

History of Rogers Corporation



Rogers Corporation is a global technology leader in specialty materials and components requiring exceptional performance and reliability. Rogers' three core businesses – Printed Circuit Materials, Power Electronics, and High Performance Foams -- offer solutions for enabling performance and innovation in clean technology, mass transit, internet infrastructure, mobile electronics, and other challenging applications that are changing the world in which we live. Headquartered in Rogers, Connecticut (USA), Rogers operates manufacturing facilities in the United States, Belgium, China, Germany, and South Korea, with joint ventures and sales offices worldwide.

The Early Years

Rogers was founded as a paper mill in 1832 by a Dutch immigrant, Peter Rogers, in an old two-story powder mill in Manchester, Connecticut. The company was named Rogers Paper Manufacturing Company. Upon Peter Rogers' death in 1841, Henry, his 19-year-old son inherited the business. Henry Rogers became an innovator in the papermaking business and spent his adult life improving the methods of making paper and developing a number of specialty pressboard products. He discovered a method for bleaching colored paper, and in 1852, he developed a process for recycling waste paper that revolutionized the industry.

By the time he retired in 1890, Henry Rogers had planted the seeds of innovation that would continue to characterize Rogers throughout its history; and the now successful business was left to his son Knight, and daughter, Gertrude.

For its first seven decades, Rogers supplied paperboard to the textile industry of the Connecticut Valley. Around 1900 with the decline of this market, Rogers added a new product line, insulating paperboard for the electrical power transformer industry. (Edison invented the incandescent bulb in 1880.)

In 1927, after 95 years of being owned and operated by the Rogers family, Rogers Paper Manufacturing Company was incorporated in Massachusetts as a public company. Nearing the end of its first century, Rogers' annual sales approached \$1 million and its principal product was transformer insulation board.

Diversification

After Knight Rogers' death, Gertrude brought in the first non-family president, Charles Ray, from the Manning Paper Co., in Troy, New York. He selected a Boston consulting firm, Bigelow, Kent, Willard (BKW), to study diversification possibilities for the Company. Saul M. Silverstein, a chemical engineering graduate of M.I.T. who was the BKW project engineer assigned to Rogers, joined the Company as Technical Director in 1928. Silverstein persuaded his classmate Raymond A. St. Laurent to come to Rogers as Sales Vice President, charged with the responsibility of finding new markets for Rogers' products. The commitment to new products and market development followed the earlier activities of Henry Rogers and literally equated with survival for Rogers through the Depression.

A wide variety of paperboard products for applications ranging from artificial leather to rail joints to tympana printing board got Rogers through the Depression, and in 1938 Silverstein became Vice President and General Manager. Three years after Silverstein was elected President in 1944, he hired Joseph M. Lurie, another M.I.T. graduate, as Technical Director. Lurie died after a short illness in 1949 and was succeeded as Technical Director by Norman

L. Greenman who, after completing his graduate work in chemical engineering at M.I.T. in 1948, was recruited by Lurie.

In 1947, another innovative step was taken when the Psychological Corporation, a New York consulting firm, was engaged to assist in personnel selection and other personnel-related matters. Dr. John P. Foley, Jr., the Vice President of Psychological Corporation and responsible for the Rogers account, later formed his own company and continued to assist in Rogers' personnel matters until his retirement in 1982. The Rogers focus on careful selection of people for its growing business and on maintaining an environment in which employees could feel free to innovate and contribute remains a cornerstone of the Company's business concept.

The major thrust of research at Rogers was initially centered in the new field of polymeric materials. In 1932, Rogers began a long-term association with Dr. Leo Baekeland, an association that would lead to a product family of phenolic resin plastics. Plant capacity for these new materials, as well as the older transformer and motor insulation products, was obtained in 1936 by acquiring a facility in Goodyear in Williamsville (now Rogers), Connecticut, from the Goodyear Tire and Rubber Company for \$250,000. Now Rogers was a company with three small operations in Manchester and one in Goodyear. During the next four years the integration of the new Goodyear facility was in complete operation, providing not only increased production capacity, but also improved quality control and reduced costs. Further, the three small units in Manchester were consolidated into one. In the early '40s, Rogers entered the footwear field. In 1945, the Company was no longer the Rogers Paper Manufacturing Company, having been renamed the Rogers Corporation, reflecting the diversity of products produced, services offered, and new markets served.

The first grades of fiber-reinforced polymer materials - named Duroid® - for gaskets and electrical insulation were introduced in 1949. RT/duroid® glass microfiber and ceramic fiber-reinforced PTFE materials were developed in 1953, initially as chemical-resistant gasket materials. Rogers enters the Space Age when Duroid® 5600 is

incorporated in the Jupiter space vehicle as the electronic window material. In August 1954, with the consent of its residents, the name of the village was changed from Goodyear to Rogers. By the mid 1950s, the Company had acquired a small elastomer fabrication company in Willimantic, Connecticut, which developed Mektron® molded circuits for use in switches and timers in appliances, automobiles, and other industrial applications. It was poised to begin its period of sustained growth. In 1958, Rogers consummated its first overseas association when Vynckier N.V. in Ghent, Belgium became a licensee for Rogers' phenolic molding materials. For the Far Eastern market another molding materials license was concluded in 1976, with a joint arrangement between Otalite Co., Ltd., and Nippon Oil Seals Industry Co., Ltd.

Expansion

A small firm for over 120 years, Rogers' real growth began in the late 1950s when planning goals targeted a doubling of sales and earnings every five years. Long-range planning was initiated with the aim of directing the Company into markets with exceptional growth potential, mainly in the burgeoning new electronics industry, and coordinating market and product development for effective marketing selection and penetration. New and unique materials were being created all through the 1950s as Rogers combined fibers (natural and synthetic, organic and inorganic) with polymers and chemicals to develop new products.

In 1955, the worst flood ever in eastern Connecticut inundated the village of Rogers. With the cooperation and hard work of its employees, the plant was back in operation in only three weeks and was able to keep its customers supplied.

In 1960, Rogers was listed on the American Stock Exchange. Sales rose to \$10 million in 1963, as the Company introduced several new products: diallyl phthalate (DAP) molding materials, PORON® polyvinyl chloride breathable footwear material, NITROPHYL® floats, laminar power distribution bus bars and high-temperature, synthetic fiber-base materials. In addition, Rogers transformer board was still running strong in the 1960s

and in 1962, the company started up the "Paul Bunyan" – the largest machine of its kind in the world, to produce huge sheets of electrical insulation. In 1982, that same machine - no longer needed by Rogers - was producing transformer insulation in India for a new company licensed by Rogers.

The bus bar product line, starting in 1959 as an engineering solution to the problem of power distribution in the first transistorized computer - the IBM 1401 - quickly captured a main share of the growing computer market. By the mid-1960s, virtually all manufacturers of mainframe computers were Rogers' customers; and the Company had taken its first significant step toward vertical integration from materials into components, using Rogers' materials as their base. This was to become one of the key aspects of growth in the next twenty years. With production requirements growing, a 35,000 square foot addition to the Rogers, Connecticut, plant was put on stream in 1963. In 1966, Rogers purchased from Westinghouse Electric Corporation technology that, although never used commercially, led eventually to development of flexible circuits for computers, telecommunications and other electronics applications. In the same year, the Company established its first plant outside of Connecticut, in Chandler, Arizona, after a lengthy search to determine the optimum site for a base of operations in the West, where the electronics industry was growing so rapidly. In 1967, the new Circuit Systems Division began operations in a 40,000 square foot plant, manufacturing flexible circuits, bus bars and the new Mini/Bus, designed to distribute voltage to integrated circuits on printed circuit boards. By 1983, the Circuit Systems Division had become the Interconnection Products Group - five divisions operating three plants in the Phoenix area and two in Mexico with over 250,000 square feet of plant space.

In 1968, Rogers acquired a plant in Woodstock, Connecticut, into which the new Poron Division was moved. The Company's first European operation was launched in 1969, when it organized Mektron N.V. in Ghent, Belgium, as a Rogers' subsidiary to produce bus bars, and interconnection products in Europe.

During the 1960s, transition in Rogers' management took place. Norman L. Greenman, after serving as Vice President, Marketing, and then Vice President, Operations, following years as Technical Director, was elected Executive Vice President and Director in 1964, and President and Chief Executive Officer in 1966. The 1960s had seen Rogers' sales grow to nearly \$28 million, while it expanded physical facilities and deepened penetration into a number of promising, growth-oriented markets and technologies. By 1969, 28% of Rogers' sales were in electronics markets.

Accelerating Growth

In 1969, a groundbreaking ceremony was held at Rogers, Connecticut, for the new Lurie Research and Development Center, named after Joseph M. Lurie, the former Rogers Technical Director. The new facility underscored Rogers' commitment to research and development. The Center continues to provide technical support to the Company's various divisions and conducts research on new products. Laboratory instrumentation includes sophisticated equipment for examining the structure and characteristics of materials and components, as well as pilot plants designed to simulate conditions encountered in actual production of Rogers' products.

Also in 1969, Nippon Oil Seal Industry Co., Ltd., was licensed to manufacture and sell Mektron interconnection products in Japan and organized their subsidiary, Nippon Mektron Company, Ltd., to exploit electronic interconnection technology. In the same year, Rogers Mexicana was established in Agua Prieta, Mexico. In order to accommodate increased demand for its products, Rogers later acquired a plant in Lithonia, Georgia (1976); expanded its Manchester, Connecticut, facility (1979); enlarged the Chandler, Arizona, and Agua Prieta, Mexico, facilities (1979); acquired a plant in Mesa, Arizona (1980); and a second plant in Chandler (1982); and opened a new production facility in Chateau Gontier, France (1980).

By 1970, the data processing industry had become the largest single market for the

Rogers products. Of even more significance was the fact that the electronics industry, accounting for roughly 30% of the Company's sales at the start of the decade, would grow steadily to reach 72% by 1982. Sales, which had grown to the \$30 million mark through 1971, were continuing to rise. By 1973, a date that marked the fifteenth year of planned sales growth, Rogers' sales had grown from \$5 million to \$43 million, with 14 plant locations in seven states and three foreign countries. This growth had come almost entirely from internally generated products derived from the Company's R&D activities.

During the 1970s and early 1980s, Rogers continued to move forward in new product development; materials for microwave stripline circuitry, R/flex[®] flexible circuit materials, PORON[®] 4000 cellular urethane material, ENVEX[®] and Feurlon[®] high-performance polymer products and micromotion membrane keyboards were introduced. Additional new products evolving from established Rogers' technology included Q/PAC[®] high capacitance power distribution components, Nobestos asbestos-free gasketing materials and Micro/Q[®] decoupling capacitors. In 1981, both Rogers and Nippon Mektron Company, Ltd., to produce flexible circuits, licensed a new partner, Carl Freudenburg in West Germany.

Soladyne, Inc., a leading manufacturer of microwave stripline circuits based in San Diego, became a Rogers' subsidiary in 1980. Durel Corporation, a joint venture between Rogers and 3M was formed in 1988 to manufacture electroluminescent backlighting systems.

Refocusing

In 1992, Harry Birkenruth, Executive Vice President and formerly Chief Financial Officer, was elected President and Chief Executive Officer. A strategic Growth Planning Process was begun to address Rogers' long-term growth. Steps were taken to focus and build further on the Company's existing specialty polymer composite materials businesses. These materials businesses generated the Company's growth in the 1960s and 1970s and have

provided most of the Company's profits since that time.

Several divisions and products were divested: the Circuit Components Division (1992), Flexible Interconnections Division (1993), the U.S. based Power Distribution Division (1994), and Soladyne (1995).

In 1994, 1995, and 1996 Rogers had earned substantial gains in profits. Rogers was then in a strong financial position with consolidated sales of \$173 million and 1000 employees worldwide.

At the end of 1996, Rogers acquired Bisco Products from the Dow Corning Corporation. The high-performance BISCO[™] cellular silicone foam products continue to be sold under the BISCO brand name. Bisco Materials Unit, located in Elk Grove Village, Illinois, is a part of the Rogers High Performance Elastomers Division.

In 1997, Harry Birkenruth announced his upcoming retirement and Walter E. Boomer was brought in as President and CEO.

During 1997, Rogers acquired a second manufacturing business, located in Ghent, Belgium. Rogers Induflex N.V. manufactures industrial multilayer laminates for EMI/RFI shielding applications.

New products introduced in the 1990s include: RO3000[®] and RO4000[®] high-frequency laminates for commercial microwave applications and PORON[®] S2000 silicone foam for high-temperature gasketing applications.

Growth Strategies in '98

Rogers continued to grow in 1998 with many of its operating units performing at record levels by the increase in the applications of specialty materials serving many markets. At year-end, Rogers' net sales were \$216.6 million, 14% higher than those of 1997. Combined Sales, which included 50% of the sales from Rogers' two joint ventures, were \$245.3 million, up 11%.

The Company's strategy continued to emphasize growth by developing current markets, by acquisitions, and by new

product introductions. True to its strategy, Durel Corporation, the Company's 50% owned joint venture with 3M in electroluminescent lamps, was transitioning to convert its processes to manufacture smaller, more complex pieces at higher volumes for the wireless communications market.

At this time, Rogers developed its unused piece of property into another multi-million dollar expansion at Rogers Microwave Materials Division in Chandler, Arizona. Rogers, too, began construction of a new microwave manufacturing facility at Rogers NV, and again in Belgium for the expansion of its bus bar (or power distribution components) manufacturing facility.

Rogers opened a sales office in Taiwan.

In addition, as part of its growth strategy, Rogers acquired a line of printing pressroom products from Imation Corp., formerly a business of 3M Corporation. This acquisition complemented the Company's existing line of R/bak® compressible plate mounting materials for flexography.

In line with growth strategies, major development activities in circuit materials included process and product improvements to the RO3000® and RO4000® high-frequency circuit board materials, which are designed for use in high-volume, low-cost commercial wireless communications applications.

These activities included the development of a bondply addition to the RO4000® family that would allow multi-layer circuit boards to be made using RO4000® laminates.

Development efforts for flexible circuit materials focused on the introduction of a new epoxy-based adhesive system (R/flex Crystal™) and on manufacturing improvements designed to improve the dimensional stability of all R/flex® laminates.

PORON® materials development activities included commercialization of several new formulations for industrial and footwear applications. In addition, new thinner adhesive-backed R/bak® tapes were

developed for the flexographic printing market.

Molding materials development continued to emphasize tougher, more dimensionally stable materials for small electrical motor commutators.

A More Agile Enterprise in '99

1999 was a year of impressive growth and great achievement for Rogers worldwide with record sales and profits in nearly every segment of the business. Net worldwide sales totaled \$247.8 million – 14% higher than in 1998.

Further, Rogers had become a more agile enterprise to support soaring demand for wireless communications products and services. RO4000® high-frequency circuit board laminates represented the first choice of customers in this market. To meet demand for this successful product line, Rogers built a new manufacturing plant in Europe (Ghent, Belgium) and completed a series of major capacity expansions in the U.S. plant with plans for future expansion.

Strategic acquisitions continued to strengthen the Company's product portfolio with the purchase of most of the engineered molding compounds business of Cytec Fiberite at the start of the year. Bisco, an earlier acquisition, recorded significant growth in communications and computer applications. In Europe, Induflex successfully diversified from its conventional cable-shielding business into communications circuitry applications.

Durel Corporation, the Company's 50% owned joint venture with 3M in electroluminescent lamps, achieved 50% growth in sales which included late-year contracts from two of the largest manufacturers of cellular telephones. This growth was driven by a more than 130% increase in sales of Durel's products for wireless telephones and other hand-held electronic devices.

Major development activities in circuit materials included improvements to the

RO3000® and RO4000® high-frequency circuit board materials, which are, designed for use in high-volume, low-cost, commercial wireless communication applications. RO4350B® was developed for applications where an improved UL Thermal Index is required. The first in a series of copper-polyester film laminates were introduced and found significant use as cell phone antennas.

Application of the Company's R&D capability in fillers allowed improved processing of fluoropolymer-based laminates for the RO3000® line of products.

Flexible circuit materials development efforts improved the processing of a new epoxy-based adhesive system, R/flex Crystal™.

PORON® materials development activities included commercialization of several new formulations for industrial and footwear applications. A thin soft PORON® foam on PET (polyester) film was introduced for cell phone and other electronic applications where good sealing and shock protection properties are required.

At year-end, Rogers Combined Sales reached \$285 million due, in part, to its rewarding joint ventures with Rogers INOAC Corporation and Durel Corporation. Rogers and Mitsui Chemicals, Inc., formed a new joint venture – Polyimide Laminate Systems, LLC, (PLS) – to manufacture specialty flexible laminates for Hutchinson Technology, Inc. (HTI), a leading global supplier of suspension assemblies for hard disk drives.

Milestones at Millennium's End

At the closing of the final year of the millennium, Rogers recorded its best year in financial growth *in its history* – setting new sales and earnings records.

Net sales were \$248.2 million, up from \$247.8 million in 1999. Combined Sales, which include half of the sales of Rogers unconsolidated 50% owned joint ventures, totaled \$316.8 million, an increase of 11% over the prior year. Net earnings increased 43% to \$26.7 million. Further, manufacturing

margins rose from 29% to 33% of sales, showing the best performance in Rogers' history. The year 2000 was one of significant business expansion in Asia – opening sales offices and increasing staffing.

In April, Rogers' stock was listed on the New York Stock Exchange. In May, it split two for one. In early December Rogers was chosen to be included in the Standard & Poor's SmallCap 600 Index. All these events raised shareholder value and increased the investment community's interest in Rogers.

Sales of silicone and urethane materials and high-frequency circuit materials were at record levels during 2000.

Durel Corporation, manufacturer of Durel®3 electroluminescent backlighting lamps systems for use in wireless communications, portable electronics, automotive, and timepiece applications, expanded its manufacturing capacity at its Chandler, AZ, facility in 2000 to meet world-market demand.

Rogers introduced an ultra-thin version of its PORON® urethane foam, specifically developed for gaskets and pads in small, portable electronic devices. Rogers developed this material in response to customer requests for an exceptionally resilient gasket material that fits in smaller, lighter, and more rugged communications equipment and portable electronic devices. Rogers also featured the new R/bak® Series 2000 cushion mounting tapes, providing long-lasting performance, used by the flexographic printing industry.

2001 – Building for the Future

While 2000 marked a record year for Rogers, 2001 experienced financial decreases against the backdrop of a national recession. Net sales were \$216.0 million, down 13% from \$248.2 million in 2000. Profits declined 48% during the same period. Combined Sales, which include half of the sales of Rogers' four unconsolidated 50%-owned joint ventures, totaled \$276.2 million, also a decrease of 13% compared to the prior year. Manufacturing margins were 30% for the fourth quarter and 31% for the

year compared to 34% for the fourth quarter of 2000 and 33% for total 2000.

Yet Rogers held its own with a strong balance sheet and little debt, decreasing its total inventories by over 17% to be reasonably matched to its level of production.

Among the year's highlights, Rogers continued its commitment to a strategy of growth by developing its current markets and to grow through acquisition.

Rogers opened a second office in China (Guangzhou), serving the lithographic printing industry. Additionally, a new plant in Belgium to produce RO4000 laminates was nearing completion while Rogers' newest joint venture, Rogers Chang Chun Technologies, in Hsin-Chu, began manufacturing and distributing flexible circuit laminates to the Taiwan marketplace.

To maximize on the synergies of Rogers Circuit Materials and Microwave Materials businesses, both based in Arizona, Rogers consolidated the two to create the new Advanced Circuit Materials (ACM).

The first family member of ZYVEX™ liquid crystalline polymer materials for high performance electronics was introduced in December of that year. Rogers ZYVEX TeraClad™ material, a single-clad laminate, was developed primarily for flexible circuit applications. Additional products will extend the use of ZYVEX materials to most circuit applications, including rigid multilayers.

2002 – A Time of Strategic Changes

In January 2002, Rogers announced that it had acquired certain product lines of Collect LLC, a MA-based developer and manufacturer of plastomeric and elastomeric high performance polyolefin foams, for \$10 million. This important acquisition was made to afford long-term growth of Rogers' high performance foams business, while bringing it closer to its vision of becoming a \$1 billion company. However, this purchase also established Rogers as the only producer of all three of these specialty foams – silicone,

polyurethane, and polyolefin. Additionally, Rogers Research & Development group's formulation capabilities promise to create new and innovative foams.

Later that year, Rogers had signed an agreement to sell the assets of its Moldable Composites Division (MCD), located in Manchester, CT, to Vyncolit North America, Inc., a subsidiary of the Perstorp Group, Sweden. The sale of this non-core business paves the way for Rogers' continued strategic focus on growth opportunities in its key strengths, which include polymers, fillers, and adhesion.

Other highlights of 2002 are as follows:

Walter E. Boomer was named Chairman of the Board, retaining his title of Chief Executive Officer (CEO). Robert D. Wachob was appointed to the position of President and Chief Operating Officer.

In the fall, Rogers launched its new BISCO® EC-2000 Series Silicones – the industry's first electrically conductive EMI/RFI shielding material available in wide, continuous rolls. These materials reflect the continued focus of Rogers' product lines in high technology markets. They provide shielding solutions for use in base stations, cell phones, computers, antennas, electronic devices, appliances, and medical and analytical/diagnostic equipment.

Despite a sluggish economy, Rogers Corporation exceeded its guidance for its second quarter of 2002. Net sales were \$57.3 million – up 8% compared to the \$53.2 million sold in the second quarter of 2001. Rogers High Performance Foams reported its best quarter ever with increased sales in printing and industrial markets. Durel Corporation had the second best quarterly sales in its history. With a decline in the telecommunications sector worldwide, the diversity of Rogers' businesses has helped the company to hold its own during a time of economic uncertainty and instability.

Global Representation & Expansion

Rogers has a worldwide network of sales offices, joint ventures and independent sales representatives and distributors.

A sales office was opened in Japan, Rogers Japan Inc. (RJI), in 1984 to better support Rogers' electronics materials activities in Japan.

In 1984, Rogers also formed a joint venture with INOAC Corporation. Rogers INOAC Corporation (RIC) was established in Nagoya, Japan, to manufacture and sell high-performance elastomers to the Far East market. Because of the growing demand for PORON® urethane materials in Southeast Asia, Rogers will be constructing another production facility in the region.

To further support the growing markets in Southeast Asia, Rogers opened a Sales office in Hong Kong – Rogers Southeast Asia (RSA) in June of 1995. RSA represents both Rogers and Durel Corporation. Rogers added technical and marketing staff in this region and moved the Taiwan office to larger quarters in 1999. In 2000, Rogers celebrated the grand opening of new sales and marketing offices in Singapore and in Seoul, Korea: Rogers Technologies Singapore, Inc. (RTSI) and Rogers Korea, Inc. (RKI).

In 1999, Rogers formed a 50/50 joint venture with Mitsui Chemicals, Inc., PLS, to manufacture specialty flexible laminates for Hutchinson Technology, Inc. – the world's leading supplier of suspension assemblies for hard disk drives.

In the following year, Rogers celebrated the grand opening of new sales and marketing offices in Singapore and in Seoul, Korea: Rogers Technologies Singapore, Inc. (RTSI) and Rogers Korea, Inc. (RKI).

In July, Rogers Corporation and Chang Chun Plastics Co., Ltd., of Taiwan, a member of the Chang Chun Group, formed a 50/50 joint venture to manufacture and distribute Rogers R/flex® flexible circuit laminates for the Taiwan marketplace. The JV, Rogers Chang Chun Technology Co., Ltd., is located in the city of Hsin-Chu, Taiwan.

Rogers also began developing business in Latin America with experienced sales personnel who are native to this region. In 2001, Rogers opened a sales office in Guangzhou, China. Rogers N.V., European subsidiary in Belgium, celebrated its 32nd anniversary in 2001.

In 2002, Rogers opened a manufacturing facility in China. Rogers Technologies Suzhou Company Ltd (RSZ), a wholly owned subsidiary, located in Suzhou, added manufacturing capability for the ENDUR® product line.

Later that year, Rogers announced the divestiture of its moldable composites business, located in Manchester, CT.

The Company ended the year well positioned for continued growth and success with fourth quarter profits up 42% over the fourth quarter of 2001.

In 2003, yet another leased facilities of RSZ began performing finishing operations for selected product lines, underscoring Rogers' deep commitment towards realizing its global expansion goals.

Over a year after the purchase of the foam sheet business from Collect LLC in January 2002, Rogers purchased a new 215,000 sq. ft. facility in Carol Stream, Illinois, to manufacture the newly acquired Polyolefin materials as well as its BISCO® Silicone foams.

Due to high demand for PORON® materials in mainland China and other parts of Asia, Rogers INOAC Corporation (RIC), Rogers' 50/50 joint venture with INOAC Corp., announced a new production line for the manufacture of PORON® Urethane materials in Suzhou, China.

In September 2003, Rogers acquired its 50% interest in Durel Corp., a joint venture of Rogers and 3M, from 3M Company for \$26 million in cash. Fully integrated into Rogers, the new business unit was named the Durel Division with its financial and operating results becoming a part of Rogers' Polymer Materials and Components business segment. Since its formation as a 50/50 JV in 1988, Durel strategically grew to become the world's largest manufacturer of

electroluminescent lighting for backlights a wide range of handheld devices, sporting goods products, and interior automotive controls.

Rogers ended the year with net earnings up 66% over last year's fourth quarter and up 41% for the year. Net income increased to \$26.3 million. The primary factors that drove Rogers' sales in the fourth quarter were strength in cell phones, 3G base stations, and satellite TV receivers – these end products use significant amounts of Rogers' high performance materials.

Early in 2004, Walter Boomer announced his retirement and Bob Wachob, President and Chief Operating Officer, was elected President and Chief Executive Officer. Rogers announced that it planned to open a busbar (power distribution component) manufacturing plant in Suzhou, China, by the end of 2004. The facility was being established to satisfy the requirements of Rogers' Asian customers for local manufacturing.

In the same month, Rogers announced that it would cease operations at its Windham, CT facility (Elastomer Composites Division - ECD) by the close of 2004. The manufacturing operations for Rogers' ENDUR® molded polyurethane materials and its NITROPHYL® nitrile rubber floats, manufactured at the Windham plant, planned to relocate to Rogers' facility in Suzhou, China. The decision to close the plant was prompted by the continuing shift of Rogers' customer base for these materials to locations outside the US. Over the past four years, the business had experienced a decline in revenues of almost 50%, resulting in operating losses.

Soon after this announcement, Rogers acquired KF Inc., headquartered in Hwasung City, Korea, a nitrile butadiene rubber (NBR) float business, through a stock purchase agreement of approximately \$3.5 million. KF Inc. primarily manufactures these level-sensing devices for the automotive market. Under the terms of the agreement, KF Inc. has become a wholly owned subsidiary of Rogers, complementing Rogers' technology in closed cell foams. For Rogers, the purchase of this business was

made to add to its presence in worldwide markets and expand sales opportunities for existing products, such as the floats portion of the ECD business.

2005 was a year of significant progress in many areas at Rogers. The largest addition to our operations was completed at our Suzhou campus with the duplication of our US Durel® lamp capacity and we began shipping product in November. Our sales outside the US were over 67%, which had grown from approximately 25% a decade ago.

The High Performance Foams business in Woodstock, CT was recognized for achieving OSHA's Voluntary Protection Program (VPP) "Star" designation. "Star" status is the top OSHA award given to facilities that have met the highest standards in employee and workplace safety. The team at Woodstock worked for six years to attain the very important designation that has only been earned by 1,363 worksites across the US.

2006 was the best year in Rogers' history for both sales and profits. Three of the four operations in our Suzhou, China campus invested in additional capacity. Rogers doubled the number of people in the New Business Development group and we introduced a new business, Thermal Management Solutions. Investing in R & D has been one of the corner stones of the business that has helped Rogers grow into new markets, products and applications around the world.

With sales in 2006 over 72% outside the US, the benefits of "being viewed by our customers as their best local supplier worldwide", was showing its merits. Over the last six years our sales had grown 83% to \$454 million and earnings per diluted share increased 67% to \$2.69.

There aren't many companies that claimed the longevity that Rogers had in meeting the needs of its customers for over 175 years. But that is exactly the statement that Rogers claimed in 2007, as we celebrated our 175th year in business. Rogers' advantage has been providing specialty materials to manufacturers of goods such as cell

phones, computers and wireless communications systems. This formula for success is as relevant now as it was in 1832, the year that Peter Rogers founded the Company.

In 2007, twelve new Rogers products were introduced to the market, a record level, and up from seven in 2006. We now have two polyurethane foam machines in our Suzhou, campus to help serve our growing customer base in Asia and we have doubled our production capacity for the growing Power Distribution Systems business. Our joint venture with INOAC is as strong as ever, and they have built a new facility and began installing a new polyurethane foam machine in 2007, which will allow us to decommission a twenty-five year old machine built when our joint venture was formed back 1983.

In 2008, during the latter part of the year we started to experience the effects of the global downturn, which affected mostly all of our major markets. Although a solid year for Rogers, the end of the year marked a lot of uncertainty in what might lie ahead. But even though sales declined by 11.5%, due to the decline in Durel and flexible circuit material businesses and the sale of our Induflex subsidiary, the Company increased its earnings per diluted share (including discontinued operations) by 26.5%.

Another record year for new product introductions in 2008, sixteen were developed and introduced to the market place, far exceeding the previous year's record of twelve. Positioning Rogers for growth and opportunity is still very much in the forefront of R & D and all of the individual business operations.

We are now mostly complete with our implementation of our worldwide Enterprise Resource Planning system, PeopleSoft®, as we fine-tune our implemented process to optimize our common practices and streamline our data flow.

We ended 2008 in very good financial health generating over \$35 million of positive cash flow after repurchasing \$30 million of stock, spending \$21 million on capital expenditures and making a \$9 million contribution to our

pension plans. Also, we are debt free with a significant cash position.

The global recession in 2009 may go down as one of the single most challenging economic crisis ever. Rogers was not immune to this significant worldwide event but reacted quickly by realigning and restructuring the company to position itself to address the downturn, and to be prepared for opportunities to grow the company once the economic recovery started.

In fact, with Rogers' strong balance sheet and cash position it was not only able to effectively manage the business in the downturn, but also made some investments for growth along the way. The Company acquired certain silicone business assets of MTI Global Inc. and made a strategic investment in Solicore, Inc. Solicore is a world leader for embedded power solutions, offering patented Flexion™ advanced ultra-thin, flexible, lithium polymer batteries for smart cards, controlled access cards, RFID tags and medical devices.

In addition, the Company introduced a record eighteen new products in 2009, setting the stage for future growth opportunities in the years ahead.

2010 was definitely a turn-around year for the Company, and certainly a year that demonstrated how well Rogers had positioned itself for growth for the years ahead.

During 2010, Rogers, in mutual agreement, dissolved its 50/50 Polyimide Laminate Systems (PLS) joint venture with Mitsui Chemicals, Inc. on March 31, 2010 and in October, sold its remaining interest in the 50/50 Rogers Chang Chun Technology (RCCT) joint venture to Chang Chun Plastics Co., Ltd. Although both of these were very good joint ventures for the Company, they eventually became non-strategic businesses over a long period of time. PLS products into the hard disk drive market met end-of-life and after more than 40 years in the flexible circuit market these products (RCCT and Rogers Flexible Circuit Materials) became more commodity driven and therefore Rogers decided to exit this market.

In May, Rogers acquired a polyurethane company, SK Utis in Ansan, South Korea. This was a significant acquisition, as SK Utis already had an established presence in the marketplace, especially in Korea where two of the leading OEM's for electronic devices are located.

On June 28, 2010 the Company rang the "closing bell" at the NYSE to celebrate the 10 year anniversary of being listed on the exchange.

Sales in 2010 grew 30% to approximately \$379 million. In 2010, the Company generated \$2.16 earnings per diluted share and had accumulated cash and cash equivalents of \$80.1 million with and additional \$37.6 million in auction rate securities.

In 2011, Rogers made its largest ever acquisition when it purchased Curamik Electronics GmbH for €116 million at the start of the new year. Curamik, founded in 1983, is the worldwide leader for development and production of direct copper bonded (DCB) ceramic substrate products used in the design of intelligent power management devices, such as Insulated Gate Bipolar Transistor (IGBT) modules. These devices enable a wide range of products including highly efficient industrial motor drives, wind and solar energy converters and hybrid electric vehicle drive systems.

The Company also entered into agreements with Himag Solutions Ltd. Himag Solutions Ltd., a private UK based company. Himag is a technology company that provides custom planar magnetic products. This alliance leverages Himag's planar transformer technology and Rogers' power distribution technology and global market presence, to bring unique high efficiency power electronic solutions to market.

Himag's technology is in advanced planar transformers, which provide 99% energy efficiency versus only 90% for wire wound transformers. Himag's planar transformers also take up about one-third the space and weight of conventional transformers.

Rogers and Hitachi Chemical Co., Ltd. entered into a strategic collaboration agreement to expand global adoption and improve customer support of printed circuit board (PCB) materials for use in high-speed digital (HSD) applications. The Agreement enables Rogers and Hitachi Chemical the ability to provide customers with a wider range of products, faster delivery, and enhanced technical support to meet rapidly growing material demand driven by HSD applications, which include high speed server, router, and telecommunication devices operating at speeds greater than 1Gb/s, for use in internet data and video transmission services.

The Board of Directors elected a new President and Chief Executive Officer, Mr. Bruce D. Hoechner, effective October 3, 2011, at which time he became a member of the Company's Board of Directors. Mr. Hoechner, 51, will succeed Robert D. Wachob, 64, who will become Chairman of the Board of Directors.

Mr. Hoechner had many years of broad leadership experience across numerous geographies, businesses and functions in the specialty chemicals industry with particularly strong international business expertise. For the past five years, Mr. Hoechner was based in Shanghai, China, first with Rohm and Haas Company, for whom he worked for 28 years, and then moving to Dow Chemical upon its acquisition of Rohm and Haas in 2009. While in Shanghai, Mr. Hoechner was responsible for a variety of businesses, most recently as President, Asia Pacific Region, Dow Advanced Materials Division with regional revenues of more than \$2 billion. Mr. Hoechner has also led a number of specialty chemical global business units, which had wide-ranging operations in Europe, North America, Latin America, as well as Asia.

The Company ended 2011 with all-time record sales of \$553.2 million.

Rogers Core Products

Rogers' Mission is to provide specialty materials solutions to satisfy customers worldwide.

Today, Rogers Corporation offers original equipment manufacturers (OEMs) in the wireless communications, power electronics, clean technology, consumer electronics and transportation markets a wide array of specialty materials, which include high performance foams and advanced circuit materials. A first choice of customers worldwide, Rogers has manufacturing and sales offices in the U.S. and Belgium with additional sales offices around the world. Today, Rogers is strongly focused on wireless communications and computer markets, which are expected to grow significantly in the years ahead.

The range of potential applications for Rogers' specialty materials has clearly been expanding since the Company's founding in 1832 as a producer of paperboard. Its array of advanced circuit materials and high performance foams are used in a number of key market areas for industrial, communications, transportation, imaging, and consumer electronic uses. Rogers' materials play a major part in cellular base stations and antenna towers. Additional wireless, high-tech applications can be found in direct broadcast television and other satellite-based communications systems. A number of Rogers' products are also used in key functions within the many wireless handheld communication devices available on the market today.

Similarly, Rogers provides solutions to meet today's most rigorous computer requirements with materials suitable for use in high-speed routers and switches, personal digital assistants (PDAs) and laptops.

Other specialty materials are used in trains, planes and automobiles to help insulate, protect, improve power distribution, measure liquid levels, or provide backlighting of

displays. In the imaging area, Rogers' products are hard at work improving print quality, ruggedizing equipment, and carrying items through imaging and sorting operations. Rogers responds to a wide variety of manufacturers' needs as well, with its diverse roster of materials for consumer products such as footwear, household appliances, watches, and healthcare, among others.

Rogers' Brand promise to its Customers:
"We offer superior specialty materials solutions that enable the success of your products, and let you focus your energy on other important design issues."

The world runs better with Rogers.

The Historic Bell Still Tolls



Frederic Fuller in Providence, Rhode Island, cast this historic bell, #773, in 1860 for the Williamsville Manufacturing Company. It was located in the bell tower, which was part of the textile company's first major expansion since the building of the original site in 1824. The bell was used to summon Quinebaug Valley workers to work, signal fires, and mark celebrations.

In 1917, Goodyear Tire and Rubber Company acquired the mill for the manufacture of tire cord for the emerging automobile industry. Rogers Corporation, founded in 1832 in Manchester, Connecticut, bought the mill

from Goodyear in 1935 as it expanded to a second manufacturing location. It was converted to produce specialty paperboard used in electrical insulation for the growing electrical transformer industry, which was expanding due to the mass distribution of electricity throughout the United States.

“The Bell” was removed from the bell tower and was rung at noon on July 4, 1976, as part of the nationwide celebration of our bicentennial. The employees presented it to Rogers Corporation for preservation and recognition of the importance that the Williamsville Manufacturing Company, the Goodyear Tire and Rubber Company and Rogers Corporation have played in the cultural and economic development of the area.

On April 18, 2000, “The Bell” rang out in celebration once again at Rogers’ headquarters in Connecticut at the same time the opening bell at the New York Stock Exchange was being rung on Wall Street by Rogers President and CEO Walter E. Boomer. That day, Rogers’ stock began trading on the Big Board for the first time.
