



# Human development key for ABLIC's analog semiconductor excellence

Since its rebranding in 2018, ABLIC has become a global leader in analog semiconductor technologies and solutions.

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It all started for ABLIC back in 1970 when its in-house development of complex components led to the production of the world's first practical quartz watches. Since its 2018 rebranding, the company has been transformed under the leadership of its president and CEO, Nobumasa Ishiai.

"The formation of ABLIC in 2018 enabled us to completely turn around the company's stagnant situation," Mr. Ishiai says. "The company has expanded along with its entrance into the electronic devices and sensor business fields with new technologies such as our highly sensitive, Bluetooth-linked water detector named CLEAN-Boost."

ABLIC has managed to boost its annual operational profit approximately three-fold and seen significant improvement in its *Cash Conversion Cycle* (CCC) in the last 4 years – a level of success that is equivalent to that of a giant global semiconductor company.



Clean room at Takatsuka Unit in Chiba

These impressive gains in the company's value can be boiled down to three main measures, which were enacted at ABLIC along with the original company's foundational strength and based on Mr. Ishiai's former management experience of more than 30 years in five global companies.

"First, instead of cost-conscious sales, we presented our

uniqueness throughout the value chain, then successfully obtained our customers' understanding of the optimal price improvement for the total corporate value. We called it 'Value Selling,'" Mr. Ishiai says.

"Second, we also strengthened seven criteria comprising strategies and checkpoints for new product introduction, re-boosting our core competence, and reflecting our customer's needs in the process. One of those was what we call 'rising dragon and horizontal development'. This entails the drastic reallocation of invest-



CLEAN-Boost's battery-less water leak sensor

ment and management resources into the best performing fields of an industry, and then taking a successful case and developing it horizontally across the world to improve profitability. This is what we call 'Value Products'," he explains. "In addition, by utilizing the strengths of IDM (integrated device manufacturing including both wafer and packaging) to swiftly try out new products in the departments responsible for the development, manufacturing, and marketing and sales, including full involvement of branding promotion, we achieve quicker expansion of sales after the initial launch period.

"Our third measure is to improve sales and purchasing forecast accuracy, external fab-

rication, and inventory controls; create more streamlined supply chains spread across our diversified product portfolio and global locations; and realize global top-class CCC and profitability. It is also known as 'Sales and Operations Planning'. These are executed with elaborated project management methods."

Mr. Ishiai continues: "Now we have a product portfolio like no other semiconductor company in the world, featuring a wide array of analog semiconductor solutions, from battery-less sensors, UV cameras for aerospace technology, and components for automotive and medical integrated circuits. Targeting these niche markets has allowed us to avoid directly battling with other big competitors, which is a leading cause of failure for many companies. Our strategy is to explore the world by seeking out global niches within the market, while continually assessing our specific strengths and understanding our weaknesses."

Digging deeper into his personal background, Mr. Ishiai says: "My diverse leadership experience and lengthy career in manu-



Sign board at Tokyo International Airport

facturing allow me to bring a seasoned perspective to the table. I learned a lot from gifted leaders overseas, including Jack Welch.

While I worked at the Center of Excellence at GE Plastics HQ in the U.S. He taught me to 'be



ABLIC bus running in Tokyo

crazy enough' to have no fear, no concerns, and no hesitation. Just concentrate on the objective and go for it with passion.

"Another important lesson I learned was from my mentor, Nani Beccalli (former CEO at GE International), which was about authenticity and the importance of always being yourself."

Aside from his colleagues, further inspiration came from Mr. Ishiai's father when the two went on an impressive trial run on the then-new Shinkansen (high-speed bullet train) together. "A lot of Japan's technological brilliance from the past is deeply rooted in my memory," he reveals. "Within a short timeframe, I want to see the revival of Japan as the technical innovator of the world. Taking root from the culture of *monozukuri*, we will push ABLIC forward as a global company, with international employees all working towards the same progressive future, as a part of the MinebeaMitsumi group.

"Here at ABLIC, I will pass down all my experience to my staff, similar to the way a semiconductor works, from input to output."

It is important to remember that ABLIC is an analog semiconductor company, not a digital one.

"Being an analog semiconductor maker requires a specific type of craftsmanship and a highly detailed design process," Mr. Ishiai explains, "but the result is a highly valuable and intelligent product that cannot be found elsewhere. I want more people to know this truth soon, because the current state of our world not only demands our product, but will benefit from it. It will make the world a smaller, smarter and simpler place to live for SDGs (U.N. Sustainable Development Goals)."

"My credo has been shaped by my past experiences; that is, to live life with humility, warmth, and gratitude" adds Mr. Ishiai. "This mindset is born from *monozukuri*, reflecting the strength of Japanese companies, often defined by their high quality. Product management and speed are crucial embodiments of this culture, but I believe the most important aspect is the people in the company. They are the ones making the changes and pushing the company forward. Even if you have the greatest product in the world, if the people working for the company are unmotivated, the product won't be improved and sales will drop. Inspiring motivation within our employees is on the top of my list, allowing us to innovate and achieve continuous sustainable growth."

"The current state of our world demands our intelligent product, which will benefit it and make it a safer, smarter and simpler place to live."

ABLIC recognizes that *monozukuri* is not only important in the manufacturing process but is deeply connected to customer satisfaction.

"In the Japanese language, the attitude of how to fulfill customer satisfaction is called *omotenashi*, a principal goal for us," says Mr. Ishiai. "This is achieved through our strengths stated above; it is a fully interconnected process."

The branding of ABLIC, a name created from ABL and IC (integrated circuit), expresses that semiconductor technology enables possibilities, and has been key to the company's suc-



Banner ad in Ginza, Tokyo

cess across its various operations. Along with its logo, Mr. Ishiai says "it conveys our corporate vision of inspiring customers with 'Small, Smart, and Simple' analog semiconductor solutions. This strong branding strategy is a differentiating factor among other B2B companies, and is a leading reason for why our employees are proud of where they work.

With a company vision of 'Small, Smart, Simple,' the president makes it clear that this is reflected across the eight unique product lines of its portfolio, all of which are in line with U.N. SDGs.

"We are always looking for more natural and renewable resources to utilize," he says. "Our portfolio consists entirely of analog semiconductor products, and we have a good eye for quality."

With some exciting products in the pipeline, Mr. Ishiai highlights that the company's R&D focuses mainly on *new applications* and *components* for products rather than new products themselves. "We see this as a more direct, immediate and targeted approach to support the customer," he explains. "You could actually call it *application development* rather than research and development. For example, our CLEAN-Boost technology takes only a few drops of water and turns it into energy. This technology unlocks unlimited possibilities and received an admirable award from IEEE (Institute of Electrical and Electronics Engineers) in the United States following its release in the market. We are exploring new applications for this technology related to water leakage sensors for residential or office buildings, and also within the nursing field. I think *application development* is

a great approach to transform a problem into a solution. It really is a balancing act, because customers do not just demand a suitable price, they also demand a specific function in a sustainable way."

Although we are a Japanese company, ABLIC ventures far beyond its borders. "Our efforts and customers are on a global scale," says Mr. Ishiai, "with sales and design conducted in the United States and Europe, and production measures operating in various locations across Asia."

Maintaining this strong global position in the industry is a priority for ABLIC. "Currently 70% of our sales come from outside



Monozukuri craftsmanship, transition over generations

Japan, and we are looking to increase that further. I put the company's impressive ability to accomplish this in such a short period of time down to the work ethic of our employees," says Mr. Ishiai.

"We are organized in such a way as to minimize lost time and bottlenecks, and to identify improvements in each process for the benefit of the customers. By having a geographically diverse operation, we can be sure that all of our customers benefit from our total service solution. Being located all around the world, we are able to provide full support to our clients wherever they are. We pride ourselves on our quick communication that allows us to answer customer inquiries within a 24-hour window, no matter where in the world they are."

Another important aspect is working together with other high-level global professionals.

"We currently have some new collaborations in our development process. We are looking

to work with new design houses and external professionals both in Japan, and overseas. Furthermore, we are collaborating with a number of renowned university professors to develop new technologies.

"Regarding international business partners, we see no borders," affirms the president. "Wherever there is a need, we are willing to work together with others. We are focusing on current global objectives and trends where we can present our niche *product applications* to showcase our superior technological strength and quality. Our strategy moving forward is to expand our presence

in Europe and the U.S., where we see the highest potential."

Although the situation is already positive for the company, Mr. Ishiai is still looking into the future with a sharp eye for improvement.

"Added value, in my opinion, not only comes from manufacturing high-end products, but also from the enthusiastic branding of ABLIC, the continuation of product development, superior sales and support, and employee satisfaction, which in turn all deliver the best customer satisfaction. This is our *monozukuri* mentality, to be translated through the generations."

