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The eight essentials of innovation

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Strategic and organizational factors are what separate successful big-company innovators from the rest of the field.

It's no secret: innovation is difficult for well-established companies. By and large, they are better executors than innovators, and most succeed less through game-changing creativity than by optimizing their existing businesses.

Yet hard as it is for such organizations to innovate, large ones as diverse as Alcoa, the Discovery Group, and NASA's Ames Research Center are actually doing so. What can other companies learn from their approaches and attributes? That question formed the core of a multiyear study comprising in-depth interviews, workshops, and surveys of more than 2,500 executives in over 300 companies, including both performance leaders and laggards, in a broad set of industries and countries (Exhibit 1). What we found were a set of eight essential attributes that are present, either in part or in full, at every big company that's a high performer in product, process, or business-model innovation.

Since innovation is a complex, company-wide endeavor, it requires a set of crosscutting practices and processes to structure, organize, and encourage it. Taken together, the essentials described in this article constitute just such an operating system, as seen in Exhibit 2. These often overlapping, iterative, and nonsequential practices resist systematic categorization but can nonetheless be thought of in two groups. The first four, which are strategic and creative

in nature, help set and prioritize the terms and conditions under which innovation is more likely to thrive. The next four essentials deal with how to deliver and organize for innovation repeatedly over time and with enough value to contribute meaningfully to overall performance.

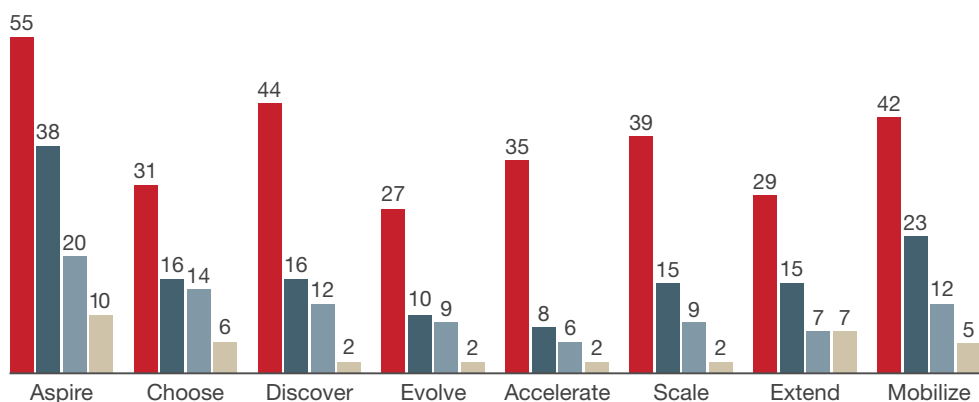
To be sure, there's no proven formula for success, particularly when it comes to innovation. While our years of client-service experience provide strong indicators for the existence of a causal relationship between the attributes that survey respondents reported and the innovations of the companies we studied, the statistics described here can only *prove* correlation. Yet we firmly believe

Exhibit 1

What innovation leaders say they do right

% of respondents by performance quartile¹

■ Top quartile ■ 2nd ■ 3rd ■ 4th



The survey tested for 27 innovation practices spread across eight essentials

¹N = 623. Performance defined as a weighted index of measures for organic growth (% of growth from new products or services developed in-house) and innovation performance (% of sales from new products and self-assessment of innovation performance). Respondents who answered “yes to some degree,” “no,” or “don’t know/not applicable” are not shown.

Source: McKinsey survey of 2,500 global executives, Nov 2012

that if companies assimilate and apply these essentials—in their own way, in accordance with their particular context, capabilities, organizational culture, and appetite for risk—they will improve the likelihood that they, too, can rekindle the lost spark of innovation. In the digital age, the pace of change has gone into hyperspeed, so companies must get these strategic, creative, executional, and organizational factors right to innovate successfully.

Exhibit 2

Testing for innovation

	Do you really innovate?	Underlying elements
Aspire	Do you regard innovation-led growth as critical, and do you have cascaded targets that reflect this?	<ul style="list-style-type: none"> • Innovation vision and model • Required growth contribution from innovation • Cascaded targets and accountabilities
Choose	Do you invest in a coherent, time- and risk-balanced portfolio of initiatives with sufficient resources to win?	<ul style="list-style-type: none"> • Clarity of innovation themes • Portfolio balancing time and risk • Resources sufficient for initiatives to win • Portfolio governance
Discover	Do you have differentiated business, market, and technology insights that translate into winning value propositions?	<ul style="list-style-type: none"> • Customer orientation • Multiple-lens insight generation • Differentiated value proposition
Evolve	Do you create new business models that provide defensible and scalable profit sources?	<ul style="list-style-type: none"> • Exploration of new business models • Changing value-chain economics • Diversifying profit streams • Delivery-model changes and new customer groups
Accelerate	Do you beat the competition by developing and launching innovations quickly and effectively?	<ul style="list-style-type: none"> • Planning and execution rigor • Cross-functional project culture • Customer- and market-based learning
Scale	Do you launch innovations at the right scale in the relevant markets and segments?	<ul style="list-style-type: none"> • Go-to-market planning • Launch management • Operations ramp-up
Extend	Do you win by creating and capitalizing on external networks?	<ul style="list-style-type: none"> • Strategic external networks • Collaboration skills • Partner of choice
Mobilize	Are your people motivated, rewarded, and organized to innovate repeatedly?	<ul style="list-style-type: none"> • People priorities • Enabling structure • Supportive culture • Learning and adaptive organization

Source: McKinsey analysis

Aspire

President John F. Kennedy's bold aspiration, in 1962, to "go to the moon in this decade" motivated a nation to unprecedented levels of innovation. A far-reaching vision can be a compelling catalyst, provided it's realistic enough to stimulate action today.

But in a corporate setting, as many CEOs have discovered, even the most inspiring words often are insufficient, no matter how many times they are repeated. It helps to combine high-level aspirations with estimates of the value that innovation should generate to meet financial-growth objectives. Quantifying an "innovation target for growth," and making it an explicit part of future strategic plans, helps solidify the importance of and accountability for innovation. The target itself must be large enough to force managers to include innovation investments in their business plans. If they can make their numbers using other, less risky tactics, our experience suggests that they (quite rationally) will.

Establishing a quantitative innovation aspiration is not enough, however. The target value needs to be apportioned to relevant business "owners" and cascaded down to their organizations in the form of performance targets and timelines. Anything less risks encouraging inaction or the belief that innovation is someone else's job.

For example, Lantmännen, a big Nordic agricultural cooperative, was challenged by flat organic growth and directionless innovation. Top executives created an aspirational vision and strategic plan linked to financial targets: 6 percent growth in the core business and 2 percent growth in new organic ventures. To encourage innovation projects, these quantitative targets were cascaded down to business units and, ultimately, to product groups. During the development of each innovation project, it had to show how it was helping to achieve the growth targets for its category and markets. As a result, Lantmännen went from 4 percent to 13 percent annual growth, underpinned by the successful launch of several new brands. Indeed, it became the market leader in premade food only four years after entry and created a new premium segment in this market.

Such performance parameters can seem painful to managers more accustomed to the traditional approach. In our experience, though, CEOs are likely just going through the motions if they don't use evaluations and remuneration to assess and recognize the contribution that all top managers make to innovation.

Choose

Fresh, creative insights are invaluable, but in our experience many companies run into difficulty less from a scarcity of new ideas than from the struggle to determine *which* ideas to support and scale. At bigger companies, this can be particularly problematic during market discontinuities, when supporting the next wave of growth may seem too risky, at least until competitive dynamics force painful changes.

Innovation *is* inherently risky, to be sure, and getting the most from a portfolio of innovation initiatives is more about managing risk than eliminating it. Since no one knows exactly where valuable innovations will emerge, and searching everywhere is impractical, executives must create some boundary conditions for the opportunity spaces they want to explore. The process of identifying and bounding these spaces can run the gamut from intuitive visions of the future to carefully scrutinized strategic analyses. Thoughtfully prioritizing these spaces also allows companies to assess whether they have enough investment behind their most valuable opportunities.

During this process, companies should set in motion more projects than they will ultimately be able to finance, which makes it easier to kill those that prove less promising. RELX Group, for example, runs 10 to 15 experiments per major customer segment, each funded with a preliminary budget of around \$200,000, through its innovation pipeline every year, choosing subsequently to invest more significant funds in one or two of them, and dropping the rest. "One of the hardest things to figure out is when to kill something," says Kumsal Bayazit, RELX Group's chief strategy officer. "It's a heck of a lot easier if you have a portfolio of ideas."

Once the opportunities are defined, companies need transparency into what people are working on and a governance process that

constantly assesses not only the expected value, timing, and risk of the initiatives in the portfolio but also its overall composition. There's no single mix that's universally right. Most established companies err on the side of overloading their innovation pipelines with relatively safe, short-term, and incremental projects that have little chance of realizing their growth targets or staying within their risk parameters. Some spread themselves thinly across too many projects instead of focusing on those with the highest potential for success and resourcing them to win.

These tendencies get reinforced by a sluggish resource-reallocation process. Our research shows that a company typically reallocates only a tiny fraction of its resources from year to year, thereby sentencing innovation to a stagnating march of incrementalism.¹

Discover

Innovation also requires actionable and differentiated insights—the kind that excite customers and bring new categories and markets into being. How do companies develop them? Genius is always an appealing approach, if you have or can get it. Fortunately, innovation yields to other approaches besides exceptional creativity.

The rest of us can look for insights by methodically and systematically scrutinizing three areas: a valuable problem to solve, a technology that enables a solution, and a business model that generates money from it. You could argue that nearly every successful innovation occurs at the intersection of these three elements. Companies that effectively collect, synthesize, and “collide” them stand the highest probability of success. “If you get the sweet spot of what the customer is struggling with, and at the same time get a deeper knowledge of the new technologies coming along and find a mechanism for how these two things can come together, then you are going to get good returns,” says Alcoa chairman and chief executive Klaus Kleinfeld.

¹ See Stephen Hall, Dan Lovallo, and Reinier Musters, “How to put your money where your strategy is,” *McKinsey Quarterly*, March 2012; and Vanessa Chan, Marc de Jong, and Vidyadhar Ranade, “Finding the sweet spot for allocating innovation resources,” *McKinsey Quarterly*, May 2014, both available on mckinsey.com.

The insight-discovery process, which extends beyond a company's boundaries to include insight-generating partnerships, is the lifeblood of innovation. We won't belabor the matter here, though, because it's already the subject of countless articles and books.² One thing we can add is that discovery is iterative, and the active use of prototypes can help companies continue to learn as they develop, test, validate, and refine their innovations. Moreover, we firmly believe that without a fully developed innovation *system* encompassing the other elements described in this article, large organizations probably won't innovate successfully, no matter how effective their insight-generation process is.

Evolve

Business-model innovations—which change the economics of the value chain, diversify profit streams, and/or modify delivery models—have always been a vital part of a strong innovation portfolio. As smartphones and mobile apps threaten to upend old-line industries, business-model innovation has become all the more urgent: established companies must reinvent their businesses before technology-driven upstarts do. Why, then, do most innovation systems so squarely emphasize new products? The reason, of course, is that most big companies are reluctant to risk tampering with their core business model until it's visibly under threat. At that point, they can only hope it's not too late.

Leading companies combat this troubling tendency in a number of ways. They up their game in market intelligence, the better to separate signal from noise. They establish funding vehicles for new businesses that don't fit into the current structure. They constantly reevaluate their position in the value chain, carefully considering business models that might deliver value to priority groups of new customers. They sponsor pilot projects and experiments away from the core business to help combat narrow conceptions of what they are and do. And they stress-test newly emerging value propositions and operating models against countermoves by competitors.

² See, for example, Marla M. Capozzi, René Dye, and Amy Howe, "Sparkling creativity in teams: An executive's guide," *McKinsey Quarterly*, April 2011; and Marla M. Capozzi, John Horn, and Ari Kellen, "Battle-test your innovation strategy," *McKinsey Quarterly*, December 2012, both available on mckinsey.com.

Amazon does a particularly strong job extending itself into new business models by addressing the emerging needs of its customers and suppliers. In fact, it has included many of its suppliers in its customer base by offering them an increasingly wide range of services, from hosted computing to warehouse management. Another strong performer, the *Financial Times*, was already experimenting with its business model in response to the increasing digitalization of media when, in 2007, it launched an innovative subscription model, upending its relationship with advertisers and readers. “We went against the received wisdom of popular strategies at the time,” says Caspar de Bono, *FT* board member and managing director of B2B. “We were very deliberate in getting ahead of the emerging structural change, and the decisions turned out to be very successful.” In print’s heyday, 80 percent of the *FT*’s revenue came from print advertising. Now, more than half of it comes from content, and two-thirds of circulation comes from digital subscriptions.

Accelerate

Virulent antibodies undermine innovation at many large companies. Cautious governance processes make it easy for stifling bureaucracies in marketing, legal, IT, and other functions to find reasons to halt or slow approvals. Too often, companies simply get in the way of their own attempts to innovate. A surprising number of impressive innovations from companies were actually the fruit of their mavericks, who succeeded in bypassing their early-approval processes. Clearly, there’s a balance to be maintained: bureaucracy must be held in check, yet the rush to market should not undermine the cross-functional collaboration, continuous learning cycles, and clear decision pathways that help enable innovation. Are managers with the right knowledge, skills, and experience making the crucial decisions in a timely manner, so that innovation continually moves through an organization in a way that creates and maintains competitive advantage, without exposing a company to unnecessary risk?

Companies also thrive by testing their promising ideas with customers early in the process, before internal forces impose modifications that blur the original value proposition. To end up with the innovation initially envisioned, it’s necessary to knock

down the barriers that stand between a great idea and the end user. Companies need a well-connected manager to take charge of a project and be responsible for the budget, time to market, and key specifications—a person who can say yes rather than no. In addition, the project team needs to be cross-functional in reality, not just on paper. This means locating its members in a single place and ensuring that they give the project a significant amount of their time (at least half) to support a culture that puts the innovation project's success above the success of each function.

Cross-functional collaboration can help ensure end-user involvement throughout the development process. At many companies, marketing's role is to champion the interests of end users as development teams evolve products and to help ensure that the final result is what everyone first envisioned. But this responsibility is honored more often in the breach than in the observance. Other companies, meanwhile, rationalize that consumers don't necessarily know what they want until it becomes available. This may be true, but customers can certainly say what they *don't* like. And the more quickly and frequently a project team gets—and uses—feedback, the more quickly it gets a great end result.

Scale

Some ideas, such as luxury goods and many smartphone apps, are destined for niche markets. Others, like social networks, work at global scale. Explicitly considering the appropriate magnitude and reach of a given idea is important to ensuring that the right resources and risks are involved in pursuing it. The seemingly safer option of scaling up over time can be a death sentence. Resources and capabilities must be marshaled to make sure a new product or service can be delivered quickly at the desired volume and quality. Manufacturing facilities, suppliers, distributors, and others must be prepared to execute a rapid and full rollout.

For example, when TomTom launched its first touch-screen navigational device, in 2004, the product flew off the shelves. By 2006, TomTom's line of portable navigation devices reached sales of about 5 million units a year, and by 2008, yearly volume had jumped to more than 12 million. "That's faster market penetration than mobile phones" had, says Harold Goddijn, TomTom's CEO and

cofounder. While TomTom's initial accomplishment lay in combining a well-defined consumer problem with widely available technology components, rapid scaling was vital to the product's continuing success. "We doubled down on managing our cash, our operations, maintaining quality, all the parts of the iceberg no one sees," Goddijn adds. "We were hugely well organized."

Extend

In the space of only a few years, companies in nearly every sector have conceded that innovation requires external collaborators. Flows of talent and knowledge increasingly transcend company and geographic boundaries. Successful innovators achieve significant multiples for every dollar invested in innovation by accessing the skills and talents of others. In this way, they speed up innovation and uncover new ways to create value for their customers and ecosystem partners.

Smart collaboration with external partners, though, goes beyond merely sourcing new ideas and insights; it can involve sharing costs and finding faster routes to market. Famously, the components of Apple's first iPod were developed almost entirely outside the company; by efficiently managing these external partnerships, Apple was able to move from initial concept to marketable product in only nine months. NASA's Ames Research Center teams up not just with international partners—launching joint satellites with nations as diverse as Lithuania, Saudi Arabia, and Sweden—but also with emerging companies, such as SpaceX.

High-performing innovators work hard to develop the ecosystems that help deliver these benefits. Indeed, they strive to become partners of choice, increasing the likelihood that the best ideas and people will come their way. That requires a systematic approach. First, these companies find out which partners they are already working with; surprisingly few companies know this. Then they decide which networks—say, four or five of them—they ideally need to support their innovation strategies. This step helps them to narrow and focus their collaboration efforts and to manage the flow of possibilities from outside the company. Strong innovators also regularly review their networks, extending and pruning them as appropriate and using sophisticated incentives and contractual

structures to motivate high-performing business partners. Becoming a true partner of choice is, among other things, about clarifying what a partnership can offer the junior member: brand, reach, or access, perhaps. It is also about behavior. Partners of choice are fair and transparent in their dealings.

Moreover, companies that make the most of external networks have a good idea of what's most useful at which stages of the innovation process. In general, they cast a relatively wide net in the early going. But as they come closer to commercializing a new product or service, they become narrower and more specific in their sourcing, since by then the new offering's design is relatively set.

Mobilize

How do leading companies stimulate, encourage, support, and reward innovative behavior and thinking among the right groups of people? The best companies find ways to embed innovation into the fibers of their culture, from the core to the periphery.

They start back where we began: with aspirations that forge tight connections among innovation, strategy, and performance. When a company sets financial targets for innovation and defines market spaces, minds become far more focused. As those aspirations come to life through individual projects across the company, innovation leaders clarify responsibilities using the appropriate incentives and rewards.

The Discovery Group, for example, is upending the medical and life-insurance industries in its native South Africa and also has operations in the United Kingdom, the United States, and China, among other locations. Innovation is a standard measure in the company's semiannual divisional scorecards—a process that helps mobilize the organization and affects roughly 1,000 of the company's business leaders. "They are all required to innovate every year," Discovery founder and CEO Adrian Gore says of the company's business leaders. "They have no choice."

Organizational changes may be necessary, not because structural silver bullets exist—we've looked hard for them and don't think they do—but rather to promote collaboration, learning, and experimentation. Companies must help people to share ideas and

knowledge freely, perhaps by locating teams working on different types of innovation in the same place, reviewing the structure of project teams to make sure they always have new blood, ensuring that lessons learned from success and failure are captured and assimilated, and recognizing innovation efforts even when they fall short of success.

Internal collaboration and experimentation can take years to establish, particularly in large, mature companies with strong cultures and ways of working that, in other respects, may have served them well. Some companies set up “innovation garages” where small groups can work on important projects unconstrained by the normal working environment while building new ways of working that can be scaled up and absorbed into the larger organization. NASA, for example, has ten field centers. But the space agency relies on the Ames Research Center, in Silicon Valley, to maintain what its former director, Dr. Pete Worden, calls “the character of rebels” to function as “a laboratory that’s part of a much larger organization.”



Big companies do not easily reinvent themselves as leading innovators. Too many fixed routines and cultural factors can get in the way. For those that do make the attempt, innovation excellence is often built in a multiyear effort that touches most, if not all, parts of the organization. Our experience and research suggest that any company looking to make this journey will maximize its probability of success by closely studying and appropriately assimilating the leading practices of high-performing innovators. Taken together, these form an essential operating system for innovation within a company’s organizational structure and culture. ○

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