

**Episode 19****From Hitachi to Sony**

June 22<sup>nd</sup>, 2000. It was the day when a big turning point in my semiconductor life arrived. In the evening of this day, when I was having dinner at home, Sony's Nobuyuki Idei (then president) gave me a direct phone call.

I got acquainted with him in February 1997 at the event of Hawaiian Open which was the official tournament of the US golf tour. Canon was the sponsor of this tournament. The company invited executives of domestic semiconductor makers to this tour event, and Hiroshi Tanaka, Vice Chairman of Canon, was taking care of it. I also received an invitation together with my boss Iwao Matsuoka, Vice President of Hitachi, and I met Idei in this event. Photo 19.1 is the one when we played golf at this time. I learned that Idei was a tremendous long driving hitter when we played together. He would aim at two-shot green-on even for a long hole over 500 yards (successful or not is another story...).



Photo 19.1 Participants invited by Canon at Hawaiian Open  
(From left: Nobuyuki Idei, The Author, Takeshi Hosaka, Hiroshi Tanaka)

Well, the purpose of the phone call from Idei was to ask me to help Sony strengthen their semiconductor operation. As for the basic thoughts on semiconductor, Idei and I shared the opinion that synergistic development of digital consumer products and leading-edge semiconductors was important for Japan into the future. Idei was taking the leadership of Sony's shift from analog to digital technologies under the catch phrase of "Digital Dream Kids".

At that time, for most of the top management in many major Japanese electric and electronics manufacturers in Japan, the semiconductor was something troublesome because they could not

have clear idea how to manage it. Hitachi was not an exception, far from having an idea of strategically utilizing semiconductors.

I felt an excitement that bubbled with expectation, and I quickly made up my mind to join Sony. At the same time, I also felt anxiety, and thought "Wait a moment." I expressed my gratitude to Idei for the call, and told him that I would come back to him later for the answer.

Well, Hitachi and Sony are in the same electronics industry which are in the competitor relationship, and are rivals with each other, so to speak. There was no precedent case such as transferring between rival companies in Japan. I have an important human connection with the people whom I have built over the years in the Hitachi group, having over 300 thousand people. Can I cut off such connections? Wouldn't it be like "leaving a feudal clan if it had been in the Edo era"?

Meanwhile, Sony's movement was fast. This sense of speed was not what I had experienced at Hitachi. Soon after the phone call from Idei, I received a call from Minoru Morio (then Senior Managing Director & CTO) and he proposed to me to talk together over the matter in depth on a dinner table. And on June 28, there was a dinner with Kunitake Ando (then Vice President) and Morio, and we frankly discussed about the matter. This day was just before their shareholders' meeting, and it must have been very busy and restless time for both of them. This situation made me feel their zeal of enthusiasm even more strongly.

After this discussion, I was given an opportunity to visit their semiconductor factories by their arrangement. Sony's main semiconductor factories at that time were in Nagasaki and Kagoshima in Kyushu Island. The schedule was decided to be on July 11, but I could not think of a good idea how to efficiently visit these two factories in one day.

And again, it was a surprise for me which was unique to Sony. They proposed that we would fly on the company-owned jet aircraft and visit both factories in one day.

On the morning of July 11, I flew from Haneda to Nagasaki with Morio, also accompanied by Takeo Minomiya (President of the semiconductor company of Sony at that time). The executives of Sony Semiconductor Kyushu, including Nobuhiro Hamasaki, the President, welcomed us at the airport. The production of LSI for PS 2 (game machine) had just started at that time, and the factory was very lively. PS 2 was one of the biggest strategic products for Sony at that time. However, as I learned later, they were suffering from the yield problem, and the first thing I did after joining Sony was to instruct them on the yield improvement.

After finishing plant tour and lunch at Nagasaki, we flew to Kagoshima Airport and headed for Sony's Kokubu Plant. This was the first factory that started mass production of CCD at Sony, but at the time of year 2000, it covered a wide range of products such as analog and compound semiconductors in addition to CCD. It was a time when the market for digital cameras was developing rapidly, and the eyes of the workers were shining brightly.

Through such preparatory stages, I decided to transfer to Sony. I was going to visit Idei at the Sony's headquarters to tell him about my thoughts, but here was a little mistake.

On that day I took a car with enough time to spare not to miss the appointment. The Shinagawa area had many Sony buildings, as it was also called “Sony village”. I told the driver to go to “Sony head office”, but I didn’t notice that the building where the car arrived was a building different from the headquarters. When I went to the reception desk and told “I would like to meet President Idei”, it did not go through, and I now recognized that I was in a wrong building.

I hurried to the right building of headquarters as I was advised, but I was late for the appointment by 15 minutes. I apologized for being late as the first words, but it seemed Idei did not mind, saying “This kind of thing happens often in Shinagawa area, and I thought it would be the case this time, too.” I was relieved and felt a kind of affinity with him.

In this meeting I told him my decision to join Sony. I also asked him to meet President Shoyama of Hitachi to get his agreement in order to carry things smoothly. Idei not only acknowledged this instantly, but also called his secretary on the spot and gave an instruction, “Make an appointment with Mr. Shoyama at his convenience. You can change my schedule.” The dynamic sense of speedy action at this time was also a fresh surprise to me.

After the top talks of both companies, I quit Hitachi at the end of September and joined Sony on October 1. I was invited as a senior executive officer, and it was two years after the disposition of two-stage demotion in 1998. I felt a deep emotion that I finally crawled out of the bottom of deep valley.

Movement of officer class person from Hitachi to Sony was unprecedented and many media picked it up. Although my fellow people in Hitachi, who I had shared pleasures and difficulties with, were surprised at first, but they understood and encouraged me at the end. I was truly happy about that.

Hitachi is still a semiconductor hometown for me, and friendships in my days at Hitachi will never end. Actually, I am hosting a group of “Semi-no-wa Circle” of old boys of Hitachi semiconductor. This is a side story here, but I would like to briefly introduce this group. “Semi-no-wa (Cicada’s ring)” is a word not found in the Japanese dictionary, but it means “a circle of people connected by Hitachi Semi (cicada) conductor.” The reason is that “Semi” has the same pronunciation with Cicada in Japanese.

It was when I went to Singapore on a business trip sometime after I left Hitachi and joined Sony. At that time, Yuzo Kita, who was serving as the president of a design company of the Hitachi semiconductor group, arranged a friendly reunion for me. I was pleased with the friendship from the Hitachi days, and we enjoyed the talks very much over dinner. And we agreed to an idea of a friendship reunion circle of those who “graduated” from Hitachi semiconductor.

In the spring of 2003, when Kita returned to Japan after his retirement, the first golf gathering was held. This was the start of the “Semino-wa Circle”. Currently, in addition to golfs twice a year, New Year’s party, and autumn event, etc., we also make our homepage, and have extended this circle to overseas members.

At the beginning, it was a start with about 10 members, but the members are now over 130 people, as a friendship organization of “fellow soldiers of Hitachi semiconductor who had shared pleasures and difficulties”. At the end of the annual New Year’s party, it is customary to chorus our cheer song for Japanese semiconductor, “Sun rises again in our semiconductor”.

Now, my role in Sony was a semiconductor strategy officer with the title of “Chairman of Semiconductor Technology Board “. The mission was to discuss the semiconductor strategy of the whole company at the meetings of the executive management of product groups, research groups and the semiconductor group gathered together, and to share the road map among them. It was a deliberating body of a strategy to maximize the power of advanced semiconductors for the differentiation of Sony products.

At that time, there was a big debate in Sony over the direction of future semiconductor technology development.

While the highest performance device was required for the next generation Play Station (PS-3), but on the other hand, cost and power consumption were more important in the applications of consumer products such as digital cameras, camcorders, Walkman, TV, DVD, and so on. It was argued how to deal with different requests from both sides.

One way was to cover both fields using state-of-the-art SOI (Silicon on Insulator structure with silicon layer formed on insulating film) technology. Another way was to focus SOI technology only for Play Station, and to develop bulk CMOS for consumer applications.

I made a detailed analysis of the application of semiconductors in Sony, and argued strongly that we should make clear distinction between high performance SOI devices for Play Station and low power devices for consumer applications.

Finally, the discussions converged in this direction, and it was decided that the development of SOI technology was to be promoted in the collaboration of IBM, Toshiba and Sony, and the development of bulk CMOS technology by Toshiba-Sony collaboration.

In 2001 I also took the role of the president of Semiconductor University which was established by the idea of Minomiya, the semiconductor company president. As a part of its activities, in order to prepare for further globalization of business, we selected a little less than ten engineers every year to be educated for global leadership. It was aimed at nurturing human resources with the capability of playing the lead role and chairmanship at international conferences and industry meetings. After completing the one-year training, they visited European research institutes and universities, and made presentations in the form of a technology exchange meetings. This education course was called “Makimoto school”, and the cumulative number of the trainees totaled over 30, and they are all actively playing the core roles in their workplaces. Photo 19.2 was taken at the time of European training of the inaugural class members.



Photo 19.2 European training of inaugural class members of “Makimoto school” (in front of Big Ben in London)

When I joined Sony in 2000, the sales amount of semiconductors was 410 billion yen, ranking ninth in Japan. It was in a minor category, but 6 years later, in 2006, it expanded to 780 billion yen, and it ranked third place following Toshiba and Renesas. I have spent most of my lifetime dedicating to semiconductor, and as such, it was the greatest happiness that I could work in such strong momentum as my last job in this field.

During my tenure at Sony, one of the highlights in my semiconductor life was that I was awarded Bellwether Award at the international conference organized by Semico Research, USA, in March 2004.

The etymology of bellwether is “a ram leading a flock with a bell on its neck”, which in turn means a leader or a pilot. This award was founded in 1999 and is awarded annually to a company executive who has made a great contribution to the semiconductor industry. Prior winners include Morris Chang of TSMC, Steve Appleton of Micron, Wally Rhines of Mentor Graphics, and Jerry Sanders of AMD, and they are all renowned people in semiconductor industry. I feel that receiving the prize equal to these luminaries is the highest honor for me.



Photo 19.3 Awarding ceremony of the Bellwether Award (Left is Jim Feldhan, president of Semico Research)

Hitachi and Sony. Both are big companies representing Japan in Yokozuna (Sumo Champion) position, so to speak. After various twists and turns, I was able to work at such two great companies, and I feel I should thank Heaven for “having enjoyed my life twice”.

I hope I will have another opportunity to introduce the differences between the company cultures etc. of both companies.

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