A Century of Capturing Niches

In sectors as varied as electronics, automotives, and pharmaceuticals, Nitto Denko Corporation has pursued a "Global Niche Top™" strategy of capturing targeted market segments, keeping ahead of rivals, and staying versatile.

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today, it is more than links to clients. likely that you will be manufacturer based in Osaka what our clients plan to do has the top global market share next," says Takasaki. "And by of LCD polarizers, a type of op- working closely with top clitical film used in smartphones, ents that are leading innovation computers, televisions, and oth- in their respective industries, er devices. Besides these films, we can evolve together with the more than a dozen other Nitto market." technologies (including touch sensors, adhesive sheets, and micro porous films which shut out water and dust, but allow air 1970s for calculator displays and through) are embedded in the digital watches, the tiny market latest high-end smartphones.

Nitto's dominance as a supplier for optic displays is only one of many the maker has cultivated. In sectors as varied as electronics, automotives, and pharmaceuticals, Nitto has pursued what it calls a "Global Niche Top™" strategy of capturing targeted market segments. Though originally an industrial tape maker established in 1918, Nitto has constantly squeezed new applications from its core technologies of adhesion, coatnow offers some 13,500 products across more than 70 businy concentrates on becoming changes.

f you check your email and profitability, but also vital

"As the top supplier, we have reading it through opti- the tremendous advantage of cal films manufactured getting more, better, and faster by Nitto. The Japanese information than others about

> Take displays for example. When Nitto first started making narrow strips of polarizers in the was highly specialized. LCD use then expanded into video games, TVs, computers, and later smartphones. As a dominant supplier, Nitto developed ever newer and higher-value-added polarizers in close cooperation with its clients. In the process, the company took a bird's-eye-view of the industry and pursued an intellectual property strategy that contributed to the evolution of display technology.

The next big trend in displays is a shift to organic light emiting, and polymer processing. It ting diodes. Nitto is preparing to supply many of the functional materials to be used for these ness sectors globally. Across next-generation displays, parthe huge line-up, the compa- ticularly for ultra-thin and flexible OLEDs. Despite concerns in top-runners in each. It then the industry about an increasleverages this position to keep ingly commodified smartphone abreast, and stay ahead of, market market, Nitto is confident about maintaining its presence by de-"If we were to describe Nitto veloping niche, cutting-edge in one phrase, it is our niche technologies. The company strategy," says Hideo Takasaki, estimates that revenues, per President and CEO of Nitto. "For smartphone unit, from supplyus, a niche is an evolving and ing materials for flexible OLEDs growing market segment where would be as much as 25 per Nitto can realize its strengths ef- cent larger than its current LCD business



Hideo Takasaki **President and CEO of Nitto Denko Corporation**



automotive electronic components has surged with the pro- has made a splash in the market liferation of electric vehicles and for oligonucleotides, next-genadvanced driver-assistance sys- eration biomedical therapeutics. tems. Autonomous driving sys- In 2011, Nitto acquired Avecia, tems are developing rapidly. And a Boston-based company, givas the boundaries of electronics ing it more than 60 per cent of and automotive sectors dissolve, the global market for contract the automotive business model centred on traditional carmakers has become more fluid. First-tier Takasaki explains, gives the automotive suppliers and tech giants are influencing industry direction. These disruptions are providing new opportunities for Nitto.

<u>ل</u> If we were to describe Nitto in one phrase, it is our niche strategy.

"Our business know-how, strengths, as well as contacts in the electronics sector will help us capture a larger share of automotive business, particularly in partnership with increasingly competitive tier businesses worldwide," explains Takasaki.

Nitto already produces visible light-blocking material for head-up displays and is currently developing sensor materials in radars used to measure distances between cars. Electronic insulation tape for motors, battery materials, and plastic optical cables (see column) are some of Nitto's other technologies which will be in increasing demand for next- convenient, but improve people's generation cars.

More recently, the company manufacturing of oligonucleotides. This "niche top" position, company an unrivalled view of trends in a market at its infancy. Anticipating growth, the company expanded its drug manufacturing facility in Nitto Avecia last year.

Besides contract manufacturing, Nitto has also engaged in drug discovery for oligonucleotide therapy since 2007. Nitto has also signed an agreement with US Bristol-Myers Squibb to develop oligonucleotide drugs for cirrhosis of the liver. In its "life science" division, revenues increased while profits fell yearon-year for the first half of fiscal 2017 as a result of capital investments during this period. By fiscal 2018, Nitto aims for ¥50bn in sales, representing a 12 per cent jump from results in fiscal 2016.

To a new century of challenges

With its 100th birthday approaching, Nitto looks forward to a new century of challenges.

"We see our centenary as a fantastic opportunity to reconnect with our strengths and prepare for another century of growth which we call the 'Nitto-New Century'" says Takasaki. "We hope to provide not just products that make the world lives overall."

fectively and develop competitive advantages comfortably.'

materials company nimble and profitable. For the first half-year ended in September 2017, Nitto Along with supplying electronreported a 20 per cent increase ics components, Nitto has been a in revenue and 133 per cent increase in operating income, com- tapes and materials used in the pared to the same period a year automotive sector. For example, earlier. Revenue forecasts for the the company's reinforcing tapes full year ending March 2018 were reduce vibrations and noise for also revised upwards by 7.5 per steel/aluminium panels used in cent to ¥860bn (\$7.6bn), with car doors. These materials help operating income expected to reduce the weight of vehicles and jump by 35 per cent to ¥135bn.

Advantages of the niche top

Becoming a dominant supplier ensures not only high growth

This approach has kept the Converging into automotive electronics

> significant supplier of industrial their environmental impact.

Beside these industrial materials, the ever-accelerating electrification of cars in recent years has opened another window for growth. Demand for

Pursuing opportunities across diverse dimensions

Nitto's niche strategy is complemented by a "multi-dimensional" business approach rooted in its core technologies. Its trajectory in the medical industry is a prime example. Since the 1960s, the company had produced various medical adhesive tapes, including bandages as well as patches placed on the skin to deliver drugs, such as for asthma and hypertension. This business line continues with innovations such as the Nitto PassPort[™], an advanced patch system that creates micropores on the skin to deliver biological drugs.

To this end, Nitto has announced that it will be focusing on generating greater value in the three domains of Green (environment), Clean (new energy), and Fine (life science).

To gain greater global brand awareness for these goals, Nitto has also become the first Japanese title sponsor for the Nitto ATP Finals. The world-class tennis tournament, Takasaki says, embodies the spirit of challenge and global level competition to which Nitto is committed. Like the tennis stars who competed in London this autumn, the Japanese company is keeping its eyes on the ball, ready to return whatever falls in its side of the court.





Nitto has excelled in producing materials for electronic devices used in output, such as optic films for LCDs and OLEDs, as well as in input, such as conductive films for touch panels. Nitto felt that new value would be generated by providing technologies which transmit data between the two ends. So in September, the company announced its plans for developing and commercializing a new type of plastic optical cable.

The new plastic-based cables, being developed together with Keio University, feature a number of advantages over existing ones made of glass or wire. In addition to being able to transmit highspeed data transmission of over 100 Gbps, the new cables are lighter and more flexible. These features allow mass data transmission in more compact spaces. Being also resistant to noise, the plastic cables can achieve undisrupted transmissions in environments with other radio waves, such as wi-fi.

One of the new cable's key applications will be 8K TV displays (which use 7,680x4,320-pixels and provide 16 times as sharp a resolution as standard high definition TV). Japan's national broadcaster has announced that the 2020 Tokyo Olympic Games will be fully broadcast in 8K, leaving TV makers and component suppliers rushing to supply markets before the opening

ceremonies. 8K imaging has also been used for medical use with endoscopes, cameras used for taking images inside bodies. The new plastic optical cables are also highly heat and shock resistant, making them ideal for connecting information and electronic equipment onboard planes and in cars. Its flexibility is also useful for optic cabling in smaller, movable parts of robots and drones.

With the huge range of potential commercial applications, many of them converging with Nitto's "Green, Clean, and Fine" domains, the plastic optical cable business is expected to become a key growth pillar for the company. Nitto has announced plans to establish



Left: electric cables, right: new plastic optical cable. The amount of cable needed to transmit the same quantity of data.

mass-production by 2019 and generate as much as ¥100bn in revenues by 2023 from the plastic optical cables.