



BY EDITOR PETER HANNEBERG

A Beautiful Coincidence

"It's great for ecology and great for the bottom line—so why should you not run any business sustainably?" asks Pasquale Pistorio, CEO of STMicroelectronics and winner of the 2001 Tomorrow Environmental Leadership Award.

already warming to him. It seems natural that such a friendly, empathetic soul would have a developed sense of the higher values of a sustainable society. It strikes me that Pistorio is typical of the modern, sensorial manager—straightforward, open, and eager to listen.

Which makes it even easier to understand the progress he has achieved in his sustainability efforts, and the reasons for all the awards competing for space on his office walls. One of his favorites is the 1997 European Quality Award, and he proudly shows me a picture taken at the Stockholm award ceremony, where he is flanked by Queen Silvia of Sweden and Volvo CEO Leif Johansson. The logo for this particular award adorns ST's business cards.

And it is obvious that he is happy and honored to receive the 2001 Tomorrow Environmental Leadership Award.

Much of what he has touched since 1987, the year he became CEO of what today is ST, has not only been transmuted into gold for the company, but has been elevated to a new level of corporate sustainability, social responsibility and ethical performance. And—significantly—the former has frequently resulted from the latter.

When he invested more than \$50 million to replace 50 ozone-depleting air conditioners in ST's factories with energy-saving equivalents, he recouped within two and a half years, thanks to lower power use. In the course of a chain of similar moves, Pistorio became convinced that good begets good.

"As a company, we believe in an ethical approach to whatever corporate

objectives we have. Through the years, I have seen how environmental and social responsibility efforts have rendered revenue to the company. Measures that show responsibility and concern for the environment and people are the best financial investment and payback. I am convinced that the same goes for all sectors of industry. It's that simple."

Pistorio opines that ignorant or irresponsible companies—lacking understanding of the relationship between the good and the bad—are anti-modern and have defaulted themselves from competition. And he is happy to tell them so.

But to aim your company toward sustainability you need dedicated suppliers as well. Changing the world single-handedly doesn't work. "Hundreds of companies supply the essentials that enable us to manufacture and thus conduct business," says Pistorio. "And I'm telling you, we push them. We educate them continuously. We demand they follow EMAS [Eco-Management and Audit Scheme] and ISO 14001. And they do, because they see there's profit in the long run."

Pistorio returns again and again to his concept of profit following sustainability-targeted effort, and I love to hear him call this lucky combination "a beautiful coincidence." He gives it an almost spiritual ring. But he is no preacher repeating the ST environmental credo—"reduce, reuse, recycle." No, it sounds more like a rhyme, or a poem. And this lyrical passion is attracting and retaining the young and talented for the company.

So what sustainability challenges does a company such as ST face? Well, the challenges are huge.

"First, the market for our kind of products has increased incredibly from barely existing in the early '70s," says Pistorio. "An increase in manufacturing activity inevitably means higher use of energy, water and chemicals. It also means more waste and emissions of pollutants to air and water."

ST uses acids, solvents and other chemicals. It uses perfluorinated compounds (PFCs) with a global warming potential which ranges from 6,000 to 24,000 times the carbon dioxide (CO₂) equivalent. The company's chip-making operations are highly water-intensive.

Pistorio has been responsible for inspiring and introducing a wide-ranging environmental program, including the aggressive goal of making the company CO₂-neutral by 2010. This is one of the "Ten Commandments" in ST's so-called second decalogue. The first decalogue was issued in 1995. Pistorio's no-turning-back stance on the environment had come in 1993.

Since 1994 ST has reduced electricity use by 29 percent per unit of product value, water use by 45 percent and CO₂ emissions by 29 percent. The company aims to cut emissions from 300 tonnes in 1990 down to 60 tonnes by 2010, a reduction of more than 80 percent. And Pistorio has initiated tree-planting projects in Brazil and Morocco equivalent to a sink for the remaining emissions.

In addition, ST will get more than 5 percent of its energy from renewable sources by 2010, and the company's outtake of water from local sources is being reduced by more than 10 percent per year. Paper use is also being cut back by 10 percent annually even though 90 percent of paper the company now purchases is recycled. And on it goes.

What lit the fire under him? What made him obsess over these issues? Pistorio chuckles when I put the question to him. "I have to credit my eldest son

A Passionate Grandfather

Name: Pasquale Pistorio

Age: 65

Born: Enna, Italy, in 1936

Family: Married, three children, three grandchildren

Career: 1963 Masters degree in electronics, Polytechnic of Turin. 1967 Salesman for Motorola in Milan. 1970 Marketing manager for Motorola in Europe. 1977 Director of world marketing and vice president for Motorola, based in Phoenix, Arizona. 1978 General manager of Motorola's International Semiconductor Division. 1980 Returned to Italy to become president and CEO of SGS Microelettronica, Italy's only microelectronics company. 1987 Achieved integration of SGS and French Thomson Semiconducteurs, and became CEO of the resulting STMicroelectronics.

Achievements: 1993 Launched an aggressive environmental policy. 1995 Issued ST's first environmental decalogue, with its "Ecological Ten Commandments." 1997 First corporate environmental report, and all 17 factories EMAS validated and ISO 14001 certified. 1999 ST had accomplished almost all of its Ten Commandments, received US EPA's Climate Protection Award, launched the second decalogue. 2000 Ranked corporate sustainability leader in the semiconductor industry.

Carmelo," he says. "In the late '80s, when the green movement was gaining ground in the Western world, Carmelo really worked on convincing me. Even if it took years, I eventually ended up with an environmental consciousness." One of Carmelo's propaganda tools, stuck under his dad's nose, was Lester Brown's *State of the World* report, and Pistorio swallowed it whole. He still orders 150 copies of the annual report every year to forward to his managers.

With the arrival of his first grandchildren, his sense of personal responsibility led him to a more hands-on mindset. There had to be a way to ensure that his beloved grandchildren would inherit something other than the industrial, polluting society that Pistorio himself represented.

"But the environment is only one of the areas where you have to take measures," Pistorio stresses. "You must also be dedicated to individual and corporate performance. For instance, we try to be 'total' in our pledge to quality."

This is how ST's Total Quality Management (TQM) concept was born. Internally it is known as the "total quality lifestyle," driven by concern, sus-

tained effort and daily commitment from managers and employees. Ecological commitment is inseparable from TQM—for ethical and social reasons, for financial returns, and for its ability to attract responsible and motivated employees.

Five key quality principles have been essential to the company's success, says Pistorio:

- management commitment
- employee empowerment
- fact-based decision making
- continuous improvement
- customer focus

"Our products must be highest quality and be ever-improving. Environment must be integrated everywhere into the quality system," says Pistorio.

And for the umpteenth time during our conversation he comes back to people: "Never forget people. We have some 42,000 people in 27 countries, so we do have obligations. We must educate and train them, help them develop skills and confidence, encourage their innovative and creative minds, recognize their achievements, center them in the enterprise, make them and their