Monozukuri gives Japan its competitive edge

In English, the Japanese word 'monozukuri' can be translated as 'making things'. And it's fair to say Japan has excelled at making things since the postwar boom that turned the country into one of the world's industrial powerhouses. But monozukuri means so much more than its humble English translation. It is a manufacturing philosophy concerned with high-quality craftsmanship, innovation and meeting ever-changing demands-a philosophy on which the 'Made in Japan' brand has built its global reputation over the past few decades.

'The essence of monozukuri lies in the harmony of technology and in the Japanese people, who are very diligent and pay a lot of attention to detail," explains Chiharu Kishi, chairman of Senba Denki Kazai, a manufacturer and trader of electrical components. "Japanese products are renowned across the globe for their good quality and reliability, and this harmony has allowed Japanese companies to develop and become world leaders with the added value created by advanced technology."

A leading manufacturer of highperforming switches, NKK Switches takes the monozukuri concept one step further, with what president Tomoshige Ohashi calls hitozukuri. "Our time-tested formulae, technical know-how and quality results in monozukuri are well established, but it is important to go beyond that," he explains. "We have embraced the principles of hitozukuri, rather than monozukuri, which is quality born from people's hands. This philosophy has run throughout NKK Switches' entire history. Since the beginning, we have adopted three guiding principles: improving quality, ensuring safety and reliability, and creating functional switches.

In recent decades, Japanese companies have faced increasingly stronger competition from China and other regional competitors. But the Nippon nation continues to distinguish itself through mono*zukuri, and* particularly through the manufacturing of high-quality and tailor-made solutions in niche areas. "Chinese companies surpass Japanese firms in terms of the

volume of production, as they pay attention to quantity over quality. In order for our company not to lose out to the competition, we are attempting to go with our niche technology to areas that China or other East Asian countries have tackled," not says Satoshi Watanabe, president of work glove Towa, maker whose niche technologies include its MicroFinish coating for improved grip and innovative RO-BO Glove series of anti-slip covers for industrial robots.

Hiroshi Kubo, president and CEO of Yamabiko, a reputed manufacturer of high-performing outdoor power equipment through its ECHO and Shindaiwa brands, describes how monozukuri encompasses the company's entire manufacturing cycle. "Our strength and uniqueness rely on the fact that we are completely vertically integrated. Our *monozukuri* is present in our materials and our processes and internally we create the whole process ourselves," he says. "It is present from the engineering group to the integrated production sys-

tems, covering our materials to the finished goods we provide. We have a material research center as well as key metallurgy expertise, allowing us to blend custom materials into our products. We also maintain very strict tolerances in our designs and manufacturing processes, resulting in the high-quality products for which ECHO is known.'

Monozukurifocuses very much on acutely responding to customer needs, with household appliance maker Iris Ohyama adopting what it calls the "user-in" concept in its product development. "Iris Ohyama is based on the philosophy of the 'user-in' concept, which focuses on the perspective of the consumers and forms the basis of our products and marketing," ex-plains president Akihiro Ohyama. Having developed anAl-powered DX cleaning robot in collaboration with Softbank, Iris Ohyama isnowseeking international partners as it looks to develop more cutting-edge products and take its monozukuri quality to a larger base of global customers.

NKK Switches: Japan's switch specialist

A company boasting 70 years of experience and an everexpanding international presence, the Kawasakibased switch manufacturer goes the extra mile to ensure its products are of the highest quality.

Toggle



Train door switch

Established in 1951, NKK Switches is a leading Japanese switch maker whose guiding principles are "improving quality, ensuring safety and reliability, and creating functional switches", says the company's president, Tomoshige Ohashi.

Key to NKK's commitment to quality is the rigorous testing its products undergo. Most companies meet the minimum criteria required to pass tests, but

we go beyond that, conducting extra tests from all angles," Mr. Ohashi explains.

NKK creates conventional switches, including pushbutton, toggle and rockerswitches, as well as cutting-edge, multi-functional switches with OLED and LCD displays. "Because of our flexibility and strengths, such

as our reliability, customers know NKK can create complex and sophisticated switches," Mr.

> Ohashi says. However, conventional switches remain NKK's chief product for now, he adds: 'We shouldn't forget

about emerging countries, where demand for them is huge.



And companies that are slow in adoptingnewtechnologiesstill

request these products. There's still a market for them, and we're strnng in it." NKK's expanding global reach has seen international sales rocket from 10% of its overall revenue in 2003, to

OLED switch 50% today. "We're constantly introducing our switches to new markets," Mr. Ohashi says. "Our current target is for overseas sales to reach 70% of our total revenue.'

"It's very important to remain aligned with customers and hear their thoughts and opinions on our products, and how they're utilizing them."

Tomoshige Ohashi, President. NKK Switches Co., Ltd.

Looking to the future, NKK's goal is to work ever more closely with its clients. "We're trying to shift our philosophy from just prnduct manufacturing to becoming a solutions provider, "Mr. Ohashisays. "It's very important to remain aligned with customers abd hear their thoughs and opinions on our



products and how they are utilizing them.

