Yet the fact that NSC has great potential for growth in non-steel fields does not necessarily mean it will succeed. Its many tie-ups and joint ventures with companies in prospective fields–fields NSC wants to enter itself–show that it is well aware it cannot achieve its target by fiscal 1990 on its own. In fact, says an NSC manager in charge of a new project, "If necessary, we'll take the M&A (mergers and acquisitions) road."

NSC also plans to enter into large-scale projects in such fields as services, leisure, resort development and convention facilities. The company is even getting into the hotel business, in a round of social development projects that should account for about 10% of the ¥2 trillion sales projected for fiscal 1995.

NSC is said to have huge reservoirs of talented manpower. It has also achieved a very high level of technological competence through its long and extensive experience in steelmaking. Making such a complete about-face will still be no easy task for a mammoth corporation with 64,000 employees under its wing.

The Japanese economy is experiencing a period of structural reform that will leave it producing goods and services with higher value-added than ever before. What is happening to NSC, one of the representative corporations of Japan, is a striking example of how these macro changes are filtering down to the microeconomic level. How NSC changes over the years ahead is a question of burning interest not only to its executives and rank-and-file, but to the rest of Japanese industry as well.

Yamaha: Electronic Maestro

Yamaha, which celebrated its 100th anniversary in October 1987, is aiming to become the IBM of the musical instrument industry. Its basic strategy, says Hiroshi Kawakami, its president, is globalization. IBM, of course, is the giant computer maker that leads the world computer industry. By the same token, Yamaha is an international enterprise that is already a leader in its field. IBM's business arena is the whole world, not just the U.S. domestic market. And increasingly, the same goes for Yamaha.

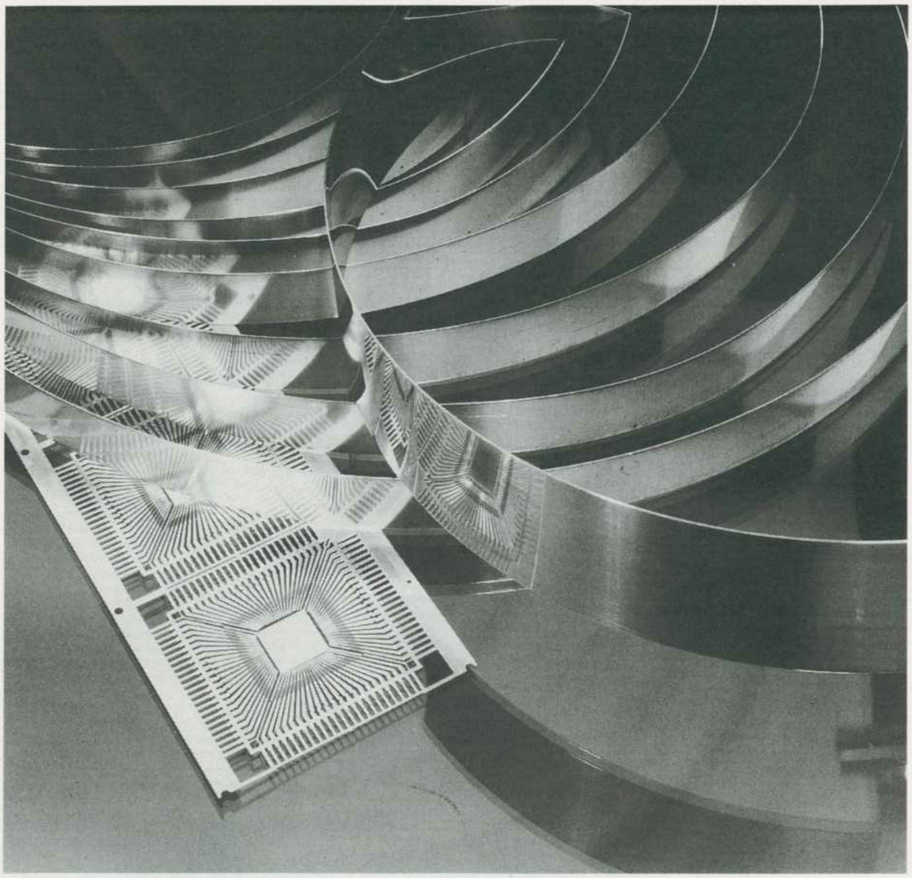
In fact, Yamaha is already a global enterprise. Yamaha executives divide the world market into four regions–North America, Europe, Asia and Oceania, and Japan. Each region even has its own headquarters. At a time when the globalization of Japanese corporations is picking up momentum, many have already set up subsidiaries in the United States, Europe and other regions. But few have located head offices overseas to promote localization. Yamaha's decision to decentralize its head office functions worldwide has made it a trailblazer for other Japanese corporations, and has not surprisingly made it the center of attention in Japan's business community.

In the spring of 1971, Yamaha got into electronics in a big way. That was when


This high-tech electronic Yamaha piano automatically plays programs originally performed by world-famous musicians.

the company started producing its own LSIs, key building blocks for a new generation of electronic musical instruments. Yamaha's microchips found extensive use in Electones and audio systems early on, then later in synthesizers and audio-visual equipment. Today the company has technology and production capacity in this challenging field that surpasses even that of specialized electronics makers.

Yamaha's most important market is the United States, which has a huge demand for a wide variety of musical instru-


LSIs produced at a Yamaha plant. Its technology in this field now surpasses that of many specialized electronics firms.

ments in every price range. In the past the company sold pianos in the U.S. through a network of musical instrument shops, and when its electronic instruments began to take center stage, they went out over the same routes.

But this sales system, while fine for high-priced instruments, proved unsuitable for volume sales of low-priced products. So Yamaha has now developed a new network of high-volume sales shops for low-priced items through capital tie-ups with major distribution chains. It has many partners, large and small, including Sears, Roebuck, J.C. Penney, Wal-Mart Stores and K mart. Today Yamaha has a formidable sales network throughout the United States.

Yamaha Corporation of America (YCA), the U.S. headquarters in Los Angeles, played a key role in establishing this sales network. YCA controls Yamaha manufacturing and sales companies not only in the United States, but also in Canada, Mexico, Panama and Brazil, and is promoting local production. Earlier this year it bought out Sequential Circuits Inc., a major U.S. producer of music synthesizers. The move gave Yamaha access to Sequential's advanced technology and manufacturing facilities for digital musical instruments and established a Yamaha production base for such instruments in the U.S. market.

Musical tradition

Operations in Europe come under the control of Yamaha Corporation of Europe (YCE) established in London. Europe, the birthplace of the piano, has a long tradition of musical instrument production, so Yamaha's sales policy in this region emphasizes electronic instruments.

Recently, Yamaha developed a high-tech electronic piano that automatically plays programs originally performed by world-renowned musicians. The program can be changed simply by switching floppy disks. The company is now promoting the new piano, and plans to incorporate the automatic playing system into conventional pianos as well within a few years. YCE hopes these "automatic maestros" will go a long way toward improving Yamaha's brand recognition in the European market.

Yamaha audio products are also imported and sold in Europe through subsidiaries in West Germany, Sweden and Britain. This past spring, Yamaha Electronics France was established in the outskirts of Paris to promote sales in southern Europe.

Yamaha's regional headquarters for Asia and Oceania is located in the Yamaha head office in Hamamatsu City in Shizuoka Prefecture. The headquarters is responsible for all production in the region outside of Japan, including Indonesia, Thailand, Singapore and Taiwan. Some of its products are even exported to other countries within the region. Electronic organs made in Indonesia, for example, are being exported to South Korea. The spread of such indirect exports can make matters complicated for the regional office.

The head office in Japan faces a different sort of problem: rising costs. The problem stems from the high wage levels in Japan, and is being met in part by developing highly automated production systems. A case in point is the Toyooka electronic musical instruments plant in Shizuoka Prefecture. Some parts and components are also being imported from South Korea, Taiwan and Hong Kong in a bid to hold down costs.

Yamaha has set a goal of reducing exports from the Yamaha group as a whole and raising local content from the present 7% to about 20% over the next several years. Nonetheless, the company says its base for research and development will remain in Japan for many years to come.