ARTWORK BY JANET DREW

In Silicon Valley, exciting new business ideas rapidly attract capital and talent away from less worthy ventures. But in big companies, ideas, capital, and talent are stagnant – prisoners of traditional bureaucratic ways of allocating resources. **To capture the Valley's entrepreneurial magic, your company needs to move from resource allocation to resource attraction.**

BRINGING SILICON VALLEY INSIDE

BY GARY HAMEL

IT'S A FACT. In most industries, newcomers are creating much of the new wealth. Cisco, Amazon.com, Starbucks, Charles Schwab, America Online, the Gap, MCI WorldCom, Dell, Southwest Airlines, SAP – these companies didn't even exist a generation ago, yet by May 1999 their combined market capitalization had grown to nearly $800 billion. And they are hardly unique. In industry after industry, unorthodox start-ups are challenging complacent incumbents.

Stewardship versus entrepreneurship: that's the fundamental distinction between the mediocre mass and the revolutionary wealth creators. Stewards polish grandma's silver – they buff up the assets and capabilities they inherited from entrepreneurs long retired or long dead. Devoid of passion and imagination, they spend their time trying to unlock wealth by hammering down costs, outsourcing inefficient processes, buying back shares, selling off bad businesses, and spinning out good ones. But in the new economy, investors don't want stewards. They want entrepreneurial heroes – innovators who are obsessed with creating *new* wealth. Stewards conserve. Entrepreneurs create.

If you want your company to join the pantheon of wealth-creating superstars, you have to shift the balance of effort from stewardship to entrepreneurship in your organization. There's nothing wrong with stewardship – someone has to safeguard all those brands, skills, assets, and customers that

underpin today's success. But in a world where strategy life cycles are increasingly measured in months, not decades, even the most skilled stewardship won't enable you to capture tomorrow's riches. It may not even enable you to survive.

Face it: Out there in some garage, an entrepreneur is forging a bullet with your company's name on it. Once that bullet leaves the barrel, you won't be able to dodge it. You've got one option: you have to shoot first. You have to out-innovate the innovators, out-entrepreneur the entrepreneurs. Sound impossible for a decades-old incumbent? It is. Unless you're willing to challenge just about every assumption you have about how to drive innovation and wealth creation in your company.

Your classroom is Silicon Valley – a sliver of real estate about 30 miles long and ten miles wide, nestled up against the Santa Cruz mountains. Here you'll find towering eucalyptus trees, verdant hills, a crisp Pacific breeze, and what may be the most perfect climate on earth. But in these bucolic surroundings lurks a raw and restless spirit.

Face it: out there in some garage, an entrepreneur is forging a bullet with your company's name on it. You have only one option: you have to shoot first.

The Valley is the distilled essence of entrepreneurial energy. Its ethos is simple: If it's not new, it's not cool; if it's not cool, it's not worth doing. If you don't own shares, you're getting screwed. If you've been in the same job for more than two years, your career is over. If you haven't been through an IPO, you're a virgin. This is where a $2 million house is a teardown. This is where a Porsche is just one more compact car and sushi's just another fast food. Never has so much wealth been created in so little time by so few people. If the Valley's residents pause to think about it for even a nanosecond, they know they're as blessed as those who lived in Italy during the Renaissance. Like the Florentines and Venetians, they're building a new age – an age of virtual presence, of globally interconnected communities, of frictionless commerce, of instantly accessible knowledge and stunningly seductive media.

If your company is going to grab more than its fair share of new wealth, it has to learn how to bring the energy and ethos of the Valley inside. The choice is simple, really. You can sit back and wait for the Valley or some other hotbed of innovation to spawn the revolutionary company that buries your business model. Or you can bring the Valley inside and capture the vast economic benefits that flow from unfettered imagination and unbridled ambition.

Big Stakes

What's the payoff to bringing Silicon Valley inside? Well, let's do a bit of arithmetic. Silicon Valley has about 2 million people. Let's say 50% of them are at work in the private sector – the rest are kids, retirees, government employees, and the like. Of that million, let's say half are of the caliber you'd find in your company – people who haven't spent their entire careers working at 7-Eleven or Jiffy Lube. Let's call those 500,000 people the Silicon Valley gene pool. In 1998, that gene pool produced 41 IPOs, which by January 1999 had a combined market cap of $27 billion. If you divide $27 billion by 500,000, you get $54,000. That's $54,000 in new wealth creation per capita – in a single year.

Multiply $54,000 by the number of employees in your organization. Did your company create that much new wealth last year out of your employee gene pool? Let's see. At the end of 1998, General Motors had 594,000 employees. That's $32 billion in potential new wealth – if only GM could engender the passion and imagination of Silicon Valley. Kmart had 278,000 employees – that's $15 billion in potential new wealth. 3M had 73,000 employees – that's $4 billion.

Okay, so maybe it's unreasonable to aspire to match the heady performance of Silicon Valley. Maybe you can create new wealth at only half the pace or a quarter of the pace. But ask yourself this: Would the potential payoff of bringing Silicon Valley inside be any less than what you're getting with supply chain management or enterprise resource planning or some other stewardship program? If not, doesn't it deserve at least the same effort?

Many corporate leaders envy the success of Silicon Valley's entrepreneurs, but few have thought about how they might bring the Valley inside – how they might ignite the entrepreneurial passions of their own people. They assume the Valley is filled with brilliant visionaries while their own organizations are filled with witless drones. This assump-

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tion is, of course, self-fulfilling. Where employees are called on to do no more than service the existing business model, you will indeed find a company filled with witless drones.

Those who populate Silicon Valley don't have brains the size of basketballs. They don't live in some special energy field. What sets the Valley apart is not its people or its climate but its way of doing business. In the Valley, ideas, capital, and talent are allowed to circulate freely. They meld into whatever combinations are most likely to generate innovation and wealth. There are none of the numbing bureaucratic controls that paralyze creativity in traditional businesses. If you want to free the entrepreneurial spirit inside your company, you're going to have to figure out how to set up and sustain dynamic internal markets for ideas, capital, and talent. Sound implausible? There are companies that are already doing it.

Silicon Valley in Royal Dutch/Shell

Royal Dutch/Shell, the Anglo-Dutch oil giant headquartered more than 6,000 miles from Silicon Valley, is seldom mistaken for a lithe and nimble upstart. With $138 billion in revenues and 102,000 employees, it's the epitome of a lumbering industrial behemoth – the last place you'd expect to find entrepreneurial zeal. Within its balkanized organization, which one employee has compared to a maze of 100-foot-high brick walls, access to capital is tightly controlled, investment hurdles are daunting, and radical ideas move slowly, if at all. Shell's globe-trotting managers are famously disciplined, diligent, and methodical; they don't come across as wild-eyed dreamers. Indeed, employees with an entrepreneurial urge would probably prefer skinny-dipping in the North Sea to confronting Shell's conservative bureaucracy.

But a band of renegades, led by Tim Warren, the director of research and technical services in Shell's largest division, Exploration and Production, has been intent on changing all that. Warren and his team have been working hard to free up the flow of ideas, capital, and talent – to make E&P an innovation-friendly zone. Their initial success suggests that it is possible to imbue a global giant with the kind of damn-the-conventions ethos that permeates Silicon Valley. Here's their story.

By late 1996, it had become apparent to Warren and some of his colleagues that E&P was unlikely to meet its earnings targets without radical innovations. In recent years, his team had been under considerable pressure to align its R&D spending with the immediate needs of Shell's national operating units. Long-term projects had been reined in and short-term priorities given more weight. Warren understood the rationale for those moves, but he wondered whether the existing R&D process could be counted on to help Shell invent entirely new businesses and dramatically different business models. He sensed that a wealth of imagination was bottled up in Shell's employees – imagination that might help the company find its way into new, high-growth opportunities.

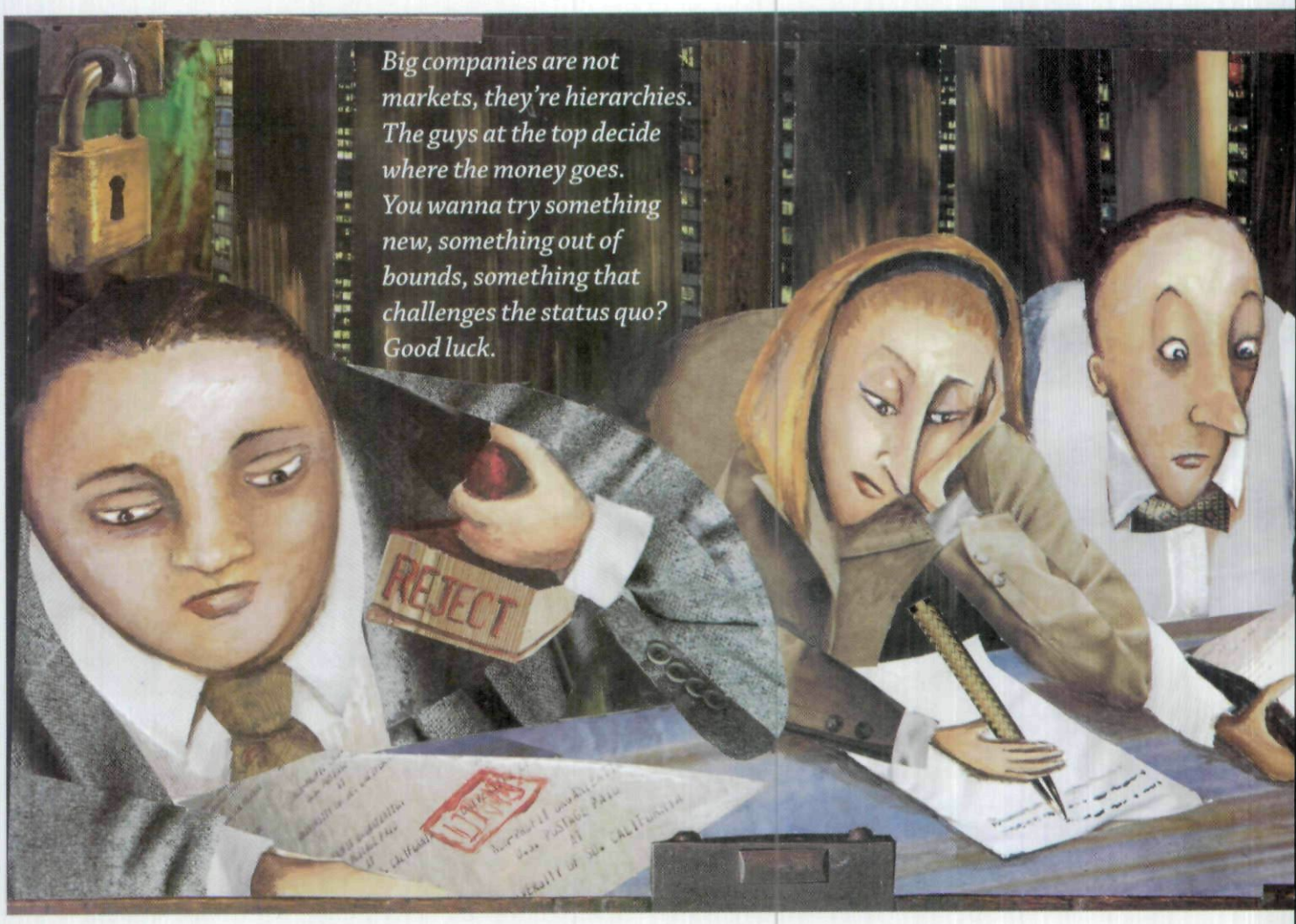
Looking to stir up some new thinking, he had already encouraged his people to devote up to 10% of their time to "nonlinear" ideas. The results were less than he'd hoped for. His frustration was the genesis for an entirely new approach to innovation, one that was both simple and slightly deviant.

He gave a small panel of freethinking employees the authority to allocate $20 million to rule-breaking, game-changing ideas submitted by their peers. Anyone could submit ideas, and the panel would decide which deserved funding. Proposals would be accepted not just from within E&P but from anywhere across Shell. In this way, unconventional ideas wouldn't have to run the usual approval gauntlet or justify their existence in terms of existing programs and priorities.

The GameChanger process, as it came to be known, went live in November 1996. At first, the availability of venture funding failed to yield an avalanche of new ideas. Though bright and creative, employees long accustomed to working on well-defined technical problems found it difficult to think revolutionary thoughts. Hoping to kick-start the process, the GameChanger panel enlisted the help of a team of consultants from Strategos who designed a three-day "Innovation Lab" to help employees develop rule-busting ideas and to dole out a half million dollars of seed money. Seventy-two enthusiastic would-be entrepreneurs showed up for the initial lab, a much larger group than the panel had anticipated. Many were individuals no one would have suspected of harboring an entrepreneurial impulse.

If you want to free the entrepreneurial spirit inside your company, you're going to have to set up and sustain dynamic internal markets for ideas, capital, and talent. Sound implausible? There are companies that are already doing it.

In the Innovation Lab, the budding revolutionaries were encouraged to learn from radical innovations drawn from outside the energy business. They were taught how to identify and challenge industry conventions, how to anticipate and exploit discontinuities of all kinds, and how to leverage Shell's



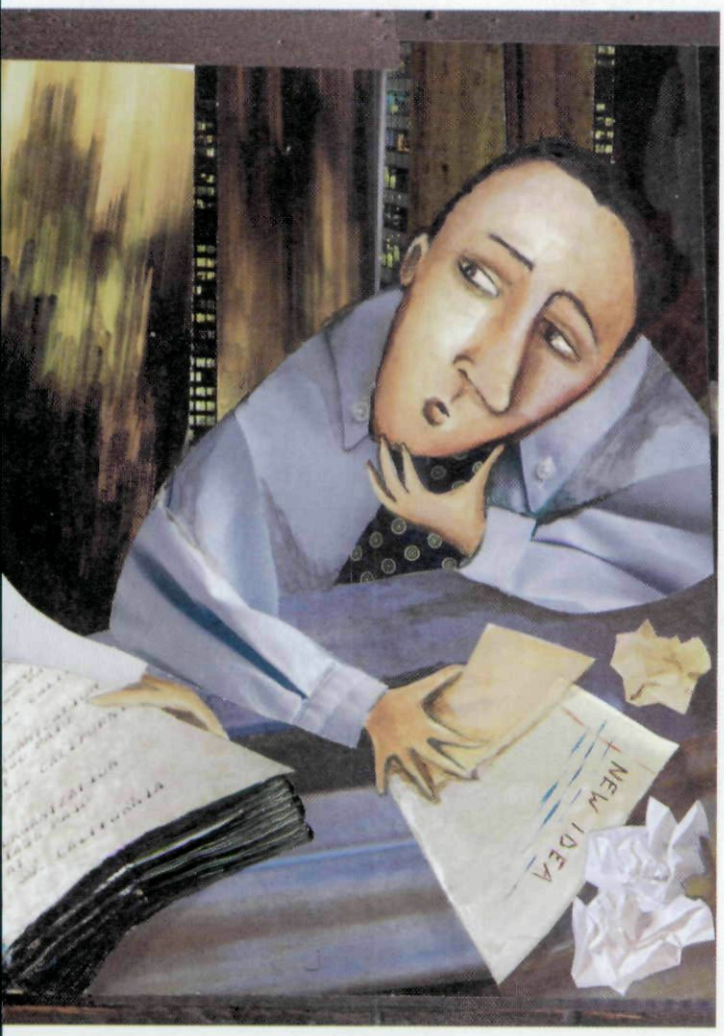
Big companies are not markets, they're hierarchies. The guys at the top decide where the money goes. You wanna try something new, something out of bounds, something that challenges the status quo? Good luck.

competencies and assets in novel ways. Groups of eight attendees were then seated at round tables in front of networked laptop computers and encouraged to put their new thinking skills to work. Slowly at first, then in a rush, new ideas began to flow through the network. Some ideas attracted a flurry of support from the group; others remained orphans. By the end of the second day, a portfolio of 240 ideas had been generated. Some were for entirely new businesses, and many more were for new approaches within existing businesses.

The attendees then agreed on a set of screening criteria to determine which of the ideas deserved a portion of the seed money. Twelve ideas were nominated for funding, and a volunteer army of supporters coalesced around each one. Invigorated by their participation in the Innovation Lab, the teams vowed to move quickly to turn their GameChanger ideas into concrete business plans. A second Innovation Lab was held a month later with a new tranche of nascent entrepreneurs, and it produced a similar outpouring of fresh thinking.

Realizing that GameChanger had to be more than a brainstorming exercise, Shell put mechanisms in place to ensure that the ideas were turned into actions. At the conclusion of the Innovation Labs, internal transfer payments were made to cover the time of the employees serving on the idea development teams. A five-day "Action Lab," again designed with Strategos, was held to teach the teams to create credible venture plans. In the Action Lab, team members were taught how to scope out the boundaries of an opportunity space, identify potential partnerships, enumerate genuine sources of competitive advantage, and identify the broad financial implications. Next, they were coached in developing 100-day action plans: low-cost, low-risk ways of testing the ideas. Finally, each team presented its story to a "venture board" consisting of the GameChanger panel, a sampling of senior managers, and representatives from Shell Technology Ventures – a unit that funds projects that don't fall under the purview of Shell's operating units.

Since the completion of the labs, the GameChanger panel has been working hard to institutionalize the internal entrepreneurial process. It meets weekly to discuss new submissions – 320 have come in so far, many through Shell's intranet – and its members serve as coaches and advocates for prospective innovators. An employee with a



promising idea is invited to give a ten-minute pitch to the panel, followed by a 15-minute Q&A session. If the members agree that the idea has real potential, the employee is invited to a second round of discussions with a broader group of company experts whose knowledge or support may be important to the success of the proposed venture. Before rejecting an idea, the panel looks carefully at what Shell would stand to lose if the opportunity turned out to be all its sponsors claimed. Ideas that get a green light often receive funding – on average, $100,000, but sometimes as much as $600,000 – within eight or ten days. Those that don't pass muster enter a database accessible to anyone who would like to compare a new idea with earlier submissions.

Some months later, each accepted project goes through a proof-of-concept review in which the team has to show that its plan is indeed workable and deserves further funding. This review typically marks the end of the formal GameChanger process, although the panel will often help successful ventures find a permanent home inside Shell. About a quarter of the efforts that get funded ultimately come to reside in an operating unit or in one of Shell's various growth initiatives. Others are carried forward as R&D projects, and still others are written off as interesting but unsuccessful experiments.

Several of the GameChanger ventures have themselves grown into major corporate initiatives. Indeed, of the company's five largest growth initiatives in early 1999, four had their genesis in the GameChanger process. One team was granted a charter to work with people throughout Shell to explore an entirely new business focused on renewable geothermal energy sources. GameChanger has also had a significant impact on Tim Warren's own division. Fully 30% of E&P's 1999 R&D budget is focused on ventures that have emerged from the process.

Yet the GameChanger program is still fragile. The 1998 slump in oil prices threw Shell into a frenzy of cost cutting. Whether GameChanger will survive in its current form remains to be seen. But it has demonstrated unequivocally that entrepreneurial passion lurks everywhere – even deep in the canyons of a 92-year-old oil company.

From Resource Allocation to Resource Attraction

Shell is just one of a number of companies, ranging from Monsanto to Virgin to GE Capital, that have internalized the principles of Silicon Valley. To gain a fuller understanding of those principles, we need to head back to the Valley. Let's pop in for breakfast at Buck's – a popular diner in Woodside that attracts cyber-CEOs, venture capitalists, and an unending stream of entrepreneurs on the make. In the parking lot you'll find some of the world's most exotic cars, and maybe a horse or two tied up at a well-used hitching rail. Inside you'll find a restaurant that can be charitably described as eclectic (imagine an explosion in the props department at Paramount Pictures). Now look around. These people are having *fun*. These people know they're creating the new economy. There's a buzz that goes beyond caffeine. No whining Dilberts here. Everyone should have this much fun. Everyone should have the chance to build something that will make a difference. Everyone should have the chance to create new wealth. So why doesn't it happen?

It doesn't happen because few executives can distinguish between Silicon Valley as a place and Silicon Valley as a way of doing business. Silicon Valley's not just an incestuous little cluster of universities, venture capitalists, and eager entrepreneurs perched on a peninsula. At its core are three interconnected markets: a market for ideas, a market for capital, and a market for talent. It is at the

intersection of unbounded imagination, opportunity-seeking cash, and energetic freethinking people that wealth gets created. Ideas, capital, and talent whirl through Silicon Valley in a frenetic entrepreneurial dance. In most large companies, by contrast, ideas, capital, and talent are indolent. They don't move unless someone orders them to move. Where Silicon Valley is a vibrant market, the average big company is a smothering bureaucracy.

In fact, the last bastion of Soviet-style central planning can be found in *Fortune* 500 companies – it's called resource allocation. Big companies are not markets, they're hierarchies. The guys at the top decide where the money goes. Unconventional ideas are forced to make a tortuous climb up the corporate pyramid. If an idea manages to survive the gauntlet of skeptical vice presidents, senior vice presidents, and executive vice presidents, some distant CEO or chairman finally decides whether or not to invest. You wanna try something new, something out of bounds, something that challenges the status quo? Good luck. It's no wonder so many Silicon Valley entrepreneurs are corporate exiles. After all, the Valley is nothing more than a refugee camp for frustrated entrepreneurs who couldn't get a hearing elsewhere. (See the sidebar "How Sun Nearly Torched Its Future.")

Silicon Valley is based not on resource *allocation* but on resource *attraction* – a crucial distinction. If an idea has merit, it will attract resources in the form of venture capital and talent. If it doesn't, it won't. There's no CEO of Silicon Valley. There's no giant brain making global allocation decisions. And there's also no reason resource attraction can't be made to work inside a General Motors, an AT&T, or a Procter & Gamble. Everyone doesn't have to work within 50 miles of one another for free markets to function. As we saw at Shell, there are other ways to link passion, imagination, cash, and competence in the service of new business ideas.

Resource allocation is well suited to investments in existing businesses. After all, the guys at the top built the business, and they're well placed to make judgments about investments aimed at perpetuating existing business models. But management veterans are not usually the best ones to judge the merits of investing in entirely new business models or making radical changes to existing models. In these cases, their experience is irrelevant at best. A senior officer at Monsanto put it bluntly: "You can't trust the judgment of a senior vice president to get resources behind the best new ideas."

It's not that top-down resource allocation, and the painstaking financial analysis that underlies it, has no place in companies. It does. But it can't be the only game in town. If the goal is to create new wealth, something much more spontaneous and less circumscribed is required – something much more like resource attraction. Shell's GameChanger process is totally unsuited to the problem of evaluating the investment case for a new multibillion-dollar offshore oil platform. But, conversely, Shell's comprehensive financial modeling is of no help in deciding whether to make an initial investment in some nontraditional energy venture.

Resource allocation is about managing the downside. Resource attraction is about creating the upside. Who can say which is more important? It's vitally important to manage the downside risk of big investments in the core business. It's equally important to unleash the ideas and passion that will create new businesses or transform the core. For this

How Sun Nearly Torched Its Future

Resource allocation is just as likely to hobble creativity in large and vibrant Silicon Valley companies as it is in boring, old, industrial-age companies. Sun Microsystems is a Valley legend. In the early 1980s, its four founders created the high-end workstation business. Sun's early workstations sold for as much as $40,000. When one of the company's founders, Andy Bechtolsheim, suggested building a $10,000 workstation using a radical new chip technology, he ran headfirst into a wall of internal skepticism. The reason was simple: Sun's process for allocating product development resources heavily favored incremental improvements to existing products. Frustrated, Bechtolsheim left the company and used his own money to build a prototype. When they finally saw the elegant new computer, Sun's top managers quickly invited Bechtolsheim back into the fold. Within three months the new workstation, named the SPARCstation, was outselling every other product in the Sun line.

Not every entrepreneur is as single-minded as Andy Bechtolsheim, and most lack the resources to fund their dreams. If your company insists on trying to frog-march every new idea through a resource allocation process built for incrementalism, it will leave millions of dollars of potential wealth on the table for future-focused start-ups.

reason every company must become an amalgam of disciplined resource allocation *and* impromptu resource attraction. Hierarchies and markets must coexist.

Hierarchy – you understand that. But what about markets for ideas, capital, and talent. Just how do they work?

The Market for Ideas

An average-sized venture-capital firm in Silicon Valley gets as many as 5,000 unsolicited business plans a year. How many unsolicited business plans does the average senior vice president of a big company get? Five? Ten? Zero? There's not much chance of catching the next wave when your corner of the ocean is as placid as a bathtub.

In Silicon Valley everyone understands that innovation is the only way to create new wealth – both corporately and individually. New-economy billionaires like Jerry Yang, cofounder of Yahoo!, and Pierre Omidyar, chairman and founder of eBay, didn't get rich by wringing the last ounce of efficiency out of dying business models. Everyone in the Valley knows this. The proposition that innovation creates new wealth is so obvious as to be totally unremarkable. But employees in most large companies live in a world where operational efficiency is everything. Reengineering. Workout. Six sigma. Supply chain optimization. Enterprise resource planning. Whatever the name, the goal is the same – get better at what you're already doing. Their spirits crushed by a decade-long efficiency death march, few employees are able to even imagine another route to wealth creation.

If you doubt it, ask yourself how many people in your company believe, *really* believe, that rule-busting innovation is more likely to create shareholder wealth than, say, a flawless SAP implementation. Every successful company was built on radical innovations. But are those innovations still celebrated in your company, or are they relegated to dusty pages in some corporate archive?

And how many people in your company believe that radical innovation is the fastest route to *personal* wealth creation? Two years ago, the CEO of one of America's large information technology companies approached me with a simple question: "What will it take for my company to capture a bigger chunk of Internet-related opportunities?"

"For starters," I replied, "a willingness to create a slew of 30-year-old millionaires."

The CEO furrowed his brow and said, "I can't see us doing that." Not surprisingly, his company has missed the Internet bonanza.

All too often, the risk-reward trade-off for internal entrepreneurs is long on risk and short on reward. Why should employees risk a bruising battle with the defenders of the status quo when the potential payoff is so meager? Unless the champions of the new believe there is a chance for substantial personal wealth creation, the marketplace for ideas will be as barren as the shelves of a Soviet supermarket. It's ironic that companies pay CEOs millions upon millions to unlock shareholder wealth but seem incapable of funneling six- and seven-figure rewards to people who can actually create new wealth. The currency in Silicon Valley is equity. There are many, many companies where every employee is a shareholder and where success has made millionaires out of all those who took a risk and joined the company before it was a sure thing.

Silicon Valley is based not on resource allocation but on resource attraction – a crucial distinction. If an idea has merit, it will attract both money and talent immediately.

It used to be that the difference between working for a large company and working in a start-up was job security. You wouldn't get rich working in a big firm but, short of malfeasance, your job was secure. That bargain was shattered by the endless waves of restructuring that swept through corporate America in the 1990s. In 1998, there were more than 600,000 layoffs in large U.S. companies. That was a record. Recent years have also seen a record number of start-ups. These trends are not unrelated. If job security inside Giganticorp is as precarious as it is in a start-up, why not go for the start-up and the chance for a big personal payoff? Until senior executives spend as much energy fostering innovation as they do efficiency, and until individuals believe they have the opportunity for substantial wealth creation, the marketplace for ideas will remain closed.

There's a second reason large companies fail to spur much true innovation. Inside their walls, the marketplace for ideas is a monopsony – there's only one buyer. There's only one place to pitch a new idea – up the chain of command – and all it takes is one *nyet* to kill that idea. In the Valley, there's no one person who can say no to a new idea. Power is diffuse, and there are many sources of capital. It's rare to find a successful start-up whose initial business plan wasn't rejected by several venture capitalists before finding a sponsor. In an analogous way, Shell's GameChanger process invites protagonists to present their business plans to a wide cross section of senior executives. The hope is that if one says no, another will say yes.

The third reason why the market for ideas is much more vibrant in Silicon Valley is that there's no prejudice about who is or is not capable of inventing a new business model. The hierarchy of imagination counts for far more than the hierarchy of experience. As Steve Jobs puts it, "Silicon Valley is a meritocracy. It doesn't matter how old you are. It doesn't matter what you wear. What matters is how smart you are." In the Valley, no one assumes that the next great thing will come from a senior vice president running the last great thing.

There's an implicit belief in most large companies that strategy is the province of senior management. Not so long ago, a disaffected employee in one of America's largest companies caught up with me at a conference where I was speaking. In his hands was the company's glossy new performance-assessment manual, which had recently been distributed to all employees. He drew my attention to the fact that only "senior executives" were to be accountable for "creating strategy." The performance criteria for "managers" and "associates" said not a word about strategy. Vibrating with indignation, he accused his employer of being uniquely stupid in having excused 99% of its employees from any responsibility for strategic thinking. Surely, no other company would be so backward as to assume that only top executives could create strategy. Yes, I assured him, he had a right to be indignant. But no, his company was far from unique. What he faced was no different from what mavericks face in big companies everywhere.

Think about the corporate pyramid and ask yourself three questions. First, where in the pyramid will you find the least genetic diversity in terms of how people think about the business? Second, where in the organization will you find people who have most of their emotional equity invested in the past? And third, where will you find people who have, for the most part, already "made it"? The answer to all three questions is, "at the top." What's the chance, then, that a truly revolutionary idea will emerge from the ranks of top management? Jeff Bezos, the founder of Amazon.com, wasn't some big muckety-muck at Barnes & Noble or Borders. Wayne Huizenga, the founder of Blockbuster and AutoNation, got his start in the garbage business. And Anita Roddick, founder of the Body Shop, had no prior experience in the cosmetics industry.

Every day of the week, venture capitalists get pitched new ideas by kids who haven't reached their 30th birthday. When was the last time you saw a 20-something pitch a radical new business idea in your company with any kind of success? If it's not happening, your company has already relinquished most of its wealth-creating potential. (See the sidebar "Virgin's Amazing Business-Making Machine.")

The explosive growth of GE Capital has come in large part from its ability to bring Silicon Valley inside. Like venture capitalists, executives running GE Capital's 28 businesses devote much of their time to hunting down opportunities outside current business boundaries. In the 1998 planning round, someone suggested that every business put together a team of lower- to midlevel managers, all of them under 30, and give them the task of finding opportunities that their "stodgy old managers" had missed. The young teams came back with a bunch of novel ideas, including several focused on how GE

Virgin's Amazing Business-Making Machine

While most large companies have to work hard to stoke the fires of entrepreneurship, they burn with a ferocious intensity at the Virgin Group. Described by one senior executive as a "branded venture-capital company," Virgin would never be mistaken for a hidebound incumbent. But as a £3 billion company that has created nearly 200 new businesses, it stands as clear evidence that ideas, capital, and talent can flow as freely in big, far-flung organizations as they can among the start-ups of Silicon Valley.

Virgin's eclectic business mix includes entertainment megastores, cinemas, a funky fun-to-fly airline, an all-in-one consumer-banking arm, a hip radio station, and a passenger-train service. (At one time the company even hawked condoms, though in that case they wisely avoided using the Virgin brand.) Unlike other business visionaries, Virgin's chairman, Richard Branson, doesn't limit his vision to one particular industry; he has a vision about what it takes to spawn entirely new business models. He hasn't invented a new business so much as he's invented a business-making machine.

Business ideas can come from anywhere in Virgin. As the company has grown, Branson has remained accessible to employees who have novel proposals. There was a time when every employee had Branson's phone number, and he would receive two or three calls a day from workers wanting to try something new. Today he gets around 50 letters a day from employees. And the annual "house party" he hosts for employees, which has grown into a week-long 35,000-person extravaganza, is another occasion to buttonhole the chairman.

Capital could leverage the Internet. New wealth is created by new ideas. New ideas tend to come from new voices. Are you listening to those voices in your organization?

The Market for Capital

Over the last decade it would have been great to be a shareholder in Silicon Valley Inc., a holding company encompassing all the high-tech start-ups in the Valley. Look at the numbers. Of the 63 companies that received venture funding in the fourth quarter of 1993, 26 had gone public by the end of 1998. An investor who bought into each of those companies at the offer price would have achieved a return of 1,700% by the end of last year. The internal rate of return of the average venture capital firm is estimated to be about 40% – hardly shabby – and the best do substantially better than that.

Venture capitalists are not financially stupid people, but they sure don't think like CFOs. While both may be in the business of funding projects, the market for capital in Silicon Valley isn't anything like the market for capital in large companies. The first difference is access. How easy is it for someone seven levels down in a large company to get a few hundred thousand dollars to try out a new idea? Whether the sum is half a million or $50 million,

In one telling incident, a woman who believed the company's airline should offer passengers onboard massages camped on Branson's doorstep until she was allowed to give him a neck and shoulder rub. Now, an in-flight massage is a valued perk in Virgin Atlantic's Upper Class. On another occasion, a soon-to-be-married flight attendant came up with the idea of offering an integrated bridal-planning service – everything from wedding apparel to catering to limousines to honeymoon reservations. She became the first CEO of Virgin Bride. And Virgin's burgeoning Internet business was started by an employee who was working in another company within Virgin's Media Group.

Branson and his deputies have worked hard to instill a "speak up" culture at Virgin. There is no gleaming corporate headquarters, just a large and slightly tatty house in London's Holland Park, where meetings are often held in a small conservatory overlooking an equally small garden. There are no trappings of executive privilege to intimidate employees. There are no job descriptions because they're believed to limit what people can do. In the company's pancake-flat organization, senior executives work shoulder-to-shoulder with first-line employees. It's probably safe to say that the level of discourse between top executives and "ordinary" employees is unprecedented in an organization of Virgin's size. One example: the managing director of the company's financial services arm, Virgin Direct, regularly books eight seats at a local restaurant. Anyone with a new idea can apply for a spot.

In addition to all the informal conversations, Virgin has instituted formal mechanisms to ensure that good ideas come to light and receive adequate attention and funding. Its business development function, once led by a former venture capitalist, canvasses managers from across the company for ideas and pulls together ad hoc teams to evaluate the most promising ones. Virgin Management, the nearest thing Virgin has to a head office, is a small team of creative people who help launch new businesses and work to inculcate them with the company's values. The role of business development and Virgin Management is not all that different from the role a venture capital board would play in bringing a new business into existence. Indeed, Will Whitehorn, one of Branson's key aides, describes the chairman as an investment "angel" of the type who gives first-stage funding to Silicon Valley start-ups.

Virgin's approval process for new business ventures doesn't look much like the traditional corporate planning process. The investment screen essentially consists of four questions: What is the potential for restructuring the market and bringing new benefits to consumers? Is the opportunity radical enough to justify the Virgin brand? (Me-too strategies are anathema.) Will the opportunity benefit from the skills and expertise Virgin has accumulated in its other businesses? Is there a way to keep the investment risk within acceptable boundaries? As Gordon McCallum, the current director of Virgin's business development function, puts it, "The ultimate business case is not a financial one, but one that is based upon deep customer needs and an understanding of how to meet them in a new way. The numbers will take care of themselves if we get things right for our customers."

Virgin's model for business creation is as unique as it is productive. In how many companies does every employee know they're in the business of creating new businesses? In how many companies does everyone deeply believe that to succeed they have to shatter the rules? In how many companies does everyone know they have the opportunity to be heard at the highest levels? Outside Silicon Valley, you won't find many.

the investment hurdles usually appear insurmountable to someone far removed from top management.

Most companies have a system of graduated approval limits, where senior executives have the authority to make bigger financial commitments than lower-level managers do. Yet whatever the level and dollar amount involved, the aversion to risk is the same. What is a trivial risk for the company as a whole may be a substantial risk for a small unit and for the career of a young manager. An eager entrepreneur wanting to risk a few hundred grand has to make the same airtight business case as a divisional vice president who's going to risk tens of millions of dollars. But does it really make sense to set the same hurdles for a small investment in a new experiment as for a large and irreversible investment in an existing business? Why should it be so difficult for someone with an unconventional idea to get the funding needed to build a prototype, design a little market trial, or merely flesh out a business case – particularly when the sum involved is peanuts?

Imagine that every innovator in Silicon Valley had to go to Bill Gates for funding. Pretty soon everyone in the Valley would be working to extend the Windows franchise. Goodbye to Netscape. Goodbye to Java. Goodbye to PalmPilot.

In most companies, there's an assumption that anything nonincremental is high risk and anything incremental is low risk. But in a fast-changing world, the reverse is often true. Venture capitalists are risk takers, but they're not *big* risk takers. Motorola investing in Iridium, AT&T buying into the cable TV industry, Monsanto spending billions on seed companies, Sony betting a billion on a new video game chip – these are big risks. VCs look for opportunities that don't need a lot of cash to get started. The initial investment in Hotmail was $300,000; the company was sold to Microsoft for something north of $400 million. Silicon Valley runs on nifty new ideas, not zillions of greenbacks. VCs work hard to enforce a culture of frugality in the companies they back. And because they are intimately involved in those companies – helping to appoint the management team, sitting on the board, plotting strategy with the owners – they are well positioned to know when to double their bets and when to cut and run. Compared with VCs, the average CFO is a spendthrift.

Roughly two-thirds of Silicon Valley start-ups receive their initial funding from "angels" – wealthy individuals who pool their investments to fund new companies. The average angel puts in around $50,000, and the average first-round investment for a start-up is $500,000. That's a rounding error in the average annual report. Yet how easy would it be for an ardent entrepreneur in your company to find ten angels willing to invest $50,000 each?

Creative new business ideas seldom make it through traditional financial screens. If estimates of market size and market growth seem the tiniest bit fuzzy, the proposal gets canned. If key business assumptions seem a bit shaky, no funds are forthcoming. If financial projections can't be supported with reams of analysis, top management takes a pass. Typical is the logic a senior car-company exec gave me for his firm's initial reluctance to invest in minivans: "There was no segment there, so how could we invest? We couldn't make a business case." By the time the company amassed enough evidence to assure itself that the minivan opportunity was real, it was a million units behind Chrysler, the minivan pioneer.

The market for capital works very differently in Silicon Valley. Talk to Steve Jurvetson, who funded Hotmail and is one of the Valley's hottest young VCs. Ask him how he evaluates a potential business idea, and this is what he'll tell you:

> The first thing I ask is, Who will care? What kind of difference will this make? Basically, How high is up? I want to fund things that have just about unlimited upside. The second thing I ask is, How will this snowball? How will you scale this thing? What's the mechanism that drives increasing returns? Can it spread like a virus? Finally, I want to know how committed the person is. I never invest in someone who says they're *going* to do something; I invest in people who say they're *already* doing something and just want the funding to drive it forward. Passion counts for more than experience.

A VC has a very different notion of what constitutes a business plan than the typical CFO. Again, listen to Jurvetson:

> The business plan is not a contract in the way a budget is. It's a story. It's a story about an opportunity, about the migration path and how you're going to create and capture value.
>
> I never use Excel at work. I never run the numbers or build financial models. I know the forecast is a delusional view of reality. I basically ignore this. Typically, there are no IRR forecasts or EVA calculations. But I spend a lot of time thinking about how big the thing could be.

The point is this: in most companies the goal of capital budgeting is to make sure the firm never ever

makes a bet-the-business investment that fails to deliver an acceptable return. But in attempting to guarantee that there's never an unexpected downside, the typical capital-budgeting process places an absolute ceiling on the upside. Dollars lost are highly visible (everyone knows whose projects have lost money), but dollars foregone are totally invisible.

Venture capitalists start with a very different set of expectations about success and failure. Out of 5,000 ideas, a five-partner VC firm may invest in ten, which it views as a portfolio of options. Out of that ten, five will be total write-offs, three will be modest successes, one will double the initial investment, and one will return the investment 50- to 100-fold. The goal is to make sure you have a big winner, not to make sure there are no losers.

In most large companies, someone with a vision of a radical new business model has to go to the defenders of the old business model to get funding. All too often the guy running the old thing has veto power over the new thing. To understand the problem this creates, imagine that every innovator in Silicon Valley had to go to Bill Gates for funding. Pretty soon everyone in the Valley would be working to extend the Windows franchise. Goodbye to Netscape. Goodbye to the Network Computer. Goodbye to Java and Jini. Goodbye to PalmPilot. And goodbye to anything else that might challenge Microsoft's current business model.

A VC doesn't ask how one venture plays off against the success of another venture. There's no search for synergy. Nobody asks, Is this new venture consistent with our strategy? Now, synergy is good, and consistency is a virtue. But in a world where the life span of the average business model is longer than a butterfly's but shorter than a dog's, one needs the chance to regularly consider a few opportunities that are *inconsistent* with the current strategy. One of those opportunities might just turn out to be a whole lot more attractive than what you're already working on. But how will you ever know unless you're willing to create a market for capital that puts a bit of cash behind the unorthodox? (See the sidebar "Spin-Ups, Not Spin-Outs.")

In attempting to guarantee that there's never an unexpected downside, the typical capital-budgeting process places an absolute ceiling on the upside.

New ideas get squashed when they threaten to cannibalize the sales of existing businesses – businesses protected by powerful constituents. Yet every company is told that it must cannibalize its own business before competitors do. Solving the cannibalization problem isn't difficult. You simply have to make sure that individuals seeking funding for nontraditional opportunities don't have to go cup in hand to the guardians of the past. That's what Shell did. In the GameChanger process, Shell created a market for capital that is entirely separate from the traditional capital-budgeting process, a process dominated by the investment needs of yesterday's businesses. Rather than wait for the annual budgeting cycle to roll around, innovators can go to the GameChanger panel at any time and present their business case. And they are guaranteed an almost immediate response. So yes, it is possible to create an innovation-friendly market for capital inside a big company.

The Market for Talent

Imagine what would happen if 20% of your best people up and left in a single year. It happens all the time in Silicon Valley. Valley workers change companies with less angst than most people change jobs within companies. Sure, they jump for money, but

Spin-Ups, Not Spin-Outs

The goal of bringing Silicon Valley inside is not only to create new businesses but also to reinvent existing business models. Too often companies think of internal entrepreneurship as focused solely on new businesses – ones that typically lie far outside the company's core. Once such businesses start to gain momentum, they're often spun out into separate companies with their own equity structures and stock market listings. But spin-outs do little to transform the base business. Xerox's Palo Alto Research Center has spun off a number of successful entrepreneurial companies while Xerox's core business has languished with less than double-digit growth.

Spin-ups are often more valuable than spin-outs. An idea that has the power to radically improve the economics of an existing business shouldn't languish in some backwater. Instead it should be spun up into a corporatewide initiative. A company that succeeds in bringing Silicon Valley inside should expect to create, as Shell has done, dozens of game-changing experiments inside existing businesses – a new pricing strategy here, an unconventional distribution model over there, a fresh approach to merchandising somewhere else. The experiments should be small and tightly bounded. But if they show promise, they can be spun up into major business-transforming programs.

more than that they jump at the chance to work on the next great thing. Companies pursuing killer opportunities attract the best talent. As one venture capitalist bluntly puts it: "'A' people work on 'A' opportunities."

Every Silicon Valley CEO knows that if you don't give your people truly exhilarating work – and a dramatic upside – they'll start turning in their badges. In recent years, companies like Apple and Silicon Graphics hemorrhaged talent, while up-and-comers like Cisco and Yahoo! have been magnets for the cerebrally gifted. Scott Cook, the chairman of Intuit, understands the hard reality of the talent market: "I wake up every morning knowing that if my people don't sense a compelling vision and a big upside, they'll simply leave." Not to worry. Intuit's restless innovators are busy turning the company into a dominant financial services player on the Internet.

Isn't it amazing that while every company has at least some kind of process for capital allocation, almost no company has a process for talent allocation.

The talent merry-go-round spins fast enough in Silicon Valley to make the average HR manager nauseous. In the old economy, employees are often viewed as something akin to indentured servants. Divisional vice presidents think they own their key people. And if those people work in South Bend, St. Louis, Des Moines, Nashville, or a hundred other cities that don't have the kind of superheated economy that exists in Silicon Valley, they may not find it so easy to jump ship. But that's no reason to chain ambitious and creative employees to the deck of a slowly sinking strategy.

Isn't it amazing that while every company has at least some kind of process for capital allocation, almost no company has a process for talent allocation – much less an open market for talent? Capital budgeting may be sclerotic and filled with nostalgia for old businesses, but at least there's a process for addressing the question of how much capital each business deserves every year. And there are measures like EVA that let one judge whether or not a particular business is using its capital wisely. Yet there's no knowing whether a company's very best people are lined up behind its biggest new opportunities or slowly suffocating in moribund businesses. You can look at retention rates, but that's only part of the story. People often quit emotionally long before they quit physically. Novelty, meaning, and impact are the oxygen that gives life to the entrepreneurial spirit. Denied that oxygen, even the most talented folks are soon brain dead.

As difficult as it is for a prospective entrepreneur to get seed capital in a large company, it's even harder to grab a few of the very best engineering or marketing folks. There's an enormous sense of entitlement among divisional vice presidents and business heads. "Hey, we make all the money, we ought to have the best people," they'll say. But the marginal value a talented employee adds to a business running on autopilot is often a fraction of the value that individual could add to a venture not yet out of the proverbial garage.

Disney understands this. The company has excelled at moving its very best talent into new and nontraditional business areas. Whether it's producing Broadway shows, starting a cruise line, or opening the company's first live-animal theme park, Disney's most capable "cast members" vie for the chance to work on the new and the unique. Helping to break new ground is regarded as a career coup. For their part, Disney's senior executives have worked to soften the kind of narrowly parochial profit-center thinking that so often scuppers the movement of people out of existing businesses and into new ones.

Shell, too, has been working hard to lower the barriers to employee mobility. The company has recently moved to what it terms an "open resourcing" model for talent. Jobs are listed on Shell's intranet, and with a two-month notice, employees can go and work on anything that interests them. There are no barriers hindering people from going to work on whatever fires their imagination. Monsanto has adopted a similar approach. One of the architects of Monsanto's metamorphosis from chemical giant to biotech pioneer puts it this way:

> Because we don't have a lot of structure, people will flow toward where success and innovation are taking place. We have a free-market system where people can move, so you have an outflow of people in areas where not much progress is being made. Before, the HR function ran processes like management development and performance evaluation. Now it also facilitates this movement of people.

At Monsanto, everyone across the company can point to the few critical projects that are redefining the company and opening up new vistas. What about your company? Could your most creative people point to ten unconventional ventures within your organization aimed at reinventing the company and its industry? And how easy would it be for those people to nominate themselves onto those teams?

Sure, many companies post internal job openings. But a market for talent is more than that. Em-

ployees have to believe that the best way to win big is to be part of building something new. That means providing additional incentives for employees who are willing to take a risk on something out of the ordinary. It means celebrating every courageous employee who abandons the security of a legacy business for an untested opportunity. It's not enough to remove the barriers to migration – one must positively provide incentives for employees to abandon the familiar for the unconventional.

Mobility fuels commitment. When employees are truly attracted to the projects and teams they work on, commitment is a foregone conclusion. And while they may not stay committed forever, particularly if a business model is running out of gas, people who've voted with their feet, and their lives, aren't likely to join the ranks of disaffected Dilberts.

Many companies are already paying a price for having failed to create internal markets for talent. People who have the passion and the aptitude to create new wealth are abandoning the old economy for the new. When AT&T vice presidents start leaving for the left coast, something's up. Even America's best MBA grads – kids who've been groomed for corporate life – have been forsaking the old guard for the vanguard. Today, 20% of Harvard MBAs join companies with fewer than 100 people, and 20% of Stanford MBAs join companies with fewer than 50. Yeah, some still want to go into consulting and devote their lives to making the world safe for vice presidents, but more and more want to go kick incumbent butt. Confident in their talents and ambitious as hell, they're going to companies where the market for talent is brutally efficient. They're going to companies where there are no constraints on their contribution, where there are no apprenticeships to serve, no senior partners to carry, and no corporate posteriors to kiss. If you fail to create a vibrant and vital market for talent in your company, you're never even going to have the chance to hire these people, and your leaky tap of talent will become a torrent.

The bottom line is this: if you have highly creative and ambitious people who feel trapped in moribund businesses, they *are* going to leave. The only question is whether they leave to join some other company or whether they leave to join a GameChanger kind of team in your company. Or, to put it more simply, are they going to create wealth for themselves and somebody else or are they going to create wealth for themselves and your shareholders? Creating an internal market for talent won't happen until you have the courage to blow up the entitlement mentality that so often imprisons both talent and capital. And it won't happen until you come to believe, truly, that there's more wealth to be had by setting ambitious and capable employees free than by holding them hostage in businesses that have already reached their sell-by date.

The Innovation Frontier

We are at the dawn of a new industrial order. We are leaving behind a world in which scale, efficiency, and replication were everything. We are taking our first tentative steps into a world where imagination, experimentation, and agility are, if not everything, at least the essential catalysts for wealth creation. Resource allocation worked fine for the old world, but companies need something more, and quite different, if they are to capture their fair share of wealth in the new world. In concept and in reality, resource attraction is well tuned to the new world of self-organization, spontaneity, and speed.

Opportunities are fleeting in this new world. By the time some cautious vice president decides to pull the trigger, some hot, young entrepreneur is already a billionaire. So you'd best not wait any longer to start building your own internal markets for ideas, capital, and talent. Shell, Virgin, GE Capital, and Monsanto are setting the pace, but you shouldn't expect to distill a neat little guide from their experience. If there were a best-practice manual, you'd be even further behind the curve than you already are. Instead, recognize that resource attraction is not something as simple as a new process – this isn't knowledge management or data mining. It's a fundamentally new approach to the challenge of creating wealth.

If you have highly creative and ambitious people who feel trapped in moribund businesses, they are going to leave.

Silicon Valley companies are challenging the industrial aristocracy in fields as diverse as auto retailing, insurance, bookselling, and broadcast media. But the real competition between the old economy and the new economy is occurring not between individual companies but between remarkably different regimes. Just as communism and capitalism were competing economic regimes, resource allocation and resource attraction are competing innovation regimes. Resource allocation works fine where innovation is largely incremental to the existing business model (think Cherry Coke versus regular Coke). But where the goal is the invention of novel business models (music downloaded off the Web versus CDs bought at Tower Records), or the radical redesign of existing business models (Dell's build-to-order direct-selling

approach), resource allocation is wholly inadequate. The shift to a postindustrial economy, accelerating by the minute, is perhaps the greatest economic sea change in history. Any company that hopes to profit from this transition must first ask itself whether its innovation regime is up to the challenge.

There is a persistent yet unfounded belief that big companies must always lose to nimble start-ups, that no incumbent can ever match the entrepreneurial fervor of Silicon Valley or its analogues around the globe. I heartily disagree. In fact, when it comes to innovation, large companies have their own advantages that in many ways offsets those of Silicon Valley. Large companies have resources. They have a ready source of capital – if they can learn how to supplement risk-averse resource allocation with opportunity-focused resource attraction. They often have brands and distribution assets that can give a new venture a quick start. Mighty Microsoft would still be a minnow if it hadn't found a way to tap into IBM's brand and distribution strengths. In theory, it should be easier for large companies to redeploy talent into new areas than it is for start-ups to induce prospective employees to endure the hassles of changing companies. And where a venture capitalist will often lose a hot idea to a rival source of funds, large companies should at least enjoy preferential access to the ideas that emerge from their own employees.

Silicon Valley exists not because large companies are incapable of innovation but because they have been unwilling to abandon the tightly knit safety net of resource allocation. A disciplined, top-down approach to allocating money and talent gives top management a sense of control. But in a world where the risk of being rendered irrelevant by an impertinent interloper is ever present, such control is illusory. Yes, you can do your best to ensure that you never put a dollar of capital or a great employee into anything that doesn't come wrapped in an ironclad business case. But in the process, you'll surrender the future and its wealth to more intrepid souls.

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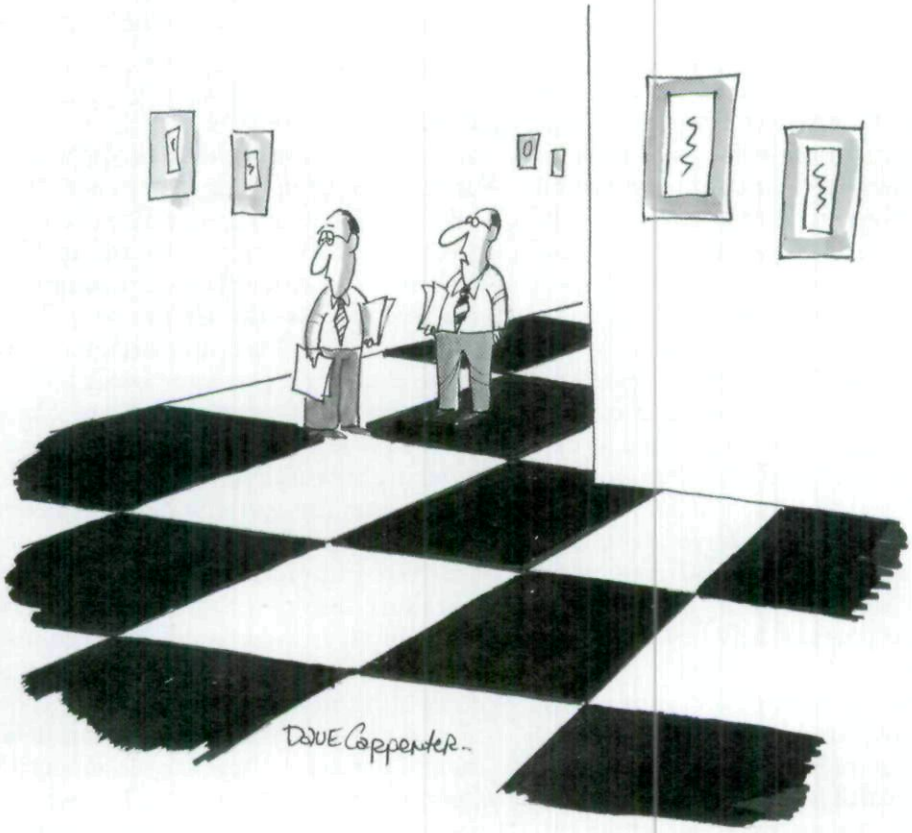

"I'll tell you Jennings, we're nothing but pawns in this company."

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