

Dutch women bid for techno parity

By **YOKO HANI**

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AMSTERDAM — Seen from Japan, a country known for dragging its feet in terms of gender equality, the Netherlands is often regarded as a model of social enlightenment.

In fact, the Western European nation ranked 6th out of 93 countries in the United Nations Development Program's Gender Empowerment Measure in 2007, only trailing Scandinavian countries to the north. Japan was 54th in the same league table drawn up by tracking women's participation in politics and business.

However, all is not as it may seem. In common with Japan and other countries, the Netherlands is currently wrestling with how to get more women into conventionally male-dominated fields — specifically science and technology.

The Dutch gender gap in the science field was highlighted in 2005 in an Organization for Economic Co-Operation and Development (OECD) report on education. This showed that among a random sample of 100,000 employees 25 to 34 years old, 1,140 men had a university degree in science — but only 300 women. That compared with the OECD average of 1,398 men and 858 women.

Faced with this, though, what sets the Netherlands apart is that Dutch women are leading the way in initiatives designed to correct the imbalance.

For instance, there's Technika 10 Nederland, an NPO founded in 1986, which organizes a network of females-only technology clubs and courses.



Girlsplay: Two young Dutch women work on a computer as they overcome gender barriers in a program organized by the women's group Technika 10. TECHNICA 10

Since it was started here by three women dissatisfied with the low female presence in technical education in the country, the group has striven to spread the message that women should be given more opportunities from childhood to learn the simple fact that "science and technology is interesting" — rather than receive the stereotyped idea that "technology is something for boys, something dirty and heavy and not interesting," as Mieneke Knottenbelt, director of Technika 10, put it.



Hot ticket: Young women on a Technika 10 program in Amsterdam expand their often stereotyped horizons with a visit to a firefighters' station earlier this year. TECHNIKA 10

"I have three daughters, and I thought they should do things themselves when they grow up, and not think 'I cannot do something because it's technical, and I will have to wait for my husband or boyfriend to do it.' That was why I thought they should learn something more about technology."

But when Technika 10 started, Knottenbelt said its activities were often seen as being rather strange.

"Many people said we were crazy because we wanted to start something with girls and science. Nowadays, though, there is more positive attention being paid to Technika 10."

The group now organizes about 600 science and technology clubs throughout the country, targeting girls around age 10 — from 8 to 15, in fact — which is the reason they call themselves Technika 10.

In the past 20 years, the number of participants in their club activities — which include woodworking, computer dismantling, Web-site designing and various science experiments — has grown dramatically.

Their so-called Girlsday programs, which ran for a week in April this year, for example, attracted 1,000 participants — up from 100 in 2004 when they started Girlsday events.

Moreover, this year, R.H.A. Plasterk, the Dutch minister of education, culture and science, paid a visit to one of the Girlsday programs and announced the ministry's plan to provide extra financial support for school programs that help to foster the involvement of more women in science and technology.

"It (the minister's visit to their event) was a special moment," Knottenbelt said. "After so many years, the government is now saying that it is important to do something regarding girls and science."

Plasterk said in an interview that a labor-force necessity has pushed gender equality further in the areas of science and technology.

"As for the technical jobs," he said, "from the point of view of gender equality, it is fortunate that the economy has been speeding up, because we really need everybody to fill our jobs right now."

Plasterk, a biologist, said that when he was a professor in his field, half his students were always women. But as for professors, he noted that only about 5 percent are women — statistics that he said clearly illustrated the issue to be tackled.

"It is a loss for society because half of the talent remains unused for a large part of their career," he said.

The government's move is also significant in view of the European Union's aim to become a highly competitive, knowledge-based economy by increasing the number of employees in science and technology, as agreed to in the 2000 Lisbon Strategy, said Cocky Booy, managing director of VHTO, another group promoting females' participation in science and technology. In pursuit of this aim, she said that unlocking women's potential could be a key to success.

VHTO, an independent organization to facilitate the networking of female science, technology and engineering professionals, organizes projects to increase the involvement of women and girls in technology education and technological employment in the Netherlands.

While the activities of Technika 10 target girls around 10 years old, VHTO's projects target those around 15 or older.

Booy said the activities for these age groups are important because many girls tend to regard school science courses as being difficult, and so feel uncertain they can manage them. That attitude may be resulting in the smaller number of female university students majoring in science, she said.

In addition, these students have fewer opportunities to learn about science and technology professions and consider such job choices because they have less

chance to see women (rather than men) engaged in these professions, she added.

To improve the situation, VHTO sends female professionals to schools, and also runs a database that helps female science professionals too, by giving them opportunities for networking and information-exchanging.

Female university professors are also forming a group and taking the initiative to encourage more women in academia — in science and in other fields as well.

Called the Dutch Network of Women Professors, this group founded in 2001 now includes almost all the female professors in the country, said its chairwoman E.A.J.M. Goulmy, professor of transplantation biology at the immunohematology and blood transfusion department of Leiden University Medical Center.

"At the time we started, in Holland only about 6 percent of all professors in all disciplines were women, which was very low. That was the reason to start this," Goulmy said. Since then, the proportion has been gradually increasing — to 10.5 percent by December 2006 — though that figure does not include female medical- faculty professors, she pointed out.

To have more women in university jobs — especially in high positions — the group regularly holds talks with key players such as the government, university boards and academic societies to find out what they are doing to get more women into university posts.

The group also works to encourage women in academia by organizing symposiums and other programs where they can learn how best to promote themselves.

"When I started my career, I was not thinking of making a career," Goulmy said. "I just liked my work. I was fascinated by science. I am still fascinated by the science that I am doing. I was not thinking of becoming a professor. I kept on working and I was determined to make the best of it. My mother always tells me that I am educated and I have to be strong. She says, 'Don't cry — and go on!' So maybe I got where I am because of my character," she said.

"Both the other co-founders of our society and I are women who achieved their careers anyway. But you have many women who may say, 'I need help, I am scared,' or 'I may not be good enough.'

"For these women we founded this society to try to push them, help them and give them courage."

Through the efforts of women's groups such as these, more encouragement than ever before is now being given to Dutch women to join the ranks of science and technology professionals.

But if anyone ever needed reminding of what a challenge such groups face, they need look no further than a bookshelf in the Utrecht office of Technika 10.

There are books from 1950s and '60s with titles such as "A Boy's Radio Book" and "Boys and Science" — stark reminders that the Netherlands has already come a long way from such role assumptions.

"Especially in the beginning when we started Technika 10," Knottenbelt said, "many people asked why were we doing this for girls as science is interesting also for boys. And I said (pointing to the books on the shelf), 'Well, this is our history. We had books just for boys and science.'

"Nowadays, most people probably don't realize that is how it was," she said, smiling.