey; BCG 2005 Senior Executive Innovation Survey; BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 6

INDUSTRIAL GOODS COMPANIES ARE THE LEAST SATISFIED WITH RETURNS

Are you satisfied with the financial return on your investments in innovation?



Source: BCG 2006 Senior Executive Innovation Survey.

and growing commitment to innovation should translate into a range of new and improved business models, processes, products, services, and customer experiences, benefiting companies, their shareholders, and customers alike. But at what cost? Given the apparent "black hole" nature of much of this spending and many companies' significant doubts about their ability to execute, the question must be asked, Might some of this money be better spent elsewhere? Phrased a bit differently and more constructively: What steps can, and should, companies be taking to optimize their innovation spending to ensure that little, if any, of the money is wasted? This is a pressing issue and one most firms would do well to focus on, given the competitive implications.

Driving Innovation: Objectives and Tactics

Most companies pursue innovation with one primary objective: growth. The vast majority of survey respondents—over 90 percent—consider organic growth through innovation necessary for success in their industry. (See Exhibit 7.) And nearly three out of four agreed that "breakthrough" innovations are required to win, with automotive, technology/IT, telecommunications, and health care companies considering it particularly critical. (See Exhibit 8.) Hence innovation is, in the eyes of most respondents, their company's lifeblood. The question is how, and how effectively, are companies pursuing it?

"New and Improved" or Truly New?

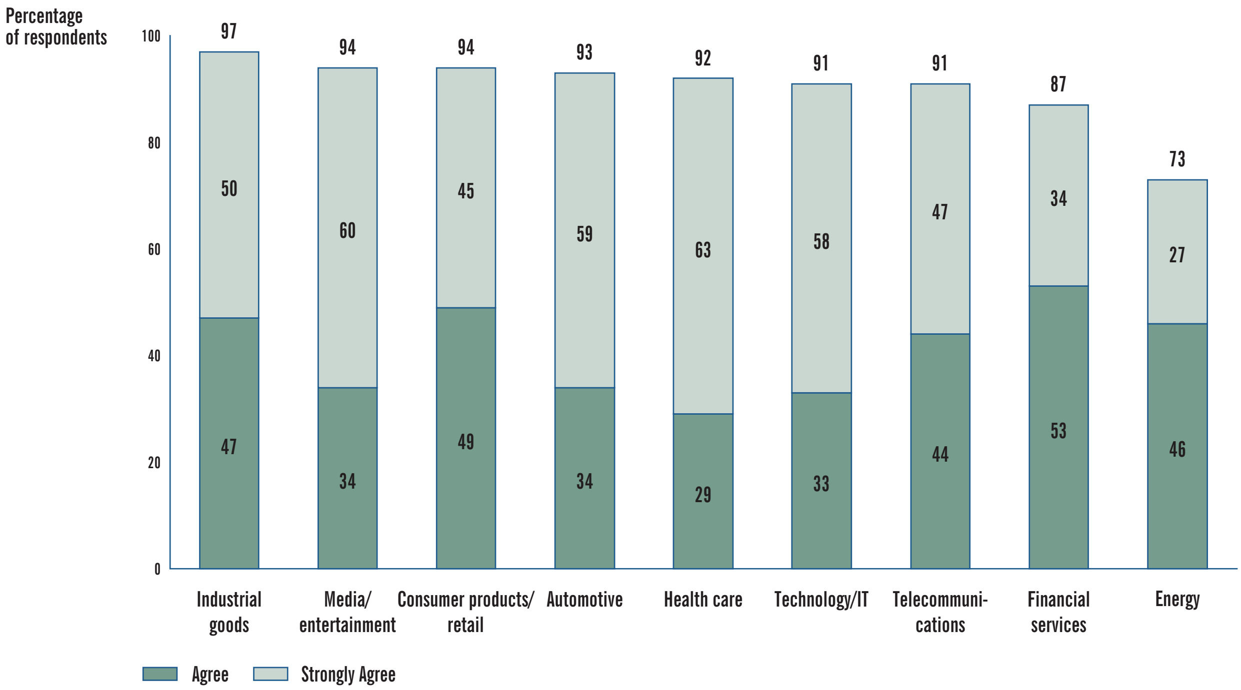
Innovation comes in many forms, from the truly revolutionary to the almost mundane. On the new products and services axis of innovation, for example, it can be found in new products and services for new customers; new products and services for existing customers; improvements to existing products; and cost reductions to existing products. Of these four possibilities, specifically, which do our respondents consider most valuable and worth pursuing? New offerings for existing customers notched the highest rating, with 71 percent of respondents deeming it "important" or "extremely important." (See Exhibit 9.)

Yet when it comes to allocating resources, respondents said they concentrate most heavily on *improving existing products and services.* (See Exhibit 10.) Perhaps an implicit calculation is being evidenced here. Given the inherent difficulties of creating an entirely new product or service (cost, time to market, intellectual-property concerns, branding, etc.), let alone a winning one, companies may be quietly deciding to weight incremental innovations (the surer bets) more heavily, believing this the most practical choice on a risk-adjusted basis. Yes, everyone wants to develop, and pays lip service to

EXHIBIT 7

MOST COMPANIES CONSIDER ORGANIC GROWTH CRITICAL TO THEIR SUCCESS

Agree or disagree: Organic growth through innovation is essential for success in my industry.

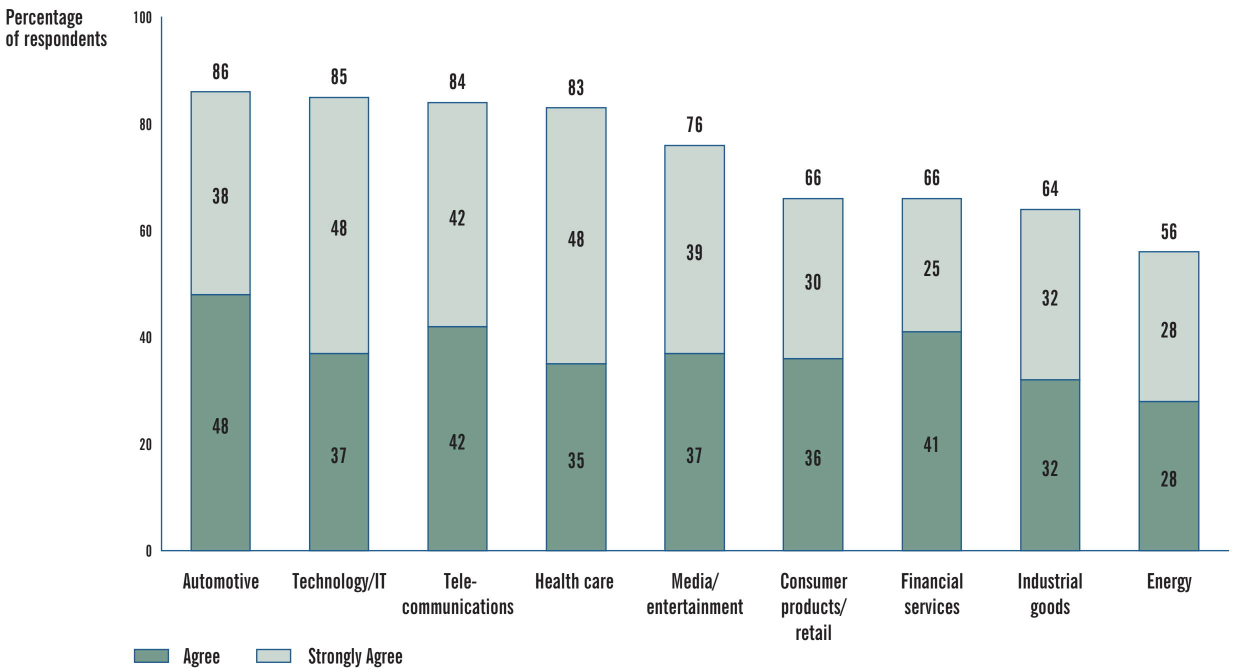


Source: BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 8

BREAKTHROUGH INNOVATIONS ARE SEEN AS A NECESSITY TO WIN

Agree or disagree: Breakthrough innovations are necessary for success in my industry.

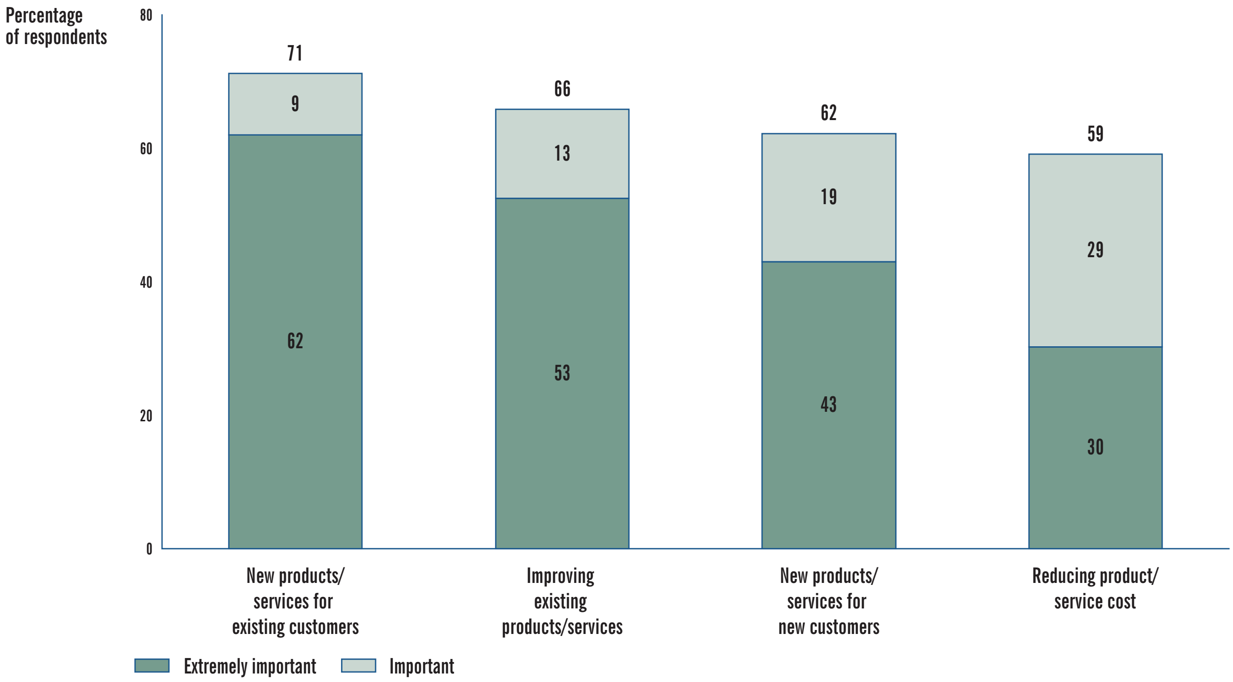


SOURCE: BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 9

EXECUTIVES PLACE A PREMIUM ON NEW OFFERINGS FOR EXISTING CUSTOMERS...

Rate the importance of the following types of innovation:

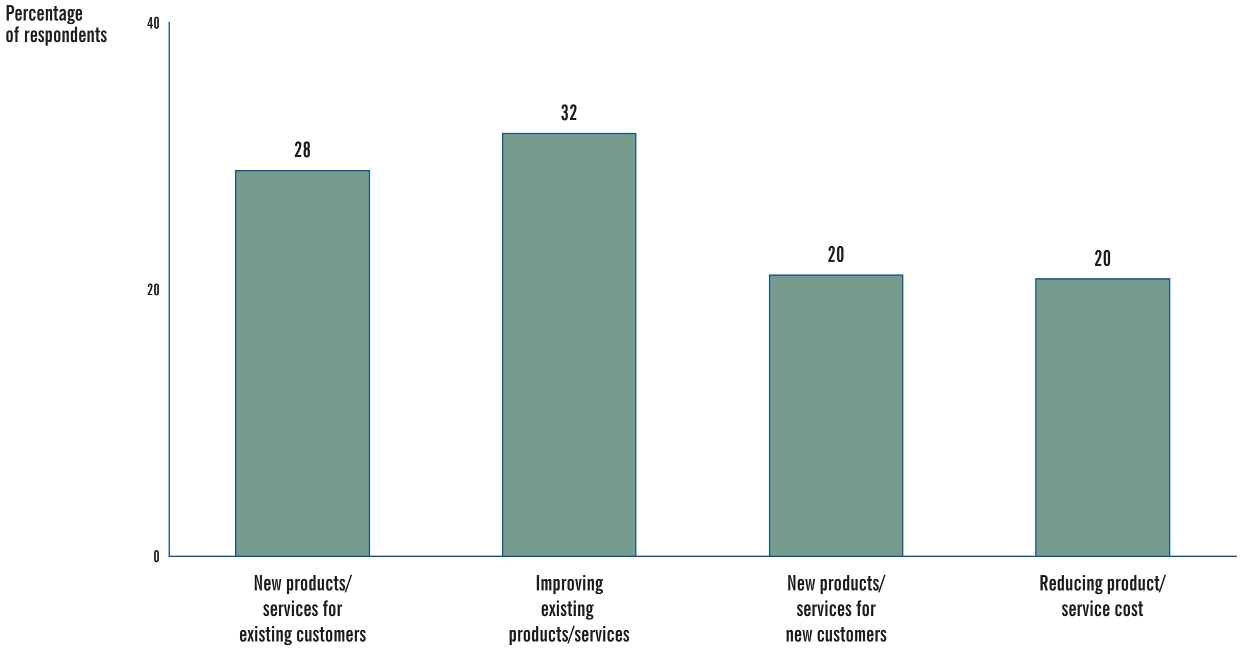


SOURCE: BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 10

...BUT SPEND MOST HEAVILY ON IMPROVEMENTS TO EXISTING OFFERINGS

What percentage of your innovation-related resources is devoted to the following activities:



Source: BCG 2006 Senior Executive Innovation Survey.

developing, the next product that "defines a market," the next iPod. But in the end, when it comes down to actually committing resources, most companies seem to be playing the percentages.

Where to Invest?

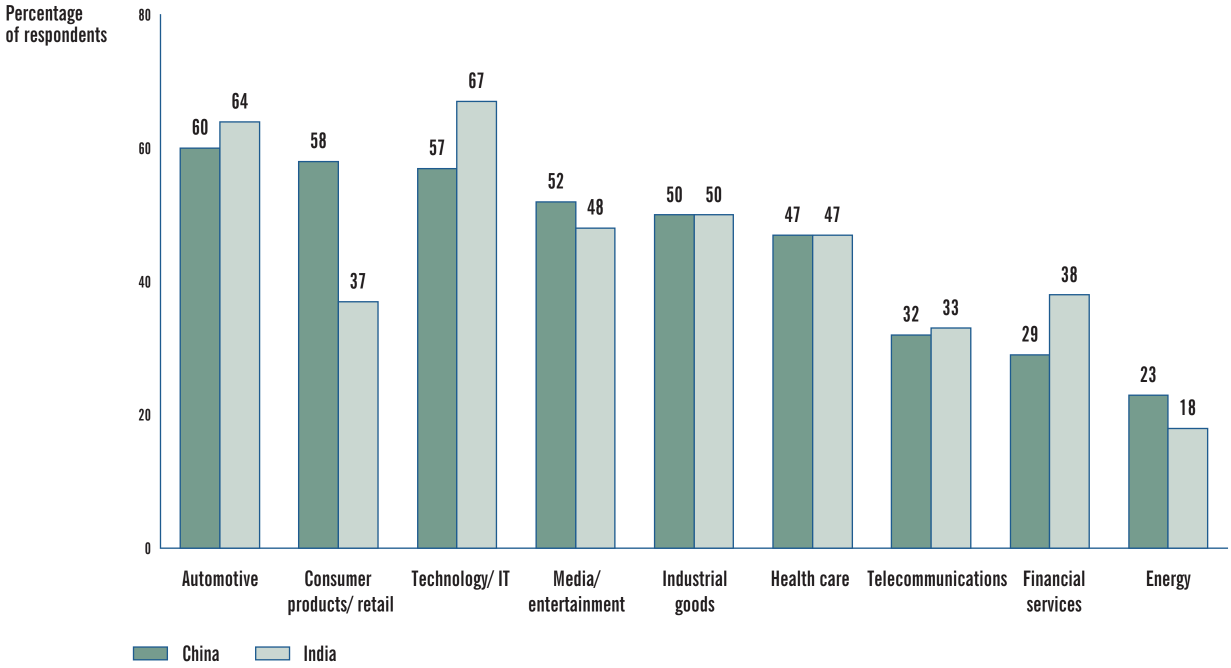
Companies are increasing their emphasis on rapidly developing economies (RDEs). Approximately 45 percent of respondents said their companies planned to increase R&D investments in China, with automotive and consumer products and retail companies planning the biggest percentage increases; an equal number planned to boost investment in India, led by technology and IT firms. (See Exhibit 11.) Smaller percentages planned to boost spending in Eastern Europe, Latin America, and other RDEs. Combined, these intentions represent a noteworthy shift, or acceleration, in allocations, as in 2005 only a third of respondents said they expected to raise their investments in these countries.

In terms of *why* companies are raising their RDE allocations, the most commonly cited reasons, not surprisingly, were the potential cost savings and enhanced ability to develop products and services for local markets. (See Exhibit 12.) Consistent with the latter objective, product development was the winner when respondents were asked to identify which elements of their innovation chains were being targeted via specific country investments, followed by product design and idea generation, respectively. (There are few signs, yet, of a major shift of higher-value-added activities—those that command the highest salaries and are of most concern to policymakers in government—to RDEs.) Clearly, companies believe a bigger on-the-ground presence is necessary to fully tap demand in these markets, particularly the massive and rapidly growing markets of India and China. (See Exhibit 13.)

EXHIBIT 11

COMPANIES ARE INCREASING THEIR INNOVATION INVESTMENTS IN CHINA AND INDIA

My company is planning to increase the amount of R&D it conducts in...

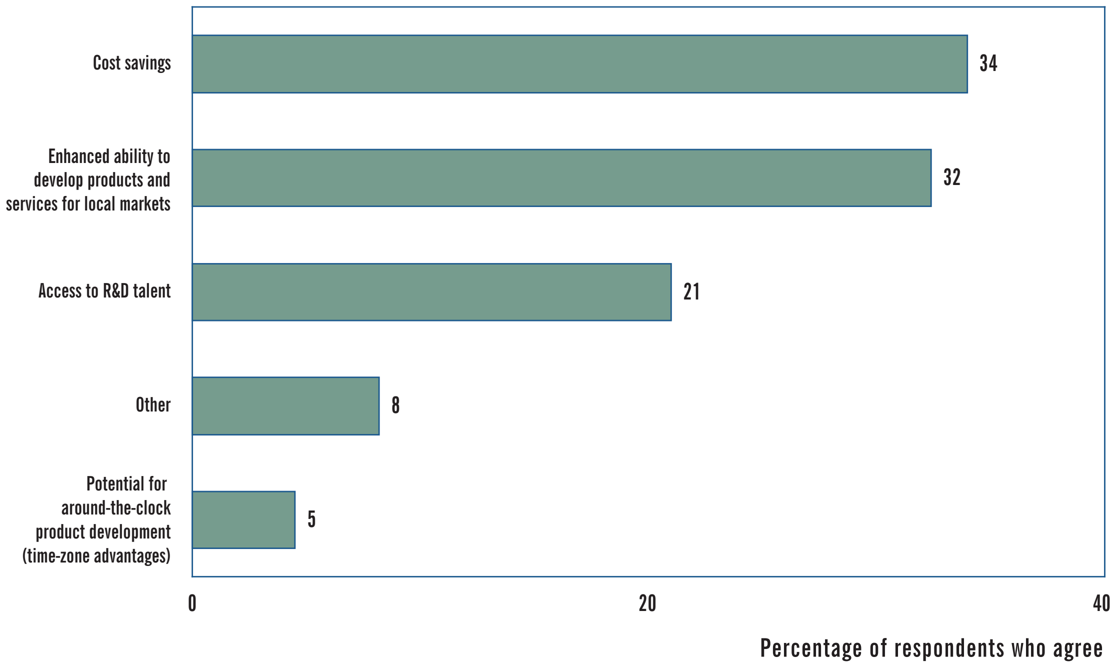


Source: BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 12

COST SAVINGS AND PROXIMITY TO LOCAL MARKETS ARE DRIVING INVESTMENT IN RAPIDLY DEVELOPING ECONOMIES

If you are increasing R&D spending in RDEs, what is the primary reason for doing so?



Source: BCG 2006 Senior Executive Innovation Survey.

Regarding these planned allocations, however, it would be an overstatement to say that companies in aggregate have made an aggressive, full-scale commitment to RDEs. Most firms, instead, continue to take a quite measured approach. Indeed, the largest target for increased innovation spending in 2006, according to our respondents, was North America, with fully 60 percent of respondents saying their companies planned to raise investments there versus last year's levels. And Western Europe was the second most popular destination, at 48 percent.

EXHIBIT 13

WHERE COMPANIES ARE INVESTING, AND WHY

North America is the main destination; product development is the main activity in RDEs.

Is your company planning to increase the amount of R&D it conducts in...		If so, which parts of innovation will be affected?			
Country/region	Yes	Basic research	Idea generation	Product design	Product development
U.S./Canada	60%	24%	36%	33%	36%
Western Europe	48	19	26	24	26
India	45	15	15	19	27
China	45	14	14	16	26
Eastern Europe	27	7	8	8	14
Latin America	23	6	10	9	12
Other	20	4	5	5	6

Source: BCG 2006 Senior Executive Innovation Survey.

Execution: Weaknesses and Strengths

As noted, nearly half of the executives who responded to our survey are dissatisfied with their company's return on investments in innovation. What do they consider the biggest problem spots? The most frequently cited hurdles were development times that are too long, a lack of coordination within the company, not enough insight into customers, and a risk-averse corporate culture. Difficulty in selecting the right ideas and a shortage of great ideas generally were also common laments. (See Exhibit 14.)

The issue of measurement—how to gauge, or attempt to gauge, returns on innovation—was another obstacle cited by many respondents. Quite a few companies, in fact, have essentially thrown in the towel: only half of respondents said their companies use metrics to assess the performance of their innovation processes. And among companies that do use metrics, most use only a handful. And few of *those* firms are confident they're even using the right ones. (See our companion report, *Measuring Innovation 2006*, for a more detailed look at how companies are addressing the issue of measurement.)

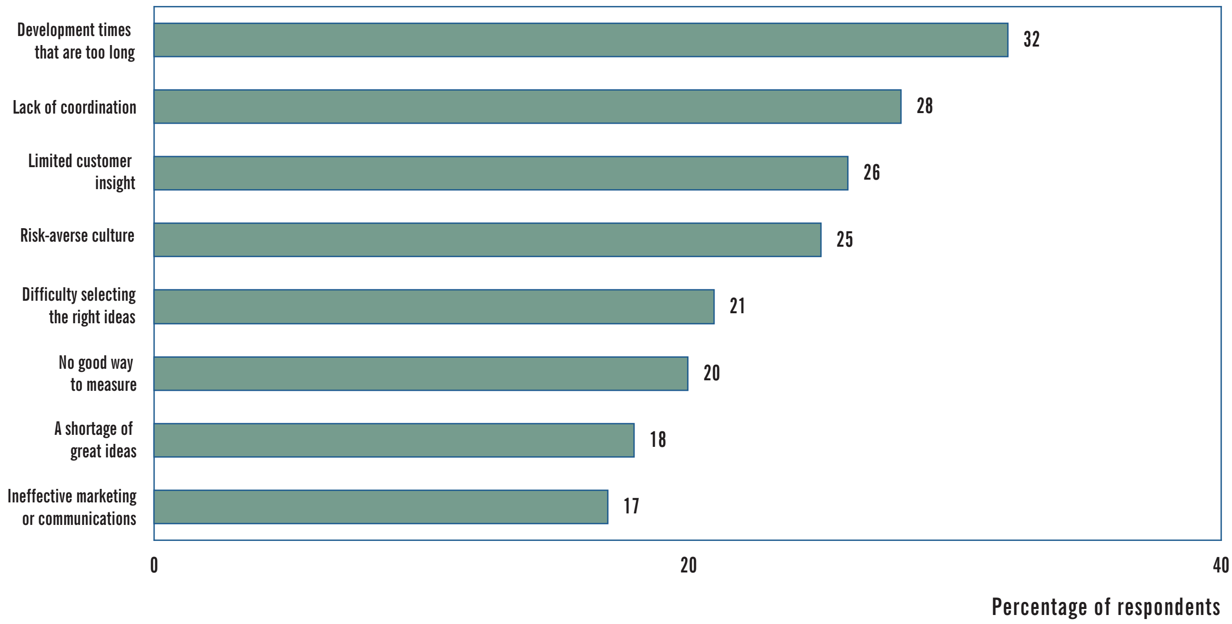
Innovation is, undoubtedly, hard to measure. While after-the-fact analysis (e.g., determining the percentage of successful products launched) can be straightforward, it is much harder to assess, with any degree of confidence, the potential outcomes of the many forward-looking decisions executives are faced with when attempting to drive innovation. Questions such as Is our innovation spending going to give us enough growth to deliver on our total-shareholder-return objectives? and Is our organization taking enough risk in the innovation initiatives it has under way? defy easy answers.

Despite the many uncertainties, however, it is important to try to assess, at the outset and on an ongoing basis, the likely impact of different

EXHIBIT 14

LENGTHY DEVELOPMENT TIMES AND LACK OF COORDINATION ARE MOST COMMON OBSTACLES

If you are not completely satisfied with the return on your investments in innovation, what are the obstacles you face?



Source: BCG 2006 Senior Executive Innovation Survey.

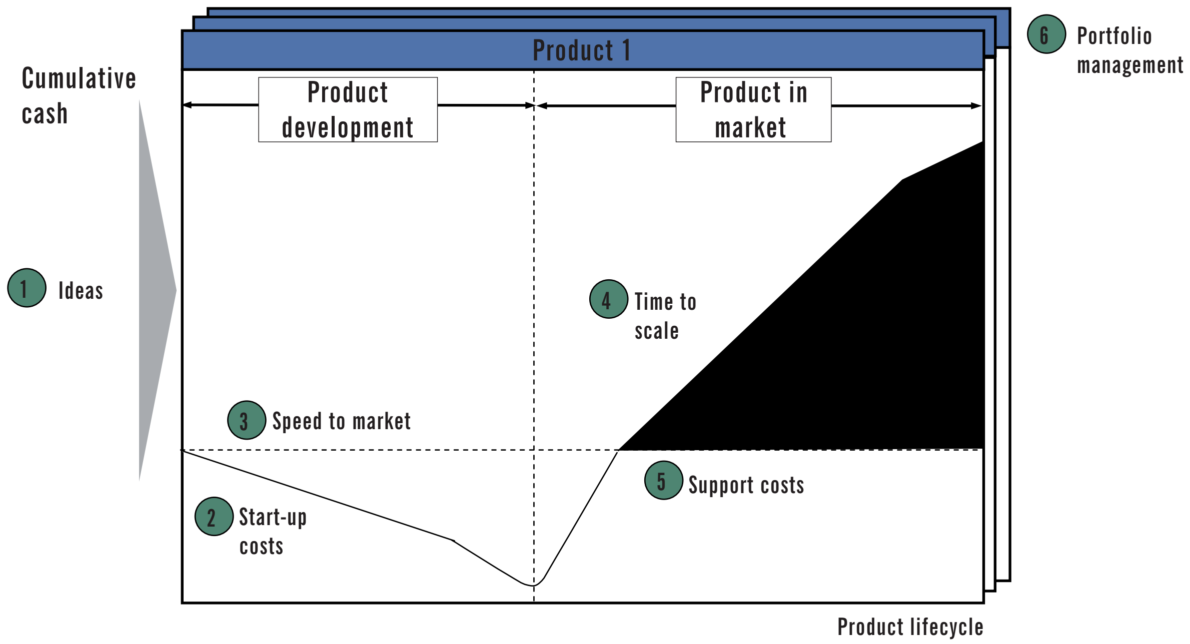
approaches to managing the innovation-to-cash process. Many companies find that an effective way to do this is by examining the *cash curve* of an innovation. The curve depicts the cumulative cash investments and returns (both expected and, over time, actual) for an innovation over time, running from the very beginning of development until the point at which the product or service is removed from the market. The information that goes into a cash curve isn't perfect (how could it be?), but use of the curve brings the many implicit choices, assumptions, and decisions that management teams make out in the open and fosters discussion. Other analytical approaches—net present value, option analysis, etc.—are obviously important and should be used in conjunction. But the cash curve brings the underlying thinking to light in a way that spreadsheets can't and, in doing so, improves the quality of decision-making. (See Exhibit 15.)

While respondents found numerous areas of weakness in their companies' innovation capabilities, they also identified strengths. Fully 75 percent of respondents considered executive sponsorship of projects a strength; developing deep customer understanding (69 percent) and providing strong project-team support (67 percent) were also identified by many as strong suits. A significant number of respondents (61 percent) also believed their companies had established a culture that supports innovation. (See Exhibit 16.)

EXHIBIT 15

THE CASH CURVE OF INNOVATION—AND THE SIX LEVERS TO IMPROVE IT

The curve must be managed as a coordinated, end-to-end process.

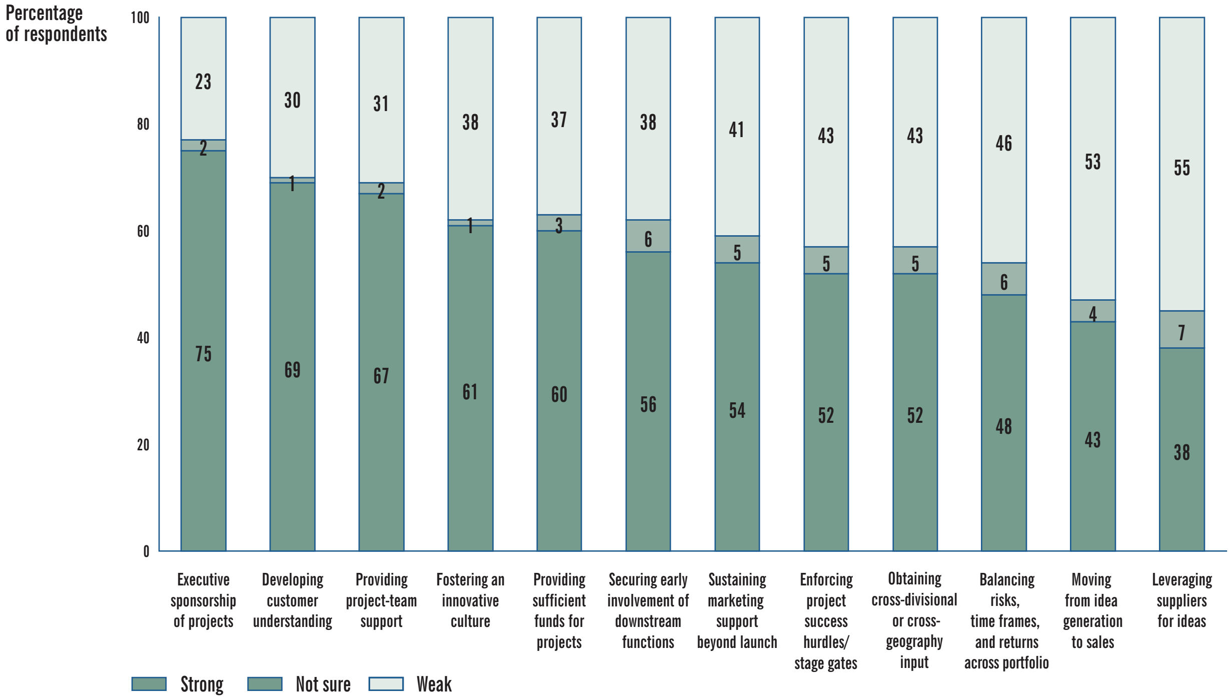


Source: BCG analysis.

EXHIBIT 16

EXECUTIVE SPONSORSHIP AND CUSTOMER UNDERSTANDING ARE CONSIDERED GREATEST STRENGTHS

How strong is your company's current performance in each category?



Source: BCG 2006 Senior Executive Innovation Survey.

Best in Class: The Most Innovative Companies

A relative handful of companies have dominated our "most innovative" rankings for the past three years. What does it take to be consistently recognized by one's peer group, and executives broadly, as a top innovator? (See Exhibits 17 and 18.)

Apple Computer

- *Deep customer understanding*
- *Skillful blend of design and technology*
- *Highly effective marketing*

In the case of Apple, the survey's hands-down winner both this year and in 2005, success stems from a list of impressive attributes. Respondents raved foremost about the company's deep understanding of its customers, its seeming ability to, in the words of one executive, "know what consumers want before the consumers themselves know it." Said another executive, "Apple is telling its customers what's next. It's not following the classic 'market-led' innovation path that inevitably leads to incrementalism and 'me-too' innovation…Customers trust Apple and view it as a lighthouse guiding them on what to adopt next. If Apple has it, it must be useful."

Executives were nearly as complimentary about Apple's ability to marry technology and design. "Steve Jobs's vision for seamless integration between hardware and software, and knack for understanding user interfaces, drives that company," said one respondent. Said another, "Apple is very focused on the user experience and how design impacts that experience. It's tough to delight typically jaded customers in this day and age, but Apple pulls it off." A third respondent praised the company's ability to deliver "high-quality, user-friendly technology products that tie platforms, channels, and user patterns together in new ways." A fourth noted "the superior physical and user-interaction design of its products."

EXHIBIT 17

THE MOST INNOVATIVE COMPANIES

Which companies do you consider most innovative?

2006		2005	
1.	Apple Computer	1.	Apple Computer
2.	Google	2.	3M
3.	3M	3.	General Electric (tie)
4.	Toyota Motor	3.	Microsoft (tie)
5.	Microsoft	5.	Sony
6.	General Electric	6.	Dell
7.	Procter & Gamble	7.	IBM
8.	Nokia	8.	Google
9.	Starbucks Coffee	9.	Nokia (tie)
10.	IBM	9.	Procter & Gamble (tie)

Sources: BCG 2005 Senior Executive Innovation Survey; BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 18

INDUSTRY LEADERS, PER THEIR PEERS

Which company in your industry do you consider most innovative?

Industry		Company
Automotive	→	BMW
Consumer products/retail	→	Procter & Gamble
Financial services	→	ING Bank
Health care	→	Genentech
Industrial goods	→	3M
Technology/IT	→	Google
Telecommunications	→	NTT DoCoMo

Source: BCG 2006 Senior Executive Innovation Survey.

Apple drew high praise as well for its marketing, which "creates a must-have mentality that appeals to the mass consumer." Respondents also cited the company's resilience, its "track record of having the courage to challenge what it does as a company and reinvent itself." Finally, they praised its culture, which one executive identified as "perhaps its biggest innovative success: every single person in the company contributes to Apple's innovation success every day."

Google

- *Steady launch of "paradigm-shifting" products*
- *Speed*
- *Innovative business model*

Google garnered the number-two spot in our ratings in 2006, rising from an eighth-place finish in 2005. Respondents were impressed by the company's ability to quickly dominate its core market via a superior product ("there are a lot of search engines, and then there's Google") and, in the process, redefine conceptions of what a search engine could be. Said one respondent, "Google has changed the fabric of our culture—how we seek, learn, and find inspiration is all tied up in that engine." Said another, "Google created, operationalized, and monetized the search function. It filled a big and unarticulated public need, becoming indispensable to its customers, at least for now."

Respondents also cited Google's ongoing push to expand its revenue base via the launch of Gmail, Google Maps, Google Earth, and a range of other products and services that "seem to literally tumble out of its innovation pipeline." Executives also praised the company's speed. Said one respondent: "They innovate at a rapid rate in multiple dimensions—technologies, products, business models, geographies, and consumer groups. And their time to market is at least an order of magnitude better than that of their closest competitor." Asked another: "Who else has so quickly come up with viable, potentially paradigm-shifting business ideas, in so many different areas, so quickly?"

Executives also praised Google's culture, which is geared toward "constant innovation" and "encourages and rewards even unsuccessful innovation ideas due to the learning benefit that can come from them." Said one respondent, "Google has built reinvention and creativity into the core values of the company."

3M

- *Lengthy track record of successful innovation across multiple industries*
- *Institutionalized capabilities*
- *Supportive culture*

Culture figured prominently in executives' comments on 3M as well. Respondents praised the company in particular for its end-to-end commitment to innovation ("the whole company, from top executives on down, is fully involved") and for providing a conducive, "enabling" environment ("3M gives its employees time to work on, develop, and test their ideas" and "has a high tolerance for error"). They also cited the firm's deep customer understanding and speed to market, with one respondent highlighting its "fast product-diversification process and fast adaptation of its product portfolio to threats imposed by the digital media revolution."

But the bulk of respondents' comments centered, not surprisingly, on 3M's remarkable long-term track record, its ability to successfully innovate year in and year out. "3M is a continuous innovator that has operationalized a model that consistently delivers new products that change people's lives," said one executive. Another cited the company's "consistent innovation across a range of industries over time."

Toyota Motor

- *Consistent industry leader in innovation*
- *Deep customer understanding*
- *Continuous investment in innovation capabilities*

Toyota is another company that, like Google, moved up significantly in the rankings this year, landing in fourth place versus a fourteenth-place spot in 2005. Many comments centered on the company's pole position in the hybrid car industry. Said one respondent, "The company is addressing these cars seriously in terms of their engineering and styling, which makes these products palatable to consumers. Other manufacturers have put themselves well behind the curve by not fully doing both." Another respondent, who had recently purchased a Toyota hybrid, said, "I'm impressed by the level of technical innovation, precision, and insight Toyota is putting into its product." Several other executives said they consider this just the latest example of Toyota leading the market and delivering the right product at the right time. "Toyota gives the customer what he wants just when he realizes he wants it. In the 1970s and 1980s it was affordable reliability. In the 1990s it was comfort and image. Now it's guilt-free motoring, which Toyota is serving with the Prius."

Other respondents praised the company for its speed ("Toyota has the ability to understand customer and market needs and can deliver on those needs faster than its competitors"), its willingness to take risks, and its continuous investment in, and improvements to, its processes, skills, and technology. Indeed, said one respondent, "Toyota is always the first with new manufacturing technologies and leading-edge business models."

Microsoft

- *Staying power*
- *Ongoing and successful expansion into new arenas*
- *Products that allow it to "lock in" markets*

Though its size and dominance capture the bulk of the media attention, give credit where credit is due: Microsoft remains one of the most innovative companies out there. Respondents noted its staying power ("They somehow manage to keep a very strong product-development pipeline despite everybody else in the world shooting at them"), ongoing forays into new markets ("The company is constantly expanding into other markets and value chains"), and ability to "lock in" those markets with innovative products and peripherals. Respondents also praised Microsoft for its customer knowledge ("They're not always first, but they listen to customers or they wouldn't have the market share they have") and ability to commercialize not just its own ideas but those generated beyond its walls.

But the most telling comments centered on the scale and scope of the company's reach and the speed with which it attained it. Said one respondent, "Microsoft has a complete and total ability to capture and retain an immense customer base. We need to figure out how to innovate our offering to do the same." Summed up another, "The speed with which Microsoft has infiltrated the lives of the global population in a useful, practical way is nothing short of an innovation miracle."

Taking Innovation to the Next Level

Companies have a range of levers they can use to improve their innovation capabilities. Three that we are asked about most often in our discussions with executives, and that surfaced repeatedly as key concerns in survey responses, are globalization, organization, and leadership. We'll touch on some important elements of each.

Globalization

Nearly 70 percent of respondents said that globalization is having a major impact on how their company approaches innovation. And indeed, many companies are increasingly utilizing RDEs in their innovation processes. The general arguments for doing so are compelling and hardly need restating: access to a vast pool of high-quality, low-cost technical talent; potentially faster product-development times; and better access to the local markets, which happen to be among the fastest-growing sources of demand in the world.

Yet while many companies are raising their exposure to and investment in RDEs, few are moving quickly or with enough commitment. This comes with a price tag. In terms of serving local demand, there are clearly early-mover advantages—imagine the benefits of establishing a dominant presence in Beijing or Guangzhou versus a token one—and proportional disadvantages for companies that wait. The labor-cost differential is also very large and very real, and companies that delay in capitalizing on it are simply watching potential profits disappear. And holding off on investments that promise greater speed to market is throwing a wet towel on revenue growth.

In addition to moving more quickly and with greater conviction, however, companies also need to *expand their thinking on what RDEs' skilled labor pool can accomplish for them*. In particular, companies are underapplying this talent to such areas as basic research and idea generation. Think of what 15 or 20 Ph.D.'s—or more—devoted to a specific research or design challenge could achieve, and in what time frame, versus your current one or two. The possible gains in output and productivity per dollar invested are indeed vast and represent a potentially powerful source of competitive advantage.

If your company is still holding back regarding its innovation-related stake in RDEs, it's time to reconsider. Identify the stumbling blocks to a bigger commitment to these countries—on-the-ground logistics, internal resistance, necessary changes in company-wide alignment, etc.—and map out plans to overcome them. (For more on the topic, see "Globalizing R&D: Knocking Down the Barriers" and "Globalizing R&D: Building a Pathway to Profits," articles from our BCG Opportunities for Action series.)

Organization

There is no single best organizational structure for innovation. Indeed, almost any company, regardless of size, shape, culture, or hierarchical structure, can be innovative, as the wide range of firms that populate our "most innovative" list illustrates. The critical, elusive ingredient is *alignment*—having the entire organization on the same page concerning objectives, tactics, and ultimately commitment to innovation.

How can companies create that degree of alignment? In our experience, it pays to focus on several key areas. The first falls under the banner *people*. Organizational alignment requires, at its base, employees who understand the value of working together and have the skills and temperament to do so. Empower and reward your strongest players; simultaneously, identify those individuals who come up short and work with them. Give them clear and direct feedback, and take appropriate action as necessary. There is no room for silos of any type, whether geographic, process, or functional. Our survey suggests that such silos remain quite common—indeed, nearly half of respondents considered their companies weak at "obtaining cross-divisional or cross-geography input" in the development of ideas, and 38 percent considered their company's ability to "secure early involvement of downstream functions" poor. Clearly there is potential for improvement.

A second area ripe for an upgrade in most companies is *measurement*. If you don't measure innovation, it tends to get overwhelmed by things that do get measured and that immediately impact the bottom line—a case of "the urgent crowding out the important." Companies should thus institute—and use—a range of measures to evaluate all key aspects of their innovation processes: inputs (for example, staffing and capital and operating expenditures); performance (for example, cycle times and success ratios at different process gates); cash payback; and indirect benefits, such as impact on the brand. But more important than finding exactly the right measures is finding, and beginning to use, measures that are merely not too "wrong." Pick a few and get started tracking. Look at them over time and you'll see what's working and what isn't. You'll then have the necessary knowledge to act effectively.

A third key area to focus on is the *environment*. Companies should take pains to ensure that the conditions that help people be more innovative, especially in the idea-generation phase—such as motivation, space to explore, the opportunity to develop deep domain knowledge, and time to think—are present. Time, in fact, may be the greatest luxury. Many of the efficiency- and productivity-enhancing steps that companies have taken over the past decade have sharply trimmed the time available for people to simply think. Jobs that centered on pondering longer-term, big-picture issues have been eliminated, and free time that might have been devoted to thinking has been scaled down generally as employees at all levels have taken on more and more responsibility. Most executives we've polled say they don't have time to think about much beyond their day-to-day activities. In fact, our studies suggest that most white-collar workers spend less than 5 percent of their time on activities that could foster new ideas or insights.

It is hard for an organization to be innovative under these conditions. Yet there are options, and innovative companies allow and even encourage their employees to spend time thinking about new things. Samsung, for example, which recently launched a major innovation initiative, encourages its designers to look for ideas outside the company, and gives them one afternoon off a week to do so. Bosch also gives its department managers and group leaders dedicated time each week to let creativity gel.

Consider focusing on this one element—time—as a first step toward creating a more innovative environment. Find a way to give your people, or at least some of your best people, some creative downtime. You might be surprised at what they'll come up with.

Leadership

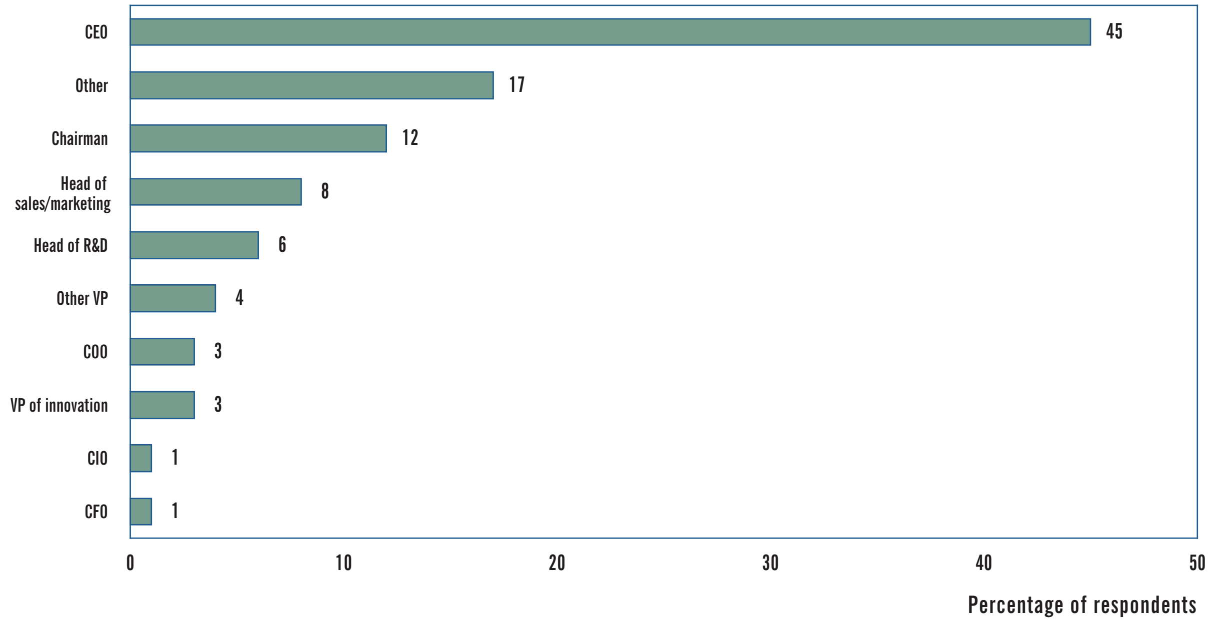
Strong leadership is ultimately the key driver of innovation. Without it, a company is likely to founder. Most senior leaders recognize the significance of their role and take it quite seriously; indeed, when respondents were asked to identify the person who is the biggest driving force behind innovation at their company, the CEO was the easy winner. (See Exhibit 19.) Yet it's worth noting that the majority of respondents—55 percent—picked someone *other* than the CEO in response to the question. There are, of course, many potential reasons for the choice of someone else—someone with "innovation" in his title, for example. But if the CEO (or chairman) is *not* the primary driver, and if not everyone in the organization is aware of how important innovation is to that leader, there are going to be real questions about the sustainability and ultimate success of the company's innovation efforts.

Symptomatic, and also undoubtedly a cause, of this condition is the often-large disconnect between the perspective of the chairman/CEO on innovation and those of the rest of the company, a theme our survey has revealed each year. In short, chairmen and CEOs typically have a much rosier view of things. Eighty percent of chairmen and CEOs, for example, believe their companies have a corporate culture that promotes innovation; only 51 percent of non-executives share that opinion. Seventy-six percent of chairmen and CEOs feel that their senior management team has a common perspective on how to manage innovation and measure its success; only 58 percent of non-executives agree. Ninety percent of chairmen and CEOs view innovation as one of their company's top three strategic priorities; only 67 percent of non-executives do. (See Exhibit 20.)

EXHIBIT 19

THE CEO IS THE PRIMARY DRIVER OF INNOVATION

Who is the biggest force driving innovation at your company?

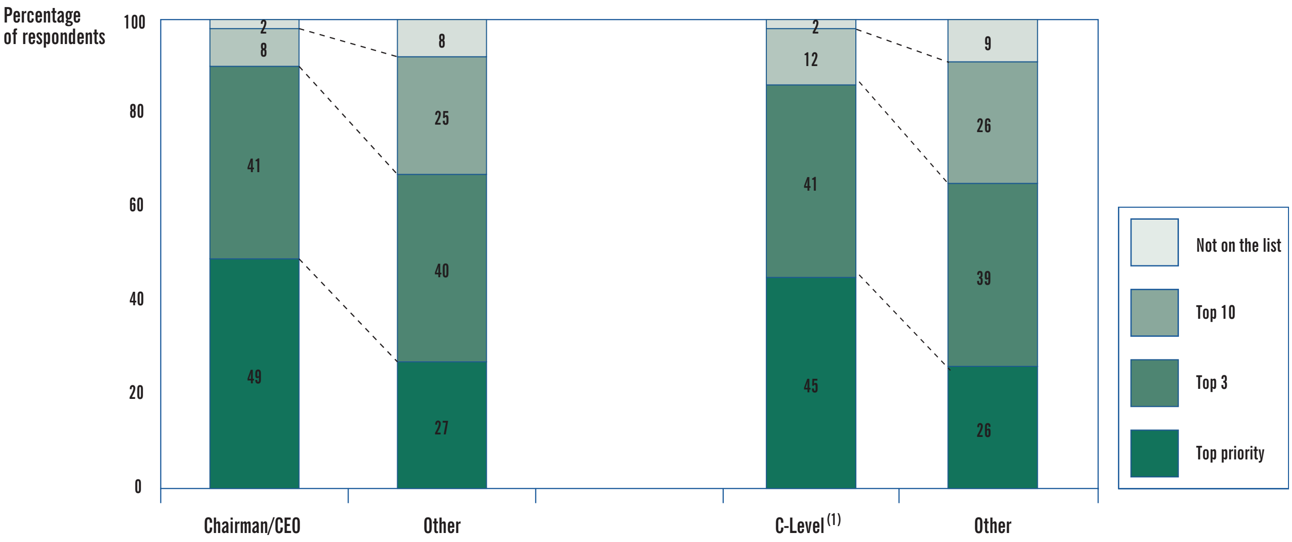


Source: BCG 2006 Senior Executive Innovation Survey.

EXHIBIT 20

A DISCONNECT BETWEEN SENIOR LEADERS AND THE REST OF THE COMPANY?

Where does innovation rank among your company's strategic priorities for 2006?



(1) Includes chairmen, CEOs, presidents, CFOs, CIOs, COOs, and CTOs.

Source: BCG 2006 Senior Executive Innovation Survey.

Chairmen and CEOs, and leaders generally, obviously need to do a better job of establishing their credibility regarding their commitment to innovation. Words alone are not enough, though regular, consistent communication is certainly a big part of it. The strongest messages, the ones employees will take to heart, come from the combination of words and *actions*, the day-to-day activities that signal commitment or lack thereof. Employees need to not only hear about but *see* commitment to objectives and initiatives, and they need to see it on a consistent basis. Where is the chairman/CEO spending his time? What is the company investing in? These send the clearest, most believable signals, the ones that will either inspire the firm or deflate it.

And a key part of this is patience. It can take time—often two or three years, in our experience—to align the entire organization around its strategy of innovation. Chairmen and CEOs must persist and never back off, as the battle is won cumulatively rather than in one quick burst. And the forces arrayed against becoming more innovative—inertia, fear of risk taking, an intolerance for needed ambiguity, the tyranny of quarterly results, etc.—are many.

* * *

Executives always ask us how they can make next year's list of most innovative companies. The path there is clear but not easy to negotiate. As a leader, ask yourself the following questions to see where your organization is on its journey and where you need to help:

- Is innovation really one of the critical elements of my company's overall business strategy? What role does it need to play?

  If innovation is not a top strategic priority, that's okay. But you shouldn't expect to be very innovative.

- Do I rigorously track the cash payback from my major innovations? Do I make key assumptions clear and invite rigorous debate? Is my management team in agreement on what's important to drive cash?

  Innovation is all about cash payback. Drawing and discussing cash curves can help keep the focus there.

- Do I understand the impact that globalization is having, and will have over the next one to three years, on my innovation activities?

  RDEs offer sizable advantages and are underexploited by most companies. The most innovative companies realize the potential and carefully, but aggressively, leverage it.

- Do the people in my company believe that our organization is aligned around innovation? If not, what specific elements are out of alignment? What *are* we aligned around?

  Lack of organizational alignment is perhaps the biggest obstacle most companies face. A confused organization, one that receives mixed messages, is very unlikely to be innovative.

- What specific actions have I taken today, this week, and this month to improve my organization's ability to innovate and generate the required payback from those activities and investment? What do my actions say about my priorities?

  Innovation flourishes under and requires strong leadership. The most innovative companies have a leader who wants to make a difference and leave a legacy around innovation.

Survey Methodology

The BCG 2006 senior management survey on innovation was distributed electronically to executives worldwide in early 2006. In total, 1,070 executives and managers participated, representing 63 countries and all major industries. Participation was voluntary and anonymous.

The responses broke down as follows:

Country:	
United States	450
India	71
Germany	66
France	42
United Kingdom	39
Portugal	30
Switzerland	25
Australia	23
Spain	22
Canada	20
Mexico	20
Italy	19
Brazil	19
Netherlands	18
Chile	18
Singapore	17
China	15
Other	156
Total:	1,070

Industry:	
Technology	191
Consumer products/retail	140
Industrial goods	114
Health care	112
Financial services	111
Media/entertainment	68
Education	39
Telecommunications	37
Automotive	29
Energy	27
Government/non-profit	18
Other	184
Total:	1,070

Position:	
Chairman/CEO	217
Business unit leader	92
Director of Strategy	88
Vice President of Sales and Marketing	57
Vice President of Strategy	50
Manager of New Product Development	46
Director of R&D	46
Product manager	39
Chief Operating Officer	34
Technical specialist	34
Researcher	29
Chief Technology Officer	16
Chief Financial Officer	15
Chief Information Officer	13
Other	294
Total:	1,070

For More Information

This survey is part of BCG's extensive work and research on innovation and the innovation-to-cash process. A sample of related publications includes the following:

- *Measuring Innovation 2006*, BCG Senior Management Survey
- *Innovation 2005*, BCG Senior Management Survey
- "Making Innovation Pay," BCG Perspectives
- "Innovating for Cash," *Harvard Business Review*
- "Spurring Innovation Productivity," BCG Opportunities for Action
- "Globalizing R&D: Knocking Down the Barriers," BCG Opportunities for Action
- "Innovation to Cash: Orchestrating in the Consumer Industry," BCG Opportunities for Action

For copies of the above publications, please send an email to bcg-info@bcg.com.

For more information on this survey or BCG's broader thinking on innovation, please visit the Web site of the BCG Innovation Institute (http://innovation.bcg.com), send an email to innovation@bcg.com, or contact any of the following leaders of our practice:

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