



We met with Christer Fåhraeus at Zesty, a fashionable restaurant at Tegnérlunden park in Stockholm. A favorite of the Internet crowd, Zesty features wireless menus on Palm Pilots – not to be confused with the C-Pen that Mr. Fåhraeus was demonstrating when the photo was taken.

Flying High

By Inger Sundelin

Christer Fåhraeus, the man behind the prize-winning C-Pen, hatches ideas and starts companies in a furious tempo. His prime motivation is to use technology to make life easier for the average person.

When he was a young lad he collected butterflies. He kept his hobby secret: it wouldn't go over among his tough schoolmates. Otherwise, he was a regular fellow – playing soccer, fooling around, hanging out with pals. It wasn't until he was 15 before he got interested in computers, and then in connection with math and physics studies.

"I always wanted to find out how the world worked, how things were related, and I thought the quickest way to do research would be to study math and physics," Mr. Fåhraeus says, and he quickly draws a fly on a sketch-pad. "Look! This fly has about 100,000 nerve cells. Compared with a computer, it doesn't have impressive calculation capacity. Nevertheless, the fly can fly, hunt other insects, and have sex in the air. Not even the most powerful super computer can achieve all that. It's fascinating!"

Our interview could have started better. Mr. Fåhraeus arrived in a rush almost a half-hour late. It took a little time for him to catch his breath and settle down to our discussion. At first, he spoke of himself in the third person, such as "one says..." or "one believes that..." and I could understand that this is how he has spoken many times before. But after a while, he relaxed and went over to the first person "I", and he became more spontaneous.

It's not hard to understand that he's stressed. He flew

to Stockholm from Gothenburg in the morning for a meeting with the bank – which accounted for his wearing a suit, when he's usually dressed in jeans and sweater – and after our interview and getting photographed, he will get on another plane for a flight to Lund for a board meeting. His workday usually begins before 8 and is seldom over before midnight. He spends as much time in airplanes as in his car.

USEFULNESS ABOVE ALL

Mr. Fåhraeus grew up in a family in which there was no question but that the children should attend university. His father is a doctor, and his mother is a high-school teacher.

"But there was never any absolute demand, only encouragement," he explains. "My parents believed I should take full advantage of the fact that I found studying so easy in school."

His curiosity about how everything works can be seen to his academic career: mathematics and physics, three years of medical studies, an almost completed doctorate in neuro-physiology, topped with an engineering degree from the University of California at San Diego.

It was during his university years that he got the idea for the C-pen. He thought that it would be great to be able to store and transfer underlined text in a textbook directly to a computer. There had been some such hand-held scanners linked to a PC or laptop via wire.

But Mr. Fåhraeus figured out how a small camera in the tip of a pen could read text, which could be stored in the pen's memory. The text could later be downloaded via wireless

Name: Christer Fähræus

Born: 1965, in Uppsala; grew up in Linköping

Residences: Lund and Stockholm

Family: wife, Åsa, physician

Works: At a fast tempo. Founder and largest shareholder in C Technologies; managing director; Anoto; member of boards of Precise Biometrics, Wespot, Cellavision

Leisure: If he has any: running, golf, fine wine, and adequately wild pals

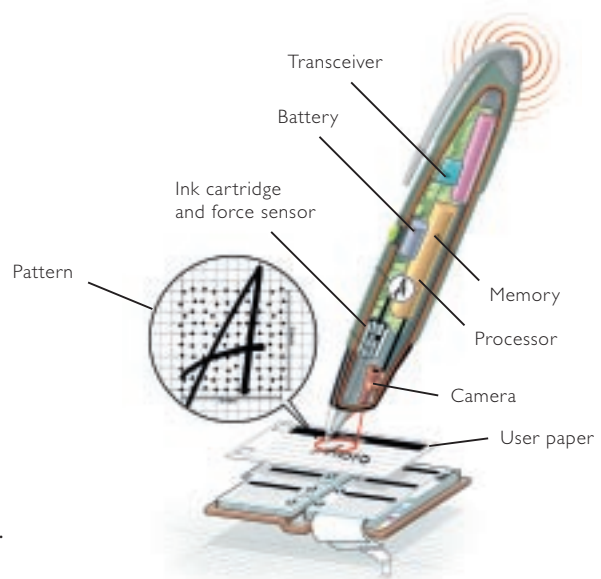
Motto: "Everything is possible. It's only a question of how much force is needed – on yourself and your surroundings."





ANOTO PEN

“Paper based internet”, connects people via Bluetooth technology.



link to a computer. He put his academic studies aside and went out to search for venture capital. But at that time – we’re talking here of the year 1996 – it wasn’t as easy to find investors as it is today, when almost anyone with an “e” before a name can attract millions.

Despite the fact that Mr. Fåhraeus only had a concept to describe – he had no prototype or tests to demonstrate that his idea worked – he succeeded in finding a few investors. Two years later, at the Comdex Show in Las Vegas, his C-pen won its first prize. It has won more since. Today, the pen is on sale in about 10 countries. And in addition to storing and transferring text to a PC, it offers translation, calendar and e-mail functions.

“It really wasn’t all that difficult to raise capital,” says Mr. Fåhraeus. “The most important thing was that you’re honest, reliable, and can show the usefulness of what you want to do.”

IDEAS, NOT INVENTIONS

He does not call himself an inventor. Especially in view of the standard Swedish cartoon image of an inventor as a weird type who sits in a cellar and puts together one ingenious gadget after another.

“I am totally uninterested in monkeying around,” he says. “I think of things at a systems level, and then employ people who can actualize the ideas. Although in reality, the same process lies behind an invention and a business concept.”

There have been many more ideas and companies that followed the C-pen and the formation of his first company,

C Technologies. Companies have been created at an amazing speed. Mr. Fåhraeus is father to *Precise Biometrics*, which develops technology for reading fingerprints; *Cellavision*, which makes software for automatic analysis of microscopic images; and *Wespot*, which works with intelligent surveillance systems that trigger an alarm when burglars enter a home but not when the family dog wanders around.

His latest project is *Anoto*, which is basically an ordinary ballpoint pen with a camera in the tip. It can read handwritten text and send it as ordinary e-mail. Within the shaft of the pen is a microprocessor and a Bluetooth transmitter, but the user need not bother with this wireless technology. When the user writes a message on a lightly cross-ruled paper – a C Tech patent – and checks a button marked “Send”, the pen does the rest. If the timetable is maintained, the pen will be on the market next summer. But it will be sold through licensees, not by C Technologies.

TOP-NOTCH TEAMMATES

Mr. Fåhraeus has more innovations in the works. Some are already on the drawing board, others are still maturing in his head. But even if only a few are commercialized, he must surround himself with top-notch employees – the kind who can quickly understand exactly what he wants to achieve and who have the competence to achieve it.

“I am a bit elitist in the way I recruit,” Mr. Fåhraeus admits. “I only want the best. Sharp individuals who can get things out of their hands and who can work under time pressure. And they must be tough, so that they dare oppose me.



I drive at full speed in the race until I'm fully convinced there's a better route."

His goal is to build up an organization that is independent of him. He's not afraid of "dropping the reins" and letting people make their own decisions. He'd just as soon have a bad conscience that he's no longer around to oversee daily activities.

Yes, there can be hot arguments with employees at times and he knows that he can get on their nerves, but he's also inspiring, knowledgeable and smart.

LOW PROFILE. "TYPICALLY SWEDISH"

When I ask just how smart he is – if he has ever taken an IQ test – Mr. Fåhraeus is silent for the very first time in our interview. He blushes and mumbles something to the effect that he has never tested himself, not really, and he'll keep to himself the results of a test a former girl-friend put in his hands.

Although he is one of the most interesting individuals in the Swedish IT world today, there is surprisingly little written about him. Unlike the many know-it-all geniuses and *enfants terribles*, who never tire of talking to the media about everything in the world they know little about, Mr. Fåhraeus maintains a very low profile.

"There are other ways to talk about what you are thinking than appearing in a tabloid," he says. "Certainly, it can help boost stock prices if you are often in the media, but for me it is more important to accomplish things – and that, in turn, will bring on growth."

WHAT WOULD BE A FAILURE FOR YOU?

“Not to succeed with something that I have decided I would accomplish. It’s not enough just to do your best,” he answers. “Failure on a personal level: to be afraid – to not dare to be honest with people around you.”

He has made money – many millions of dollars – on his ideas. And he has mainly re-invested it in the companies. Certainly, he does stay at good hotels and he likes fine wine when he’s travelling – and he tells the photographer about a Maserati he drove this summer and which is for sale. But brought up as he has in the Swedish middle class, he does not want to flaunt his wealth, and he rarely buys anything conspicuous. Besides, it’s not as much fun to purchase something expensive now that he can well afford it.

“My motivation is providing new, useful technology to people,” he says. “I want to create things to make life easier for the average person in everyday life.”

Such a statement may sound a bit pompous and inflated. But when he says it, it sounds simple and concrete – similar to his ideas for products. □

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C TECHNOLOGIES

www.ctechnologies.com

www.cpen.com

Founded 1996

Best known for the C-pen, a pen that reads, stores, processes and transfers text wireless to PCs or mobile phones. It can translate, send e-mail, SMS and fax messages, and read bar codes. In the future, transmission can be via Bluetooth. The pen is now sold in about 10 countries.

Target groups are individuals, such as students, and professionals.

The pen today costs between SEK 2,000-4,000 (about US \$210-420), depending on model. The company says that prices can be reduced considerably when it starts using an ASIC processor it has developed. This will result in increased sales volume.

In the first half of 2000, C Technologies had sales of SEK 36 million (almost US \$7 million), a 143 percent increase over the same period of 1999. Pre-tax loss was SEK 20 million (about USD 2.1 million), compared with loss of SEK 16 million the previous year.

The company stock has been trading on the unofficial list of the Stockholm Stock Exchange since 16 June 2000.

Number employees: currently 90, but increasing rapidly.

ANOTO AB

www.anoto.com

Founded 1999

Develops pen for electronic writing. By writing with the pen on a paper sheet containing a patented square-checked pattern, the user can store hand-written text, transmit graphic e-mail and submit electronic orders from the pen via a mobile phone or PC. Target groups are individuals and professionals.

The company has agreements with calendar makers Time Manager and Time Systems, which will use Anoto’s paper in their calendars. Anoto’s goal is to create a standard for digital paper.

Anoto aims to start deliveries of the pen in the summer of 2001.

So far this year, Anoto has applied for 48 patents and plans to apply for an equal number before the end of the year.

Ericsson owns 17 percent of the company, and will be Anoto’s first customer.

Anoto has formed a wholly owned subsidiary in Japan, Anoto Nippon KK.

Number employees: presently 60. Increasing rapidly.

WESPOT

www.wespot.com

Founded 2000

Develops intelligent surveillance cameras that digitally analyze pictures and trigger an alarm in event of danger.

Number employees: presently 12. Increasing rapidly.

PRECISE BIOMETRICS

www.precisebiometrics.com

Founded 2000

World leader in biometric identification of fingerprints. The company’s products can replace keys, ID cards, passwords, and PIN codes.

Number employees: 45. Increasing rapidly.

CELLAVISION

www.cellavision.com

Founded 2000

Develops medical systems for automatic microscopic analysis of cells and cell changes.

Number employees: presently 40. Increasing rapidly.