CEMEX TAKES THE HIGH ROAD

UNDER THE DIRECTION OF "THE CEMEX WAY," CEO LORENZO ZAMBRANO IS DRIVING THE BUILDING-SOLUTIONS GIANT ON A GLOBAL MISSION.

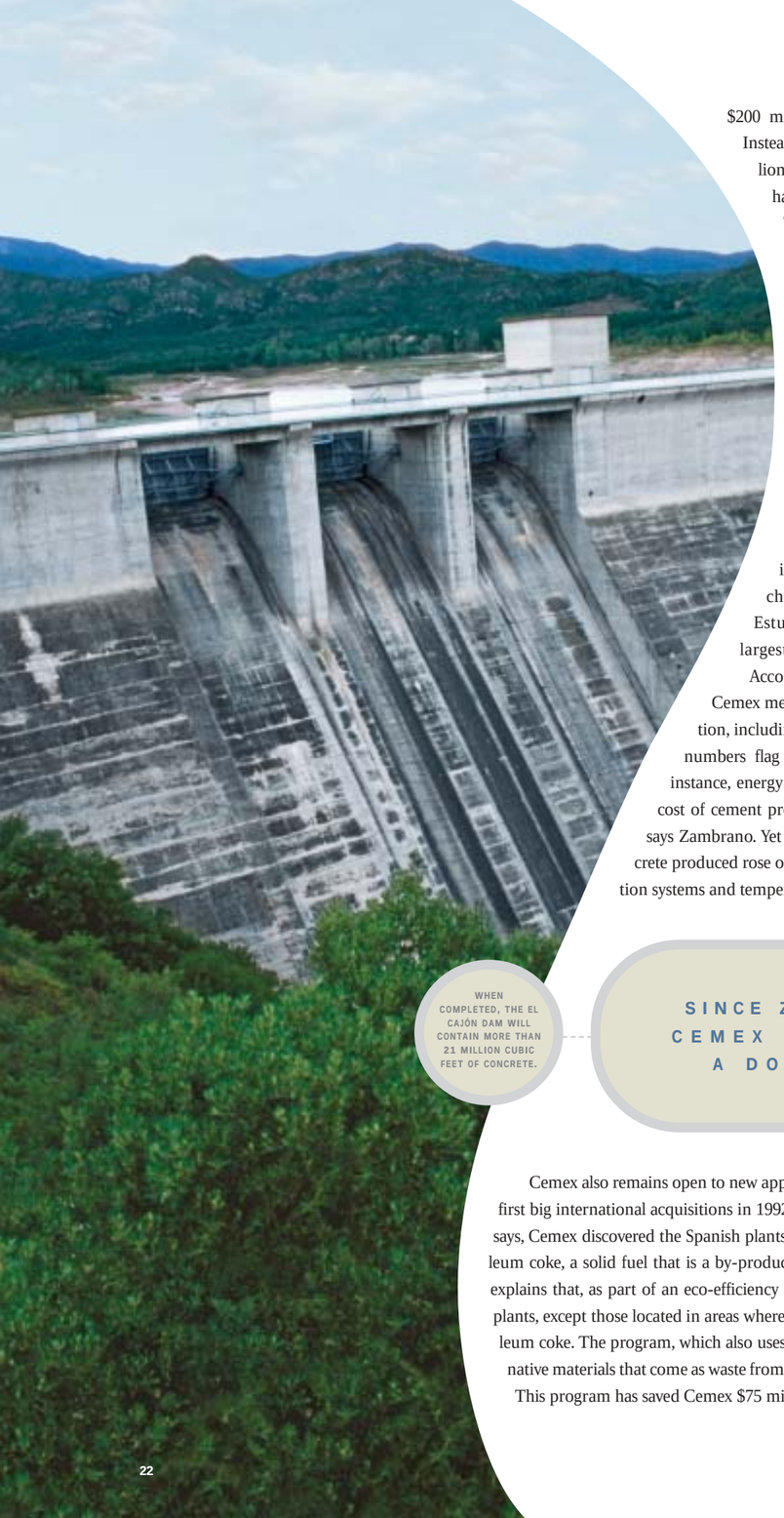
CEMEX WAS ONE OF THE MAIN CONCRETE SUPPLIERS ON THE ORESUND BRIDGE LINKING DENMARK AND SWEDEN, WHICH WAS COMPLETED IN 1999.

BY JOSÉ FERNANDEZ

IT'S ALREADY DARK at the base of the Sierra Madre Mountains outside of Tepic, but concrete trucks keep shuttling back and forth restlessly to fill the wall at El Cajón dam, Mexico's largest infrastructure project in decades. The trucks, bearing the logo of the world's biggest concrete producer by volume, **CEMEX S.A.B. DE C.V.** (CX), will pour 21 million cubic feet of concrete by the time the project is complete in 2007, says the company. When it goes operational, notes the state-owned Federal Electricity Commission, the dam on the Santiago River will generate 10 percent of Mexico's electricity needs.

Projects such as El Cajón and the San Francisco-Oakland Bay Bridge renovation, to be completed in 2012, as well as many other construction projects around the world, are keeping Cemex's cement and concrete trucks rolling, according to Lorenzo Zambrano, CEO and chairman. Cemex reports that by 2005 it had become the world leader in concrete production, with annual volume of 2.6 billion cubic feet, and consolidated its position as the third largest global building-solutions company, with a presence in more than 50 countries. The company estimates that demand across its global markets will grow 3.5 percent this year.

At Cemex's sleek, modern headquarters in Mexico's industrial capital of Monterrey, Zambrano, 62, smiles when discussing the company's first-half results: $8.6 billion in revenues and $1.1 billion in profits. But he says he is most proud of figures that show the successful integration of Cemex's largest acquisition ever, the $5.8 billion purchase in March 2005 of one of the U.K.'s leading cement companies, RMC Group Plc. Zambrano notes that, since buying RMC, Cemex has reduced net debt 16 percent to $8.1 billion. According to Zambrano, when the deal was proposed, he promised investors that the integration would realize



WHEN COMPLETED, THE EL CAJÓN DAM WILL CONTAIN MORE THAN 21 MILLION CUBIC FEET OF CONCRETE.

$200 million in annual synergies by the end of this year. Instead, Zambrano says, Cemex is set to achieve $360 million this year alone. What's more, Cemex estimates it will have $2.5 billion in free cash flow by year-end 2006. That, says Zambrano, leaves the company in a strong position to continue the expansion juggernaut that he initiated in 1987, two years after becoming CEO.

THE CEMEX WAY

Since Zambrano took the top spot, Cemex has made more than a dozen acquisitions. The secret, says the CEO, is a management system known as "The Cemex Way," which has been taught in business schools around the world, including Harvard University, Massachusetts Institute of Technology and Stanford University, Zambrano's alma mater. "Essentially, it is internal benchmarking in MBA speak," explains Zambrano, who is also chairman of the board of Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Mexico's largest private university.

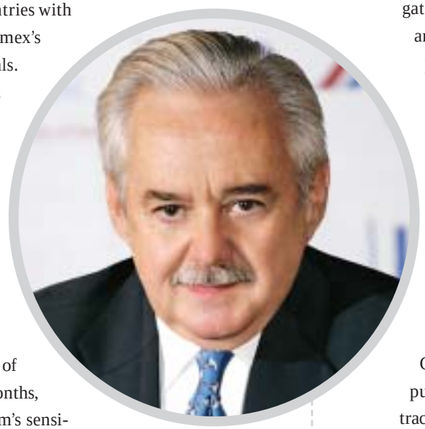
According to Zambrano, by diligently amassing data, Cemex measures every step of production, sales and administration, including energy consumption, inventory and delivery. Once numbers flag rising costs, the company swings into action. For instance, energy costs, which typically represent about a third of the cost of cement production, rose 118 percent from 2001 through 2005, says Zambrano. Yet the the company says its energy cost per ton of concrete produced rose only 11 percent after its plants implemented fuel-injection systems and temperature-control mechanisms.

SINCE ZAMBRANO BECAME CEO, CEMEX HAS MADE MORE THAN A DOZEN ACQUISITIONS.

Cemex also remains open to new approaches to business, says Zambrano. When making its first big international acquisitions in 1992 of Spanish companies La Valenciana and Sanson, he says, Cemex discovered the Spanish plants were unusually efficient thanks to their use of petroleum coke, a solid fuel that is a by-product of oil refining, as their main fuel source. The CEO explains that, as part of an eco-efficiency program begun in 1994, most of Cemex's 66 cement plants, except those located in areas where other energy sources are cheaper, now employ petroleum coke. The program, which also uses improved mining techniques, recycles and taps alternative materials that come as waste from other industries, such as blast-furnace slag and fly ash. This program has saved Cemex $75 million in energy costs altogether, says Zambrano.

ALL IMAGES COURTESY CEMEX

RMC's integration also exemplifies The Cemex Way at work, the CEO says. Once the acquisition had been cleared, a post-merger integration team of 400 executives, armed with laptops and the company's cost-cutting and benchmarking mentality, headed for a six-month inspection of RMC plants in 22 countries with marching orders to implement Cemex's methods and operation manuals. "There were weekly reviews by team and function, and monthly reports to the CEO," notes Juan Pablo San Agustin, senior vice president of corporate strategic planning, who headed the RMC post-merger integration team.



LORENZO ZAMBRANO OPENED THE LOW-TECH, HARD-HAT CEMENT INDUSTRY TO THE INFORMATION TECHNOLOGY ERA.

As an example of cost savings, Zambrano points to an RMC plant in Rugby, England, which boosted production to an average 90 percent of capacity from 74 percent in three months, simply by fine-tuning the plant alarm's sensitivity to reduce production halts. "They are heroes," says Zambrano of the integration team. "They left their families behind to work long hours to make the operation a real success."

Teams in different countries competed to achieve the fastest and most efficient integration, he recalls, noting that better tracking of materials gained $100 million in savings, and personnel reduction cut $70 million from overhead. At the end of the process some members of the team moved to markets they had overseen to run operations, while others returned to their countries of origin.

THE ZAMBRANO WAY

Although Cemex was founded by his grandfather in 1906 and Zambrano says he knew by age 14 that he wanted to run the company, his succession was not a foregone conclusion. After getting a degree in mechanical engineering and administration from ITESM, he left for the U.S. to broaden his background with a Stanford University MBA. After joining the company at an entry-level engineering position in 1968, Zambrano says he made his way up, with stints as plant manager, division manager and head of operations before taking the top post in 1985. Ten years later he added the chairman title.

Zambrano credits his U.S. stay with instilling in him the value of critical thinking, a skill that he would later apply to transform Cemex, then a modest regional operation. "I learned from the flower-power movement to question the establishment," he says.

In 1983, when his boss rejected his proposal to buy a computer to better control operations, Zambrano recalls, he reached into his own pocket to buy a then state-of-the-art Wang PC. He and two colleagues gathered data by phoning the company's plants, and keyed the numbers into the computer to track performance. This, says Zambrano, opened the low-tech, hard-hat industry to the information-technology era. "I saw that the only way to keep track of what was going on in each plant was to have an information system," Zambrano remembers.

When appointed CEO in 1985, Zambrano says, one of his first initiatives was to launch CemexNet, a satellite network that performs the same data collection tasks he did with that first computer. Now, he notes, most Cemex delivery trucks are equipped with computers that map delivery routes and times and are tracked by global-positioning satellite technology. Customers can order online or by phone directly to a computerized dispatching system. The result, says Zambrano, is that clients get their concrete where and when they want it. (See "A Heavy Industry's High-Tech Brain," page 25.)

THE ACQUISITION MACHINE

The early embrace of information technology gave Cemex tools to grow quickly, Zambrano explains, noting the company had only five cement plants and 6,500 employees when he took over, compared to 66 fully owned cement plants and 50,000 employees today. But key to Cemex's success, say observers, is its rigorous approach to integrating acquisitions.

In choosing targets, Cemex says, its most basic criterion is return on equity: Acquisitions must have the potential to guarantee a 10 percent return by full integration time, a two-year frame in RMC's case. Beyond that, the company looks at such benefits as geographic market share. For example, Zambrano says, RMC had operations in Britain and 20 other (mostly European) countries.

Zambrano acknowledges, however, that not every acquisition has been a success. In May, Cemex sold its 24.9 percent stake in Indonesian cement maker PT Semen Gresik Tbk after Cemex says the government blocked its bid to take control of the company.

TODAY, CEMEX'S LARGEST SALES BY VOLUME ARE IN THE U.S.

THE TEPEACA CEMENT PLANT IN PUEBLA, MEXICO IS ONE OF CEMEX'S 66 FULLY OWNED PLANTS.

EMPHASIS ON TALENT

Even more than information technology, Cemex's real key to success lies in its people, Zambrano insists. He says he likes to personally interview management candidates. "Human resources doesn't particularly like it, but I want to make sure we get people with potential," he says.

Managing 50,000 employees from a variety of cultures and who speak many languages requires standardization, he acknowledges. He says Cemex aims for college graduates in the top 15 percent of their class who are fluent in English, noting that English is Cemex's official language. The company has installed a clear career path to ensure the best of the new hires move up in the company. To make certain they understand Cemex's goals, everyone, including consultants, attends an induction course. Tailored to each employee's level, the presentation is constantly revised but includes the basics of The Cemex Way as well as a tutorial on the technical and market aspects of the business, explains Zambrano. Beyond that, new employees are expected to attend several programs designed to maintain a spirit of professional growth and competition. Young managers are encouraged to take international positions to help implement a single business model globally.

And the learning process continues beyond a new hire's early days. About 7,000 employees have access to 261 e-learning courses on such topics as business fundamentals and management skills, which cover both Cemex operations and general business and managerial skills. Zambrano says it is not a coincidence that he chairs the board at his undergraduate school. ITESM is not only Mexico's largest private university, but it is also a natural source of IT talent for Cemex and increasingly for other multinationals, the CEO explains. He points to a joint program between the company and ITESM: In the $300,000 innovation-cell program, half funded by Cemex, students work together on computer-science research projects to foster the company's performance. ITESM has similar programs with other multinational companies.

GLOBAL REACH

Although Cemex indicates it has a presence in 50 countries, North America accounts for 48 percent of the company's reported sales. With the RMC acquisition, Europe accounts for 38 percent; the remaining 14 percent is distributed among South America, Africa/Middle East and Asia.

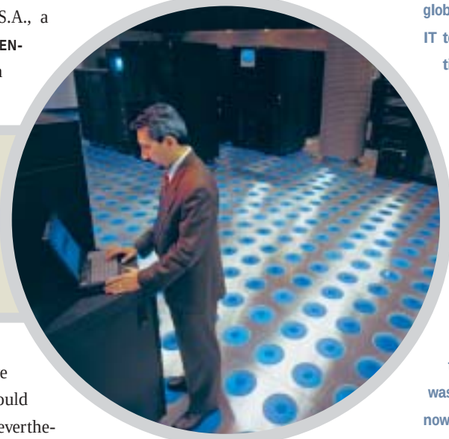
Zambrano sees opportunity even in Cemex's primary markets. A 2004 Brookings Institution report estimates that half of all buildings in which U.S. citizens will live, shop and work by 2030 haven't been built yet. That's good news for Cemex, which calls the U.S. its largest market by volume sales and second in revenues, after Mexico. The greatest U.S. expansion will occur in the South and West, reports Brookings, markets where Cemex indicates it already dominates. Meanwhile, construction demand in Mexico is expected to parallel the country's economic growth rate, estimated at 4 percent in 2006.

The RMC deal put Cemex in a good position to take advantage of European construction opportunities, says the CEO. Cemex's next logical move is to target rapidly growing markets, says Francisco Chavez*, senior analyst with BBVA Bancomer S.A., a division of **BANCO BILBAO VIZCAYA ARGENTARIA S.A.** (BBV). "Definitely, expansion plans are back on the table now that leverage indicators have decreased to comfortable levels," he says. Noting that any area could be a target since the Cemex formula is a proven one, Chavez nevertheless singles out China as an especially attractive market. China, the world's biggest cement consumer for the past 10 years, is expected to continue its demand for decades to come, reports the U.S. Geological Survey.

For his part, Zambrano has expressed interest in the BRIC nations (Brazil, Russia, India and China), citing rapid growth projections that will pump up demand for cement as they build infrastructure projects. Although concerns with those markets have prevented Cemex from entering them so far, Zambrano says, he keeps an eye on them, with "terabytes" of information on China and a full-time analyst checking for opportunities there. Other targets are companies where Cemex's integration know-how would increase market value, Zambrano says.

If the right opportunities don't surface immediately, though, Zambrano suggests the company's estimated $2.5 billion free cash flow would go to reducing debt at the end of 2006. As the company celebrates its 100th anniversary, Zambrano makes clear that "RMC is not Cemex's last acquisition. The best," he insists, "is yet to come."

YOUNG MANAGERS ARE ENCOURAGED TO TAKE INTERNATIONAL POSITIONS TO HELP IMPLEMENT CEMEX'S BUSINESS MODEL GLOBALLY.



CEMEX'S STATE-OF-THE-ART INFORMATION-TECHNOLOGY CENTER IN MONTERREY.

CEMEX EXPECTS THAT MOST OF ITS U.S. EXPANSION WILL OCCUR IN THE SOUTH AND WEST; THIS POOL IS IN PHOENIX.

A HEAVY INDUSTRY'S HIGH-TECH BRAIN

CEMEX'S TECHNOLOGY CENTER, located in Monterrey, Mexico, but housed in a location separate from headquarters, looks like a science-fiction film set. According to the company, access is restricted to a handful of employees who enter through high-security, double sliding doors. Inside, a transparent floor lets technicians see cables underneath while blue light glows with a spaceshiplike effect. This is home to the computer servers that back up company information collected daily, going back to 1987: millions of incoming e-mails and internal messages between employees in 50 nations and phone lines connected by voice over Internet protocol. All billing processes, which include thousands of operations a day, come to this windowless facility.

"Operations here are critical to the company," says Fulgencio Garza, the global IT-services operations manager. "We are on call 24 hours a day." The IT team's mission, he explains, is to continually improve global integration. Computer templates for many office tasks, for instance, are the same for every Cemex office in the world. "That makes all executives more productive when they travel around the world," says Romeo Siquijor, IT operations data center manager.

Apart from the company's operations, Cemex reports, the network deployment is used for videoconferencing, e-learning applications and other productivity-boosting activities.

Cemex indicates that its use of information technology has been such a success that a decade ago it decided to spin off a part of the department into a subsidiary. From that was born Neoris, which the research firm IDC now ranks as Mexico's largest IT consultant by revenues. At first Neoris depended solely on its parent, according to Cemex, but around half of its 2005 sales came from outside customers.

* Francisco Chavez, an analyst with BBVA Bancomer S.A., is not an officer, director or member of an advisory board at Cemex. Neither he nor his firm owns positions in Cemex.