An Uncommonly Cohesive Conglomerate

How United Technologies Corporation—owner of Pratt & Whitney, Otis Elevator, and a wide range of other businesses—became one of the major corporate success stories of the past two decades.

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Right from the start, the service call was unusual. In a business-to-business manufacturing company like Otis Elevator—or its corporate parent, the United Technologies Corporation (UTC)—field engineers are supposed to be heroes. They swoop in when there’s a technical problem too complex for anyone else to solve. But when two of Otis’s best field engineers were dispatched from their U.S. headquarters near Hartford, Conn., to Osaka, Japan, to fix a pair of malfunctioning elevators at Matsushita Electric, they weren’t brought to the problem site. Instead, they were ushered into a conference room where their customers, Matsushita’s corporate leadership, sat stone-faced around a table.
George L. Roth
groth@mit.edu
is a research associate at the
MIT Sloan School of Management and a visiting associate professor of management at the University of New Hampshire. He is a coauthor of The Dance of Change: The Challenges to Sustaining Momentum in Learning Organizations (with Peter Senge et al., Doubleday, 1999).

The year was 1986. Matsushita’s recently completed Osaka headquarters had been outfitted with the latest Otis elevators, which were repeatedly failing. This wasn’t an ordinary customer. Matsushita and Otis had formed a joint venture called Nippon Otis, which provided the elevator maker with the credibility it needed to sell its equipment in Japan. However, the Otis failure rates were damaging Matsushita’s reputation. Matsushita’s vice president of quality, Yuzuru Ito, along with a member of the Japanese company’s board, had visited Otis president George David in Connecticut a year earlier to complain about quality issues. Otis’s corporate leadership had listened to them politely, but the quality had not improved.

Now, in the conference room, Matsushita’s managers insisted on talking about root causes—a central concept in quality management, less familiar in the West. Abashed and uncertain, the field engineers placed a hurried call to headquarters that reached George David. The Otis president might have been expected to push back or deny the problem, but instead he listened intently. During the next few months, he did something uncharacteristic for Otis—and similarly out of character for the rest of UTC and most manufacturing companies. David asked Ito and others at Matsushita for help. Over the next two decades, David and Ito would become so close that he would eventually say Ito was like “a second father” to him.

The story of that phone call and its aftermath is retold regularly throughout UTC, as one of several incidents that marked the beginning of a fundamental shift in attitude and practice. Over the years, this shift would affect virtually all of United Technologies Corporation’s managers, employees, corporate partners, suppliers, and customers. It would eventually turn UTC into the highest-performing Fortune 50 company (in the years from 2000 to 2011) and one of the very few conglomerates to sustain a successful diversified enterprise (see Exhibit 1).

UTC is a large conglomerate that designs, manufactures, and services a broad range of engineered products, including air conditioners, elevators, jet engines, and helicopters. It is best known for its leading industrial brands: Otis Elevator, Pratt & Whitney (maker of aircraft engines and gas turbines), Sikorsky Aircraft (the first mass-production helicopter company), Carrier

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Exhibit 1: UTC’s High Performance, 2000–11
Many facets of UTC’s performance outpaced those of other companies during the 2000s. Only Caterpillar and 3M also had triple-digit percentage valuation gains; the Standard & Poor’s 500 index of leading U.S. companies declined 10 percent over that 11-year period.

<table>
<thead>
<tr>
<th>Segment operating profit</th>
<th>Segment sales</th>
<th>Employees</th>
<th>Manufacturing square footage</th>
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<tr>
<td>200</td>
<td>150</td>
<td>100</td>
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Notes: Segment sales and operating profit adjusted for restructuring and other one-time events. Segment sales include the impact of Accounting for Collaborative Arrangements. Data includes discontinued operations. Data excludes Goodrich.

Source: Thomson Reuters financial services data; indexed performance graph from a UTC presentation at the Barclays Capital Industrial Select Conference, Miami, Fla., Feb. 23, 2012
From Methods to a Discipline

Perhaps the most pivotal moment in UTC's story came soon after that 1986 confrontation with Matsushita Electric when George David sought out Yuzuru Ito to ask if he could help Nippon Otis address its quality problems. Ito agreed, and began by teaching two methods to Nippon Otis’s factory employees. First, he taught shop-floor teams to use statistical analysis to diagnose production problems and deduce the fundamental root causes (which were not always obvious). For example, a statistical review of elevator control module failure might reveal that the established sequence for soldering components was flawed, leading the elevators to travel to undesired floors. By changing that sequence, the team could stop the failures. Second, Ito showed workers how to set up quality clinics, the manufacturing equivalent of a hospital team making diagnostic rounds. These practices were successful enough that Nippon Otis went from being an embarrassment to being a source of pride.

When Ito retired from Matsushita in 1991, he consulted with Otis and then other UTC companies in the United States. In 1994, David persuaded him to join UTC as its top quality officer and to move to Connecticut, where the company is headquartered. Meanwhile, Otis’s sister company Pratt & Whitney had its own quality initiative under way, and in 1992 had hired a firm called Shingijutsu Consulting, whose founders were protégés of the late Taichi Ohno, Toyota’s former chief engineer (and technical architect of the famous Toyota production system). The early 1990s were the heyday of the quality movement in the U.S., and the UTC companies rapidly achieved gains on the shop floor. They reduced waste, consolidated space and tooling, and improved manufacturing results.

But UTC also faced larger competitive issues, which struck Pratt & Whitney in particular with full force in the early 1990s. After the fall of the Berlin Wall, U.S. government military spending declined at the same time that worsening economic conditions reduced commercial jet engine demand. The aircraft engine manufacturer had to cut its 11 million square feet of factory space by 25 percent.

One facility slated to be closed was a turbine components plant in North Berwick, Maine, which had been set up a decade earlier to experiment with flexible manufacturing concepts. Though it had consistently high quality levels and low costs relative to Pratt & Whitney’s other factories, it had the disadvantage

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of being in a remote location, and the company gave the plant leaders six months to wind it down. Instead, they decided to use that time to show what they could achieve—by integrating and implementing everything they had learned within their walls.

At that time, most of the plant’s notable results came from just a few pockets of excellence within it. One production unit in particular—which made brush seals, a new component designed by the plant’s engineers that improved the sealing of turbine engine bearings—had achieved great success after organizing itself into cells, or self-managing teams of five to 10 people. This cell approach seemed so effective that the plant’s leaders made it the centerpiece of their effort, forming a task force to implement cells and related practices more broadly throughout the plant.

Eight production staff members, identified as “natural leaders,” were taught how to analyze and improve production systems, with methods drawn from their own brush cell experience and Japanese quality practices. The plant’s assembly lines were restructured into 24 flexible cells. The natural leaders spent mornings in seminars learning production concepts taught by in-house experts and afternoons in teams teaching co-workers and showing them how to implement the ideas. Robert Ponchak, the plant manager, got directly involved; he developed what he called his “Maine vision” to inspire the workers, talking about it day and night across all three shifts.

Before long, the productivity gains and operations improvements were noteworthy enough that Pratt & Whitney’s VP of operations took notice. He delayed and then canceled the closure plans. The plant became known for its quality and productivity gains; indeed, its unit output held steady even as its workforce decreased from 2,100 to 1,500 people. Moreover, the plant took on production of higher-quality, higher-value parts, leading to a fivefold increase in revenue. By 1996, people were visiting North Berwick not only from UTC divisions but from other manufacturers around the world to benchmark its operations.

Moving Up to Scale
Others in Pratt & Whitney wanted to replicate what North Berwick had accomplished. Two North Berwick team members were asked to join three experts at headquarters in East Hartford, Conn., to form a team charged with developing a flexible manufacturing program for all of Pratt & Whitney. They benchmarked other companies, added some techniques, and tested their program in a nearby factory. The ACE name originated there, when one of the shop-floor operators suggested calling the program Achieving Competitive Excellence. The acronym was easy to remember, and its association with top-gun pilots resonated at an aircraft company like Pratt & Whitney.

In June 1996, Pratt & Whitney launched its company-wide ACE program. It was sponsored from the top, led by operations vice president Mark Coran and championed by Pratt & Whitney president Karl Krapke. By now, ACE had evolved beyond merely making improvements on the factory floor. Pratt & Whitney reorganized all its departments into cells and encouraged team members to propose changes, implement them, and set their own clear standards. General managers nominated a few people from each facility to be “ACE Pilots,” a broader-based version of the natural leaders of North Berwick. These designated specialists attended

“There is no force more powerful in modern business than productivity,” said UTC’s CEO George David.
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regular weeklong training events that included hands-on projects as well as classroom teaching for an ever-increasing array of quality and management methods (see “The Turnback Factor,” page 8). When the ACE Pilots returned to their home sites, they had a mandate to teach, implement, and lead further changes. ACE added new ideas, such as recognition for performance gains; they certified cells as bronze, silver, or gold, depending on such measures as skills, operational improvement, employee satisfaction, safety, quality, and financial success. Impressive increases followed—not only in the cells’ business performance, but also in the enthusiasm with which people came to work and engaged in improvements.

From Company to Conglomerate

In most companies, efforts like ACE prosper within one division or region, but fail to move across boundaries. At UTC, once they recognized its value, George David and the other top executives resolved to make ACE work for the entire UTC system. They set up cross-business councils, which are still in place, and which have become influential and important networks for UTC leaders. The most senior of these networks is the Presidents Council—a group composed of the CEO, CFO, division presidents, and other key functional leaders. It meets every month for a full day. Individuals and teams are occasionally invited to present to the Presidents Council. This is a mark of status and also, at times, a cause for apprehension.

It was a major milestone when, in late 1997, almost 12 years after that pivotal phone call with Matsushita, George David invited the vice president of quality from each division to attend the next Presidents Council meeting and answer a question. How could the things they had all learned from Ito be instilled throughout UTC? David wanted these lessons to be remembered forever. The quality VPs, who ordinarily met monthly in their own council, gathered four times that month to prepare. At the Presidents Council session, they presented separate plans for their own divisions. David listened, and then replied that separate approaches would never sustain what Ito had taught them. The episode convinced him to create a new position: UTC vice president of quality. This decision was difficult because it contradicted UTC’s usual practice of keeping the corporate role minimal in division operations.

The job of institutionalizing quality across UTC was given to Pratt & Whitney’s quality vice president, Tesfaye Aklilu. He had been instrumental in establishing the division’s ACE program since joining from Xerox two years before. Aklilu proposed a conglomerate-wide approach similar to Pratt & Whitney’s ACE program with requisite training. The division presidents and their quality VPs all agreed in concept. Each division, however, wanted the program tailored to its own business priorities, meaning that there would be little consistency in curriculum or training methods. David did not agree, and it took three months of further discussion before they all reached consensus on the overall idea, came to agreement on the details, and adopted a common program for all of UTC.

Despite—or because of—the time it took to reach a common understanding, ACE was then implemented with remarkable speed across the conglomerate. The five-day training class was dubbed Ito University; it has since been attended by thousands of UTC’s managers. George David attended the first session himself, along with several corporate presidents. The instructors were engineers, team leaders, and hourly workers who had used ACE. They did more than teach and demonstrate the use of tools—they shared their experiences and described how they lived ACE’s philosophy. A special Ito University session, taught by hourly workers, was held for UTC’s board.

To run this new corporate program on a day-to-day basis, Aklilu hired Tony Black, a service program
manager from Otis’s field operations (it was important for internal cohesion that he come from a unit other than Pratt & Whitney). Black chaired the new ACE Council, made up of managers from each division; they developed promotional materials, the training curriculum, and the criteria by which they certified cells as bronze, silver, or gold. By now, the certification criteria had expanded to a broad and comprehensive group of measures, extending beyond productivity and performance improvement to include employees’ enthusiasm and skill, customers’ engagement and satisfaction, and the maturity of the cell’s processes.

The Business Operating System

By the early 2000s, the rollout of ACE through the UTC system was well under way, accelerated by several measures. For example, when analyzing the factors that promoted the improvement of the initial ACE gold cells, the ACE Council identified characteristics of the local leaders. The role of local leadership soon became part of the training and criteria for ACE certification.

The ACE Council continually looked for collective solutions to their shared problems. A few customers had told Aklilu that they had heard a lot of talk about ACE, but hadn’t yet seen any impact. In 2002, Aklilu brought those remarks to the council. This opened a discussion about the difficulties of implementation; some division leaders were still not fully on board. To better understand this reluctance, the ACE Council adopted the same diagnostic methods they were teaching others. They visited facilities, conducted interviews, commissioned a survey, and analyzed the results. Their investigation found that although ACE efforts often identified unnecessary operations and eliminated waste, there was indeed little direct benefit for customers. For example, customers heard about UTC lowering its costs, but those savings did not translate into price drops. Analysis of those few cases where customers did benefit showed that it typically did not happen until all the cells that worked on a particular product improved. The investigation also found that a number of facility leaders saw ACE as being limited to tactical value; that is, many leaders sent people to training and promoted ACE, as long as it did not really constrain the way they operated.

The members of the ACE Council decided not to abandon the approach, but to double down and raise ACE’s influence further. They emphasized activities such as value stream mapping, which could suggest improvements involving multiple cells, and greater attention to relationships with suppliers. They began talking about a fully implemented corporate-wide operations strategy that would integrate high quality, improved processes, and inventory reductions across all the divisions. They estimated that this strategy could achieve more than $5 billion in annual savings.

But the division presidents, although they had agreed to ACE as a common program, opposed the idea of any corporate-wide strategy. Each division operated in different markets, and they saw further integration as a form of greater bureaucracy. The discussion continued at each Presidents Council meeting (and in many informal corridor conversations) for six consecutive months, until October 2002. Then, the division presidents finally agreed to an overall UTC strategy that they called Operations Transformation, with a stated goal of achieving synergies throughout the UTC system. The persistence of the advocates, and their own experience with integration so far, had, in the end, convinced them.

In 2007, CEO designate Louis Chênevert promised a significant leap in margins, profitability, and cash flow, based solely on the plan to expand ACE.
Like most other successful management initiatives, UTC’s Achieving Competitive Excellence (ACE) program depends on translating innovative concepts into day-to-day practice at a relatively large scale. One major concept for ACE is the “turnback.” A turnback is a mistake that hasn’t yet happened, such as a symptom of a failure before failure occurs, an inefficiency in an operation, or (in the official UTC definition) “anything that inhibits a task from being completed as expected.” Examples of turnbacks are unsigned work orders, incomplete or inaccurate instructions, the realization that someone is inadequately trained, the late arrival of expected parts or materials, or the identification of a potential safety hazard.

At UTC, efforts are made in every work area to enable people to quickly and easily spot and report turnbacks. Equally important, the company is organized to assess and respond to them rapidly. The work team might address the potential safety hazard through better training or instructions, or by changing the layout of the equipment, or both. The best solutions to turnbacks often combine short-term preventive measures with more fundamental long-term improvements. UTC’s auditing group, for example, addressed some of its turnbacks by improving specifications for procedures (short-term) and making changes in its Auditor Assistant software (long-term).

Operations Transformation had four elements: lean production flow, design for manufacturability, strategic sourcing, and talent development. Operations Transformation defined what they would do, and ACE specified how they would do it. This strategy was delivered to 350 top UTC leaders in January 2003 in a two-day conference in an aircraft hangar in East Hartford. (Similar conferences were subsequently held in Europe and Asia.) When George David opened the meeting, he noted that UTC’s operating margin had gone from 4 percent to 14 percent because of ACE, quality, and supply management efforts. At the end of the two days, after all of the division presidents and operations VPs described their specific achievements, David returned to say that he expected UTC, in the next six years, to achieve 20 percent operating margins and double its inventory turns. He closed the conference by asking all the executives to write him directly, stating what they would do personally to learn and apply the value stream concept. About 40 percent of the attendees put off responding for several weeks; they each received a note from David asking for their commitment. More than any other single move, this mandate made it clear: Every executive was expected to learn and use ACE in every aspect of the business.

Several weeks later, David himself spent a day in training at a Sikorsky helicopter factory. On subsequent visits to UTC facilities, he would look for the management team’s value stream maps, ask questions, and often instruct managers on finer points of the techniques.

To promote improvements on a broader scale, UTC made two other radical changes. First, about 300 managers were assigned to supplier improvement. They received specialized training based on ACE concepts and methods. UTC’s supplier improvement program soon became as effective as that of any Japanese company. Second, all the facilities across UTC worldwide were reorganized; top leadership divided the conglomerate into nearly 1,000 sites, each with its own performance improvement goals. These sites typically had at least several hundred employees, and they became the focal point of ACE certification; assessment was based on such criteria as leadership, improvement activities within cells, performance and interaction across cells, and reductions in environment, health, and safety problems. More methods were added to the ACE tool set, additional courses were developed, and the ACE curriculum was expanded to include business operations and engi-
neering tracks for professionals in those fields.

Only now did the company fully standardize the ACE methods and certification processes across divisions. The impact was seen even in such traditionally self-contained parts of the company as engineering, where improvement programs had often been dismissed as superfluous or unnecessary. When the engineering leaders embraced ACE, it had a dramatic effect on budgets; instead of spreading engineering investment more or less evenly across all units to appease unit managers (like “peanut butter,” as critics said), the investment went to places where leaders were confident it would get results. For example, after using ACE methods to improve its processes, the turbine module engineering group gained additional investment—which ultimately led to an initiative to develop higher fuel efficiency, lower weight, and greater reliability for Pratt & Whitney’s engines. The group’s efforts were part of what enabled the development of a new, innovative line of turbo-fan jet engines that have given Pratt & Whitney significant competitive advantage among jet engine manufacturers.

The Stretch Goals

Results related to ACE were impressive enough that in 2004, George David began discussing them in quarterly analyst updates and corporate annual reports. ACE became known within the company as UTC’s “business operating system”—or simply as “the UTC Way.”

In March 2007, then chief operating officer Louis Chênevert (slated to succeed George David as CEO) took UTC’s commitment to ACE a step further. Chênevert had been a major supporter of ACE since its inception; at Pratt & Whitney (as operations vice president and president) and at UTC (as chief operating officer), he had promoted and helped develop the program. Now, at a quarterly update meeting for financial analysts, he promised a significant leap in margins, profitability, and cash flow, based solely on the plan to expand ACE. At the time, only 18 percent of the UTC plant sites were ACE gold or silver certified. Chênevert said that number would rise to 70 percent by the end of 2009. The ACE Council’s tracking showed that when sites progressed from bronze to gold certification, they

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Exhibit 2: A History of UTC and Its ACE Initiative

<table>
<thead>
<tr>
<th>Business Events</th>
<th>Robert Daniell</th>
<th>George David</th>
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<tbody>
<tr>
<td>1976 UTC buys Otis</td>
<td></td>
<td></td>
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<tr>
<td>1986 Otis learns Matsushita’s methods</td>
<td>1992</td>
<td>UTC divests automotive businesses</td>
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<tr>
<td>1988 Yoshiki Iwata demonstrates kaizen</td>
<td>1993</td>
<td></td>
</tr>
<tr>
<td>ACE Operating System Developments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P&amp;W North Berwick plant almost closes, revitalized by flexible manufacturing</td>
<td>1992</td>
<td>ACE launches across UTC</td>
</tr>
<tr>
<td>Yuzuru Ito moves to Conn.</td>
<td>1993</td>
<td></td>
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<tr>
<td>ACE launches across all P&amp;W</td>
<td>1994</td>
<td>Ito University launches</td>
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averaged a 35 percent increase in sales, 60 percent improvement in inventory turnover, 24 percent improvement in on-time delivery, and 35 percent increase in customer satisfaction scores.

However, when the people leading ACE in the divisions heard about this UTC promise, they were nonplussed. Some wondered if Chênevert had misspoken. To meet that 70 percent goal, 500 UTC sites would have two and a half years to make the progress that it had taken the first 180 sites nine years to achieve. Becoming an ACE gold- or silver-certified site involved far more than incremental improvement; the sites had to demonstrate performance levels benchmarked to industry leaders. The message was clear: UTC’s executives were behind ACE, and all of UTC’s managers were going to be behind it too. “This was a game changer,” recalls UTC ACE director John Papadopoulos. “The pull, commitment, and desire to get to ACE gold increased dramatically.”

The ACE Council had to rapidly mobilize specific people to meet this commitment. Site assessors needed to be certified; more than 1,000 assessments would be required. Demand for ACE skill training, teaching people to lead improvements, spiked. In 2006, 1,000 people were enrolled in ACE skills certification programs, which mixed course work with on-the-job experience. By the end of 2008, 20,000 UTC associates were enrolled. This increase in training and assessment scale was feasible only because of the ACE Council’s existing experience base. There were enough people qualified in using the methods to teach them to others.

But another issue loomed—when sites fell short, the reasons were still often related to supplier performance. Suppliers, on average, accounted for 75 percent of UTC’s product costs. UTC, therefore, took another step in building better sourcing relationships. Launched in 2007, building on the earlier supplier improvement program, was UTC’s Supplier Gold program, which brought ACE training and similar assessment criteria to suppliers. The program was voluntary, but 1,500 suppliers, representing half of UTC’s annual spending, were identified as critical, and were proactively
The broad-based decision making and diversified experience in ACE enable UTC to avoid the bureaucracy that comes with large corporate initiatives.

approached. Through the metrics used in its own site certification process initiatives, UTC had already collected data on quality, delivery, lean maturity, and customer satisfaction on its key suppliers. It now provided this information to the suppliers themselves on performance scorecards. By the end of 2007, 22 percent of its key suppliers were at “gold” or “performing” levels (roughly equivalent to standards used in ACE gold and silver site certification).

Once again, confident in UTC’s abilities, leadership raised the stakes. In February 2009, CEO Chênevert, having conferred and again gained consensus with division presidents, announced the goal that 70 percent of UTC’s suppliers would achieve “supplier gold” or “supplier performing” status (the two highest ratings) by the end of 2011. These were stretch goals for suppliers, but they were needed for UTC to achieve its site goals at the end of 2009. UTC achieved both its site and its supplier goals on time, a significant accomplishment for a $75 billion company.

Reflections on Leadership and Learning
UTC has built an array of business achievements on the ACE system. For example, the productivity and facility utilization improvements, along with the positive cash flow unleashed by ACE each year, fund UTC’s organic growth. The broad-based decision making and diversified expertise built into ACE enable UTC to avoid the additional bureaucracy that usually comes with large corporate initiatives. ACE provides tools and a framework for achieving and assessing results; innovations are not only encouraged but, when effective, studied and promoted more widely. There is an atmosphere of direct candor and engagement. When ACE assessors visit one of the 1,000 UTC sites, they speak freely with people chosen at random about their view of ACE and improvement and change in general. UTC managers and staff talk openly about the ACE efforts; they may have started off being obligatory, but most people now see their work and business as being all the better for ACE.

During the four years spent researching and writing this article, I visited more than 20 UTC sites myself, located in the U.S., Europe, and Asia. No matter which subsidiary or region was involved, the ambiance was the same. I rarely, if ever, heard people complain about being caught up in administrative requirements. Instead, I often observed entrepreneurial activities and a continued drive to improve.

What enabled UTC to succeed with ACE? I saw several elements that are often missing in similar corporate efforts, and that emerged over the company’s 28-year history with ACE and its precursors (see Exhibit 2, page 9). First, leaders at all levels were clearly visible and remained actively involved. At the top, both Chênevert and David behaved in ways that left no doubt that they were behind ACE and all that it stood for. They set their goals through ACE, used its methods, and held themselves to the same standards they expected from others. Throughout the divisions, leaders emerged who supported ACE, often developing new applications or innovative methods at their local sites.

Second, consensus was reached through conversation, not coercion. The initiative earned full commitment from all leaders across UTC’s companies by waiting until they were ready to make that commitment. When leaders objected or raised concerns, no action was taken until there was sufficient discussion to achieve some agreement. The councils where the dis-
discussions took place became, in effect, a parallel structure to the formal decision-making hierarchy. Those discussions were lengthy and inclusive enough to allow people to voice concerns, talk them through, and come fully on board. The thoughtful and deliberative tone and style of the councils also set an example for people’s behavior in other settings.

Third, ACE enabled UTC to capture its experience in managing and improving operations, and thus to learn from itself. The specific ACE methods are common, time-tested, quality-oriented techniques like value stream mapping, self-managing teams, kaizen, and preventive maintenance. But UTC deploys them in its own distinctive way, encouraging people to modify or extend them (thus providing a sense of ownership) while insisting on continued communication among the various teams and businesses. As sites are assessed for ACE certification, the assessors identify good practices and share them across UTC’s various organizations, or use them as case studies in their teaching. The methods and the teaching resources are continually updated, and the ACE assessment criteria also change to reflect experience. This constant, attentive approach gives UTC the capability to learn, improve, and change within itself and with its suppliers, partners, and customers.

Fourth, UTC explicitly facilitated individual learning and helped individuals act on what they had learned—through informal collective conversation, and also through formal learning opportunities. One of many examples is the UTC Employee Scholar Program, which fully reimburses tuition, books, and fees for any UTC employee taking any college course, without restriction on the course of study. UTC additionally recognizes and rewards people attaining bachelor’s and master’s degrees with stock option grants. As of 2011, the company had spent more than $1 billion on this program; employees in more than 50 countries have earned 32,500 degrees since its 1996 inception.

UTC is a conglomerate that learns from itself because of the way it connects learning at three levels: the individual’s behavior, the day-to-day workplace, and the strategic direction of the company, as developed in its councils. These practices continue to be nurtured and integrated across the organization, from platform to platform, company to company, and team to team. In the end, this integration is what’s distinctive about UTC. It is what enables the ongoing improvements that sustain UTC’s high performance.

**Resources**

Ann Graham, “Too Good to Fail,” *s+b*, Spring 2010: Profile of India’s Tata Group, another successful conglomerate with a very different strategic orientation.

George Roth, “United Technologies Corporation: Achieving Competitive Excellence (ACE) Operating System Case Study,” LAI Case Study (Nov. 30, 2010, released Mar. 7, 2011): The in-depth case study, representing three years of observation and interviews, on which this article is based.


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