

Hit the North

Continuing her investigation of Japan's emergent industrial clusters, **Tamura Mariko** visits Hokkaido, the northernmost of Japan's four main islands, where a Super Cluster Promotion Project involving some 300 companies and 16 universities is starting to yield results.

The Hokkaido Super Cluster Promotion Project is one of nineteen clusters nationwide that bring together industrial, academic and government circles in both a collaborative and competitive way to increase productivity, induce innovation and develop new businesses. As part of the concept behind the Hokkaido cluster, a study group consisting of four economic organizations, centered chiefly on the Hokkaido Economic Federation, was set up in 1996 and went into full operation in 1998. The aim of the project is for companies located in Hokkaido to work together to complement one another's technology, products and know-how and develop new markets. Specifically, the cluster is expected to help generate added value in both the IT and biotechnology industries.

One of the cornerstones of the Hokkaido Super Cluster Promotion Project is its Information Technology Cluster. According to the Hokkaido Bureau of Economy Trade and Industry (METI Hokkaido), the distinctive characteristics of this cluster include "strong technical capabilities, including the emergence of university-originated venture businesses, and the benefits of a human oriented regional network environment. This cluster differs from industrial clusters in other regions in that it is developing with a focus on venture businesses."

Although the name Sapporo Valley is well known throughout Japan as an advanced region in the field of IT (Sapporo is Hokkaido's biggest city), the main line of business for the majority of IT service companies is actually contracted development for other major companies. Results gathered from a questionnaire-based survey of 375 business premises in Hokkaido conducted by METI Hokkaido show that IT industry sales for fiscal 2002 came to 288.6 billion yen, with that total reaching approximately 300 billion yen (2.8 billion dollars) in fiscal 2003. Despite a slump in the Hokkaido economy, this field grew by 3.9% from the previous year and has recorded an increase in sales for three consecutive years. The number of workers em-

ployed in the industry has also increased annually for six years in succession, going up 4% on the previous year to roughly 17,000 in 2002. Both sales and employment figures are growing steadily (**graph**). A look at the sales figures reveals a prevalence of small-scale companies, with companies with sales totaling less than 500 million yen accounting for 70% and those with sales of between 500 million yen and 1 billion yen accounting for a further 10%.



Representatives of IT and biotechnology related companies based in Hokkaido and Kansai gather in Kansai for an event sponsored by METI designed to match up such companies and promote cooperation between the two regions.

METI Hokkaido has singled out one problem area for IT-related companies in Hokkaido: "The majority are small-scale companies that also lack management resources, such as human and capital resources, making it difficult for individual companies to carry out the full chain of activities from the planning stages to marketing and delivery on their own."

Sapporo Valley is made up of two types of companies. One type is system and product based companies trying to compete through advanced IT technology. The other is contract development companies that take on contracts for the likes of developing business IT systems or data processing work. The METI Hokkaido survey showed that, while sales for product-based companies were at around the 18.2 billion yen scale, sales for contract development companies were over 250 billion yen.

Sapporo Valley has also come to attract attention for its low-cost policies for companies. Major companies have chosen to locate semiconductor and system design units in this area, including IBM Japan, NEC, Sony LSI, Dai Nippon Printing and Toppan Printing, most of them aiming to cut costs.

The Sapporo city government's efforts to promote new businesses and attract major companies to Hokkaido using business incubation facilities are making headway. A diverse range of initiatives designed to nurture the IT industry have also been put into place, including the establishment of NPOs (nonprofit organizations) working on the development and use of the Hokkaido IT Cluster Forum's open source technology, which is itself a joint effort between industrial, academic and government organizations.

What is more, Hokkaido University runs an advanced IT human resource development course designed to nurture advanced human resources. In terms of e-government too, there are a striking number of progressive initiatives, such as the use of open source technology and joint investment on behalf of the prefectural government and the people of Hokkaido in companies that run Hokkaido's common IT infrastructure.

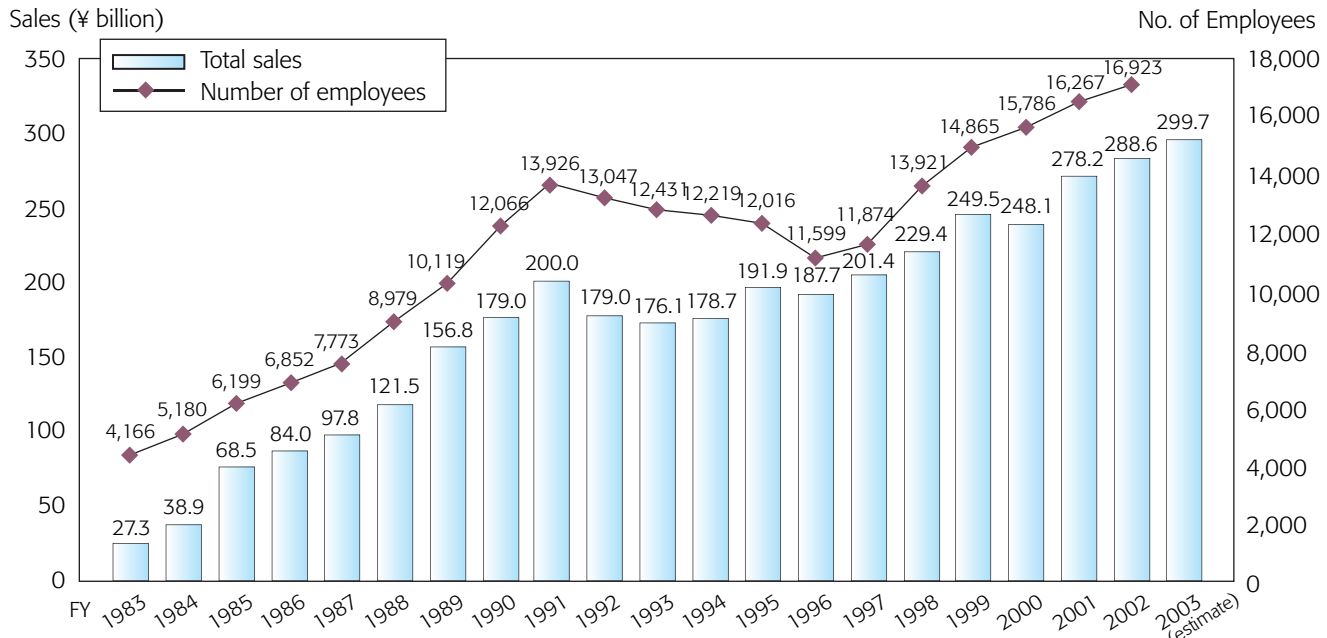
Although efforts such as these have started to yield results, they are limited to the domestic relocation of engineers and technicians as a means of cutting costs. Measures to support the expansion of the market for research and development-based venture companies are even said to be virtually nonexistent.

The Human Touch

According to Nakamura Masaki, president of contract development company DGIC Corporation and chairman of the Hokkaido IT Cluster Forum working meeting, "As it stands, the innovative development and design potential that could inspire companies to want to place orders in Hokkaido rather than in China despite the higher costs is simply not being developed and accumulated."

In June of last year, Nakamura, who feels that "to rebuild the Hokkaido economy from its prolonged slump in the short term, it is essential to work on building up the sense of community that is deeply rooted in the local area," brought together six IT related organizations, including the Hokkaido Multimedia Association, the Hokkaido Software Association and the Hokkaido IT Industry Council, to form the

Total Sales and Number of Employees in the Hokkaido IT Industry



Source: IT Report 2003, METI Hokkaido

Hokkaido Information and Communication Technology Association (HICTA) and took up the post of chairman.

An IT liaison meeting was then set up within HICTA in September 2003. Through the mediation of a “bridge builder,” known as the IT Bridge Leader, the meeting aims to create opportunities to develop a clearer idea of business models that local industries actually hope to put into practice and get the value of IT across to customers.

HICTA’s key theme is that of cooperation. “We need to ensure that the IT industry in Hokkaido can be said to be unrivaled in terms of introducing IT into areas you might call highly competitive local industries, such as the food and tourist industries,” points out Nakamura. “As this is not the case at present, IT-related companies need to work in strategic cooperation with one another and actively pursue links with other industries.”

Nakamura goes on to remark, “Of course, we need the appropriate human resources in order to make new types of col-

laboration possible. However, as it is thought that we do not have enough time to educate and train people, we should really be working on developing initiatives that will enable

the increased mobility of human resources. In other words, we need to introduce bold policies, such as incentive schemes that will enable highly skilled engineers and technicians to relocate to Hokkaido with a minimum of fuss.”

METI Hokkaido also defines the completed super cluster project, which represents a key industrial development policy, as being “the situation resulting from the development of the reciprocal relationship between IT and local industry in synergy.”

Rather than merely creating opportunities to grasp needs, in the future the IT liaison meeting hopes to widen its perspective to incorporate the idea of “developing software that customers think would be a good idea to help make their lives easier, with the IT industry footing the costs,” Nakamura says.

“We will then package the completed software together and use the domestic distribution rights as collateral. According to IT industry sources, despite the risks involved in package distribution, we will obtain a product that incorporates customers’ opinions. We might well be able to use this to help us break away from contracted work.”

In March of this year, METI Hokkaido summed up the results of three years of the Hokkaido Super Cluster Promotion Project, describing the current situation as one of being “in the process of laying the foundations for self-sustaining development.”

There are currently forty-six university-originated venture companies in Hokkaido (as of the end of March 2004),

sixteen of which are IT-related companies, roughly 30% of the overall total. The number of new companies since April 2001 is up to twenty-nine, 2.7 times the total of three years previously.

Super Cluster II

Initiated by METI Hokkaido in May of this year, the Hokkaido Super Cluster Promotion Project II is a new strategy intended to take the next step forward.

According to METI Hokkaido, “Our initial aims are to establish numerical targets for three years’ time, to produce visible results and get closer to a level fit to be called ‘industrial creation’. The numerical targets are 440 billion yen in sales within Hokkaido in the IT and biotechnology industries and fifteen new public companies.”

Whether or not the “foundations for self-sustaining development” will actually function in the future is something that remains to be seen. As suggested by METI Hokkaido’s statement that “producing successful examples is key,” having boosted local development and laid the foundations, what Hokkaido is now waiting for in order to move on to the next stage of genuinely building up industry is a role unique to Hokkaido itself. What form will management strategies and the cluster project take as they extend their horizons beyond Hokkaido to include the rest of Japan and the world? The future is full of possibilities. ■

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Nakamura Masaki, president of DGIC Corporation

COURTESY OF NAKAMURA MASAKI