JOHN FRANCIS WELCH JR., chemical engineer, former NAE chair (1986–90), and chair and chief executive officer of the General Electric Company, died March 1, 2020, at the age of 84. Named “Manager of the Century” by Fortune Magazine, he was also a champion for increasing national recognition of the importance of technology and innovation.

Candid, direct, and competitive, Welch became the chief executive of General Electric at a time when the company’s growth was muted, with market capitalization at $14 billion and revenues of $28 billion. When he retired 2 decades later, GE’s market capitalization was over $410 billion and its revenue $170 billion. The Financial Times named GE “The World’s Most Respected Company” for three consecutive years (1997–2000) during his tenure.

Jack Welch was born November 19, 1935, in Peabody, Massachusetts, to Grace (née Andrews) and John Francis Welch, a railroad conductor. Decades before his professional achievements, the younger Welch was laying the foundation of his no-nonsense leadership style in a gravel pit in his hometown of Salem. The place doubled as an impromptu baseball field where he and other kids from the neighborhood played ball after school. “There was a fight almost every day,” Larry McIntire, who used to play in the pit and later became Salem’s
parks superintendent, told The New York Times. “I can still picture him jawing with a guy one and a half times his size. Welch stands square in front of the guy yelling, ‘It’s our turn. Losers out.’”

When Welch took the helm of General Electric, he built the company’s own version of the pit at GE’s corporate learning campus in Crotonville, New York. The Pit became the axis of the campus and a place where Welch would come every other week, engaging managers who helped him turn GE into the world’s most valuable company. Some of them went on to run other iconic corporations.

“As the most widely admired, studied, and imitated CEO of his time, Welch has enriched not only GE’s shareholders but also the shareholders of companies around the globe,” Geoffrey Colvin wrote in Fortune in 1999. “His total economic impact is impossible to calculate but must be a staggering multiple of his GE performance.”

Before molding a generation of GE leaders in business and technology, including a number of NAE members, Welch was first and foremost an engineer. He graduated with honors from the engineering college at the University of Massachusetts, Amherst, in 1957, and in short order earned both a master’s and doctoral degree in chemical engineering at the University of Illinois at Urbana-Champaign.

When he arrived at GE in 1960, he quickly helped build the company’s plastics business into one of its fastest-growing units. He championed the industrialization of Lexan and Noryl, thermoplastic materials resistant to extreme temperatures developed by GE researchers. He supervised the production of manufacturing plants and mounted an aggressive sales and marketing plan, selling plastics to manufacturers of automobiles and appliances.

“Welch was literally a one-man engineering operation,” former coworker Daniel Fox told The New York Times in 1981. “If things weren’t moving fast enough for him, he moved them.”

At the age of 36, Welch became one of the youngest corporate officers in GE’s history as the company’s chemical and metallurgical divisions leader. Soon after, in 1973, he was
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named the head of strategic planning for GE, and 4 years later he was promoted to vice chair, heading the company’s consumer products and services sector.

In 1981 Welch became only the eighth GE chair and CEO since the company was incorporated under Thomas Edison in 1892. He succeeded Reginald H. Jones and at the age of 45 was the youngest to hold the position. Shortly after taking over he said, “I’ve always argued that in General Electric, if you have your facts straight, you put yourself out there with them, this company will listen. That has always been the hallmark of the GE I know.”

In his new position, Welch pressed to dismantle GE’s bureaucracy and simplified organizations and reporting relationships. He initiated Six Sigma in the work culture, a method borrowed from Motorola aimed at improving quality and productivity. He called it “the code that changes corporate DNA.”

Welch made many business acquisitions and dispositions along the way; among the former was RCA, including the NBC television network, for $6.4 billion in 1986. He expanded the industrial business portfolio to include financial services and consulting. Some of his gambles paid off, others were not as successful.

One of his biggest gambles during his tenure was the development of the GE90 engine by GE Aviation. While Welch had reservations about the program, at one point even proclaiming it “dead,” he lobbied Boeing to get an exclusive engine contract for the longer-range Boeing 777-300ER and 777-200LR. Days later at a press event with Boeing, he said, “the GE90 is the most money I’ve ever spent on a new product, so let’s hope it works out.” It did. Over time, Boeing orders more than doubled the original forecast of 500 deliveries; the GE90 has more than 2700 engine orders to date.


Welch is survived by his third wife, the former Suzy Wetlaufer, and four children from his first marriage, to Carolyn B. Osburn: Katherine (Raymond Evan Solnik), John F. Welch III, Anne, and Mark.