

MEMC[®]

TECHNOLOGY IS BUILT ON US

2007

2006

2005

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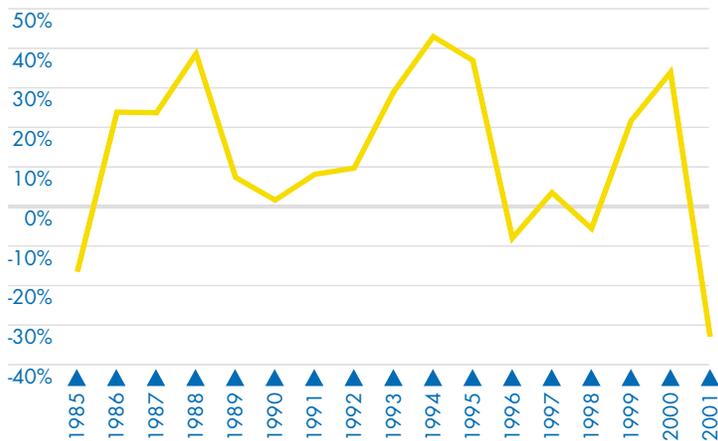
2001 Annual Report

TO OUR STOCKHOLDERS

In last year's Annual Report, our Letter included this statement: "As this Report goes to press, clear signs of weakness in demand have emerged."

Unfortunately, our concern was more than justified by the market conditions that ensued in 2001. The inventory build up of semiconductor

**Semiconductor Market
Year-Over-Year Revenue Growth Rates**



Source: Gartner Dataquest

devices and end-market products in 2000 for growth anticipated in 2001, coupled with overall reduced demand, created the worst year-over-year revenue decline on record for the semiconductor industry.

As a result, the positive trends we reported in 2000 for production volume, sales and profitability all turned negative in 2001.

Put simply, 2001 market conditions in the semiconductor industry marked an historic low. As the accompanying chart shows, semiconductor sales fell more than 30 percent or almost twice as much as the previous low in 1985, when sales dropped 17 percent, according to Dataquest estimates.

Obviously, this sales decline for our customer base reverberated throughout the silicon wafer industry — and MEMC.

- Decreased demand reduced our sales 29 percent.
- Decreased demand reduced our capacity utilization, which led to reduced gross margin.

As a result of this sales decline, the positive net income we realized in the fourth quarter of 2000 quickly drained away, and MEMC registered negative earnings for 2001.

Even with last year's negative result, we have cautious optimism for 2002. Here are the reasons for our optimism.

In recent years, MEMC Annual Reports have focused on how we have worked to reduce fixed costs. That effort continued and accelerated in 2001. We took bold steps that included closing a small diameter wafer line, temporary

shutdowns and substantial reductions in our employee workforce. Also, we continued to realize improvements in production yields. In recent years, MEMC's people have pushed yields beyond what we once considered practical limits. We extended that remarkable record last year.

Importantly, most of these cost saving actions occurred in the second half of 2001. Plus, some of these actions entailed significant one-time costs. As a result, we believe most of the payoffs will become evident in 2002 results, not 2001. Also, when market volumes stabilize and grow, we believe the positive effects of reducing fixed costs will become increasingly visible in our bottom line results.

Even with 2001's market weakness, we realized two important objectives of our financial strategy—debt reduction and increased liquidity. As we said in the 1999 Annual Report, E.ON AG, our majority stockholder, planned to divest its MEMC holdings, along with its holdings in other non-core businesses, to focus on E.ON's core energy business. In November of 2001,

that divestiture occurred with an investor group led by Texas Pacific Group (TPG) purchasing E.ON's interest in MEMC.

In simplest terms, with Texas Pacific Group as our new financial partner, MEMC's debt has been reduced from \$1.1 billion at September 30, 2001 to a book value of \$221 million at December 31, 2001. We also have cash of \$107 million and access to a five-year \$150 million revolving line of credit guaranteed by TPG.

In addition to new financial strengths, we are encouraged by signs of market stabilization and recovery. Since a low point in demand in the third quarter of 2001, we have seen a modest recovery in worldwide shipments of silicon wafers. In short, we believe the market could be stabilizing. Market stability does not mean new growth. Stability is important, however, because it is a necessary precursor to growth, and we believe recent market activity justifies guarded optimism.

With our new internal strengths, and buoyed by recent signs of stability from the market, we are taking a four-pronged approach to improve our performance:

Build the right products. We have a more focused product portfolio of high-performance wafers than ever before. We also possess a broader intellectual property base than ever before, reflected in more than 100 patents earned worldwide in 2001. We believe our new products have the potential to create value for our customers in the semiconductor industry and, therefore, create new sales for MEMC.

Develop a diversified customer base. As we have right-sized our business, we continue to maintain a broadly diversified customer base, covering all significant applications, world areas and products.

Optimize existing capacity and resources. Future growth of the silicon wafer industry will be concentrated in 200 and 300 millimeter wafer diameters. Our currently installed 200 millimeter equipment base and infrastructure give us strong positioning to take advantage of this growth while maintaining our ability to serve the market

for smaller-diameter wafers. In addition, our dedicated 300 millimeter facility has the infrastructure to expand as the market and economics warrant.

Create global cost leadership. We have proven our ability to continue to take costs out of our processes, year after year. We have no intention of relaxing this focus, even when the market turns.

In summary:

- We have a much stronger balance sheet—dramatically lower debt, cash of \$107 million and a \$150 million credit line.
- Our new financial partner has controlling positions and relationships with many semiconductor related companies, giving MEMC critical insights into technology and other customer issues.
- Our cost position in manufacturing continues to strengthen—and we will continue to reduce fixed costs in 2002.
- The market shows signs of stabilizing, evidenced by increased worldwide shipments of wafers since the third quarter of 2001.

Changes in our Board of Directors. Our Board of Directors has changed substantially in the last year, due primarily to the change in ownership of MEMC. Our new Board includes individuals with extensive semiconductor industry experience, and we look forward to benefiting from their experience and insights.

We thank our departing Board members for their years of dedication and contribution to MEMC.

At the end of the day, MEMC's strength lies in what we do — we make silicon wafers of the highest quality that are the foundation of technology. The following section of this report discusses MEMC's new products, products which we believe will set new standards for our semiconductor customers—and position our company for success in years to come.



Klaus von Hörde

President and Chief Executive Officer



James M. Stolze

Executive Vice President and
Chief Financial Officer



Klaus von Hörde,

President and
Chief Executive Officer

James M. Stolze,

Executive Vice President
and Chief Financial Officer

Klaus von Hörde retired from MEMC in April 2002. As President and CEO, Klaus guided MEMC through a difficult market environment and was a key figure in achieving the Company's operational restructuring. We want to thank Klaus for his years of dedication and contribution to MEMC.

Nabeel Gareeb has been named MEMC's new Chief Executive Officer. Nabeel comes from International Rectifier, an El Segundo-based leading supplier of power semiconductors and system solutions, where he served as Chief Operating Officer. Nabeel brings outstanding semiconductor industry experience to MEMC and will play an important leadership role in shaping and executing our long-term business strategy.

MEMC IS PROUD TO HAVE ADVANCED THE SCIENCE OF SILICON WAFERS

As the world's first marketer-manufacturer of silicon wafers, MEMC produced wafers as early as 1959. Chips then were the size of a dime, and one chip equaled one on-off switch. So, it took a great many dime-size silicon chips to make what then was a state-of-the-art electronic device.

Only 10 years later, the science of chip-making had advanced so dramatically that a dime-size area of silicon held almost 10,000 transistors. By 1985, the density had mushroomed to several hundred thousand. And by the mid-1990s, millions of transistors resided on a silicon chip.

Today, circuitry on silicon can be shrunk to 0.13 microns—1/800th the width of a human hair—and the fastest chips operate at more than two billion calculations per second.

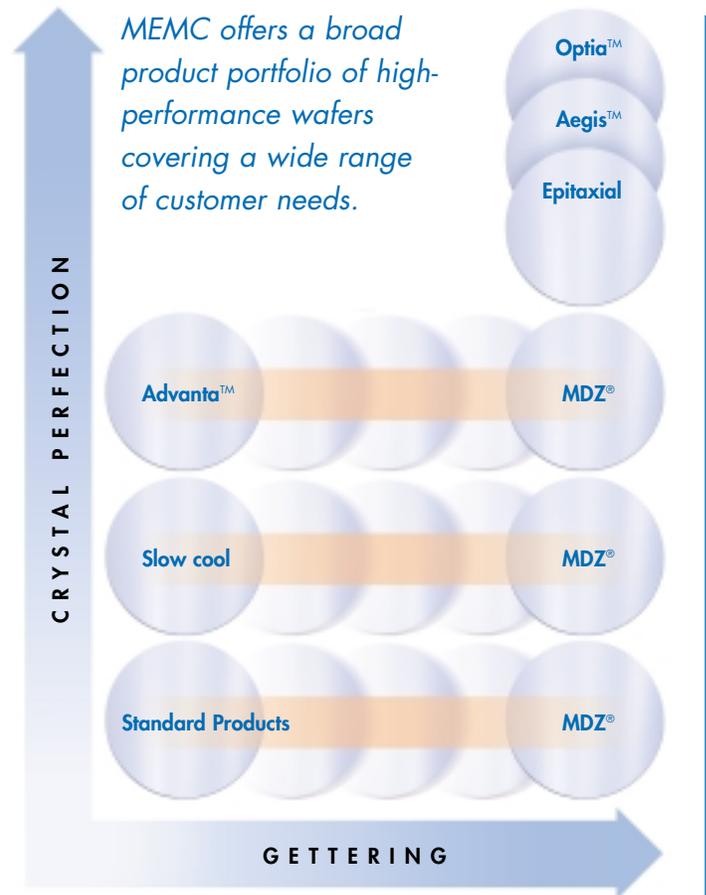
The only way technology could have accelerated at this rate—while also becoming exponentially less expensive—is that the materials science of silicon wafers had to advance extremely rapidly.

The result is that scientists at MEMC today make crystal structures so exquisitely precise and pure that defects are measured in parts per billion—a unit of measurement that itself overwhelms the imagination.

The fact is, no other material in the world possesses the perfectly organized structure of silicon. All other materials have dislocations or tiny vacancies here and there in their molecular make-up. Not silicon wafers.

Ten years ago, the characteristics of a silicon wafer were measured in terms of microns. Today, they are measured in nanometers (one size greater than an atom), a measure one thousand times more precise than just 10 years ago.

This level of precision means, for example, that the flatness of today's silicon wafers has virtually no variation. If a wafer were the size of a football field, its surface flatness would not vary one millimeter from one end to the other. Similarly, today's advanced



wafers are made with a level of purity that permits the equivalent of less than one drop of foreign matter in an Olympic-sized swimming pool.

This unique level of perfection is the reason silicon wafers are so essential to makers of increasingly sophisticated electronic devices. In a short period relative to other great changes in human history, advances in silicon wafers have helped transform our lives and have redefined what is possible and affordable.

We are proud of the important role MEMC silicon wafers have played. We believe new MEMC products will set performance standards that will lead to more important advancements—and new MEMC opportunities.

SETTING PERFORMANCE STANDARDS FOR FUTURE TECHNOLOGIES—TODAY



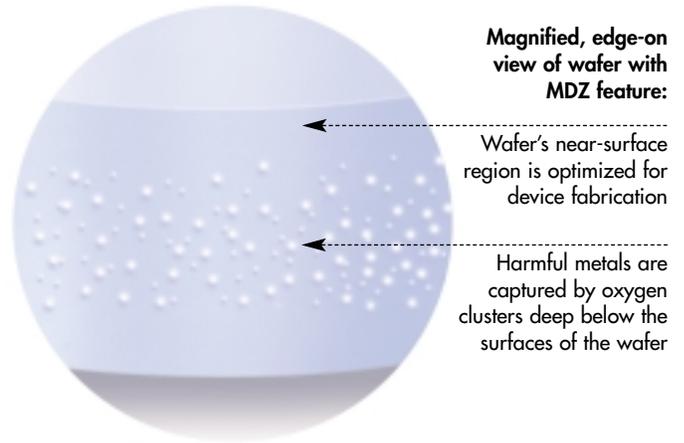
The MDZ[®] wafer feature is MEMC's patented product enhancement that can be added to any polished or epitaxial wafer to provide uniform control of oxygen and extremely reliable internal gettering in a wafer. Gettering is a method of drawing impurities away from the surface of the wafer where they can degrade semiconductor performance.

We believe no other wafer feature offers the advantages of the MDZ enhancement.

Benefits:

- The MDZ feature reduces customers' costs by allowing them to eliminate costly thermal processing steps in their chip fabrication processes.

- The MDZ feature can increase customers' chip yields through reliable and uniform control of oxygen in the silicon wafer.
- MDZ processing eliminates variability in a silicon wafer due to crystal growth characteristics, allowing customers to simplify their fabrication processes.



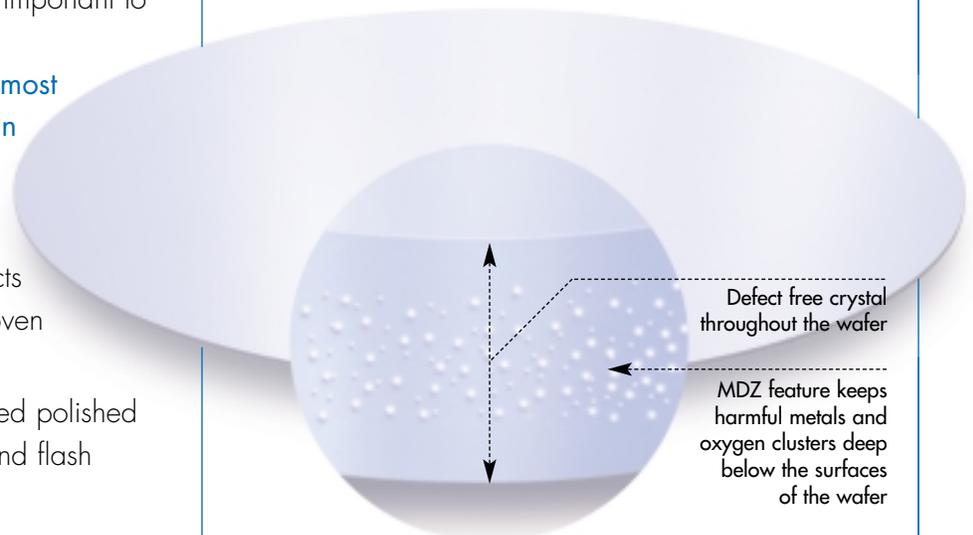
The OPTIA[™] wafer is a completely defect-free silicon wafer, containing no crystal-related defects on the surface and throughout the depth of the wafer. This is a significant advantage that can allow semiconductor manufacturers to realize higher device production yields. As more and more transistors are packed into an integrated circuit, OPTIA wafers will become increasingly important to semiconductor manufacturers.

We believe the OPTIA wafer is the most technically advanced polished wafer in the market today.

Benefits:

- The OPTIA wafer contains zero defects throughout the wafer and has the proven enhancement of the MDZ feature.
- The OPTIA wafer is ideal for advanced polished wafer applications, such as DRAM and flash memory devices.

- The OPTIA wafer can increase integrated circuit manufacturers' yields, as well as allow them to reduce costly steps in their fabrication processes.
- Because of its lack of variability, the OPTIA wafer is perfect for optimizing customers' manufacturing processes.





The AEGIS™ wafer is an advanced epitaxial wafer that is designed as a drop-in replacement for many polished wafers, annealed wafers and other epitaxial wafers. The AEGIS wafer also incorporates the robust and reliable MDZ feature for added benefits to chip makers.

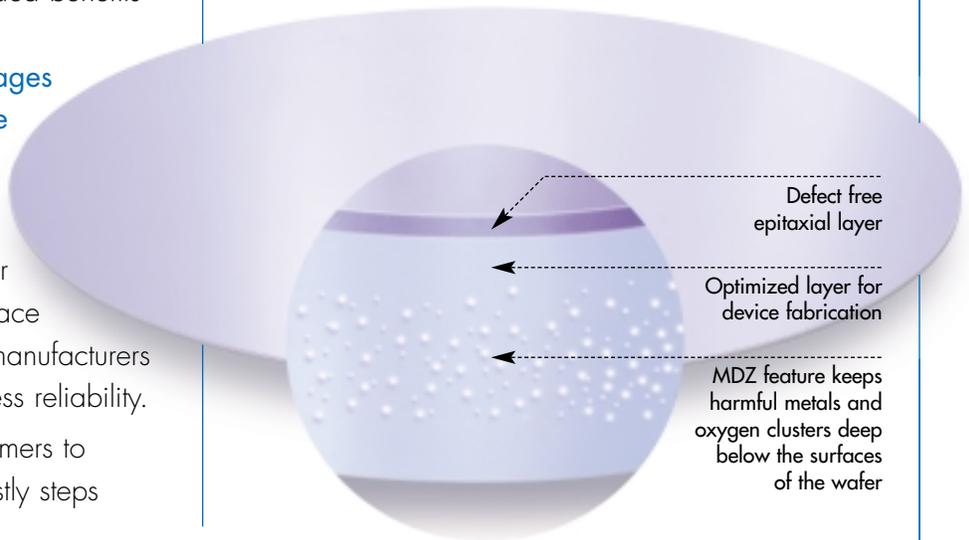
The AEGIS wafer offers the advantages of mature epitaxial technology with the proven reliability of the MDZ feature.

Benefits:

- The AEGIS wafer’s thin epitaxial layer eliminates harmful defects on the surface of the wafer, thereby allowing chip manufacturers to increase yields and improve process reliability.
- The built-in MDZ feature allows customers to reduce cycle times by eliminating costly steps

in the overall chip fabrication process and to achieve reliable gettering.

- The AEGIS wafer is currently available in both 200 millimeter and 300 millimeter diameters, offering advantages for both today and tomorrow.



The ADVANTA™ wafer is an advanced polished wafer with higher performance characteristics than standard polished wafers.

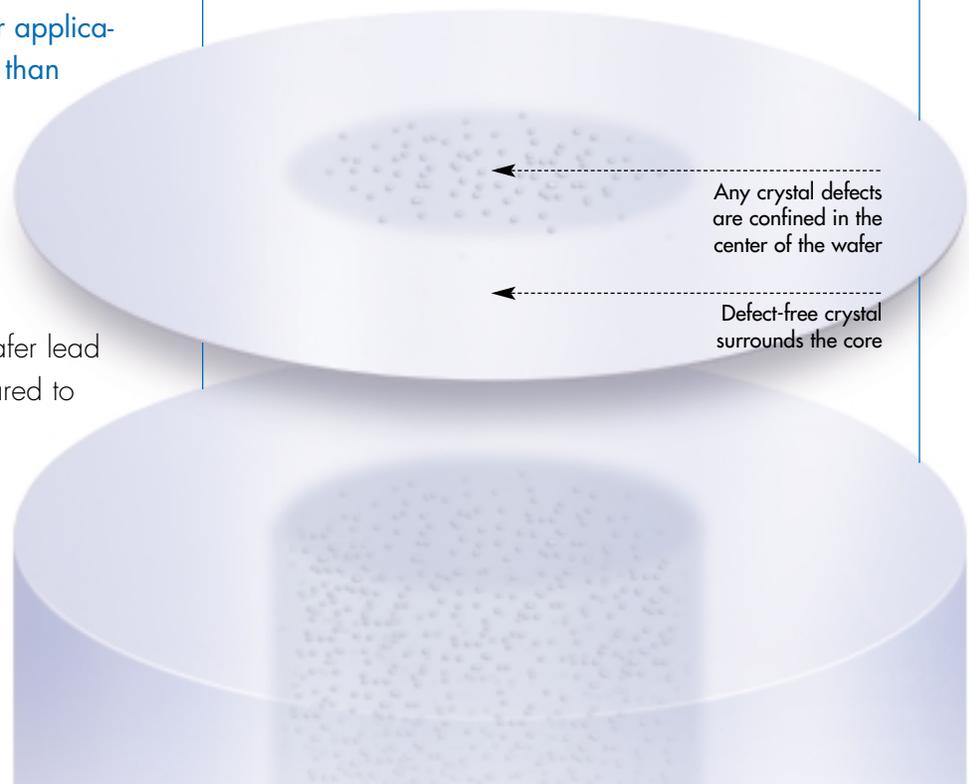
The ADVANTA wafer is designed for applications that demand better performance than standard polished wafers but do not require the capabilities of more specialized products such as the OPTIA wafer.

Benefits:

- Reduced defects in the ADVANTA wafer lead to higher yields and reliability compared to standard polished products.
- The ADVANTA wafer provides a distinct cost-of-ownership advantage

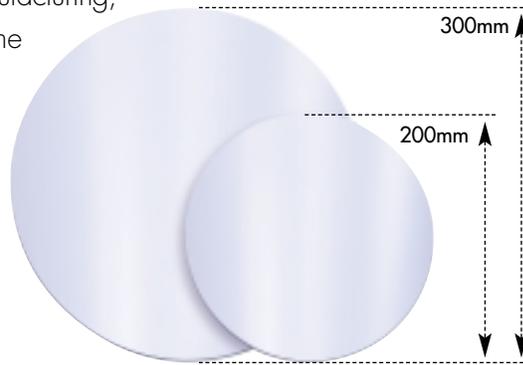
for customers as compared to other polished wafer products.

- All of the advantages of the MDZ feature are available in the ADVANTA wafer.



300MM Although the current industry standard wafer diameter is 200 millimeter, larger diameter wafers can deliver cost efficiencies to many semiconductor manufacturers. Our dedicated 300 millimeter facility has the infrastructure to expand as the market and economics warrant. As the maker of one of the industry's first 300 millimeter wafers in 1991, MEMC offers customers great depth of experience in 300 millimeter crystal growing and wafer manufacturing, including our AEGIS wafer, with the same high quality as our other products.

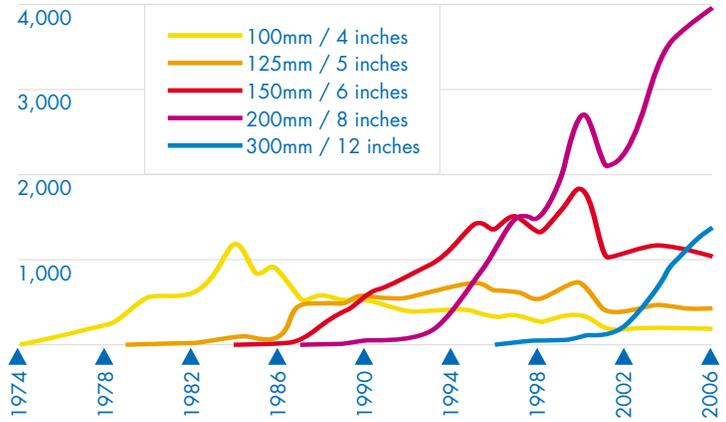
300 millimeter wafers give semiconductor manufacturers 2.25 times greater surface area than 200 millimeter wafers, resulting in lower device costs.



As the chart above demonstrates, while 300 millimeter is expected to experience high growth over the next five years, 200 millimeter wafers will remain the industry standard for the foreseeable future, according to Dataquest estimates.

Wafer Diameter

MILLIONS OF SQUARE INCHES



Source: Gartner Dataquest, January 2002

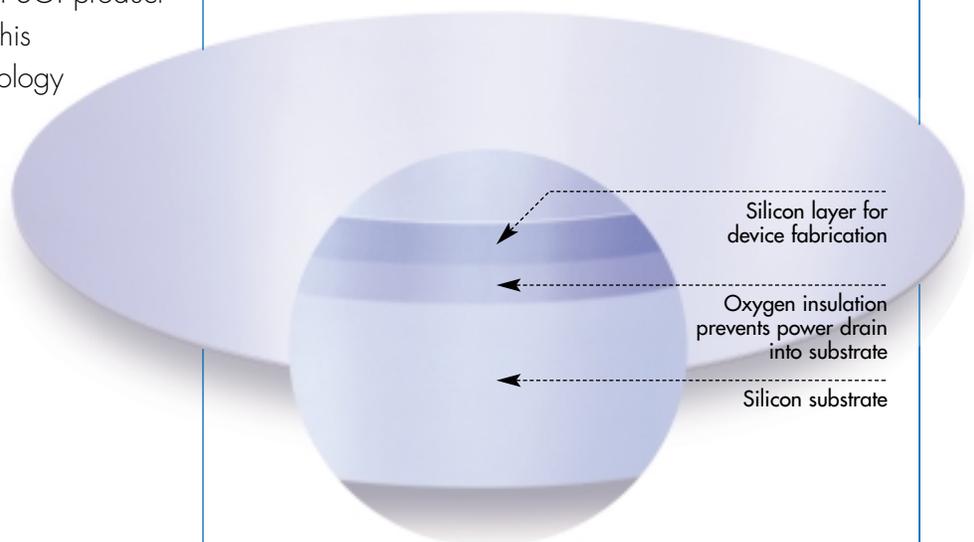
Silicon-on-Insulator (SOI)

Silicon-on-insulator is quickly becoming the technology of choice for high-performance and low-power Complementary Metal Oxide Semiconductor (CMOS) devices. Through our sales alliance with a leader in SOI, Ibis Technology Corporation, MEMC offers a substantial SOI product portfolio. We will continue to build on this relationship through a recent joint technology agreement with Ibis.

MEMC is committed to SOI technology through our partnership with Ibis, as well as our own SOI patent estate.

Benefits:

- SOI wafers allow customers to build chips that use 20-30% less power, ideal for such applications as digital cameras and notebook computers.
- SOI wafers allow customers to design and build chips that process information 25% faster than chips made using conventional silicon wafers.



BOARD OF DIRECTORS

John Marren
Chairman of the Board
Partner
Texas Pacific Group
(1, 3)

Nabeel Gareeb
President and Chief Executive Officer
(3)

James Coulter
Managing General Partner
Texas Pacific Group

Jean-Marc Chapus
Managing Director
TCW
President and Chief Executive Officer
TCW/Crescent Mezzanine, L.L.C.

Richard Boyce
Partner
Texas Pacific Group
(3)

John Danhaki
Partner
Leonard Green & Partners

William E. Stevens
Chief Executive Officer
BBI Group, Inc.
(2)

Robert Boehlke
Former Executive Vice President and
Chief Financial Officer
KLA-Tencor
(1, 2)

C. Douglas Marsh
Vice President Business Integration
& US Institutional Investor Relations
ASM Lithography
(1, 2)

William D. Watkins
President and Chief Operating Officer
Seagate Technologies

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(2) Audit
(3) Environmental, Health & Safety

OFFICERS

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Chief Executive Officer

James M. Stolze
Executive Vice President and
Chief Financial Officer

Jonathon P. Jansky
Corporate Vice President
Operations

Thomas P. Stiffler
Corporate Vice President
Human Resources

James G. Weathers
Corporate Vice President
Sales and Commercial

Saeed Pirooz
Vice President
Chief Technology Officer

STOCKHOLDERS' INFORMATION

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(312) 360-5433
www.computershare.com

STOCKHOLDER INQUIRIES

Inquiries regarding address corrections, lost certificates, changes of registration, stock certificate holdings and other stockholder account matters should be directed to MEMC's transfer agent, Computershare Investor Services, L.L.C., at the address or phone number above.

COMMON STOCK LISTING

MEMC's common stock is traded on the New York Stock Exchange under the symbol "WFR". On December 31, 2001, the last business day of the year, the Company had 479 stockholders of record.

FORM 10-K

Stockholders may obtain a copy of MEMC's Annual Report on Form 10-K and related financial statement schedules for the year ended December 31, 2001, filed with the Securities and Exchange Commission, by writing MEMC's Investor Relations Department or by calling (636) 474-5443.

FINANCIAL INFORMATION

MEMC maintains a home page on the Internet at www.memc.com where we publish information, including earnings releases, other news releases, significant corporate disclosures and the names of securities analysts who issue research on MEMC.

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