Case 15

GENERAL ELECTRIC: LIFE AFTER JACK*

When Jeff Immelt took over as Chairman and CEO of General Electric on September 1, 2001, he had no doubts that his predecessor, Jack Welch—"living legend," "best manager of the past half-century"—would be a tough act to follow. But little did he realize just how tough it would be.

When Immelt addressed GE shareholders at the 2002 share owners' annual conference on April 24, 2002, GE's share price was below $33, compared with a peak of $60 in August 2000. GE was suffering from external events such as the global economic slowdown of 2001 and the fallout from the September 11 terrorist attacks in the US, but the primary problem was a rise of tide of skepticism over GE's spectacular performance. In February 2002, GE announced record earnings for the previous year—net income was up 11 percent over the previous year—and return on equity was a robust 26 percent.

However, the post-Enron wave of cynicism over corporate financial reporting had dawn GE into its wake. After being lauded by analysts for its smooth earning growth, rumors of earnings manipulation by GE circulated among the investment community. More specific criticisms were directed at the way in which GE was able to disguise the true risks of its businesses by consolidating the financial statements of its industrial businesses within its financial services business, GE Capital). In March 2002, Bill Gross, of the IPCO fund management group, showed that GE was more a financial services rather than an industrial comp any, however, by supporting GE Capital with its industrial business, GE Capital had been able to operate on a narrow capital base and maintain a triple-A credit rating. In addition, GE's famously reliable earnings estimates were also subject to doubt. Given the slowing demand affecting several of GE's industrial business, there was concern that 2002 earnings estimate would be achieved only through manipulating the earnings data.

While investors held little hope that Immelt could ever match the incredible 50-fold increase in GE's market value that Welch had achieved, the management community was more interested in the changes in corporate strategy, organizational structure, and management systems that Immelt would initiate. Welch had been a revolutionary and an autocrat. He had swept away most of GE carefully constructed structure and its greatly admired corporate planning system. He had relentlessly challenged GE managers for improved operational and financial performance, he had created a GE management style based almost entirely upon his own personality, values, and beliefs. His management innovations at GE had exerted a huge impact upon management thinking and management practices throughout the whole corporate sector. Whole course at business schools had been devoted to GE's approach to strategic planning, human resource management, knowledge management, international management, acquisition management, financial management, and quality management.

In the short term Immelt knew that his number one priority was to restore the confidence of the investment community in General Electric, particularly in relation to its financial structure and financial reporting. But looking further ahead, Immelt realized that his primary challenge was coming to terms with Welch's legacy at GE. Each of GE's CEOs had been associated with successfully adapting GE's strategy and management systems to the challenges of the particular era. Between 1950 and 1963, Ralph Cordiner had responded to the opportunities of post-war growth to diversify GE into a range of new markets and new technologies. His successor, Fred Borsch (1963-72) had reorganized GE around nine major growth sectors within which each business formed a strategic business unit. During 1972 to 1981, Reginald Jones established GE's highly regarded and widely imitated system of strategic and financial planning which reconciled strong central control with high levels of operational autonomy for divisions and business units. Jack Welch's contribution had been to adapt GE to a world of uncertainty, intense competition and rapid competition. In building an organization and a management culture which reconciled the benefits of massive corporate size with flexibility and responsiveness, Welch undid much of Jones's management systems in favor of a system based upon personal accountability and high levels of performance expectations.

GENERAL ELECTRIC COMPANY

The General Electric (GE) that Jeffrey Immelt inherited in 2001 was widely regarded as one of the world's most successful companies of all time. It is the only company to have remained a member of the Dow Jones 30 share industrial index since the index was first created. Throughout its history, it has been associated with near-continuous growth and above average profitability. Table 15.1 shows profitability under successive CEOs.

[Table 15.1 about here]

GE was founded in 1892 from the merger of Thomas Edison's Electric Light Company with the Thomas Houston Company. Its business based upon exploiting Edison's patents relating to electricity generation and distribution, light bulbs, and electric motors. During the twentieth century it became not only the biggest and most diversified industrial corporation in America, but "a model of management—a laboratory studied by business schools and raided by other companies seeking skilled executives."[1] Two decades under Jack Welch's leadership had only enhanced GE's reputation for effective management. In 2001, Fortune magazine named GE as America's "most admired company" for the fifth year in succession, and the Financial Times identifies GE as the "world's most respected company" for the fourth consecutive year.

GE was not only one of the world's biggest companies, it was also one of the worlds most diverse. While most of the conglomerates of the 1980s—Hanson, ITT, Seagram, Philips, General Mills, and United Technologies—had either undergone massive refocusing or broken themselves up entirely, GE had remained a broadly diversified company spanning a wide range of businesses from jet engines to mortgage banking. Figure 15.1 shows GE's major businesses.

[Figure 15.1 about here]

GE's ability to thrive as a broadly diversified corporation was one of the wonders of the business world. Since the early 1990s, diversified firms had been handicapped by the "conglomerate discount"—the capital markets had capitalized their earnings at lower multiples than for single-business companies. The only solution was to refocusing or break-up. For GE this issue has never arisen, GE's remarkable financial performance was such that it had never been under pressure to spin off individual businesses or dismember itself completely. This superior performance is evident in GE's capacity to achieve both growth and profitability throughout the economic cycle (see Table 15.2), and its financial stability—GE had maintained its triple-A credit rating for 44 consecutive years.

[Table 15.2 about here]

As Immelt emphasized to shareholders, it was the combination of these different businesses with their different cyclical characteristics that allowed GE to sustain its earning growth:

> We have four strong, powerful long cycle businesses: Power, Medical, Engines, and Transportation. These businesses are strong, number one, with multiple levers to grow earnings through technology and services. Our Power business had led the way through the past few years of gas turbine growth and as that turbine market subsides, our Power business will thrive by servicing an installed base that has grown five-fold. Our Medical franchise has unlimited opportunities driven by world-class technology, favorable demographics, and global distribution. Our Aircraft Engines business gets even stronger every year as we continue to invest in new engine platforms and technology. The importance of these long cycle business is tat give you steady earnings growth over time, with stable product cycles abs rapid service growth.
>
> We also have a leadership franchise in our short cycle businesses, like NBC, Plastics, Materials, Consumer, and Industrial businesses. These have been hardest hit by the downturn but so far in 2002 we are seeing encouraging signs of recovery…
>
> We have the world's most diversified financial service business with consumer finance, mid-market financing, insurance, equipment management, and specialty segments. We're growing assets at GE Capital by 15 percent….The importance of GE Capital is that it can use GE's financial and industrial strength to generate superior returns over time….
>
> The GE portfolio was put together for a purpose—to deliver earnings growth through every economic cycle. We're constantly managing these cycles in a business where the sum exceeds the parts.[2]

However, for all the emphasis on the complementary performance characteristics of GE's different businesses, it was also apparent that there were clear differences in terms of both growth and profitability between them (Table 15.3).

[Table 15.3 about here]

THE WELCH HERITAGE

This ability of GE, not just to drive performance in the individual businesses, but also to create a corporation where the sum exceeds the parts was the hallmark of Jack Welch's tenure as GE's chairman and CEO. Welch's contributions to the restructuring of GE's business portfolio, its organizational design, and its management systems will be described in subsequent sections, underlying all these contributions was Welch's revolutionary impact on GE's culture and its management style.

During his 20-year tenure, Welch had remade GE in his own image. The culture and management style that he had fostered were reflections of his own personality and values. Welch attributes his management style t two formative influences: his mother and ice hockey. Welch credits his mother wit nurturing self confidence, determination, and strong values. He credits ice hockey with developing competitive spirit, confrontation and camaraderie.

From the outset, Welch set lofty goals for GE: in 1981, as the newly-appointed chairman and chief executive, he outlined his vision:

> A decade from now I would like General Electric to be perceived as a unique, high-spirited, entrepreneurial enterprise...a company known around the world for its unmatched level of excellence. I want General Electric to be the most profitable, highly diversified company on earth, with world-quality leadership in every one of its product lines.

For 20 years, Welch continually pushed his subordinates for more. In the early days he continually reiterated his goal of creating a company that was "better than the best." This meant not just imposing "stretch goals" upon business level managers, but encouraging GE's employees—at all levels—to embrace ambitious targets for themselves:

> Shun the incremental and go for the leap. Most bureaucracies – and ours is no exception – unfortunately think in incremental terms rather than in terms of fundamental change. They think incrementally primarily because they think internally. Changing the culture – opening it up to the quantum change – means constantly asking not how fast am I going, how well am I doing versus how well I did a year or two before, but rather, how fast and how well am I doing versus the world outside. Are we moving faster, are we doing better against that external standard?
>
> Stretch, means using dreams to set business targets – with no real idea of how to get there...We certainly didn't have a clue how we were going to get to 10 inventory turns [a year] when we set that target. But we're getting there, and as soon as we become sure we can do it – it's time for another stretch.[34]

Welch's early years at GE were a war on bureaucracy. Formality, elaborate PowerPoint presentations, complex strategic plans, were ways in which managers avoided reality and avoided coming to grips with painful decisions. Welch's own approach based upon facing reality and surfacing and resolving conflicts and disagreement. "Constructive conflict" was his key tool. Welch would force his managers to defend their views, even if that meant getting into shouting-match arguments. "Jack will chase you around the room, throwing arguments and objections at you," said one executive. "Then you fight back until he lets you do what you want, and it's clear you'll do everything you can to make it work."

He spelled out his management philosophy in an interview with *Harvard Business Review*:

> Good business leaders create a vision, articulate the vision, passionately own the vision, and relentlessly drive it to completion. Above all else, though, good leaders are open. They go up, down, and around their organization to reach people. They don't stick to the established channels. They're informal. They're straight with people. They make a religion out of being accessible. They never get bored telling their story.
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> Real communication takes countless hours of eyeball to eyeball, back and forth. It means more listening than talking. It's not pronouncements on a videotape; it's not announcements in a newspaper. It is human beings coming to see and accept things through a constant interactive process aimed at consensus. And it must be absolutely relentless. That's a real challenge for us. There's still not enough candor in this company.
>
> I mean facing reality, seeing the world as it is rather than as you wish it were. We've seen over and over again that businesses facing market downturns, tougher competition, and more demanding customers inevitably make forecasts that are much too optimistic. This means they don't take advantage of the opportunities change usually offers. Change in the marketplace isn't something to fear; it's an enormous opportunity to shuffle the deck, to replay the game. Candid managers – leaders – don't get paralyzed about the "fragility" of the organization. They tell people the truth. That doesn't scare them because they realize their people know the truth anyway.
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> We've had managers at GE who couldn't change, who kept telling us to leave them alone. They wanted to sit back, to keep things the way they were. And that's just what they did – until they and most of their staffs had to go. That's the lousy part of this job....The point is, what determines our destiny is not the hand you're dealt; it's how you play the hand. And the best way to play your hand is to face reality – see the world the way it is – and act accordingly.
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> For a large organization to be effective, it must be simple. For a large organization to be simple, its people must have self-confidence and intellectual self-assurance. Insecure managers create complexity. Frightened, nervous managers use thick, convoluted planning books and busy slides filled with everything they've known since childhood. Real leaders don't need clutter. People must have the self-confidence to be clear, precise, to be sure that every person in their organization – highest to lowest – understands what the business is trying to achieve. But it's not easy. You can't believe how hard it is for people to be simple, how much they fear being

> simple. They worry that if they're simple, people will think they're simpleminded. In reality, of course, it's just the reverse. Clear, tough-minded people are the most simple.
>
> Simple doesn't mean easy, especially as you try to move this approach down through the organization. When you take out layers, you change the exposure of the managers who remain. They sit right in the sun. Some of them blotch immediately; they can't stand the exposure of leadership.[4]

By the end of the 1980s, Welch's ideas about management were summarized in the slogan "Speed, Simplicity, Self-Confidence":

> We found in the 1980s that becoming faster is tied to becoming simpler. Our businesses, with tens of thousands of employees, will not respond to visions that have sub-paragraphs and footnotes. If we're not simple, we can't be fast...and if we're not fast, we can't win. Simplicity, to an engineer, means clean, functional winning designs, no bells or whistles. In marketing, it might manifest itself as clear, unencumbered proposals. For manufacturing people, it would produce a logical process that makes sense to every individual on the line. And on an individual, interpersonal level, it would take the form of plain-speaking directness, honesty.
>
> But just as surely as speed flows from simplicity, simplicity is grounded in self-confidence. Self-confidence does not grow in someone who is just another appendage on the bureaucracy; whose authority rests on little more than a title. People who are freed from the confines of their box on the organization chart, whose status rests on real-world achievement – those are the people who develop the self-confidence to be simple, to share every bit of information available to them, to listen to those above, below and around them and then move boldly.
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> But a company can't distribute self-confidence. What it can do – what we must do – is to give each of our people an opportunity to win, to contribute, and hence earn self-confidence themselves. They don't get that opportunity, they can't taste winning if they spend their days wandering in the muck of a self-absorbed bureaucracy.
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> Speed...simplicity...self-confidence. We have it in increasing measure. We know where it comes from...and we have plans to increase it in the 1990s.[5]

RECONFIGURING THE BUSINESS PORTFOLIO

Although Welch was resolutely determined to retain GE's identify as a broadly diversified corporation, he was clear that GE's business portfolio should, first, be focused around a limited number of sectors and, second, these sectors should be attractive in terms of their potential for profitability and growth. During the early part of his chairmanship, Welch announced his intention only to retain businesses that held number one or number two positions within their global markets. His intention was to focus GE's resources on its best opportunities: "My biggest challenge will be to put enough money on the right gambles and no money on the wrong ones. But I don't want to sprinkle money over everything." This involved increasing GE's emphasis upon technology-based businesses and service businesses. Welch sold off its consumer electronics business, its mining interests (notably Utah International), its small household appliances division, its semiconductor business, and its radio stations.

GE's acquisitions included a few major ones such as RCA, NBC, Kidder Peabody, and CGR, and a host of smaller companies. During 1997-2001, GE made over a hundred acquisitions in each year. By far the largest sector for acquisition was financial services. During the 1990s, GE Capital's phenomenal growth was built upon continuous acquisition of businesses in leasing, consumer and commercial credit, insurance, and other areas of finance. The result was the emergence of GE Capital as one of the world's biggest financial services companies.

For all GE's expertise in identifying acquisition targets then integrating them into GE's structure and systems, not all were successful. Kidder Peabody was a disaster for GE, and the acquisition of Montgomery Ward was viewed by some outsiders as a mistake. Most recently, GE's biggest takeover, Honeywell, was unconsummated because of opposition form the European Commission on antitrust grounds.

CHANGING THE STRUCTURE

The changes in the portfolio transformed the product-market face of GE and increased its growth potential. However, to realize this potential required revitalizing the management systems and management style in order to generate drive and ambition. Achieving this required changes in GE's structure. Under Welch, GE eliminated several layers of management and large numbers of administrative positions. In particular, Welch eliminated GE's sectors, requiring the leaders of GE's 13 businesses to report directly to the CEO. The office of the CEO was expanded, and a Corporate Executive Council (CEC) was created to provide a forum for GE's businesses leaders and senior corporate officers. Further organizational layers were eliminated both at headquarters and within the businesses. Decision making was pushed down to the operating units.

> We are now down in some businesses to four layers from the top to the bottom. That's the ultimate objective. We used to have things like department managers, section managers, subsection managers, units managers, supervisors. We are driving those titles out...We used to go from the CEO to sectors to groups to businesses. We now go from the CEO...to businesses. Nothing else. There is nothing else there. Zero.
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> When you take out layers, you change the exposure of the managers who remain. They sit right in the sun. Some of them blotch immediately – they can't stand the exposure of leadership. I firmly believe that an overburdened, overstretched executive is the best executive, because he or she doesn't have time to meddle, to deal in trivia, or to bother people. Remember the theory that a manager should have no more than six or seven direct reports? I say the right number is closer to 10 or 15. This way you have no choice but to let people flex their muscles, to let them grow and mature.[6]

Empowering line managers meant reducing the power—and number—of staff. Welch's goal was to "turn their role 180° from checker, inquisitor and authority figure to facilitator, helper and supporter of the businesses....Ideas, initiatives and decisions could now move quickly. Often at the speed of sound – voices – where once they were muffled and garbled by the gauntlet of approvals and staff reviews."[7]

The result was massive reductions in numbers of employees. Between 1980 and 1990, GE's headcount fell from 402,000 to 298,000. The biggest cuts were at the upper levels of the organization: at corporate headquarters and within sectoral administration. In some areas employee numbers increased—particularly in overseas operations. Welch's ruthless attack on bureaucracy and administrative costs earned him the nickname "Neutron Jack" – the building remained, but the people had gone.

CHANGING MANAGEMENT SYSTEMS AND PROCESSES

Strategic Planning

The changes in GE's structure were aimed at creating a more flexible and responsive corporation. This goal also necessitated changes in GE's highly developed management systems. In particular, Welch led a major overhaul of GE's much celebrated and widely emulated strategic planning system. The framework of an annual planning cycle was retained, but the staff-led, document-driven process was replaced by a less formal, more personal process. Instead of the big planning reports, Welch asked each business head to prepare a slim "playbook" that summarized the key strategic issues that the business faced, and how it intended to address them. This document provided the basis for a half-day, shirtsleeves review in mid-summer when Welch and key corporate officers would engage in discussion and debate with the top management team of each businesses. On the 1986 meetings, Welch commented:

> We asked the 14 business leaders to present reports on the competitive dynamics in their businesses. How did we do it? We had them each prepare one-page answers to five questions: What are your market dynamics globally today, and where are they going over the next several years? What actions have your competitors taken in the last three years to upset those global dynamics? What have you done in the last three years to affect these dynamics? What are the most dangerous things your competitor could do in the next three days to upset those dynamics? What are the most effective things you could do to bring your desired impact on those dynamics?
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> Five simple charts. After those initial reviews, which we update regularly, we could assume that everyone at the top knew the plays and had the same playbook. It doesn't take a genius. Fourteen businesses each with a playbook of five charts. So when Larry Bossidy is with a potential partner in Europe, or I'm with a company in the Far East, we're always there with a competitive understanding based upon our playbooks. We know exactly what makes sense, we don't need a big staff to do endless analysis. That means we should be able to act with speed.

Financial Planning and Control

Supporting GE's strategic planning system was a sophisticated financial budgeting system which centered on the annual budget. Budget preparation began in July and involved extensive negotiation between the operating units, the intervening groups and sectors, and the corporate headquarters. Once the budget was set, managers were locked in to meet it "at all costs" regardless of changes in the marketplace. It was generally agreed that the system had undesirable consequences, such as gaming to set low targets, and cutting long-term development to meet short-term targets. Because managers were locked in to figures established 18 months before, the budgeting system often inhibited adjustment to external changes and gave little information of management performance.

Welch's commitment to a performance-driven organization meant that financial targets were of critical importance. However, the key was to create shareholder value rather than accounting profits per se. In addition it was essential that the system should permit the performance of divisional and business unit managers to be assessed. Two changes were made. First, the controller's office prepared a set of financial objectives for each operating unit in order to reflect more realistically each unit's prospects and to reduce gamesmanship in target-setting. Second, the budgets (now called operating plans) were subject to revision as economic or competitive conditions changed. Thus, line managers could propose changes to the plans once the original assumptions on which they had been based could be shown to have changed. Performance evaluation was then made against the revised targets.

Central to the changes in financial control was the idea that performance was not about "making the budget." It was about raising performance expectations to be "as good as possible":

The primary task of the businesses, emphasized Welch, was to produce earnings. As a guideline, Welch proposed that GE's earnings should grow at between one-and-a-half and two times the growth of GDP.

Human Resource Management

The key to GE's long-term development and performance was the development of its management talent. GE had a well-developed system of management appraisal and development which Welch retained. He believed giving managers greater profit-and-loss responsibility earlier in their careers would be conducive to an even greater flourishing of managerial talent. But to encourage risk taking and higher levels of performance aspiration required more powerful incentives. Welch believed in giving more recognition to individual contributors and higher rewards to those who produced superior results:

> A flat reward system is a big anchor to incrementalism. We want to give big rewards to those who do things but without going for the scalps of those who reach for the big win but fail. Punishing failure assures that no one dares.

Welch redesigned the bonus system to reach deep into middle management. The bonuses became much more discriminating. The typical 10 percent to 15 percent bonuses for senior managers were replaced by 30 percent to 40 percent bonuses for far fewer managers. In addition, stock options were extended from the top echelon of management to a much wider range of managerial and technical employees. By 1996, Welch was able to report that the number of employees receiving stock options had increased from 400 in the early 1980s to 22,000 by the end of 1995: "Today, stock option compensation, based on total GE performance, is far more significant than the salary or bonus growth associated with the performance of any individual unit or business. This aligns the interests of the individual, the Company, and the share owner behind powerful, on-company results."[8]

Welch believed that a performance driven organization would not only encourage GE's managers to perform up to the limits of their capabilities, it would also nurture those capabilities. Welch firmly believed that GE's ability to outperform its peers ultimately depended upon having outstanding employees. GE could offer opportunities for career development and the acquisition of skills and expertise that no other company could match:

> Our true "core competency" today is not manufacturing or services, but the global recruiting and nurturing of the world's best people and the cultivation in them of an insatiable desire to learn, to stretch and to do things better every day. By finding, challenging and rewarding these people, by freeing them from bureaucracy, by giving them all the resources they need—and by simply getting out of their way—we have seen them make us better and better every year.
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> We have a Company more agile than others a fraction of our size, a high-spirited company where people are free to dream and encouraged to act and to take risks. In a culture where people act this way, every day, "big" will never mean slow.
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> This is all about people—"soft stuff." But values and behaviors are what produce those performance numbers, and they are the bedrock upon which we will build our future.[9]

Maintaining a vigorous, performance driven culture required putting mangers under continual pressure including on-going weeding-out of weaker performers. GE's system of evaluation was renowned for its thoroughness and its ruthlessness:

> In every evaluation and reward system, we break our population down into three categories: the top 20%, the high-performance middle 70% and the bottom 10%.The top 20% must be loved, nurtured and rewarded in the soul and wallet because they are the ones who make magic happen. Losing one of these people must be held up as a leadership sin—a real failing. The top 20% and middle 70% are not permanent labels. People move between them all the time. However, the bottom 10%, in our experience, tend to remain there. A Company that bets its future on its people must remove that lower 10%, and keep removing it every year—always raising the bar of performance and increasing the quality of its leadership. Not removing that bottom 10% early in their careers is not only a management failure, but false kindness as well—a form of cruelty—because inevitably a new leader will come into a business and take out that bottom 10% right away, leaving them—sometimes midway through a career—stranded and having to start over somewhere else. Removing marginal performers early in their careers is doing the right thing for them; leaving them in place to settle into a career that will inevitably be terminated is not. GE leaders must not only understand the necessity to encourage, inspire and reward that top 20%, and be sure that the high-performance 70% is always energized to improve

> and move upward; they must develop the determination to change out, always humanely, that bottom 10%, and do it every year. That is how real meritocracies are created and thrive.[10]

CORPORATE INITIATIVES

One of the distinctive characteristics of Welch's system of management was his use of periodic new corporate initiatives as mechanisms to drive particular aspects of company-wide performance Thus, while strategic planning, financial control, and human resource management provided the basic systems for managing GE, about every two year, Welch would announce a major new initiative designed to energize the company and drive its performance in a particular direction. Over time these initiatives wolf become absorbed not the ongoing management systems of GE.

Work Out

The idea for GE's "work out" process began with the no-holds-barred discussion sessions that Welch held with different groups of managers at GE's Management Development Institute at Crotonville, New York. Impressed with the energy and impetus for change that these sessions generated, Welch initiated a companywide process called "work out."

The idea was to create a forum where a cross-section of employees could speak their minds about the management of their business without the fear of retribution by their superiors. Typically, the sessions assembled a cross-section of 50 to 100 of the business's employees for meetings that ran for two or three days. In an environment that Welch likened to an old New England town meeting, the group would be asked to openly and honestly review the management process and practices in their part of the operation. Initially they focused on unproductive or bureaucratic behaviors which had limited their personal effectiveness. At the end of each work out, the group's manager returned to hear the findings and recommendations, and could either accept or reject them on the spot, or appoint a team to report back with more data by a given date. Welch believed that work out could achieve fundamental changes in management:

> Work-Out has a practical and an intellectual goal. The practical objective is to get rid of thousands of bad habits accumulated since the creation of General Electric....The second thing we want to achieve, the intellectual part, begins by putting the leaders of each business in front of 100 or so of their people, eight to ten times a year, to let them hear what their people think. Work-Out will expose the leaders to the vibrations of their business – opinions, feelings, emotions, resentments, not abstract theories of organization and management. Ultimately, we're talking about redefining the relationship between boss and subordinate.
>
> These Work-Out sessions, create all kinds of personal dynamics. Some people go and hide. Some emerge as forceful advocates. As people meet over and over, though, more of them will develop the courage to speak out. The norm will become the person who says, "Damn it, we're not doing it. Let's get on with doing it. This process will create more fulfilling and rewarding jobs. The quality of work life will improve dramatically."[11]

Initially, work out focused on eliminating bureaucratic practices ("low-hanging fruit"). Over time, work out sessions evolved to the evaluation and redesign of complex cross-functional processes—often involving suppliers and customers as well as GE employees.

The Boundary-less Organization

Welch reacted strongly to descriptions of GE as a conglomerate. But for GE to be greater than the sum of it parts required utilizing its product and geographical diversity to improve performance within each business. The key to transforming diversity into strength, believed Welch, was the frictionless transfer of best practices and other forms of learning within GE. But to achieve this required eliminating—or at least making permeable—GE's internal boundaries, as well as increasing openness to external learning. By 1990, Welch was developing the vision of a new GE organization that would be a truly "boundary-less" company. His boundary-less company was one in which both external barriers and internal barriers became blurred:

> In a boundary-less company, suppliers aren't outsiders. They are drawn closer and become trusted partners in the total business process. Customers' vision of their needs and the company's view become identical and every effort of every man and woman in the company is focused on satisfying those needs. The boundary-less company blurs the divisions between internal functions; it recognizes no distinctions between "domestic" and "foreign" operations; and it ignores or erases group labels such as "management," "salaried," and "hourly" which get in the way of people working together.[12]

Boundarylessness required changes in structures, attitudes, and behaviors that would permit the "integrated diversity" that Welch envisaged. Examples of boundaryless behavior were widely publicized and praised:

> Two years ago, one of our people spotted a truly innovative method of compressing product cycle times in an appliance company in New Zealand. After testing it successfully in our Canadian affiliate, we transferred the methodology to our largest appliance complex in

Louisville, KY. It has revolutionized processes, reduced cycle times, increased our customer responsiveness, and reduced our inventory levels by hundreds of millions of dollars. Teams from all of our manufacturing businesses are now living in Louisville so we can spread the New Zealand-to-Montreal-to-Louisville learning to every business in GE.[13]

Globalization

All of GE's businesses were given global responsibility which meant exploiting international growth opportunities and exploiting the advantages of global reach in terms of exploiting global level economies of scale and increased learning opportunities. Global diversity played an important role in allowing GE to cope with economic problems that affected particular countries of regions, and take advantage of the opportunities that such downturns offered. For example, as "financial contagion" affected much of Asia during 1997-98, GE was seeking acquisition opportunities:

> We've been down this road before. In the early 1980s, we experienced a United States mired in recession, hand-wringing from the pundits and dirges being sung over American manufacturing. We didn't buy this dismal scenario; instead, we invested in both a widespread restructuring and in new businesses....Europe looked a lot like the United States in the 1980s, and in need of the same remedies: restructuring, spin-offs, and the like. So, while many were "writing-off" Europe, we invested heavily, buying new companies and expanding our existing presence…. "GE Europe" is now a $20.6 billion operation. Our revenues have more than doubled from 1994 to 1997; net income has tripled to more than $1.5 billion; and growth is accelerating as the European recovery progresses....Mexico in the mid 1990s was a similar story… GE moved, acquiring 10 companies and investing more than $1 billion in new and existing operations. The result was revenue growth of 60% and a doubling of earnings in the two years following the crisis. Today we are determined, and poised, to do the same thing in Asia we have done in the United States, Europe and Mexico: invest in the future.[14]

Six Sigma

From 1998 to 2000, Welch's Six Sigma program was its dominant corporate initiative and primary driver of organizational change and performance improvement. Welch described it as his next "soul-transforming cultural initiative." The methodology of defining, measuring, analyzing, improving, and then controlling every process that touches a company's customers until it reduces defects to 3.4 per million was borrowed from Motorola. However, at GE it was with unprecedented fervor across an unprecedentedly broad front. In four years some 100,000 people were trained in its science and methodology, and by 201, GE was able to report: "Now Six Sigma is the way we work. We all speak a common language of CTQs (critical-to-quality), DPMOs (defects per million opportunities), FMEAs (failure mode effect analysis), and Needs Assessment Maps (to name just a few)." Across every one of GE's businesses major gains in performance ranking from reduced wastage and lower operating costs to faster customer service and improved financial management were reported.

Digitization

Welch was a late convert to the electronic business. However, once converted, he became a raving evangelist, urging his line managers launching his "destroy-your-busienss.com" initiative in 1999. Each organizational unit was encouraged to visualize how it might be crushed by the dotcom juggernaut. The result was widespread discovery of opportunities to use the internet to improve internal processes and better serve customers. By spring 2001, Welch reported:

> As we said in our 1999 letter, digitization is transforming everything we do, energizing every corner of the Company and making us faster, leaner and smarter even as we become bigger. In 2000, these words began to turn into numbers, as we sold over $7 billion of goods and services over the net and conducted over $6 billion in online auctions. Digitization efforts across the Company will generate over $1.5 billion in operating margin improvements in 2001.[15]

GE's Operating System

By 2002, these different initiatives had been institutionalized to the point where GE referred to them as its "operating system." Thus, referring collectively to work out, boundarylessness, globalization, six sigma and digitization, GE described an integrated system for performance improvement:

> The GE Operating System is GE's learning culture in action. It is a year-round series of intense learning sessions where Business CEOs, role models and initiative champions from GE as well as outside companies, meet and share intellectual capital.
> The central focus is always on sharing, and putting into action, the best ideas and practices from across the Company and around the world.
>
> Meetings take place year-round, in an endless process of enrichment. Learning builds from previous meetings, expanding the scope and increasing the momentum of our Company-wide initiatives.

Driven by the Company's values - trust, informality, simplicity, boundaryless behavior and the love of change - the Operating System allows GE businesses to reach speeds and performance levels unachievable were they on their own.

The GE Operating System translates ideas into action across three dozen businesses so rapidly that all the initiatives have become operational across the Company within one month of launch, and have always produced positive financial results within their first cycle. [16]

JEFF IMMELT

Jeffrey R. Immelt was appointed CEO of GE at the age of 44, and heading up GE's plastics business and medical systems. He has an economics and applied math degree from Dartmouth and an MBA from Harvard. He claims that his own experience of GE extends beyond his two decades with the firm—his father spent his entire career at GE. At GE Appliances, GE Plastics, and GE Medial Systems, Immelt acquired a reputation for turning around troubled units, driving customer service, and exploiting new technologies. He also demonstrated the ability to motivate others—an aptitude that he had revealed as offensive tackle for Dartmouth's football team in the 70s.[17]

As Welch's successor at GE, Immelt was broadly happy with most of the managerial and organizational innovations that his predecessor had introduced. At the same time he was acutely aware that management system that Welch had created was closely linked with Welch's own personality. Immelt's personality and style were different from Welch's. *Business Week* observed: "Where Welch ruled through intimidation and thrived as something of a cult figure, Immelt opts for the friendlier, regular-guy approach. He prefers to tease where Welch would taunt. Immelt likes to cheer people on rather then chew them out. That style has given the 46-year-old chief a very different aura within GE. He may not be a demigod, but it's his man-of-the-people nature that draws praise from the top ranks to the factory floor."[18] Immelt knew that his different style of leadership would have important implications for his role as CEO and the ways in which he would influence GE's strategy, structure and systems. However, Immelt believed that the major changes that he would initiate at G would be a result of the changing environment that GE faced and the shifting priorities that it faced.

Between September 2001 and May 2002, Immelt had devoted himself primarily to shoring up confidence among customers and investors and within the company in the aftermath of the various shocks to the US and to business opinion. At the same time he was developing his strategic thinking about the future of GE. During the first four months of 202, his speeches and interviews emphasized four main areas of development:

- ??The Business Portfolio. Like Welch, Immelt believed that GE needed to reposition itself to maximize growth opportunities and to achieve growth targets through sound acquisitions. Among the low-growth parts of GE's portfolio, many analysts believed that appliances and lighting would be early candidates for divestment. However, while acknowledging that their growth was low, Immelt confirmed that, "We'll stay in those businesses. They both return their cost of capital."[19] At the same time, further industrial acquisitions would be needed in order to keep GE balanced—if the rapidly growing GE Capital was to account for more than half of GE's earnings, then GE's risk status and earnings multiple might be adversely affected. Immelt committed to GE to continue to acquire high margin high growth companies that expand GE's base: "We don't acquire companies just because we can. We don't go for unrelated fields. We acquire companies that give us new growth platforms where GE capability can improve financial performance and build shareholder value."[20]
- ??Technology. Immelt has remarked on the fact that he represents a different generation from Jack Welch, and that his generation has a much closer affinity for technology. He has identified technology as a major driver of GE's future growth and has emphasized the need to speed the diffusion of new technologies within GE and turn the corporate R&D center into an intellectual hothouse.
- ?? Internationalization. Like Welch, Immelt believes that GE's major opportunities for organic growth will be in its overseas operations—particularly in China, India, and Europe. However, to better exploit these opportunities Immelt believes that GE's upper management will need to become more international and more diverse.
- ??Marketing and customer service. A key feature of Immelt's career at GE was the extent of his customer orientation and the amount of time he spent with customers building relationships with them and working on their problems. Looking ahead, Immelt saw GE using IT and redesigned processes to become increasingly customer focused: "We're dramatically changing our resource base from providing support to creating value. Every business has functions that add high value

by driving growth. These are the functions that deal with the customer, create new products, sell, manufacture, manage the money and drive controllership. Call that the front room. Every business has back room support functions that sometimes are so large and bureaucratic they create a drain on the system and keep us from meeting our customer needs and keep us from growing. So we're going to take more of the back room resources and put them in the front room—more sales people, more engineers, more product designers. We're changing the shape of this company and we're doing it during a recession."[21]

No one, either inside or outside, GE had any doubt that Immelt would not be a supremely effective leader for GE. The main questions concerned Immelt's ability to take GE to the next level—whatever that next level might entail. When Welch took over GE in 1981, it was certainly successful, but there was also tremendous scope for improvement within GE's sprawling, bureaucratic empire. For Immelt it was not so easy to identify opportunities either for improving existing opportunities, or to create new opportunities with the potential to lift GE to heights that Welch had never imagined.

TABLE 15.1

GE's profitability under different chief executives

CEO	*Av. annual pretax ROE*
Charles A. Coffin, 1913–22	14.52%
Gerald Swope/Owen Young, 1922–39	12.63%
Charles E. Wilson, 1940–50	46.72%
Ralph J. Cordiner, 1950–63	40.49%
Fred J. Borch, 1964–72	27.52%
Reginald H. Jones, 1973–81	29.70%
John F. Welch, 1981–01	25.81%
Jeffrey R. Immelt 2001-2 (16.8%)*	

The dates given for each CEO are for the financial years that correspond most closely to each CEO's tenure.

TABLE 15.2

GE's performance 1991-2001

	2001	*2000*	*1999*	*1997*	*1996*	*1995*	*1994*	*1993*	*1992*
Revenues ($ bn.)	125.9	129.9	111.6	90.8	79.2	70.0	60.1	55.7	53.0
Net earnings ($bn.)	13.7	12.7	10.7	8.2	7.3	6.6	4.7	4.3	4.7
Return on av. shareholders' equity	26.0%	27.3%	26.4%	25.0%	24.0%	23.5%	18.1%	17.5%	20.9%
Total assets ($bn.)	495.0	437.0	387.4	304.0	272.4	228.0	194.5	251.5	192.9
Long-term borrowings ($bn.)	79.8	82.1	73.5	46.6	49.2	51.0	37.0	28.2	25.3
Employees at year end ('000)									
United States	158	168	167	165	155	150	156	157	168
Other countries	152	145	143	111	84	72	60	59	58
Discontinued operations	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5	6	42
Total employees	310	313	310	276	239	222	221	222	268

	1991	*1990*	*1989*	*1988*	*1987*	*1986*
Revenues ($bn.)	51.3	49.7	54.6	50.1	48.2	42.0
Net earnings ($bn.)	2.6	4.3	3.9	3.4	2.9	2.5
Return on av. shareholders' equity	12.2%	20.2%	20.0%	19.4%	18.5%	17.3%
Total assets ($bn.)	166.5	152.0	128.3	110.9	95.4	84.8
Long-term borrowings ($bn.)	22.6	20.9	16.1	15.1	12.5	10.0
Employees at year end ('000)						
United States	173	183	243	255	277	302

* September 2001 to June 2002.

Other countries	62	62	49	43	45	71
Discontinued operations	49	53	n.a.	n.a.	n.a.	n.a.
Total employees	284	298	292	298	322	373

	1985	*1984*	*1983*	*1982*	*1981*
Revenues ($bn.)	28.3	27.3	26.8	26.5	27.2
Net earnings ($bn.)	2.3	2.3	2.0	1.8	1.7
Return on av. shareholders' equity	17.6%	19.1%	18.9%	18.8%	19.1%
Total assets ($bn.)	26.4	24.7	23.3	21.6	20.9
Long-term borrowings ($bn.)	0.8	0.8	0.9	1.0	1.1
Employees at year end ('000)					
United States	236	248	246	n.a.	n.a.
Other countries	68	82	94	n.a.	n.a.
Discontinued operations	n.a.	n.a.	n.a.	n.a.	n.a.
Total employees	304	330	340	367	404

n.a. = not available.

Source: General Electric Annual Reports.

TABLE 15.3

GE's divisional performance, 1997-2001

	Revenue 2001 ($ billions)	Profit 2001 ($ billions)	Av. return on assets 1999-2001 (%)	Revenue growth 1997-2001 (%)	Profit growth 1997-2001 (%)
Aircraft Engines	11.4	2.6	24.2	46	91
Appliances	5.8	0.6	23.8	0	-17
Industrial Products & Systems	11.6	1.8	26.2	7	11
Materials	7.1	1.6	18.0	3	-2
NBC	5.8	1.6	31.6	12	31
Power Systems	20.2	5.2	28.3	153	305
Technical Products & Services	9.0	2.0	28.5	84	99
GE Capital	58.4	5.6	20.6	46	71

Source: GE Annual Report 2001.

NOTES

1 "Can Jack Welch reinvent GE?" *Business Week*, June 29, 1986, pp. 40–5.

2 Jeff Immelt's 2002 Annual Report to Share Owners, Waukesha, Wisconsin, April 24, 2002, pp. 4-5.

3 GE Annual Report, 1993, p. 5.

4 Noel Tichy and Ram Charan, "Speed, simplicity, and self confidence: an interview with Jack Welch," *Harvard Business Review*, September/October 1989.

5 *Ibid*.

6 "GE 1984," HBS Case No. 385–315.

7 Tichy and Charan, Welch interview, *Harvard Business Review*, 1989.

8 Jack Welch, address to 1989 shareholders' meeting.

9 Chairman's letter, General Electric Annual Report, 2000.

10 Ibid

11 Tichy and Charan, Welch interview, *Harvard Business Review*, 1989.

12 GE Annual Report, 1990.

13 Ibid.

14 Chairman's letter, General Electric Annual Report, 1997.

15 Chairman's letter, General Electric Annual report, 2000.

16 The GE Operating System (www.ge.com)

17 "Running the House that Jack Built," *Business Week*, October 2, 2000.

18 "The Days of Welch and Roses," *Business Week*, April 29, 2002.

19 "This is Just About the Best Gig You Can Have," *Business Week*, September 5, 2001.

20 Jeff Immelt's 2002 Annual Report to Share Owners, Waukesha, Wisconsin, April 24, 2002, p. 8.

21 *Ibid*, p. 6.