
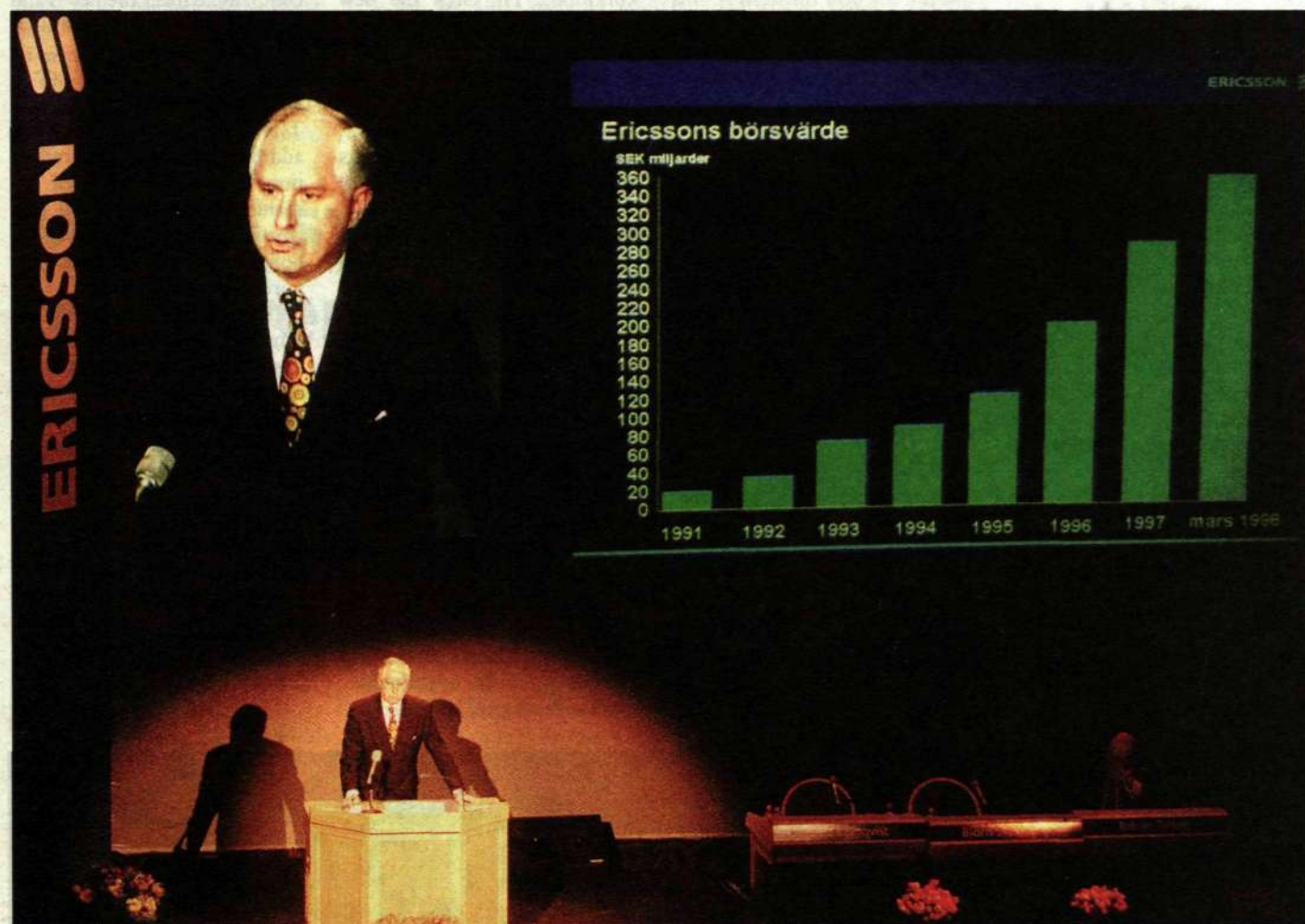


contact

ERICSSON  PUBLICATION FOR EMPLOYEES WORLDWIDE

No. 5 • 16 APRIL 1998



Impressive development. Ericsson's Annual General Meeting on March 30 was Lars Ramqvist's last as President and CEO. His traditional presentation of the year in review was also a manifest of what he had achieved during his years as CEO. The 1,100 shareholders in the auditorium were of course very pleased with the development of the Ericsson share during the Ramqvist era. Photo: LARS ÅSTRÖM

Ramqvist's reign pleased shareholders

Lars Ramqvist turned over leadership of Ericsson to Sven-Christer Nilsson, while accepting the Chairman's gavel from Björn Svedberg. The Annual General Meeting marked the end of the Ramqvist era, characterized by eight highly successful years for Ericsson. 2



Finland the country of cellular chatters

No country has more mobile phone users per capita than Finland. By the end of this year, it is expected that more than every second Finn will have a mobile phone subscription. Contact went to Helsinki to find out just why

Finland is on top. We found a people that don't live up to their reputation of being introverted and quiet, in addition to new and exciting GSM services that have contributed to the nation's widespread use of mobile telephony. 12



Successful move from Sweden

The BusinessPhone unit within Infocom Systems moved from Sweden in 1994. Four years later, it can clearly be viewed as a successful move, despite initial skepticism. 8

In search of pirates' loot

Each year, Ericsson loses billions due to pirate copying of its products. During the CeBIT trade show, at least 40 products were found that infringed on Ericsson's patent and design rights. 11

Full speed ahead to 2005

This issue contains a theme insert that addresses the exciting changes currently taking place at Ericsson.



Something for everyone

After-work activities abound at Ericsson. There are at least 80 cultural and recreational clubs – from big bands to motorcycling – in addition to the many athletic clubs. 6

portrait: Contact meets Marcus Zuberbühler, spider in the trade-show web. 7



end line: Criticism – for the benefit of the corporation. 24

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PUBLICATION FOR ERICSSON
EMPLOYEES WORLD WIDE

Publisher

Lars A. Stålberg,
phone: +46 8 719 31 62

Corporate Editor

Lars-Göran Hedin,
phone: +46 8 719 98 68
larsgoran.hedin@lme.ericsson.se
memo: LME.LMELGH

Editorial assistant

Lotta Muth,
phone: +46 8 719 51 71
lotta.muth@lme.ericsson.se
memo: LME.LMEMUTH

Editors

Patrik Lindén,
phone: +46 8 719 18 01
patrik.linden@lme.ericsson.se
memo LME.LMEPALI

Mia Widell Örnung,

phone: +46 8 719 41 09
mia.widell@lme.ericsson.se
memo: LME.LMEWIDE

Editorial staff

Thord Andersson,
phone: +46 8 422 03 16
thord.andersson@ebc.ericsson.se
memo EBC.EBCTKAN

Inger Björklind Bengtsson,
phone: +46 8 757 44 54
inger.bengtsson@eka.ericsson.se
memo EKA.EKAIBE

Anneli Krantz,
phone: +46 8 764 15 96
anneli.krantz@ecs.ericsson.se
memo ECS.ECSANKR

Gunilla Tamm,
phone: +46 8 757 20 38
gunilla.tamm@era.ericsson.se
memo ERA.ERAGT

Nils Sundström,
phone: +46 8 757 05 21
nils.sundstrom@era.ericsson.se
memo ERA.ERANISM

Lena Widegren,
phone: +46 8 719 69 43
lena.widegren@etx.ericsson.se
memo ETX.ETXLAWN

Niclas Henningsson,
phone: +46 31 747 01 40
niclas.henningsson@emw.ericsson.se
memo EMW.EMWNIHE

Address

Telefonaktiebolaget LM Ericsson,
HF/LME/I, S-126 25 Stockholm,
Sweden

Fax +46 8 681 27 10

Distribution

Solveig Sjölund,
phone: +46 8 719 41 11
solveig.sjolund@lme.ericsson.se
memo: LME.LMEKOCO

Layout

Paues Media in Stockholm AB,
phone: +46 8 665 80 72
kontakten@pauesmedia.se

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Nilsson happy to take the helm

The Annual General Meeting on March 30 was Sven-Christer Nilsson's first opportunity to meet with Ericsson's shareholders. The new President and CEO was positive and happy as he addressed the gathering of 1,100 persons at the Meeting.

"I must say, I am very enthusiastic about the opportunities I believe the future will offer Ericsson, our customers, employees and shareholders," Mr. Nilsson stated.

"I have devoted most of my professional life to the company, which made it easier for me to accept this assignment," Mr. Nilsson declared in his opening remarks.

"During my years with Ericsson, I have come to realize that it's a great company to work for and I have recognized opportunities that I and 100,000 fellow Ericsson employees worldwide have in order to further strengthen the company's position."

Sven-Christer Nilsson was referring to the events of January 29, the day his appointment as successor to Lars Ramqvist was officially announced. On the same day, Ericsson reported the best financial results in company history and ETSI, the European standardization institute, announced its selection of WCDMA as the standard for third generation mobile telephony.

"ETSI's decision was a major victory for us. Among other factors, it confirmed that our constant efforts in listening to our customers, and understanding their needs better than anybody else, had once again borne fruit. Every leading operator in Europe supported our proposal in the final vote."

Not just mobile

The future is not focused exclusively on mobile telephony. The new President and CEO also pointed out opportunities for Ericsson in such rapid-growth markets as Internet/intranet and IP communications.

"Our concentration on infocom in fixed networks now in-

cludes everything from traditional exchanges to datacom and Internet services, voice communications over the Internet and new transmission technologies," Mr. Nilsson continued. He cited the new generation of AXE exchanges and the completely new ATM exchange as examples of new products introduced by Ericsson in the infocom sector, and he said more new products will be launched in 1998.

"Ongoing development in telephony over the Internet does not represent a threat. On the contrary, it creates opportunities for Ericsson and our fixed, mobile and datacom solutions to make strong contributions to support the emergence of our customers as winners among future Internet Service Providers," he explained.

Strong and substantial investments in research and development, which characterized Lars Ramqvist's tenure as President and CEO, will be continued with the objective of maintaining and defending Ericsson's position as the industry's technological leader.

"With this foundation, with the largest customer base of all telecom suppliers, and with the skills and expertise of our 100,000 employees, Ericsson is better equipped than any other company to meet the needs and demands of the 21st century's infocom market."

Warm applause

The new CEO concluded his address with a personal reflection before he expressed his thanks for the confidence entrusted in him when he was appointed to Ericsson's most important position.

"I must say that I am very enthusiastic about the opportunities I believe the future will offer Ericsson, our customers, employees and shareholders."

Sven-Christer Nilsson's audience at his first official public appearance responded with a warm round of applause. A company with momentum has a new leader who believes the powers-that-be are on his side. The sun shone brightly over Älvsjö on the day of the Annual General Meeting.

LARS-GÖRAN HEDIN



At the Annual General Meeting, Lars Ramqvist assumed the chairmanship of Ericsson from Björn Svedberg, who left Ericsson after 36 years.

Photo: LARS ÅSTRÖM

Warm feelings at chairman change

After 36 years with Ericsson, including 21 on the board of directors, it is time for Björn Svedberg to leave the company. At the Annual General Meeting on March 30, he handed over the chairman's gavel to Lars Ramqvist, who was appointed by the Board as Björn's replacement.

The Ericsson Annual General Meeting is held earlier and earlier in the year. This is the result of fine-tuning of the company's financial reporting, so that earnings for 1997 could be made public on January 29. It was a beautiful, sunny day on March

30 when 1,100 people participated in the Annual General Meeting.

Long applause

Items of business transpired without fanfare. Lars Ramqvist gave his last summary of the pre-

vious year, leaving behind the management of the company.

Shareholders thanked him for the considerable profits and increased revenues during 1997, with long and loud applause.

Nice retirement gift

Since Ramqvist left the CEO position and Svedberg turned over the chairmanship and the Board, there were many flowers and warm thank-you speeches. Björn Svedberg was honored

with a fund that was established in his name.

The fund, which received 15 million kronor from the company as starting capital, is to support an interest in natural science and technology among young people – an issue which has always been close to the former chairman's heart.

"It has been a fantastic journey with Ericsson these past 36 years", said a noticeably moved Björn Svedberg thanking for the fine departure gift.

Theft at research lab

Equipment was stolen recently from Mobile Systems' central research lab. Ericsson takes the theft seriously since, due to the location of the theft, it is not possible to rule out industrial espionage.

"The more important and interesting our products are, the greater the risk that people will go so far as to steal and sell information," says Stellan Svensson, head of security at Mobile Systems.

The theft is not the first of its kind, and there have also been other types of thefts and intru-

sions that Ericsson has reason to take seriously. Computer thefts are also treated seriously since it is not known whether it is the computer or the information in the computer that is the target of the thief.

Industrial espionage has recently been on the rise in Sweden, as in other places.

The number of IT crimes have also increased.

"So far this year, IT-related crime has increased by 45-50 percent. Telephone and computer companies are the biggest targets," said Stefan Kronqvist, head of the National Police Board's IT-

crime unit, to Dagens Industri, one of Sweden's daily newspapers.

Ericsson is working intensively to improve security at the company. Rules and tools exist, but the main thing is to be sure that they are used. That is why information and education are so important.

"The problem at Ericsson is to get employees to accept the security rules that are in place. They are sloppy about locking doors, respecting visiting routines, and locking up sensitive products and important information," says Stellan Svensson.

Ericsson has also begun to maintain a statistical record re-

garding thefts, using an incident reporting system.

"In addition, Ericsson is trying to get permission to encrypt information on computers, something which is not so simple since it often affects the laws of many countries," says Stephan Almquist, head of security at Ericsson.

"We must all help out in order to minimize the risks for thefts and intrusions. We can do this by being observant and reporting when something doesn't seem as it should be," says Stellan Svensson.

MIA WIDELL ÖRNING

Memo system to be replaced

Ericsson's Memo and other e-mail systems will be replaced by a single new system, Microsoft's Exchange. Users will access the system through the Outlook program or via a web browser such as Netscape Communicator. Memo will be shut down at the end of June 1999.

"A unified system for the whole company will be both cheaper and simpler. Also, in Wanted Position we have stated that we are a leading user of information systems and information technology. That is why we will only have one common platform to build good solutions on," says Rolf Skoglund, Senior Vice President, Corporate Information Systems and Technology, and one of those who made the decision to replace the e-mail system.

Today there are at least seven different e-mail systems within Ericsson, including Memo, CC-mail, and Unix-mail. There has been a great deal of effort made to build bridges between these systems, but this bridge-building has resulted in a loss of functionality of the system.

"Memo is no longer a powerful

enough tool. If we cannot communicate with each other in an effective manner, then we will never become an exciting organization," says Rolf Skoglund.

The new system has received the official name of Ericsson Standard Groupware Platform (ESGP), but will be called Outlook in everyday speech. The system consists of the MS Exchange system software installed on the server and the MS Outlook program for users, which is included in MS Office '97. In addition, Lotus Domino software will also be included in the package, in the event that Ericsson's outside customers demand that Ericsson exchange information using that software.

In addition to e-mail, Outlook can also handle calendars, discussion groups, form management via e-mail and several different group functions. The basic task of sending e-mail is easy to learn. There are no major differences from the current systems.

"Additional functions, and how best to use them, will require more time to learn," says Sanna Lindfors, a marketer at Ericsson Data, and one of the 10,000 Outlook users at Ericsson.

MIA WIDELL ÖRNING



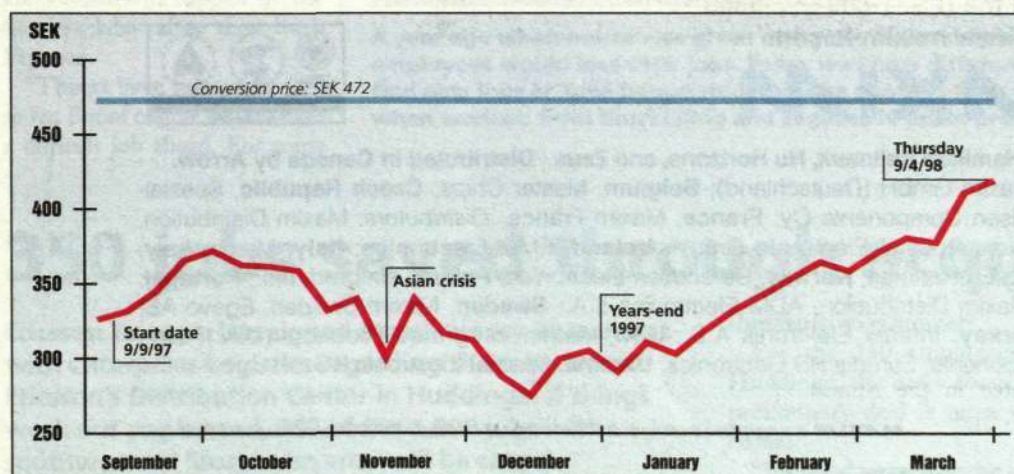
Sanna Lindfors, an Outlook user and marketer at Ericsson Data for the past four months, says it's easy to learn the basic functions of Outlook.

Facts:

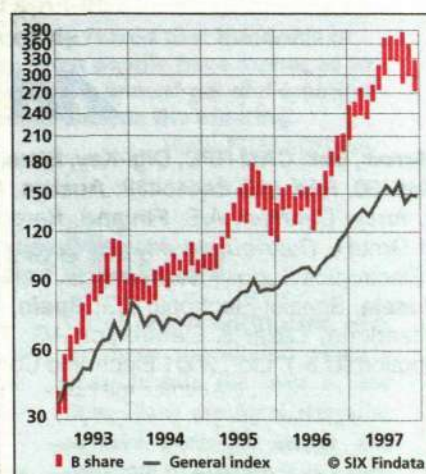
■ MS Outlook can do everything that Memo does today. Outlook has a layout similar to other Microsoft programs. You can also maintain calendars, contact cards, participate in discussion groups, retrieve forms and communicate both individually and to groups. You can see if e-mail you sent has arrived and if the recipient read it. It is also possible to do searches of all e-mail and memo users within Ericsson. The new system can also automatically update the new small pocket computers, with the help of a PC.

■ If you want to find out more about Outlook check out this Web site: <http://esgp.ericsson.se>

Keep track of the Ericsson share price with Contact



On September 9, 1997 an extraordinary meeting of stockholders approved a proposal to issue convertible debentures to Ericsson employees. The conversion period extends through June 30, 2003.



The B share's highest and lowest monthly quotation on the Stockholm Stock Exchange.

news briefs

Million-dollar Brazilian deal

■ Ericsson has signed a contract with the Tess S.A. consortium in Brazil for the delivery of a digital mobile network using the D-AMPS standard. The order is worth USD 360 million dollars, corresponding to more than SEK 2.7 billion kronor. Brazil is one of the world's fastest growing mobile telephone markets and competition has been fierce among the operators to get licenses for the Brazilian b-band. Swedish Telia is a part of the Tess consortium which, after a lengthy court process, won the license for the desirable area 2, which covers the city of São Paulo.

Year-2000 tested computers

■ Ericsson can now test its normal PC computers for the year 2000 (Y2K), something which manufacturers are not doing. A contract has been signed with the British company Chase Technologies for 50,000 licenses of the Check 2000 program which can check to see if a computer will make it through the millennium shift. The program works something like an anti-virus program, searching through programs, memory and files.

"Everyone is being offered this possibility now," says Christer Ekengren who works on the Y2K problem at the parent company. In addition to Ericsson's own computers, the PC computers that Ericsson's customers use to run Ericsson applications, are also tested.

Bright outlook for D-AMPS

■ The American mobile telephone standard D-AMPS IS-136 received positive news at the end of March. Ericsson received its first order for mobile telephones from Cellular Communications BT in Moldavia. The network will primarily cover the city of Chisinau and its surroundings and is expected to be finished in May 1998. Already, 36 nations are connected to this standard.

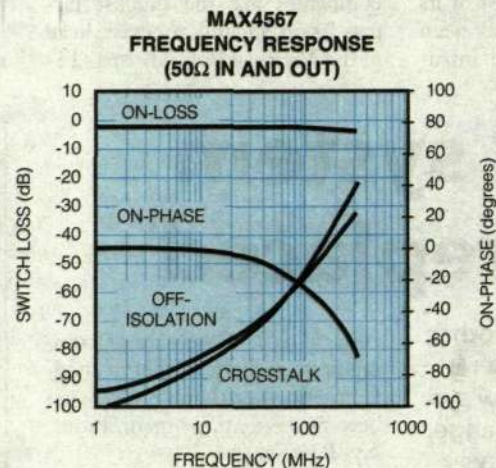
GSM expansion in China

■ Ericsson recently sold a fourth expansion of the Chinese GSM network in the province of Hebei. The order is worth about SEK 460 million (USD 58 million). The buyer is Hebei's postal and telephone administration. Following completion of the provincial GSM network it will be able to handle 1.2 million subscribers.

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| PART | FUNCTION | R _{ON} (Ω max) | R _{ON} MATCHING (Ω max) | R _{ON} FLATNESS (Ω max) | OFF-ISOLATION 10MHz/100MHz (dB typ) | CROSSTALK 10MHz/100MHz (dB typ) | THD (%) | PACKAGES |
|---------|-----------------------------------|-------------------------|----------------------------------|----------------------------------|-------------------------------------|---------------------------------|---------|------------------------|
| MAX4545 | Quad SPST | 20 | 1 | 0.5 | -80/50 | -88/50 | 0.004 | 20-Pin DIP, SOIC, SSOP |
| MAX4546 | Dual SPDT | 20 | 1 | 0.5 | -80/50 | -80/50 | 0.004 | 16-Pin DIP, SOIC, QSOP |
| MAX4547 | Dual SPDT (High-Isolation Pinout) | 20 | 1 | 0.5 | -82/55 | -84/55 | 0.004 | 16-Pin DIP, SOIC, QSOP |
| MAX4565 | Quad SPST | 60 | 2.5 | 2 | -80/55 | -80/55 | 0.02 | 20-Pin DIP, SOIC, SSOP |
| MAX4566 | Dual SPDT | 60 | 2.5 | 2 | -80/55 | -80/55 | 0.02 | 16-Pin DIP, SOIC, QSOP |
| MAX4567 | Dual SPDT (High-Isolation Pinout) | 60 | 2.5 | 2 | -83/55 | -87/55 | 0.02 | 16-Pin DIP, SOIC, QSOP |

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Chatham takes on 470 employees

The preliminary agreement reached between Ericsson and the American mechanical manufacturer Chatham Technologies will affect 470 Ericsson employees in Madrid, Zagreb and Mexico City.

According to the agreement, Chatham will take over portions of Ericsson Telecom's cabinet manufacturing.

The agreement is expected to be finalized by the beginning of May. It is likely that employees

will be able to keep their jobs when the operations leave Ericsson.

Part of process

The deal is part of the process at the Infocom Systems business area to streamline its operations. Last year, Ericsson sold the Swedish portion of its cabinet manufacturing to Segerström and Svensson. Chatham will be a complementary supplier of mechanical components.

"We have been looking for a strong, global manufacturer

with the capacity to take over our cabinet manufacturing units outside Sweden," says Hans Ahlinder, who heads the business area's purchasing function.

"Chatham is a world leader in its field. The three units we are now outsourcing have greater opportunities for development with a company that has mechanical manufacturing as its core operation," he said.

Started to cut back

Last year, Infocom Systems began simplifying its production system. The strategy is to hand

over all component manufacturing to a few suppliers with a global presence.

The business area has initiated alliances with six main suppliers. Chatham Technologies is one of them.

"During 1998, we plan to conclude our outsourcing program which includes the manufacturing of circuit boards, cables and cabinets," says Hans Ahlinder. "Some of the circuit board and cabinet manufacturing is still under negotiation."

LENA WIDEGREN

Few unemployed in Norrköping

One year after notice was given for layoffs in Norrköping, a majority of the employees have found new jobs or assistance for education. There are fewer unemployed than what many had feared.

A total of 529 people were laid off from Ericsson in Norrköping, not the 1,700 as was first feared. Many were able to retain their jobs when production was transferred to outside suppliers.

At the end of February, the first employees were let go, a total of 105 people. They have all gone on to new jobs. Some were offered new jobs at other Ericsson facilities including Linköping. Others relocated when various parts of the operation were moved to other companies.

Summer extras

Another 424 people are being let go at the end of April. But many of these will be offered extended employment in the form of temporary summer jobs. It is the goal of the company that people who are laid off will know what will happen by the first weekday after they leave Ericsson.

"Things have gone very well so far. But of course we still have a difficult job ahead. For some

employees, that point won't come until the end of August," says Karl-Ulrik Nilsson, who is the personnel manager at Ericsson in Norrköping.

Ericsson has assisted those who have not found new jobs

with measures such as pensions or stipends for studies.

New organization

The new organization at Ericsson now consists of 600 people.

The facility is an important

link in Infocom Systems' global chain of supply, functioning as a so-called System Production Center (SPC) where testing and assembly of finished systems takes place.

LENA WIDEGREN



A year ago when notice was given of layoffs in Norrköping, many feared that hundreds of employees would lose their jobs. Today we know differently. Most people have managed to find new jobs or have begun studying. The photo is from last year's annual general meeting when workers from Norrköping and Leganes in Spain protested outside the meeting.

Photo: PETER NORDAHL

350 jobs saved through acquisition

Ericsson Telecom has signed a preliminary agreement with Caterpillar Logistics regarding the takeover of Ericsson's Distribution Center in Huddinge. If things work out as planned, 350 of the 1,000 jobs in the southwestern Stockholm area will be saved.

The goal is for the deal to be completed this spring.

The Distribution Center

handles goods from Ericsson's plants around Europe, oversees export packaging and

shipments to customers.

For the 350 employees in Huddinge, the news about the preliminary deal is most welcome.

"It's good news that the center will be taken over by a company that has logistics as its core operation," says Olle Rådström who is the coordina-

tor of export documents. here has been speculation about a possible sale for over a year now. Plans are for Caterpillar to take over the center and continue to operate it as a supplier to Ericsson, and in the long term, expand its customer base in Scandinavia.

LENA WIDEGREN

hello there



Jan Wäreby, how is your new job?

On March 30, Jan Wäreby was appointed head of the Cellular Systems – American Standards business unit in the Mobile Systems business area. He succeeds Sven-Christer Nilsson, who became CEO of the company on the same day.

• How does the new job feel?

Well, good thanks. I have worked in this business unit since it was formed in 1992, first in sales and then as marketing director with responsibility for sales, installation and operations. Now product development has been added, a field in which we have advanced technology in several areas. I find taking over complete responsibility after Sven-Christer is a stimulating challenge. We have a total of 8,700 employees in our business unit, including approximately 1,200 here in Sweden. An important part of our system, product development, is in Montreal, Canada, and we have manufacturing in Sweden, the U.S. and Brazil.

• When did you start at Ericsson?

I was hired in 1980 as a rotating engineer with an emphasis on marketing, in what was then the transmission unit. After two years, I moved to Ericsson in the U.S. where I eventually started working with mobile telephony, becoming market manager for U.S. operations. In 1991, I returned home to Sweden and went to work at what was then the Radio Communications unit in Kista, where I assumed responsibility for the introduction of GSM in northern and central Europe. I even worked on introducing mobile telephony in Russia.

• How big is the market?

One-third of our sales are in the U.S. The reason that it is called the American standard is just that it was in the U.S. where the standard was set. Latin America is also a very big and currently very "hot" market. We recently received a large order in Brazil and more are in the works as new operators arrive. We have made a good start on the Russian market. The Asia-Pacific markets are other areas where we are going to increase our presence.

• How do you relax?

I try to spend as much of my free time as I can with my family. We have two daughters, four and five years old. The best form of relaxation is spending time at my summer cottage out in the archipelago or boating.

GUNILLA TAMM



One of Ericsson's big recreational events is the paddle-boat race which attracts an impressive number of people from all over Sweden.

On the job after work

Not everybody wants to leave Ericsson at the end of the day. In Sweden alone, there are some 80 cultural groups and recreational clubs. Everything from photography clubs to choirs to big bands. In addition, there are almost as many sporting and exercise groups that arrange competitions and company championships in most sports.

It is difficult to find any recreational activity that cannot be done under the auspices of Ericsson. In addition to the clubs, there are also larger events such as paddle-boat races and Ericsson Day. Leif Bölke, Manager of Employee Activities for the entire company, oversees all of these activities.

"It is fun to see that Ericsson employees are so active and involved in all of these activities and groups. The company's goal is to offer meaningful recreation and to increase the level of camaraderie within the company. In addition, we want to facilitate contacts across company boundaries," says Leif Bölke.

Long history

Recreational activities have a long history within the company. Some clubs and groups have been in existence for over 50 years. The LM theatre group, for example, has



Ericsson's big band is just one of the many Ericsson clubs and groups

been around for 55 years, and Ericsson Day is in its 52nd year. The motorcycle club Ericsson Riders, formed just last year, is one of the newest clubs.

All over the world

Many of these activities take place in the Stockholm area, but the whole world is Leif Bölke's workplace.

"Our largest concentration of employees is in Stockholm and they have many long-standing traditions. In 1997, we had a total of 50,000 participants. Now we are doing more work at the national level, and cooperation between Sweden and affiliates abroad is increasing," says Leif Bölke.

About a year ago, Leif Bölke was in Mexico, helping to coordinate recreational activities and gather them under a special

organization. It is his ambition to form similar organizations in several countries. A well functioning recreational program is part of being a good employer, according to Leif Bölke.

That view is completely in line with the goals of the 2005 Vision and Wanted Position.

"Many people in the company do not realize that we can be consulted regarding questions about activities and recreational clubs. There are also many active individuals who would also like to have contact with similar clubs in other parts of the country and world."

Leif Bölke would like to export the Swedish model for recreational activities. He works as an internal consultant and is available to build up organizations in other

countries and companies. All countries would probably not benefit from the same kind of organization, however. Localized adaptations would no doubt be required, but a common Ericsson spirit can be generated.

One way to keep track of everything that goes on is, of course, the Web. Information about current events and even video footage can be found there. Leif Bölke's organization also runs an information operation with a video studio and Web site production.

Many opportunities

There are many good opportunities available should you wish to stay late at work without actually working. Check out the information on the Web site, contact one of the groups or start your own.

There is a newly-edited three-minute video film about all of the recreational activities that take place. It can be ordered through the Web.

PATRIK LINDÉN

Footnote:

The Web address for recreational activities is <http://www.lme.ericson.se/events/employ3.html>

If you want to contact Leif Bölke directly, his e-mail address is leif.bolke@lme.ericsson.se



The Ericsson Riders is one of the newest clubs at Ericsson.

Leif Bölke is not just responsible for recreational activities in Sweden and the company. He is also active as a speaker and conference host.



portrait

The telephone rings. Simultaneously, someone asks for directions, another person has a problem with a cable and a third person needs help lifting something. That is a typical day on the job for trade show installer Marcel Zuberbühler.

A traveling jack-of-all-trades

Carpenter, electrician, accountant and organizer. Swiss-born Marcel Zuberbühler is all of these. Like a spider overseeing its web, Marcel has traveled around the world during the past two years, setting up displays for Ericsson's GSM mobile phone system.

He has been constructing trade show displays and exhibitions for the past ten years, including for clients such as Digital and Microsoft.

For the past two years, he has worked as the project manager for Ericsson's GSM displays. Now he is a market communications advisor for the D-AMPS/AMPS mobile telephone standard business unit.

"Up until now, I have been on the road an average of 150 days a year. I've been at trade shows such as Asia Telecom, PCS in Dallas, Texas; Interactive in Geneva, CeBIT in Hannover, as well as smaller exhibitions that our local companies arrange," says Marcel Zuberbühler, during a short break at the GSM World Congress in Cannes.

Long preparations

As the person in charge of technology, he makes sure that the displays have electricity and telephone connections, in addition to making sure that everything looks good in the displays. Marcel also makes sure that his trade show personnel have everything they need, that VIP-visitors are taken care of, and that the Ericsson logo is visible in the proper places.



For the past two years, Marcel Zuberbühler has been the project manager for GSM system trade show displays. By the time visitors arrived at the GSM World Congress in Cannes in February, Marcel had already been involved with preparations for the past five months.

Preparations sometimes begin a whole year in advance, and include things such as renting frequencies from local mobile telephone operators.

"Once we're on location, things can suddenly be missing paint, or there could be the wrong sort of telephone jacks. It is imperative that we quickly fix those things," says Marcel Zuberbühler who has also dealt with flooding and electrical power problems in places such as the Far East and the Pacific rim.

He notes that the rewarding part of his job are these very contrasts. Only hours after assembling a heavy display in jeans and a t-shirt, Marcel can find himself standing in front of the display in a suit as the team leader. With ten years of field experience, he has seen how trade shows have devel-



Once all of the visitors have left the exhibition hall, Marcel Zuberbühler has a lot of heavy work ahead of him, dismantling all the displays.

Photo: NILS SUNDSTRÖM

oped. Changes in the media, increased competition and demands for interactivity have forced exhibitors to become more refined in their presentations.

"I know what Ericsson displays looked like long before I was hired, and I must say that there has been significant improvement in just the last few years. Ericsson has gone from being a very conservative company, to having achieved significant stature in the mass market," says Marcel Zuberbühler.

Just in time

"We have taken on many of the positive attributes of the computer industry during the 1980s and we have adapted them in a modern way. It is essential to have the right advertisements in the right places and to show that we stand for quality and have solutions for the future. There is also an entirely different organization available today, to plan for and improve trade shows."

But no matter how long planning has been in the works, there is still an unwritten

rule that says the display will not be ready until "five minutes to twelve". Why is that?

"The longer one does this, the more particular one becomes. There is always something that can be polished or improved. Timing is never critical, but rather, we are always ready just before it is time to open."

His experience has also made him a master at finding solutions to problems that can crop up.

"When I arrived at the CeBIT trade show with Digital in 1994, there was just only reinforced steel on the floor where we were to put up our display. They hadn't yet poured the concrete, which meant that we only had two days to build our display instead of ten. But things worked out."

NILS SUNDSTRÖM

from the past



The 1983 version of Ericom, which received the name Ericom Direct. It could dial up numbers, on its own, just by being talked to. The speaker cover was shaped in the form of a stylized E, based on the company's new logo. It soon became forbidden to do so, however. The company logo must always be used together with the name Ericsson.

Voice-controlled phones ahead of their time

At the recently concluded telecom and computer trade fair, CeBIT in Hannover, I saw very sophisticated new products that can both recite written texts and record spoken words. These made me think of Ericsson's voice-controlled speaker phone, Ericom, which was introduced already back in the autumn of 1982.

The telephone made dialing numbers obsolete. One just had to say the name of the person to be called and the telephone automatically dialed them up. It was no longer necessary to keep track of telephone directories or remember telephone numbers.

Members of the press stood in amaze-

ment while testing the system at its unveiling at the Computer/Office/Environment exhibition in Stockholm. Newspapers were filled with glowing reviews. The system, called Prina, was based on voice-recognition technology. It had been developed by the Department of Speech/Communications and Musical Acoustics at the Royal Institute of Technology in Stockholm and then further refined by LM Ericsson Tele-material AB in Bollmora. The system was programmed by repeating the name of the person that one wanted to call five times. That analog speech was then converted into digital information, each name being divided up into 32 equally long periods. Large systems like the entirely electronic ASE 467 switching system could store

thousands of names. Accuracy was between 95 and 98 percent, depending on the acoustical environment and the correlation of the name to the speech programming. But as is so often the case with new technology, the real breakthrough occurred much later. For one thing, customers were not ready to embrace this technology, and the system also needed additional fine tuning, something which was viewed as being too expensive relative to the expected profits.

Today, however, the market has matured and is ready for the most creative of solutions along these lines. Seeing all of these new applications at CeBIT was just the beginning of what promises to be a fantastic new era that we will live in.

THORD ANDERSSON

Successful move from Sweden

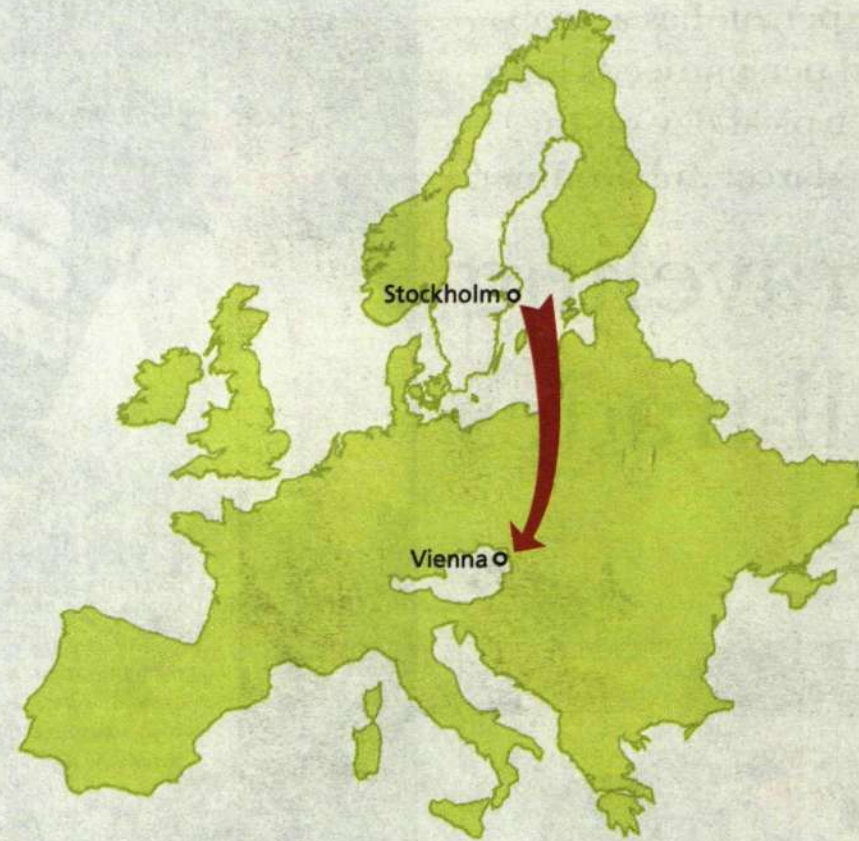
The BusinessPhone unit is an outstanding example of how to move an operation from one country and culture to a new environment. Since spring 1994, they have been located in Austria. Previously, the unit's home was in Bollmora, outside of Stockholm, as a part of Ericsson Business Networks. This was one of Ericsson's first large-scale moves out of Sweden.

"I still remember today how shocked we were when the business area manager at that time, Lars Berg, informed us at a meeting on September 22, 1993, that BusinessPhone was going to be transferred from Sweden," says Staffan Elmhagen, who was working in the unit at the time.

There were many who immediately said, "This will never work, it's not possible to move such complex technology." But it worked and was successful. Loyal workers in Bollmora stayed to assist in the move, which also affected the plant in Karlskrona.

Received with open arms

The reception in Austria was remarkable. Ericsson had recently purchased Schrack, and they now assumed oversight and development of this key operation. Schrack already had a product line similar to BusinessPhone. The combination of the two developed into an even more successful operation.



With technology and market resources from Ericsson, Schrack was able to quickly become a global player.

It took just over one year from the time

the decision was made to the completion of the move. Since October 1, 1994, BusinessPhone has been operated entirely from Austria with the production of switching systems at the plant in Kindberg.

Those who stayed on quickly received good, new jobs with Swedish operations. Only a few specialists followed the company to Austria.

Efficiency the key

One of those who has remained the longest in Vienna is controller Per Arne Wollén. "Our small, efficient organization is the key to our profitability. We only have about 1,100 employees worldwide. The close relationships that we have developed with the head office in Vienna, local companies and large distributors are decisive to our continued growth," says Wollén.

Last year, Ericsson Austria received the Austrian Quality Award. "The positive developments within BusinessPhone were a contributing factor to our receiving the award," says quality manager Per Anders Mörbäck. "We have instituted a quality as-



The team of Thomas Preissner, Michael Plattner and Christoph Bertsch always focus on the customer when they develop their manuals for BusinessPhone. Here they are demonstrating a PC-based training program for end-users.

urance program with 16 specific points in different areas."

Austrian quality requirements, in general, are very high. This means that today, completely problem-free products are being manufactured with a high degree of delivery precision.

When necessary, a complete shipment can be produced in less than five days.

THORD ANDERSSON



Ericsson Austria's new facade on Pottendorferstrasse in Vienna, where BusinessPhone is headquartered. The building was commissioned by Ericsson prior to World War I. Schrack took it over in the late 1930s. Ericsson Schrack was formed in 1994 when Ericsson acquired Schrack, and in 1996 the name was changed to Ericsson Austria. Photo: THORD ANDERSSON

Renate succeeds through retailers

"We need more small, successful units like this one," said CEO Lars Ramqvist when he visited the BusinessPhone unit in Austria's capital, Vienna, last autumn.

BusinessPhone is a part of the Enterprise Networks business unit, and sells business switching systems that can handle up to 250 connections. A noticeable characteristic of the unit is its small, efficient organization.

First on the spot

There are only about 140 employees at the main office. More than half of those work with product development. The operation is overseen by an energetic Austrian, Renate Pfandler.

She is almost always the first one into the office in the morning. And it is rare



Renate Pfandler is the manager of BusinessPhone. She has very carefully developed indirect sales channels, increasing sales volume in the process. Photo: THORD ANDERSSON

that anyone goes home after she does in the evening.

"My job is my hobby," she convincingly

states. She always has time for people who want to toss ideas around with her, after which her decisions come in rapid succession. One can feel success sitting in the walls of this venerable, old building on Pottendorferstrasse, where BusinessPhone, a unit of Ericsson Austria AG, is housed.

Best ever

Last year was the best ever for BusinessPhone, which increased both its sales volume and its profitability.

The unit sold 1.6 million lines, an increase of 450,000 compared with the year before. In terms of lines, the unit is approaching its big brother, the MD110, which sold 1.8 million lines.

Strategies behind this success include consistent investment in indirect sales through distributors. This was an absolute

necessity in order for volumes to increase. Another was the retention of old markets where good footholds already existed, as well as making aggressive inroads into new ones.

Last, but not least, it is important to offer the products and solutions that customers demand.

BusinessPhone has always been noted for advanced technology, and it has often been the first one out with new solutions.

All conceivable functionality is included in the system, such as mobility with DECT-telephones.

Another distinguishing characteristic is a strong emphasis on user-friendliness. The end-user is constantly part of the picture during the development of new products.

THORD ANDERSSON

for BusinessPhone

Chronicle

Can a coffee maker "talk on the telephone"? That question would no doubt have resulted in many questionable and sympathetic, forgiving glances just a few years ago. Now it is actually happening.

Look, they're talking!

A few days ago there was an article in one of the large dailies about a coffee maker which had been sold from Italy to Mexico. When a customer orders coffee of a desired strength, a bartender sets the machine and turns it on. At the moment of brewing, the machine (which is situated in Mexico City) connects via satellite, to the manufacturer in Italy in order to adjust an optimal level. Out comes pure Italian coffee - in Mexico.

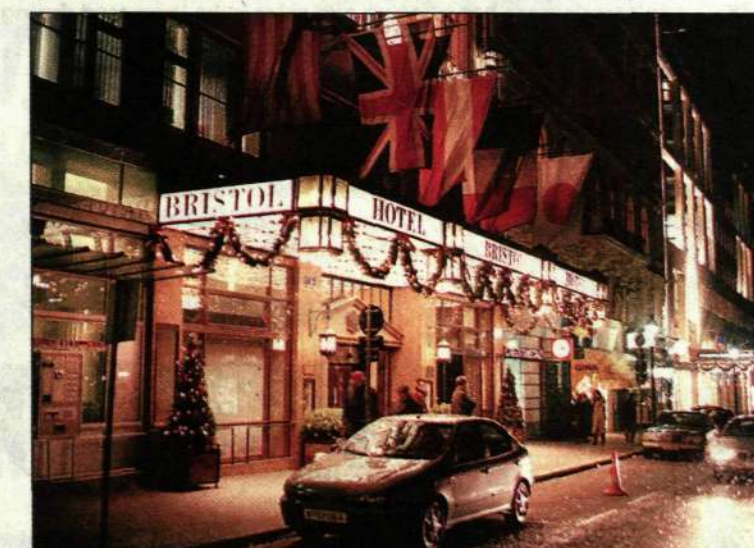
This inspires other thoughts. Are there other things in our surroundings that talk without our thinking about them? A classic example of this is watches that constantly calibrate themselves with an atomic clock in Germany. Traffic toll booths that automatically register (and deduct...) as soon as you drive through. Various alarm devices and systems for remote-control of building heat, are just some of the areas already established where things communicate with each other.

Looking ahead then, unimagined vistas await. There has been talk of smart clothes; items of clothing which, with the aid of microchips sewn into them, keep track of how often and when they have been washed, in order to help reduce wear and tear. They will even give the manufacturer a picture of the wearer's usage at the same time. Products already exist that, in the event of a car crash, will make sure that a car's insurance company calls up the car within seconds of the crash. If nobody answers, an ambulance and a damage appraiser are sent to the location immediately. In order to reduce the risk of theft of house pets, there are now plans to implant ID chips into puppies and other pets. These can also be programmed with information about which vaccinations have been given.

One can dream about the automatic home. Imagine if all your gadgets at home could talk to each other. One would be able to turn on the oven from the TV, change the setting on the toaster from the PC while surfing the Net, and so forth.

What's so new about this? Why are people talking more about this now than just a few years ago? Remote controls for TVs have, after all, been around for a long time! Well, for one thing, these gadgets will soon all be speaking the same language - IP, Java, Windows CE2 and so forth. And there will be new operating systems forthcoming that will not require graphic interfaces. In plain language, this means that all of these devices can soon be controlled by voice. The result will be a huge mass market for microprocessors that work just as well in a shirt collar as in a remote control. In addition to processors and operating systems, there is also a need for applications and the actual communications electronics. It is only possible to speculate on what this market might have to offer, but if one were to combine the sales of textiles, home electronics and vehicles, and play with the thought that each and every one of these items will one day have a little microcommunicator built in, then the image of a potentially lucrative market emerges...

I am personally convinced that within ten years, some where in the world, there will be a stove that refuses to boil tea water for a family in the morning. Why? Because a fuse has blown? Should the repairman be called? No, this time it will be because the stove is simply mad that the vacuum cleaner didn't say hello when it passed by...



The elegant Hotel Bristol on the Opernring in central Vienna is a typical Ericsson BusinessPhone customer. Photo: THORD ANDERSSON

Dominant position in Europe

BusinessPhone has a dominant position in several European markets. The Austrian domestic market is, of course, strong. It is also one of the few markets that still has its own direct sales organization. But even here the goal, over the long run, is to orient the company more towards independent distributors.

Italy and the U.K. are examples of new markets which have grown rapidly in a short period of time. There has been a strong presence in France and Spain for a long time. Sweden and the Netherlands are good examples of how to sell through telephone operators. In Sweden, for example, BusinessPhone products can be found under Telia's own trade name, Fenix.

Australia occupies a special spot among the non-European markets. A franchising network has been built up along the same lines as McDonald's, all with the same identity and content. That makes it easy to promote the BusinessPhone product name.

One of the most recent campaigns has been in Germany. Despite stiff competition, considerable success has already been seen this year. China is another market where the company also has a clear presence, but much still remains to be done there in order to reach desired results. Now, Russia is waiting its turn.

The next step will be to sell BusinessPhone products indirectly to as many markets, using as many distributors, as possible. Pre-packaged, reliable ("plug and play") products are the key in this context. This project goes by the name of VLC (Volume Local Channel).



Gabriel Anderbjörk oversees the company's Business Intelligence operations.

Ericsson Business Intelligence Network, EBIN, is partially responsible for monitoring the outside world on behalf of the company. You can find more information at the Business Information Centre, BIC. Web site at: <http://bic.ericsson.se> or by e-mail to ebin@lme.ericsson.se

TA

Bond's mission successful

Was it worth investing all those millions of kronor on our brave and manly friend, James Bond? Yes, it seems it was. Measurements show that the Ericsson trademark got a real upward boost. But weaknesses remain. We must be better at taking care of our most important sales channel – the retailers.

"Bond has been a good project to create an image and generate attention, separating us from our competitors," says Dusyant Patel, who is responsible for evaluating the Bond effort.

The Bond campaign, which has run in 57 countries since last November, has generated a great deal of attention for Ericsson's trademark. It looks as though "Tomorrow Never Dies" will become the most popular Bond movie ever, measured by ticket revenues.

The goal, to have Ericsson be associated with the style, class and advanced technology that is the image of the Bond films, seems to have succeeded. The Ericsson trademark has gotten a real boost, especially in those countries where it was relatively unknown.

15 countries studied

In order to find out how the campaign worked, market studies were conducted in 15 countries. The company in charge of the study interviewed end-users, retailers, Internet surfers and Ericsson personnel. In addition, external cooperative partners were asked how Ericsson conducts large, international projects.

Most consumers thought that Ericsson and Bond had quite a bit in common. In eastern countries, such as Hungary and the Czech Republic, Ericsson has become a status symbol through Bond. That part of the world has always been considered him as the hero who fought against communism. In the U.S., the effect on customers has been great. Ericsson is on the road to becoming a household name, in one of the toughest markets around.

Retailers also think that there is a connection between Ericsson and Bond, and most would like to see more of these sorts of campaigns.

"To the question which asked what they have in common, many retailers replied: 'Both want to be the best'," says Dusyant Patel.

Poor support

On the other hand, Ericsson has shown itself to be not as good at informing and supporting its retailers. When retailers compare Ericsson to their competitors, however, Ericsson has only been a step behind.

But has the campaign achieved an increase in sales? Yes, Ericsson's sales have increased



Well done James! The investment that Ericsson made in conjunction with the James Bond movie "Tomorrow Never Dies" constitutes one of the largest sponsorship campaigns ever undertaken. Evaluation of the project, which was recently completed, shows that it gave positive results. Awareness of Ericsson's trademark has gone up and sales have increased during the campaign.

thanks to Bond. Many retailers say that Ericsson increased its market share during the campaign period. According to Bill Campbell, who is responsible for sales to retailers in the U.S., those stores who were a part of the campaign sold up to 70 percent more mobile phones than those who weren't. "According to information from the U.S. the shops sold out everything long before the sales period was over. That has never happened before," says Per Söderström, project manager for the campaign.

Of course there have some questions as to why the model in the movie wasn't available to buy in stores. But Per Söderström, does not think that has been a problem, as long as they have explained that it was a fantasy device.

"It is not uncommon for prototype products to be used in marketing, as in the automobile industry for example. Bond, himself, is also known for using futuristic products."

It was also important to ask employees about the campaign, to find out if the company is mature and has the competence to manage these sorts of large projects, aimed at the consumer market. It has been shown that cooperation among the local companies, regional ones, and global departments have worked above expectations.

Glocal project

"The Bond campaign has been a successful 'glocal' project, as we say. In other words, a global project in which every country could decide locally how they wanted to conduct it," says Dusyant Patel.

PR activities – or what was written and said about the campaign in the newspapers, on TV and radio – also showed good results. In this movie, "Q", James Bond's technical mentor, was a big help as a spokesman for the PR work. Around 850 million people have seen the campaign in some form.

Bond's own Web site has also received positive reviews. The

opinion is that it is an easy-to-navigate site which gives a positive image of Ericsson. The most popular activity on the Web site has been to construct personal melodies and download a screensaver. Many have also taken the opportunity to visit Ericsson's regular Web site.

In summary, one can say that the Bond project helped to strengthen the Ericsson brand name, making it more well known. The campaign has also strengthened relationships among retailers.

GISELA ZEIME



Good assistance. Retailers received assistance during the Bond campaign in the form of sales materials and store events with Bond-related themes.

'Mobile pirates' always hunted

A number of pirated Ericsson products were found at this year's CeBIT trade show. Around twenty companies can expect some sort of legal action. At the same time, an illegal manufacturing plant in Thailand was raided with the help of local authorities.

Ericsson is now taking serious steps against pirated mobile telephone products. During CeBIT, at least 40 pirated products were found that infringed on Ericsson's patented designs. Pirated products include mostly of accessories such as batteries, front panels and cases.

"We view this activity very seriously. It is important for our customers to know that we do not have any product liability if our equipment is damaged by a pirated battery, for example. Then the warranty is invalid," says Bo Albertson, PR manager at the Mobile Telephones and Terminals business area.

Amounts in the billions

Sales of pirated products mean that Ericsson loses billions every year.

"Unfortunately, this is a field that seems to be growing. That is why it is important that we stay on top of things and that we protect our trademark," says Niclas Almgren, a lawyer responsible for patent and design infringement issues at Ericsson Mobile Communications.

"It is important for our image, both in the short and long term,



Pirate manufacturing of accessories for Ericsson mobile telephones is a growing problem. This is an example of an illegal front panel for the GF 768 model that was discovered at this year's CeBIT trade show.

that customers believe our products are reliable and of high quality."

Protection in all countries

Niclas Almgren is now mapping out which markets are the most exposed to sales of pirated products. Ericsson has design protection, patents and trademarks in all economically important markets. Protection must be applied for individually in every country.

"It is sometimes very difficult to get at the pirate manufacturers. We are now working on a strategy for different measures and also have help from investigative agencies and local lawyers," says Niclas Almgren.

Most of the pirate manufacturing plants are in Asia, especially in China, Thailand and Taiwan. A raid on a plant outside of Bangkok, Thailand, was conducted in March together with Toshiba, Motorola and Nokia.

"The local authorities and the

police confiscated products that were aimed at the Asian market. Three persons were arrested," says Niclas Almgren.

"It is important for us to get at the manufacturers and stop the flow directly at the source. We then follow up with action down the chain from distributors to retailers."

Possibility of fines

The steps taken at this year's CeBIT trade show were a follow-up to a similar inspection at last year's trade show. Companies that are discovered selling pirated products are first given the opportunity to sign an agreement that they will not market or sell those products. Violations can lead to further action in court.

Several companies at CeBIT 1998 risk being ordered to pay considerable fines.

NILS SUNDSTRÖM



Ericsson's legal representatives found several exhibitors at CeBIT that were displaying non-approved Ericsson accessories. They now face legal repercussions.

diary



A long-distance commuter

Stephanie Breggar works with Consono solutions for mobile office communications. She is part of the Enterprise Networks business unit in Nacka Strand, where she spends half of her time. The rest is spent working for Ericsson in Cypress, California.

Sunday The plane has landed, and I am now in sunny Stockholm. My first challenge was to retrieve my five very large, very heavy suitcases.

I managed to get all my bags onto one cart. However, the cart was so heavy that it pretty much had a mind of its own. I was a woman with a cart out of control.

Then came the great hunt for an Ericsson taxi that could fit all my bags inside. I knew the rule about requesting an Ericsson taxi to avoid getting cheated, but this driver came up with another trick. He informed me that he would have to charge an extra 100 kronor because my bags were so large and heavy. I didn't fall for it, and only gave him a tip.

Once at the hotel, I looked for a bellboy to help me with my bags. After calling hello several times, a woman finally came out. I asked if she could get someone to help me with my bags and she said I could use the luggage cart. In other words: "do it yourself." So, there I was again, a woman with a cart out of control!

Monday I awoke bright-eyed and bushy-tailed, never mind that it was only 3 a.m. At 7 a.m. I went to breakfast. Hotel breakfasts here are something special. It's like having breakfast and lunch at the same time.

It was so much fun being back in the "flexible office." I met with my colleagues; over 10 different countries are represented on the floor where I work. I caught up on the gossip, enjoyed the wonderful view of the Baltic Sea, and got a small amount of work done. I was very tired and could not wait to get to the apartment where I was to live. As I opened the door to the apartment I stood there in amazement. My largest

bag was as big as the sofa. In other words, the apartment was very, very tiny!

Tuesday The sun was shining and it was very windy. This was to be a day of meetings. One after the other.

It started snowing midmorning and by the time I left for the day everything was nice and white.

Wednesday This was the day I thought I would try my hand at using public transportation to get to the office. Let's just put it this way; if it's your first time taking the bus, allow an extra hour for unforeseen things like wrong turns, bad directions, and missing the bus by three steps. Bus drivers strictly adhere to the schedule.

I arrived at the office 45 minutes later than usual. This meant I lost my spot. Since I had picked out a prime work area, it was in great demand. Arriving late gave someone else the chance to move me out and move themselves in. Looking on the bright side, it gave me an opportunity to be with new neighbors. That is one of reasons why I like the flexible office.

Wednesday nights are reserved for bowling with a group of friends.

Thursday Today I planned better. I took a taxi. My body has adjusted to the time change and my brain is back in sync. It is safe to start giving presentations. I finally feel like I have caught up on everything. All my colleagues know that I am back in Sweden and the memos are pouring in. Personally, I prefer voice mail, I can listen faster than I can read.

Friday The weather is good. I only had one meeting to attend and no presentations to give. I got lots of work done.

I'm very happy it's Friday. I had a wonderful dinner with friends at an Italian restaurant. The rest of the evening was spent watching television; and at some point during night, the television was watching me.



By the end of the year, it is expected that every second Finn will have a mobile telephone subscription. That makes Finland, by far, the country with the greatest percentage of mobile telephones per capita. It is a sparsely populated country with just over five million inhabitants who are often characterized as types who do not talk unnecessarily. Something in that picture does not add up. Contact traveled to Helsinki to find out why Finland has the most mobile telephones in the world.

Silent Finns talk the most in the world

a walk along the Esplanade in central Helsinki gives a quick overview of the various types of telephone rings the different brands offer. One does not have to go far to hear a mobile telephone.

People are constantly digging in their pockets for them. Studies show that more young people (under age 26) have mobile telephones than have regular telephones. Last year, total billing for mobile telephone conversations was higher than for the fixed network. Finland is undeniably in a class of its own.

The Nordic countries all stand high on the list of mobile telephone penetration, but Finland is almost ten percentage points above its neighbors. There is no simple explanation for that. Rather, there are a number of possible explanations for the mobile telephone phenomenon in Finland.

Nordic countries were pioneers

The Nordic countries entered the market early on. The analog NMT mobile telephone system was well-received in Finland. Twenty year-olds do not remember life without mobile telephones. Some people think that it all due to natural growth and the fact that Finland started early. That cannot be the entire explanation to their massive popularity, however.

Tom Lindblad is in charge of Ericsson's mobile telephone sales in Finland. He sees various reasons as to why Finland has so many telephones.

"Finland is spoiled by technology. It has become a habit to have the very latest technology. In addition, national jealousy drives up sales. Everyone wants a newer and nicer looking telephone than their neighbor or their buddies," says Tom Lindblad.

The fact that Finns were quick to embrace the new technology has meant that many manufacturers, not just mobile telephone companies, use Finland as a test market.

Ericsson figures that 25 to 30 percent of mobile phones are sold to customers under the age of 25.



Tom Lindblad is responsible for Ericsson's mobile telephone sales in Finland. Ericsson has about 30 percent of the market share. The most prevalent manufacturer is Nokia, whose home market is Finland.

"Perhaps the percentage is even larger. For the really young customers, it is the parents who hold the contracts," says Tom Lindblad.

"There are also more technically trained people, as a percentage of the population, than in many other countries," says Elina Lahtinen of Telecom Finland, in explanation as to why so many have embraced mobile telephones.

In Finland, it is forbidden for mobile telephone operators to subsidize telephones in order to gain new customers. That makes it easier for subscribers to know what they are paying for. When operators cannot compete on the price of the actual telephone, they have to offer services and low rates to attract subscribers. Extensive advertising means that nobody can have avoided at least contemplating purchasing a mobile telephone.

Without subsidies, a mobile telephone can cost anywhere between SEK 1,100 and 4,000 for the most expensive models. Generally speaking, Nokia is a little bit cheaper than Ericsson.

During 1998, the industry is expecting to sell between 1.3 and 1.5 million telephones in Finland. That means that almost 30 percent of Finns will acquire or switch telephones this year. By the year 2003, the industry expects that more than 100 percent of Finns will have mobile telephones. Already today, one subscriber in ten has more than one telephone.

Not just mobile telephony

Finns are also among the highest Internet users and have the most newspapers per capita. A national need for information could be one reason for the many mobile telephone subscriptions.

It is the opinion of Liisa Nyssönen, of

Nokia Mobile Phones, that the long tradition and the extensive competition has led to so many subscribers in Finland.

Nokia has just over 60 percent of the Finnish telephone market while Ericsson has 30 percent. Nokia is something of a national pride icon in Finland. By tradition, Finns buy Finnish. Nokia's successes also explain their popularity in Finland, even if the mobile phone trend was established before Nokia was a manufacturer to reckon with.

"We have no doubt contributed to the volume of sales but most things happened before Nokia became popular," says Liisa Nyssönen.

Oili Martikainen is a telecom and multimedia professor at the Helsinki technical university. He has clearly seen how the age of the users has gone down.

"Before, a mobile telephone was a common graduation present when somebody left the university. Today it is much more common to receive telephones for confirmation, that is, at the age of 14 or 15."

He thinks that the many mobile telephones could be explained by a generally high level of IT sophistication. Schools and universities were quick to embrace the new technology.

PATRIK LINDÉN



Illustration: JOHAN UNÄNGE



The myth of Finns as sauna-loving, vodka-drinking people who rarely talk unnecessarily, needs to be revised. Finland has the most mobile telephone users per capita in the world. By the end of the year, every second Finn will have a mobile telephone. In Finland, mobile telephones have changed social patterns. Everyone talks to each other at everywhere.

Photo: PETER NORDAHL

New GSM services attracting people

Soon Finns won't need to carry any small change with them. They will be able to pay for car washes and soft drinks on their mobile telephone bills. That is the result of new GSM services that Telecom Finland is developing.

Now there is a car wash in Helsinki where you don't have to stand in line to buy a token for the wash. Instead, you just drive up to the car wash and dial up a pay number with your mobile phone. The car wash receives a signal from the Net and as you drive in you are debited FIM 50 on your mobile telephone bill.

"Without even advertising, I have doubled my sales," says an extremely satisfied Caj Gillberg who operates the Esso station which is the first in the world to offer a mobile phone-activated car wash.

There are also a number of Coca-Cola vending machines and a couple of juke boxes in Helsinki which now operate on the same principle.

Bank services

One of Finland's largest banks, Merita, offers account balances as a text message on mobile telephones. During the Olympics in Nagano, there were several operators that announced important sporting events through text messaging. Currently, there are a number of interesting GSM services that are being tested in the country which has the most mobile telephone users per capita in the world.

Elina Lahtinen is responsible for a group at



At the American bistro restaurant J.F.F. Kettunen, in central Helsinki, it is possible to order music from the juke box using a mobile telephone.



Caj Gillberg in front of the Esso station in Vallila in Helsinki which has the world's first car wash that can be paid for using a mobile telephone, avoiding the need to stand in line for a token.

Telecom Finland that is developing new GSM services based on proven technology. This group is behind these latest services.

"We are not making a great amount of money on these services yet. They are still test projects. We announced the soda vending machines in a press release and the response has been enormous, both from the press and the vending machine manufacturers. We did not realize how much these services would be appreciated," says Elina Lahtinen.

One problem is keeping costs down. Every individual vending machine must be modified and equipped with a GSM unit. That costs money and customers are not prepared to pay more just because they are paying with a mobile phone. They also place an increased de-

mand on toll numbers which have mostly been used for telephone sex lines and other services where time is charged. For this kind of transaction, however, the length of the call is not important.

"We are also considering other services. For example, paying parking fees or using toll numbers to book theater tickets and so on," says Elina Lahtinen.

New way of thinking required

In Telecom Finland's own garage, another application has been tested. Doors can be opened remotely by mobile phones, while the system simultaneously checks to see if the person/telephone is authorized to enter.

The technology is not new. It is more a



Elina Lahtinen and her colleagues at Telecom Finland have developed a number of new GSM services. These include being able to purchase Coca-Cola bottles by calling a toll number which debits your mobile telephone account when the machine releases a bottle. These services are still test projects..

Photo: PATRIK LINDÉN

Everyone has once had an Ericsson phone

Ericsson had operations in Finland for 80 years, thus almost every Finnish household has had an Ericsson tabletop telephone.

The name is very familiar. Ericsson has always worked with telecom.

That is an advantage over today's other competitors who have, or who have had, more diverse operations. Nokia is, for example, a relatively young company in terms of telecom.

Today, about 1,100 people work for Ericsson in Finland. Over half of them work on software development for the whole company, mostly for mobile telephony and the Internet. The rest work with the Finnish and Estonian markets. There are no Ericsson manufacturing operations in Finland. Most of the employees work in Jorvas outside of Helsinki. Last year, Ericsson's sales in Finland reached FIM 1.2

billion, or approximately SEK 2.25 billion. There is a shortage of young developmental engineers, and competition between companies, such as Nokia and Ericsson, is fierce when they visit universities.

Ericsson is in 100th place among the largest companies in Finland, but is still one of the better known, not least for its long presence in the country.

PL

same operator. Telecom Finland is the largest mobile telephone network operator in the country with approximately 70 percent of subscribers.

Just over two-thirds of these are private subscribers. Now the company is working on ways to debit private citizens for goods and services that are purchased using company telephones.

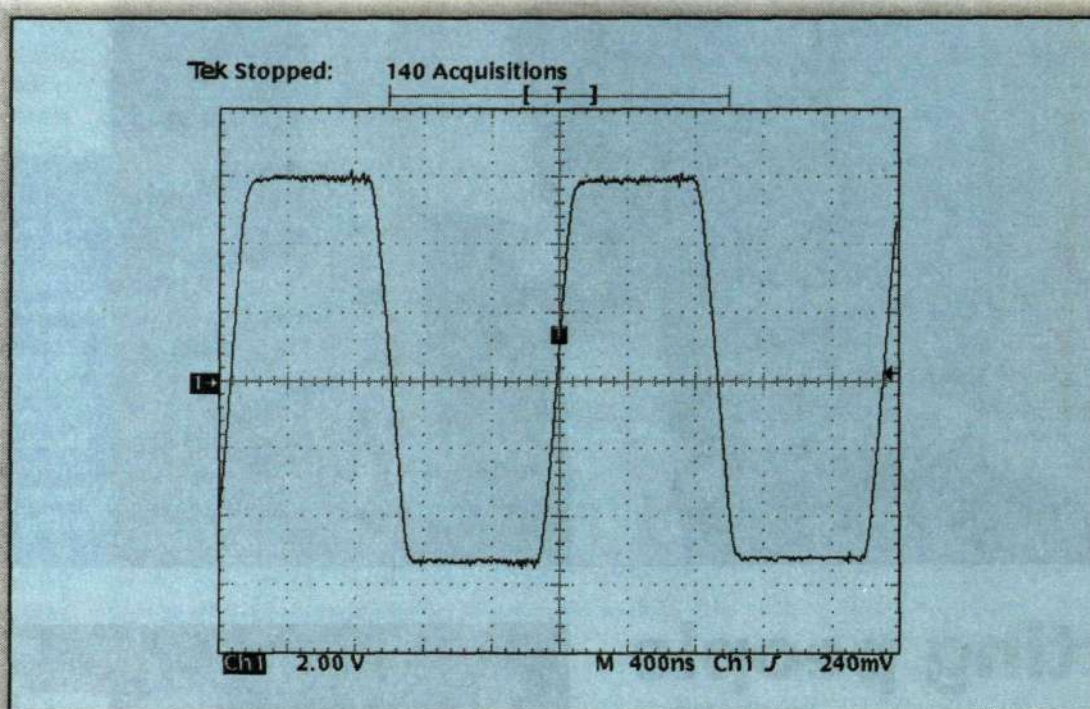
PATRIK LINDÉN

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Students learn orienteering



Ericsson was the main sponsor for the Parc World Tour orienteering competition being held in China this year.

Now even the Chinese **China** have had an opportunity to try a sport almost unknown to them – orienteering.

The Parc World Tour orienteering competitions, in which the 50 best women and men in the world compete, have gone off without a hitch with four races in Hong Kong and Beijing. This is the first time that the world elite, with rac-

ers from 20 countries, compete in China. Ericsson is the main sponsor for the third year in a row.

A seminar about Ericsson as well as a beginners course in orienteering for 600 technical students at the prestigious Tsinghua University were held in conjunction with the competitions.

Gunilla Svärd of Sweden and Rudolf Ropek of the Czech Republic are leading the competition after the first four rounds.



Friendly phone for kids

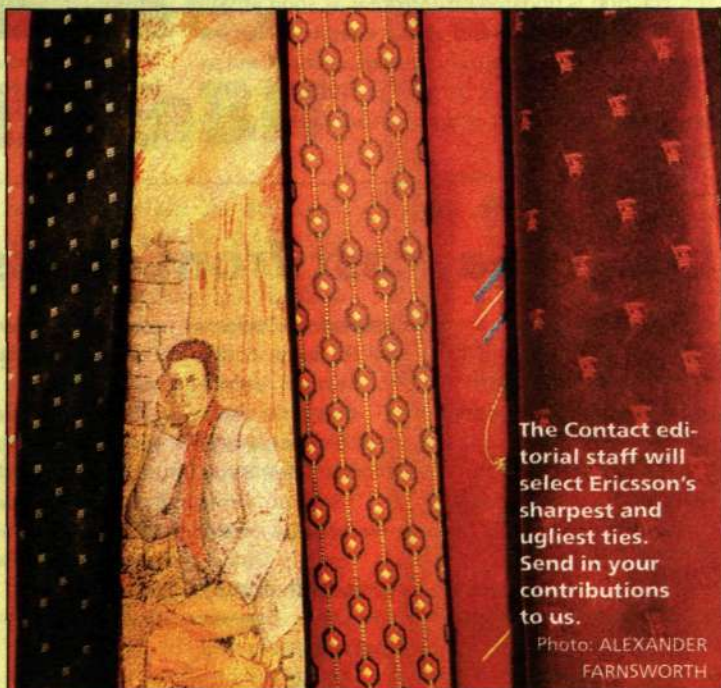
Mobile telephones are taking over new markets. Japan's largest toy maker has developed a mobile telephone in the shape of **Japan** Mickey Mouse. The telephone is called Charapitch and was unveiled at a recent toy trade show in Tokyo. In addition to making calls, it is also possible to play games on it with the help of its display.

Ericsson looking for sharp ties

■ Here at Contact we are very happy about all of the telephone calls, letters and e-mail that we have received in conjunction with an article about Ericsson ties in Contact 4/98. I have not had time to reply to all of them yet, but will as soon as time allows. I warned my boss the other day that I could be due for overtime now that I have become the official tie secretary.

The response was so great that the editorial staff has decided to hold a competition. We will select the sharpest looking Ericsson tie of all time. Or perhaps the most communicative.

In order to do this, we need your help. Send in your ties as an entry to Mia Widell Örnung, Kontaktenredaktionen, HF/LME/I, 126 25, Stockholm, Sweden.



The Contact editorial staff will select Ericsson's sharpest and ugliest ties. Send in your contributions to us.

Photo: ALEXANDER FARNSWORTH

Visitors appreciated being heard

At the Ericsson CeBIT display, visitors were able to **germany** make themselves heard, completely in keeping with the worldwide campaign theme of "Make yourself heard." Those who wished to, were able to record messages that were then shown on monitors around the display.

Visitors were able to make themselves heard at various pulpits spread throughout the display.

Ericsson telephones and the new hand-held computer MC116 recorded messages from visitors

about what they wished for and what they dreamed about.

The recorded messages were saved and shown on monitors around the display.

"We wanted to do something concrete with the theme 'Make yourself heard,' really let the visitors speak their minds," says Cecilia Lindgren, press spokesperson at Ericsson Mobile Communications in Lund. "By letting visitors record their messages, we were using our technology in a new and innovative way."

There was an enormous amount of interest in being heard. Malaysia's Prime Minister, among others, recorded a message during his visit at the Ericsson display.

"People loved it," says Cecilia Lindgren. "Many messages were very philosophical. People recorded messages about holding on to your dreams and so on."

Good message

Every day, the best message of the day was rewarded with a mobile telephone. The thought is that the best ones will be saved for future use, for example, in connection with trade shows and similar occasions.

"We have gotten so many good and thoughtful messages that we simply have to put them to good use," says Cecilia Lindgren.

NICLAS HENNINGSSON

Another prize from Lucent

■ On April 2, the optoelectronic unit of Ericsson Components once again won the prize for "Best Supplier" from its customer, Lucent Technologies, in Merrimack Valley.

This is the third year in a row that the prize has been awarded to that operation.

Telia and Ericsson collaborate on Cultural Capital year

Telia TeleCom, Telia Mobile and Ericsson are collaborating during the Cultural **stockholm** Capital '98 year in Stockholm. They are planning to develop new services within the mobile Internet services area during 1998.

Telia's marketplace and meeting place on the Internet, "Passagen," together with the television production company Barracuda, developed the idea of doing comprehen-

sive coverage of the Cultural Capital year along with a Swedish TV channel. Their international Web broadcasting partner is the Moonfire company, which mostly deals with live broadcasts of sound and images on the Internet.

The purpose of the collaboration between Telia and Ericsson is to advance mobile information services.

The Passagen Web site profiles mobile telephone-related activities, contests and other activities of which Telia Mobitel and Ericsson are the sponsors.

Technical advancements go on marketing tour

■ The Mobile Systems business unit D-AMPS/AMPS is now conducting its largest individual marketing campaign ever for the D-AMPS system. Their multimedia presentation describes the development of the technology and compares it with future demands.

The marketing campaign "D-AMPS (IS-136) Global Symposium" has already visited 20 nations since last fall, mostly in Asia and now, most recently, in the Caribbean. The target groups are operators, politicians, investors and journalists.

This spring, the presentations will continue in Latin America as well as Brazil and Russia, in their respective languages. Every presentation includes a video sequence with customer feedback from countries like Canada, Hong Kong and New Zealand. There are also animations and examples of end users in various situations – in the home, on the job or at a shopping center.

"Generate enthusiasm"

"The purpose is to generate enthusiasm and to visualize what the user can do with the technology today and in the future," says project leader Magnus

Arfors, who concludes that the arrangements have been very much appreciated.

"A few years ago, we only spoke to operators. Now we have expanded our target group and, with big help from local companies, we have increased our knowledge of D-AMPS as a world-leading digital standard."

Another purpose of the multimedia presentations is to show that D-AMPS fulfills most of the international telecom union ITC's recommendations for third generation mobile telephone systems. With upgrades, D-AMPS is capable of reaching transmission speeds of 384 kbps, which makes video transfer and fast Internet access possible.

Hitting Brazil in June

In Brazil, which is expanding with a number of new operators on the B-band, several large presentations have been planned for June.

"There is an intense advertising campaign between CDMA and TDMA-based mobile telephone systems in Brazil. That is why it is high time to show the advantages of our digital technology and what our future solutions include," says Alfredo Ávila Hernández, who is leading the Brazilian team.

NILS SUNDSTRÖM



Here are portions of the three teams that will be going on tour to present the advantages of Ericsson's D-AMPS mobile telephone system, in Latin America, Brazil and Russia.



Phone Doubler on TV

On March 28, Ericsson's Internet product, Phone Doubler, was re-viewed on the Net Talk Live show in the U.S., a talk-show about the Internet.

The unique thing about Net Talk Live is that it broadcasts on three channels simultaneously - TV, radio and the Internet. It is the first show in the world to do so. After testing several voices using IP

products, the program's "gadget reviewer" Dave Mathews gave Phone Doubler overwhelming praise.

A nationwide launch of Phone Doubler began at the same time in the U.S. at Computer City's stores in Dallas and Houston. Ericsson employees were in the stores to help the employees, along with people from Internet Global Service (IGS). IGS is the Internet service provider that supports Phone Doubler.

Full time problem-solving

Ericsson Software has opened a new project office in Malmö, the Ericsson Reengineering Center. Its goal is to improve software.

Leif Ekman is the manager of Ericsson Software's project office in the Kockums area of central Malmö. Problem-solving and improvements are in full swing with Ericsson in Denmark as the first major customer.

"We rework software for customers that need help," says Leif Ekman. "Often, it deals with the most difficult and problematic portions of software in which the customer has some very serious problem. It could be maintenance costs which are too high, or that it takes too long to develop degenerated software. In those cases, we can rebuild the programming structure and architecture."

"We are already working on AXE, but also want to take on other systems. The customers that we have worked with are Ericsson in Denmark, Ericsson Radio Systems in Linköping and Ericsson Utvecklings AB in Stockholm, and more are waiting in line," says Leif Ekman.

"Right now we are working on developing processes and tools to go from the current programming language in AXE to the next generation of programming language which is coming."

"When we rework software, we don't know every customer's system in detail, so we need skills about how systems work. That is why we do it together."

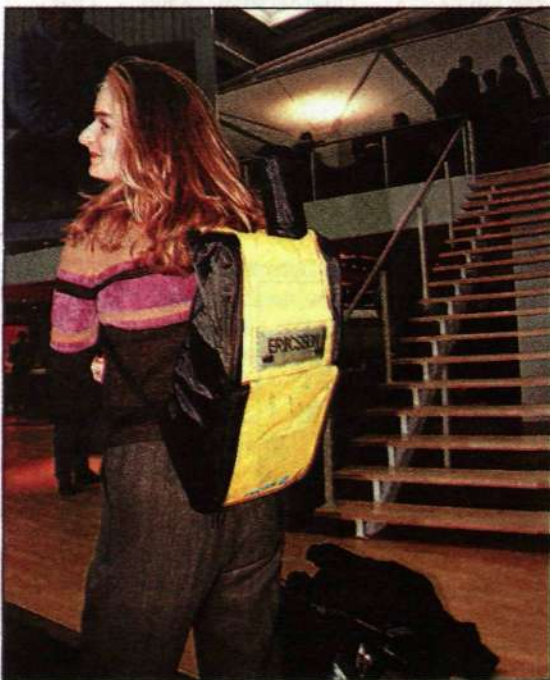
The idea is that the customers highlight their problem and put it into another environment and then brings it back to their own system when it is fixed. But Ericsson Software can also help customers in their own environments.

LARS-ÅKE REDÉEN



"Improving software is difficult, but very profitable. We have a high level of skills both within AXE and in improvement processes," says Leif Ekman, manager of Ericsson Software's project office in Malmö.

Tiny phone becomes backpack



If you don't want to have your phone in your bag, you can have a bag that looks like a phone. The backpack looks like Ericsson's 768 phone and is an imaginative promo giveaway that promises to attract some attention. It was developed by Ericsson in Germany for retailers.

Fun accessories for the future

An extension of the computer to be worn around the wrist and an e-mail reader the size of a matchbox were a few of the concept products on display at Ericsson's CeBIT stand. Both are fully functional prototypes, but it has not yet been decided if they will be released on the market.

The "wristwatch," called Infowear, is an integrated part of your PC. It contains, among other features, a calendar, phone book and e-mail. There are already a number of so-called PDA products in existence that serve as an electronic agenda and can be updated from a computer.

What makes Ericsson's product unique is the radio link between Infowear and the computer. The information is updated on Infowear as soon as you walk into the same room as the computer. It uses the computer's programs for e-mail, agendas and so forth. The prototype is quite large, but if it is made into a final product, it will be considerably thinner and lighter.

The e-mail reader is connected to the telephone and downloads e-mail that can be read through a prism on its side. It is not intended to replace your regular e-mail program, but could be a good complement.

PATRIK LINDÉN



This futuristic accessory is only a prototype, but could become a part of Ericsson's product range if interest is sufficient. This innovation stirred up interest at CeBIT.

Live broadcast from Ericsson's display

Ericsson's German press spokesperson, Corinna Philipp-Weinelt, pulled off a real PR coup at the CeBIT trade show. The main regional German TV channel NDR, Norddeutscher Rundfunk, broadcast live for a half hour from Ericsson's display of mobile telephones and terminals.

NDR broadcast daily from its own studio at the CeBIT trade show.

On Sunday, however, the studio had already been booked by a popular bingo show. Corinna Philipp-Weinelt solved the channel's problem and

managed to invite the TV team to broadcast from Ericsson's display rather than one of its competitors.

"They were very satisfied with the broadcast and would really like to come back again next year. The activity at our display gave a lively background to the program, while at the same time providing a nice advertisement for us. We were able to give a good impression with our message and our appearance here at the trade show," explained Corinna Philipp-Weinelt.

NILS SUNDRÖM

German student taking part in CeBIT

For several years, German young people and students have been helping

Ericsson present its products at CeBIT. This year, there were slightly more than 40 specially hired young people in the Mobile Telephones and Terminals stand.

The young Germans were selected by Ericsson from a bureau specialized in extra personnel for marketing ventures. The requirements are that they be professional, multilingual and a positive reflection of Ericsson.

"This is an important support for our customer communications, since we do not have enough product managers of our own to demonstrate our products," explains Stefan Kirmse, product advertising manager for Mobile Telephones and Terminals in Germany.

The young people receive brief training in presenting products and providing background and overall information to all visitors to the stand.

Most of the students have worked part-time for Ericsson for several years - and not only during CeBIT. They can also be found at other trade fairs and in

marketing projects such as the James Bond campaign.

"This job is a lot of fun," says Nina Fischer, now demonstrating mobile phones for Ericsson for the third year.

Sometimes she stands in for companies in other industries. There is something special about Ericsson, however:

"Ericsson jobs get first priority. It's a nice atmosphere here and I feel we get lots of support and training for the job we do," says Nina, who has also participated in a marketing campaign for Ericsson in connection with elite-level German soccer.

NILS SUNDRÖM

For tips on the hottest books within the company right now, Contact asked Christina Falcon of Literature Services at Ericsson in Marievik to help us out. There are a number of computer books that are of interest to Ericsson readers. And even quite a few about companies in change.

Here is a selection of the best recommendations right now.

- Java. It is difficult to name titles. There are over 70 different books about the Java programming language. All are very sought-after.
- Why Change Doesn't Work: Why Initiatives Go Wrong and How to Try Again - And Succeed. By Harvey Robbins and Michael Finley. Also by

Hot book tips

the same author: Why Teams Don't Work.

- Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Roots. By Leif Edvinsson and Michael S. Malone. The authors try to link a company's balance sheet with its organizational reality. Leif Edvinsson is the manager of intellectual capital at the Swedish insurance company Skandia.
- Net Gain: Expanding Markets Through Virtual Communities. By John Hagel and Arthur G. Armstrong. The authors suggest that, in the near future, business success will be depen-

dent on how well the Internet is utilized. It will no longer be enough to just have a good relationship with customers.

- Dynamic Routing in Telecommunications Networks. By Gerald R. Ash. This 746 page book is for the really interested.
- If you want to find out more about these books or wish to order books, you can go to the Literature Services' Web site. There you can see how books can be ordered and get help with links to other databases including Amazon.com.

For tips about other books on the same theme, visit: <http://freja.ericsson.se/library>



Among the products displayed at CeBIT was the completely cordless Call Center solution. The computer is cordlessly connected to the computer network, which enables mobile handling of Call Center services.

Photo: THORD ANDERSSON

Many goodies shown at CeBIT

Contact was on the scene in Hannover throughout the entire CeBIT trade show, posting daily Web coverage. Some of those stories made it into the latest printed edition of Contact; this page tells more about Ericsson's exhibits.

During the CeBIT trade show, Ericsson launched a new optical transport network application that is based on so-called wavelength multiplexing. Today, 16 different wavelengths can be transported in the same fiber.

A compact version was on display, transferring a James Bond film in ATM format to and from the new ATM switching system AXD 301.

Every wavelength within the fiber has a different kind of transmission protocol. For example, PDH, SDH, IP or ATM signals can all be sent simultaneously. This means that operators using this technology, so-called Dense Wavelength Division Multiplexing (DWDM), are able to handle the shortages in capacity due to ever-increasing amounts of computer and telephony traffic on fixed networks. Swedish Minister for Trade, Leif Pagrotsky, cut the specially made ribbon that was woven with sixteen colors.

Ericsson is currently alone in being able to offering this optical

network product on the world market. Ericsson's model is called Erion Networker.

Competitors also have applications which can increase optical fiber capacity and which are able to handle large capacities.

But those applications have not yet been able to handle the on and off ramps to the network in the same way as Ericsson's application. Erion Networker also has built-in safeguards should a fiber break. All of the connected calls would not be disconnected.

ÅKE LIDSTRÖM

For more information about CeBIT on the Web, check out Inside Ericsson:

<http://inside.ericsson.se>



CeBIT had 670,000 visitors during the week-long exhibition. Many came by train, and probably had a hard time avoiding Ericsson's "Make Yourself Heard" campaign which was visible at the train station in Hannover.

Foto: THORD ANDERSSON

A programming language with impact

Ericsson's programming language Erlang/OTP is used in no less than five of the products on display at CeBIT. This includes the ATM switch AXD 301, Mobility Server, Multimedia Server, the access node system ANx and the GPRS prototype for high-speed packet data over GSM.

Erlang and the Erlang-based OTP (Open Telecom Platform) has created a new method for working with software development at Ericsson.

Erlang enables more rapid development

because the systems can be tested and improved before each new phase.

Erlang programs are a fraction of the size of programs written in C, rendering the system more reviewable and simpler.

Staffan Blau has been the technical advisor for the ATM switch project. He states that Erlang/OTP has considerably shortened the development time. The ATM switch is programmed using several different languages for its sub-components, including C, C++ and Java. Erlang was used for control of the actual switcher.

Ericsson's Mobility server uses OTP's predecessor, BOS. The system is part of the Consono family.

To date, more than 300 systems have been delivered to customers.

Jukka Alapoikela is responsible for the maintenance of Mobility Server. He says that the high abstraction level in the Erlang programs make it easy to find and take care of any mistakes, which tend to be unavoidable.

Erlang supports many different computers and operative systems. This helps reduce development times, an maintenance thereby shortening the entire chain until delivery.

If you would like to know more about Erlang/OTP, information is available on Ericsson's intranet at:

<http://erlang.ericsson.se>
<http://otp.ericsson.se>

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The hunt for a mobile Internet

You are standing in front of the Eiffel Tower wondering how to get back to your hotel. Which Metro station is the closest? Why not ask your mobile telephone? After the push of a couple of buttons your question goes to a server on the Internet which quickly sends the answer to you.

That vision will be reality within a couple of years, according to Frank Reichert and his group of Internet researchers who work at the Mobile Systems business area's core unit for global research in Kista.

Two parallel developments are fueling this operation. Within a few years, there will be an estimated 400 million Internet users worldwide and an estimated 600 million mobile telephone subscribers. The Internet researchers are working at the crossroads of these two trends.

Their goal is to create an easy-to-use, mobile Internet. The challenge is to find and remove those hindrances which currently stand in the way. It is very clear from market pressures and customer demands that the Internet and mobile telephone networks are converging. In the next generation of mobile networks, shortages of bandwidth will hardly be a problem. Instead, the key words will be flexible access, easy roaming, reliability and security. In the future, it is conceivable that cellular networks will become completely Internet-based, but the road there is both long and winding.

Internet built for fixed traffic

"It is easier to move traffic across fixed networks using the Internet Protocol (IP). Mobile telephone users move around, and currently the Internet is not designed for mobility, or for time-critical applications at all, for that matter," explains Frank Reichert.

"If new Internet standards are developed without consideration of mobile users, then those users will have problems. Internet development must move towards mobility."

The lab's researchers have an impressive knowledge of the Internet. The atmosphere is all-encompassing, without preconceived



Much of what Frank Reichert and his colleagues do at the core unit for research in the Mobile Systems business area is to make the Internet more mobile. People are becoming increasingly mobile, and currently the Internet is not designed for mobility.

Photo: PETER NORDAHL

ideas, while at the same time being goal-oriented. The people who work there have an intense interest in the Internet. The average age is low, several of the lab workers did their thesis work at Ericsson and have stayed on.

The researchers participate in developmental projects throughout most of Ericsson.

No long-term planning

Short-term goals are the most prevalent. Planning seldom stretches farther than a year ahead. It should be possible to turn an idea into a demonstration or a prototype within approximately ten months. Every year, a catalogue of new ideas is compiled.

Those ideas get worked over, but are often revised, considering the rapid change of pace that exists.

Twice a year, the lab invites people in for their Internet Day, an open house where actual projects are described and demonstrated. Guests come from all over Ericsson. Most recently, in December, outside guests such as clients, competitors and others interested in a day of discussion, were invited for the first time.

"We could have used more time and a larger space," says Frank. "The guests were very interested and we all had a lot of fun, so we will definitely repeat Discussion Day."

KARI MALMSTRÖM

Internet research at 'cyberspeed'

The core unit for global research, known by the Ericsson acronym RCUR, encompasses a number of disciplines and has several hundred employees spread out all over the world. Internet research is part of the Mobile Network and Systems Research branch, under the leadership of Olle Viktorsson.

"Internet research began about a year and a half ago, on a mutual initiative by Steinar Dahlin, head of all network research in the unit, Olle Viktorsson and myself. We received full support from Ericsson Radio Systems management and were able to start at once at cyberspeed," says Frank Reichert.

At the same time, he maintains that no single lab can be responsible for Internet research at the company. Within the Mobile Systems business area, research is focused on the concept of "the Internet in a cellular environment". Researchers included in the network hail from Aachen, Budapest, Linköping, Helsinki, Kungens Kurva and Kista, as well as two guest researchers from the University of California in Berkeley. There are also interrelated research operations, especially with portions of the Infocom Systems business area.

KM

Ericsson tests new Internet protocol version

The Internet research testing area's equipment looks like that of an advanced Internet operator.

Since Internet operators and distributors of Internet telephony are likely to be some of Ericsson's important customers in the future, it is important to learn more about their needs.

The testing area is where a number of research projects are based. The upcoming version of the Internet Protocol, called IPv6, which will play a central roll in the

Internet of the future, is considerably more powerful than the current version, especially in terms of addressing. The Internet Engineering Task Force, the standardization organization for the Internet, is engaging researchers all over the world to work on IPv6. The testing area in Kista is one of the nodes in a worldwide Internet network using the new protocol. The researchers consider this to be one of the biggest feathers in their hat. Ericsson was second in Sweden to join the test network, and 46th overall, before other competitors such as Nokia.

One of the purposes of the Internet

testing area is to create a location on the Internet for the lab's researchers. This allows them complete testing freedom, outside of the company network, as well as the ability to keep up on the latest developments in cyberspace, without being hindered by firewalls and so forth. But before they cast off, they had to first make sure they had an absolutely reliable and secure connection for the essential exchange of information with the company network.

KM

You can obtain more information on the intranet at: <http://lp.ericson.se>

Over half of the male mobile telephone users surveyed think it is acceptable to talk on the telephone while they drive, while only one-fourth of the women think so.

Almost one in five Germans think it is acceptable to call or take calls during a business meeting, while only two in 100 Englishmen

Brits call from the bathroom

would consider doing so. Those are the results from a study of executive mobile telephone users in the U.K., Germany and the Netherlands, conducted by The European IT Service Group. The



report came out in February of this year.

British tactfulness in refraining from taking calls while in a meeting is, perhaps, tempered by their habits of calling or taking calls while in the bathroom. Over 45 percent of the Brits questioned

thought that was acceptable, while only 13 percent of the Germans could consider such calls.



The report also shows that among mobile telephone users in

the study group, they were more likely to carry around a mobile phone than a credit card, 97.3 percent to 90 percent of the time, respectively. More than 17 percent of the group said that they use a mobile telephone more often than they use a regular telephone.

Source: Mobile Communications International

vacancies

AT ERICSSON

■ This is a selection of vacancies within the Ericsson corporation. They are published in the electronic News system, which is being updated once a week.

For further information about advertising here, send a memo to LME.LMEJOB.

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Contact No. 5 1998

Updated April 5

Ericsson (China) Ltd ETC/R Beijing

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● You shall lead the project organisation there of the experimental system based on the developed 3rd generation mobile system using Wideband CDMA in the air interface and ATM in the transport network. You shall report to the project group office at ERA/JR in Sweden. Also You shall train a Chinese locally employed project leader who is to take over after that the system is put into service.

We expect you to have experience in one or more of the following areas; Radio, air interface, A interface, SW architecture, Control system, ATM.

You are a person with project management and coordination skills, self driven, outgoing and result oriented. We take for granted that you have good communication skills are able to transfer your competence to others in a smooth way. Fluency in English, orally and in writing, is a must.

Contact: Anders Paulsson, phone + 46 8 76 41146, memoid ERAC.ERAADPA or Hans Falk, HUMAN RESOURCES, phone +46 8 7571402, memo; ERAC.ERAHFA Application: Britt Gustafsson, Ericsson Radio Systems AB, LDHS, S-164 80 Stockholm, Sweden, or by fax; +46 8 404 5311

Ericsson Eurolab Deutschland GmbH

The system house AXE Mobile Core (AMC) is looking for a

PROCESS ENGINEER

● The main responsibility is the improvement of work processes within the AMC organization. The position is located at Ericsson Eurolab Deutschland GmbH, Herzogenrath, and reports to EED/U/OQC.

The main tasks include: Coordination of process management (PM) activities. Project management of PM projects. Maintenance and improvements of design processes. Establishment, maintenance and improvements of operational processes. Being the driving force for process management.

As a suitable candidate, you should be familiar with the Ericsson way-of-working and the existing processes in your current work area. Knowledge of different methodologies used in software engineering is a definite plus. You should have a very good knowledge in how to establish, maintain and improve processes.

Working as a moderator and consultant a structured way of thinking, excellent communication and cooperation skills, perseverance and the ability to be the driving force for PM are important personal qualities. Overall you should see this job as a challenge in improving our existing way of working. Participation in international AMC meetings is also part of the job. Fluency in written and spoken English is a must.

Contact: latest 980531: Human Resources Simon Seebass, Memo-id: EED.EEDSIMS, Dial: +49-2407-575-163 Methods & Quality AMC Andreas Bleeke, Memo-id: EED.EEDANB, Dial: +49-2407-575-394

Ericsson Eurolab Deutschland GmbH

The AXE Mobile Core (AMC) System House is looking for an

AMC PROJECT ADMINISTRATOR

The AMC project office has a dynamic group of overall project managers and administrators managing key projects at the core of all mobile

applications. These projects encompass subprojects and associated projects in Holland, USA, Ireland, Finland, Sweden, Norway, England, Spain, Italy, Germany and Greece covering a vast range of development areas at the leading edge of technology.

The project office is located at Ericsson Eurolab Deutschland GmbH in Herzogenrath, near Aachen. The general responsibility of this position is to assist the main project manager and to see to it that the project adheres to the established working methods and economic routines.

● The main authorities and tasks are: structuring, planning, controlling and follow-up of project activities, time resources & costs, preparing of project administrative documents and reports, coordinating information as project minutes, librarian, Kick-off/-out, news-letters, binders etc. contacts and cooperation with project members and other Ericsson personnel.

As a suitable candidate you should have at least one year experience in project or line administration. Previous experience in the AXE10 design process, related project management skills and knowledge of standard UNIX application programs (EXCEL, Power Point etc.) is beneficial, too. Fluent in English and inspirational as a team member.

In this position you will need initiative, very good communication and cooperation skills as well as a good ability to work under pressure. Travelling to our cooperating subsidiaries will also be needed approximately once per month. The project administrator reports directly to EED/U/OQC, Imo Freesse.

Contact: Human Resources Stefanie Setz, Memo-id: EED.EEDSSE, Dial: +49-2407-575-112 AMC Project Office Manager Imo Freese, Memo-id: EED.EEDIWF, Dial: +49-2407-575-469

Ericsson Messaging Systems, Woodbury, New York.

Ericsson Messaging Systems (EMX), head office in Woodbury, New York designs, develops and manufactures MXE - Messaging Applications Platform for mobile and fixed networks, providing value added messaging services such as Voice Mail, Fax Mail, Short Message Services and E-mail.

TECHNICAL MANAGER

● We are looking for a person that is prepared to take on new challenges and wants to be a part of a small dynamic team in an inspiring environment with opportunity to broaden the scope of responsibility. While being a part of, and taking advantage of the Ericsson infrastructure, you will be working in a small company environment with the possibility to influence the future.

This position is located at ERA/BR/MX in Kista, which is the EMX regional office for Europe, the Middle East and Africa where we are around 15 people working close together. The Technical Manager is the member of our "Core Team" responsible for providing our markets with technical competence. That includes having technical discussions with the customer, do product presentations, prepare technical specifications for quotations and produce technical documentation's, all prepared in close teamwork.

In addition you will be the interface to our global Product management group in New York defining product requirements needed for successful business within the region. This means that you will do some travel both within the region and to New York.

As a person, you enjoy working with people from other cultures and have the ability to communicate over the borders. You have a MSc or BSc degree in engineering with long experience from the telecom industry. Naturally you have excellent communication skills and are fluent in the English language.

Contact: Leif Gebelius at +46 8 404 7557 or Memo ERA.ERALGEB. Application: Ericsson

Radio Systems AB ERA/F/HS Anette Norberg, 164 80 STOCKHOLM

LM Ericsson International AB, Ukraine

LOCAL PRODUCT MANAGER

● Are you a person motivated in using your technical support knowledge to assist the Local Company in Ukraine? - If so, you are a potential candidate for this position.

We are looking for Local Product Manager (LPM) who will work closely with the Customer, the Customer Account managers and the Sales and Marketing people.

As a LPM, you will be expected to perform tasks like: Analyze the technical sales support needs of the Local Company, according to the market situation and customers technical requirements. Technically assist the sales people in making offers to the customer. Support the Customer in resolving product related issues. Support the introduction of all suitable ERA processes and methods to the Local Company and the Customer. Support the introduction of all suitable ERA products to the Customer. Work closely with CUSTOMER ACCOUNTS and SALES & MARKETING for effective technical support to them. Do product planning and Product Life management for the market.

You have an engineering degree and three or more year's experience in technical sup-

Ericsson Australia Pty. Ltd

APPLICATION SYSTEM REPLACEMENT (ASR) ENGINEERS - AXE

We are looking for a number of Experienced Engineers in either fixed or mobile systems, or both. To work in the TAC, ASO and SSC areas of the Regional Centre Australia.

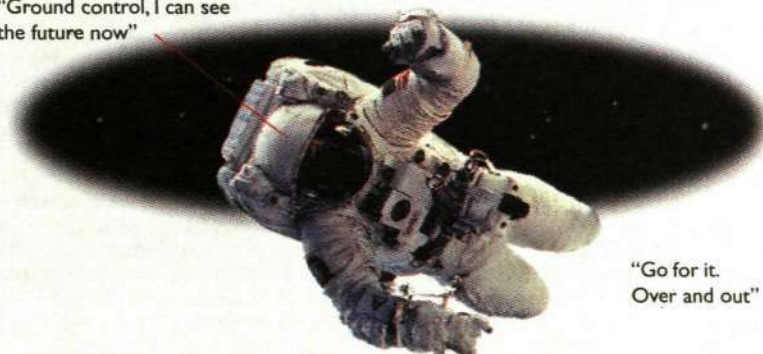
● The incumbents will need to have a good understanding of the overall ASR process and the different methodologies that are used for different types of upgrades. There is also the need to have good trouble shooting and DT handling skills. Please note the TAC requirement is for an ASR Engineer to go on short term contract in Montreal, Canada and upon return rollout the new package.

Requirements: Good knowledge of the ASR process and methodologies. Experience in preparation of upgrade implementation instructions. Have on site upgrade experience. A desire to travel throughout the Asia-Pacific Region extensively. Have a good Customer focus and interaction. Excellent interpersonal and communication skills. Be self motivated.

If you are a team player and want to be part of a fast growing Services Business, then one of these positions will appeal to you.

Contact: TAC Manager Warren Halliday (EPAWJH), SSC Manager Susan Hicks (EPASNH) or ASO Manager Wayne Bowring (EPAWAB). Application latest 980417: EPA Employee Services Sue Holman (EPA.EPASMH).

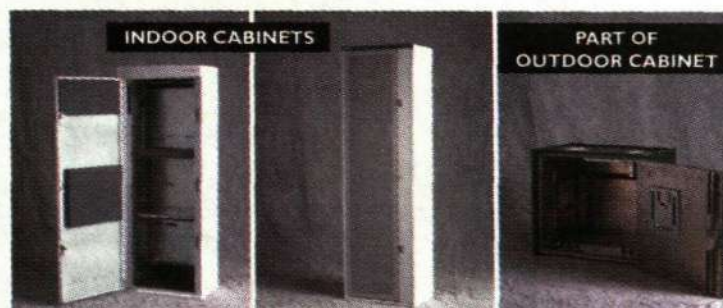
"Ground control, I can see the future now"



"Go for it. Over and out"

WE INTEND TO MAINTAIN OUR LEAD

We as a company are continually looking to the future. One big step in this direction is our joint venture agreement with Kingston Metal Corporation in Pennsylvania, USA, that will give us a global market to canvass. We never take a back seat - the constant search for new approaches and opportunities has become our hallmark. The results of our efforts are converted into new investments and training for our 500 personnel in Skillingaryd, Vaggeryd and Lovsjö. From our perspective this is the only course to follow. We gaze out over mother Earth with tremendous confidence in the future!



SWEDFORM

Much more than tube, wire and sheet metal fabrication

Swedform AB, Box 4, S-568 21 Skillingaryd, Sweden. Tel. +46 370 788 00. Fax +46 370 788 20. www.swedform.se
Kingston Metal Corporation, Pennsylvania, USA. Tel. +91 717 288 54 11.

Ericsson Australia Pty. Ltd.

ERICSSON'S LARGEST "NI" CUSTOMER

EXPRESSION'S OF INTEREST: ERICSSON AUSTRALIA, NETWORK INTELLIGENCE, PLATFORMS MANAGEMENT ROLE.

Ericsson Australia have been working towards securing a new business opportunity with Australia's largest Telecommunications carrier: Telstra, in relation to Network Intelligence. This scope of this opportunity will make Telstra, Ericsson's largest NI customer.

We have been short listed and are currently refining our proposal and providing our customer (Telstra) with additional capability information in order to secure the business. On the basis we are selected by Telstra, EPA will need to resource this area quickly in response to the many opportunities that will flow from securing this business opportunity.

● The role will be a key interface between Telstra and the many parts of the Ericsson Global organisation in response to the issues that arise from a technical platforms perspective. The successful candidate will assist in determining the appropriate product solutions, platform strategy in support of Telstra's NI business requirements, through to NI platform rollout all meeting or exceeding the agreed deliverables.

Your interpersonal skills will be fully utilised as you will be working with various organisational levels with the Customer, as well as championing Telstra's requirements into the ETX/ERA NI organisation. As the unit will be working towards tight deadlines, your ability to deliver results will be an important ingredient and will be highly regarded. This role is an excellent career opportunity to work with an advanced fixed and mobile Telecommunications carrier, developing a detailed knowledge of the Customer and the opportunity to develop your customer management skills.

Interested...?

Contact: by memo Craig Hudson (EPACWH) or Jacquie Hey Business Manager NI (EPAJHE). Application ref no 98:0929 latest 980501: Craig Hudson (EPACWH).

Ericsson (China) Company Ltd, Beijing, China

CUSTOMER SERVICES MANAGER

● We are looking for an ambitious, creative and self-motivated Manager to develop Customer Services Support within the Transport & Cable area of Ericsson China Ltd. The duration of the appointment will be a minimum of one year.

You will have at least 5 years experience of the Telecommunications industry, preferably within the Transmission sector, knowledge of service management, fluent in English, and be educated to M.Sc, B.Sc, MBA or similar.

Responsibilities shall include, but not limited to, tailoring and developing standard product portfolios into market flexible service offers, pricing strategy, definition of Support and Hardware Service contracts, invoicing routines, support regional Customer Service sales personnel on service product descriptions, contracts, pricing and service contract implementation, preparation of marketing materials and tools and participation in tender preparation and negotiations.

This is a challenging and rewarding position in a market of great cultural diversity. If you think you have got what it takes and would like further information then contact either:

Contact: Human Resource Manager, Expatriate Management Margaret McManamon - +86 10 64632288 ext. 10189 or SDH Programme Manager Dave Harvey - +86 10 64632288 ext. 10609

Ericsson Eurolab Deutschland GmbH (Germany)

TCS MAINTENANCE ENGINEER WANTED

EED in Herzogenrath/Germany, close to the university city of Aachen, offers you as a young and growing company an open working atmosphere with high motivated colleagues.

● At the departement responsible for the Traffic Control Subsystem (TCS) we are looking for a maintenance engineer to work with TCS maintenance tasks for all AMC markets.

The AXE Mobile Core (AMC) consists of the core subsystems that are common to the mobile applications CME20, CMS30, CMS40 and CMS88. The general responsibility of the maintenance engineer is to analyse trouble reports and to verify and propose solutions on prob-

lems reported from our customers.

This is done in close co-operation with support centers all over the world.

The main authorities and tasks are: Analyse trouble reports on released TCS products. Write and verify corrections in target and/or simulated test environment. Propose solutions. Design and verify TCS subsystem products according to the RPC (Rapid Product Change) process. Take an active part in FOA (First Office Application) activities in AMC markets worldwide.

As a suitable candidate, you are an Ericsson employee and should preferably have experience in design maintenance activities.

Any test experience in target and/or simulated environment as well as experience in the traffic control area is a clear advantage.

The position requires initiative, good communication skills and a good ability to work under pressure.

Contact: Human Resources Simon Seebass, Memo-id:EED.EEDSIMS, Dial:+49-2407-575-163 AMC TCS Maintenance Lars Andersson, Memo-id:EED.EEDLARA, Dial +49-2407-575-662

Ericsson Australia Pty. Ltd, Melbourne

DO YOU WANT TO PLAY A KEY ROLE IN IDENTIFYING AND DEVELOPING STRATEGIC COMPETENCE REQUIREMENTS FOR EPA..?

COMPETENCE MANAGER: TECHNICAL

AN OPPORTUNITY TO LEAVE YOUR "MARK". GLOBAL COMPETENCE FOCUS. ALIGN THE STRATEGY WITH ACTIONS

As a result of an internal promotion, there is an excellent opportunity to make a significant contribution to the achievement of the vision and the ERICSSON AUSTRALIA WANTED POSITION. Competence is seen as our source of competitive advantage and is acknowledged as a major enabler in achieving our business aspirations.

● In conjunction with executives and the leaders within the organisation, the successful candidate will develop and then translate this "vision" of the Technical Competence requirements into a series of development initiatives, strategies and approaches, drawing upon resources from EPA, external providers as well as the global organisation. The ability to identify and apply "Leading Edge" practices coupled with the ability to evaluate, measure and report our progress will be highly regarded.

Your complete range of highly developed and demonstrated interpersonal competencies will be continually stretched as your contribution will be sought by the Global and EPA organisation. Your knowledge of the current and future business requirements as well as your network within the global organisation will be fully utilised as you work towards achieving the objective of bringing the future technical competency requirements to reality.

Sound interesting..?

Contact: Craig Hudson or Karen Cavanagh. As this role is of strategic importance, the advertising and recruitment process will include the International Ericsson Organisation. Application latest 980501 ref nr 98-0926: Craig Hudson EPACWH.

Guildford UK, Cellular Systems Sector, Business Development Group

SENIOR PRODUCT / SOLUTION MANAGERS

● We are looking for suitable pro-active individuals with 3-5 years of Product Management experience in CME 20 BSS or SS or related disciplines.

ACCOUNT MANAGERS / MARKETING EXECUTIVES

● In both instances you should have an extensive marketing / commercial experience of Ericsson GSM products and associated network products and solutions.

The Account Manager position requires previous experience of leading and managing teams in a challenging and high profile sales environment.

A very good technical competence along with a strong contact network within Sweden for both role types would be beneficial.

In all these positions we are looking for talented individuals with strong personality, flair and initiative, customer focus, and team players. You must also be able to cope under pressure with one of Ericsson's most technically driven customers.

Contact/Application: Ian Hoddle Business Development Group - Manager ETL.ETLIHE +44 1483 30 5701

Ericsson Telecomunicazioni S.P.A., Italy

The Mobile Systems Division of Ericsson Italy, within the framework of an expansion programme of resources designated for the new Operators, is looking for:

AXE FIELD TECHNICIANS

● Will be responsible to carry out in the field testing and integration in the MSC network. Preference will be given to candidates with knowledge of the Italian language

AXE TROUBLE SHOOTERS

● Will be responsible for the activity of MSC trouble handling and solving.

AXE PRODUCT MANAGERS

AXE SOFTWARE AND HARDWARE PRODUCT MANAGERS.

INTELLIGENT NETWORK SPECIALISTS

PRODUCT MANAGER, TESTER, TROUBLE SHOOTERS

OSS TESTERS

● ITEMIP, TMOS, UNIX skilled, responsible for Testing, Network Integration, Trouble Shooting.

Contact: Massimo Lolli, EITA.TEILOMA.

Guildford UK Cellular Systems Sector, Business Development Group

SENIOR PRODUCT MANAGERS

The sector based in Guildford work with the number 1 UK cellular operator, Vodafone Ltd. Vodafone currently operate an extensive ETACs, and GSM network with 900 Mhz and 1800Mhz spectrum. In the UK market place Vodafone compete with three other operators and in 1998 auctions for UMTS bandwidth are planned, introducing further competition and opportunities. Ericsson is the dominant cellular infrastructure supplier towards this customer, with emphasis on improving market share through the provision of total solutions and best in service performance.

● We are looking for suitable pro-active individuals with 3-5 years of Product Management experience in CME 20 BSS or SS or related disciplines.

You will be responsible for developing : Customer relationships throughout Vodafone. New business opportunities inside and outside of your current discipline. Handling existing business requirements. Ensuring the account team reach agreed targets and goals.

You must have a strong personality, flair and initiative, customer focus, and be a team player. You must also be able to cope under pressure with one of Ericsson's most technically driven customers.

Contact/Application: Ole Nielsen BSS Role + 44 1483 30 5701 ETL.ETLOENN or Adrian Saunders SS Role + 44 1483 30 5871 ETL.ETLANSA

Ericsson Radio Systems AB, Sundbyberg

UKRAINE

Ericsson has a new GSM customer in Ukraine. We therefore preparing the future organisation in our local company UKR. Following positions are open and on long-term conditions based in Kiev.

CUSTOMER PROJECT MANAGER

● As a customer Project Manager you will take care of the operators extension. You should possess qualifications that make it easy for you to motivate, inspire and guide the project and to create synergism in the team. You are experienced and recognised as trustful leader by the team and by the customer. You would not hesitate to take active part wherever needed.

Your task is to define and run the implementation project. You will be responsible for organising, planning, ordering/initiating, follow up and finishing all activities to fulfil the contract and budget and in accordance with the customers and our own expectations.

Preferably you should have an M.Sc. in Engineering and you should have at least five years experience from some of the following areas; AXE, cellular, project management, im-

plementation and SW support. Speaking Russian will be a benefit.

To be successful in your position you need a lot of drive and determination combined with a humble attitude to local habits. You need to be a good official representative of your company.

FSO MANAGER/SYSTEM EXPERT

● We also look for a Senior Support Engineer. He/she will take on the responsibility to establish and head the support organisation.

The activities will include: Analyse network problems according to customer complaints/TRS and own investigations. Suggest actions on all levels in order to improve network performance. Discuss, negotiate, agree and execute with customer actions needed to maintain optimum ISP level. Advanced independent troubleshooting. Employ, train and transfer knowledge to local support engineers. Interfacing and reporting to FSC and ASO.

You should have a good product and functional knowledge of AXE/GSM system. Ability to communicate and handle contacts with the customer and be generally customer oriented. Ability to build a support organisation with minimum overhead, focusing on results and adhering to Ericsson standard processes. Work independently and on own initiative. You should have a minimum of 3 years experience in similar position. Fluency in English is required. Knowledge in support of PSTN and D-AMPS system is also welcome, as the FSO also will support these applications in the Ukrainian market.

Contact: Anders Briandt, +46 8 7575650 Leif Edvall, phone +380 44 462 4790, fax +380 44 462 5712 Göte Hedblom, Human Resources, +46 8 585 31479 Application: Ericsson Radio Systems AB SG/ERA/LP/HA Siw-Britt Johansson, 164 80 STOCKHOLM

LM Ericsson Israel LTD

SHALOM GSM IN ISRAEL - Hundreds of Base stations in 5 months!

Ericsson has signed a Turn Key project on the first GSM system in Israel. Today there are already two mobile systems, built on the American standard. New subscribers in the systems continue to grow very fast, 30 % of the population have already a mobile phone.

Our customer wants of course the GSM system to be up and running as soon as possible, to be able to take market shares and new subscribers. This puts a high pressure on Ericsson to build and install approximately four hundred Radio basestations within a very short time.

For its rapidly expanding operations, Ericsson Israel requires the following professionals:

Cellplanners

Civil works specialists/experts

RBS installation/test Engineers BTS

Design engineers

MSC Support Engineer

BSC Support Engineer

OSS Support Engineer.

We also recruit for the following managerial positions:

Manager, Cellplanning

Manager, Installation Engineering.

Contract Manager

RBS Supervisor

Civil Works Supervisor.

● Basic Requirements for all positions: long experience of AXE and GSM environment, as well as international experience. You should also have power of initiative, high motivation and a good ability to co-operate. For the managerial positions you must have earlier experience as a manager.

Contact: Staffan Eriksson, Operations, +46 8 404 7778, ERAC.ERASAFF Elisabeth Ramel, +46 8 764 1571, ERAC.ERAEIRA Bo Anderson, President Ericsson Israel (EOI), +972 3 688 5005, EOI.EOIBAND Göte Hedblom, Human Resources, +46 8 585 31479, ERAC.ERAGGHE Application: Ericsson Radio Systems AB SG/ERA/LP Elisabeth Ramel, 164 80 STOCKHOLM

Ericsson SA - Paris, France

MANAGER, IN SERVICE PERFORMANCE IMPROVEMENT PROGRAM

Our customers, both in the Mobile and Fixed networks, are very demanding when it comes to the in-service performance of our switches. We have therefore setup a program dedicated

to the improvement of the network's performance in terms of Line Down Time, as well as the number of network disturbances.

● As a manager of this program you are responsible for identifying key improvement areas in the system (taking into account the reasons behind the major incidents in the network), challenging the generation of internal improvement proposals for these areas and ensuring the proposed studies and technical solutions are completed successfully. Current areas of focus cover Robustness, Capacity, ASR and Testing methods.

You are the key interface towards our customer, responsible for setting up efficient information flow, as well as for presenting progress bi-monthly on key issues.

Within Ericsson you ensure the interface towards ongoing ISP programs at UAB and BN/BR. Your network of experts and troubleshooters supports you in your technical investigations. Internally at MET you interface towards Field Support Teams when addressing network disturbances, as well as towards local systems and test experts.

Your knowledge of the system (APZ/APT) and its key mechanisms as well as the reliability of real-time computer systems in general, your previous experience in System Verification or Customer Support, as well as your proven project leadership and presentation skills will help you take on the challenge. Basic knowledge of French is a plus, and the position is located in Paris.

Contact: Alain Montfort (MET.METAMOT) Division Manager, Improvement Programs and Quality Phone: +33 1 64 47 48 90 or Dany Nassif (MET.METDNF) Section Manager, Quality and Methods Phone: +33 1 64 47 55 93 Application: Martine de Bouville (MET.METVME) Human Resources 19 Ave Carnot Massy 91348 Cedex FRANCE Fax: +33 1 64 47 49 67

Ericsson Telecom AB, Public Networks Customer Services

CUSTOMER SERVICE MARKETING & SALES MANAGER

The UK telecom market is a deregulated, exciting and demanding market. The applicant will be working with some of the most successful telecom companies in our business.

● As a CUSTOMER SERVICE MARKETING & SALES MANAGER, be responsible for actively supporting all Customer Services activities required to achieve set goals for consolidated business result within Public Networks.

Areas of responsibility: Create and execute Market and Sales plans together with account managers. Recommend pricing strategies and pricing levels. Initiate and co-ordinate plans and activities for customer projects, e.g. visits, seminars, exhibitions, customer presentation and promotions. Initiate launching of new service products. Take active part in the budget process for Customer Services. Forecast resource and competence needs and communicate to Global Resource Management. Enable tender work and co-ordinate tenders when required. Develop models for local agreements and service policies. Develop and perform Marketing and Sales training specifically designed for Customer Services. To report monthly the Customer Service business status and financial results.

Requirements: General knowledge of AXE and/or related service offerings, preferably an engineering background, good skills in English, at least 3 years of Ericsson sales and/or marketing experience, preferably with After Sales or Customer Service experience. A goal oriented individual to be based at ETL in Guildford, UK.

Contact latest 980430: Henrik Albrecht at PN Customer Services, +468 7194673, Memo ETXT.ETXALBT. Application: Gabriella Gerdin, Ericsson Telecom AB, TB/ETX/PN/CS, S-126 25 Stockholm."

LM Ericsson International AB, Ukraine

UKRAINE - YOUR NEXT CHALLENGE

RMOA's activities in Ukraine are rapidly expanding. Our main customer is now starting their operations in 6 major cities and will expand throughout Ukraine during the coming next years. Therefore we need to build up and strengthen our RMOA organization in our local company UKR based in Kiev, Ukraine. The following positions are now open on long-term assignments based in Kiev, Ukraine:

KAM - KEY ACCOUNT MANAGER

● As Key Account Manager you will work with sales and commercial support to our largest customers in Ukraine and be responsible for fulfilling the customers high expectations. You

will be a part of the marketing and sales team towards RMOA's accounts.

You will be responsible for: Marketing and sales activities towards our customers. Create and maintain market plans. Together with RMOA's home organization prepare and negotiate offers and contracts. Be responsible for budget and forecast and for meeting/exceeding sales objectives. Establish long-term partnerships towards our customers to ensure excellent customer satisfaction.

You will be involved throughout the whole sales process starting with the initial sales activities and tender preparations to contract negotiations and our extensive service offering. You will be working in a stimulating small core-3 environment and have close contact with the RMOA home organization.

You have completed a university degree (B.Sc., M.Sc. or similar) and should have at least 5 years of working experience, preferable from international system sales. You have a good knowledge of cellular communications and at least 2 years of working experience at Ericsson, ideally within D-AMPS or GSM. You should be business oriented, have the ability to build excellent relations with customers and drive for results. Fluency in English is required. Working knowledge of the Russian language is a strong advantage.

Contact: Jan-Owe Palm, tel +46 8 40 42073, memoid ERA.ERAJAOP or Eddie Åhman, tel +46 8 40 42280, memoid ERA.ERAEDDI Application: Ericsson Radio Systems AB KI/ERA/AH/H Birgitta Stavenow, 164 80 STOCKHOLM

Ericsson Australia Pty, Ltd.

AMPS/D-AMPS SUPPORT ENGINEERS

TAC3 is one of 4 Global Support Centres for AMPS and D-AMPS. TAC3 is Responsible for Support and deployment for AMPS and D-AMPS systems throughout the Asia-Pacific Region. A number of positions are available in TAC3 for Experienced AXE Support Engineers.

● KEY RESPONSIBILITIES: AS Verification. Correction Handling. AC-A. CN-A. Trouble Report Handling. Troubleshooting. Testing. Operations and Maintenance. Consultation. On site deployment throughout the Region.

SKILLS: CMS 8800 EXPERIENCE (Not essential). AXE EXPERIENCE, Familiar with AXE Software PLEX and ASA programming. SUPPORT EXPERIENCE, TR handling, Correction Handling. TESTING EXPERIENCE. TEAM PLAYER. ABILITY TO TRAVEL. GOOD CUSTOMER SERVICE + INTERPERSONAL SKILLS. ENJOY COMMUNICATING WITH VARIOUS CULTURES. FLEXIBILITY.

Don't miss this opportunity to work as a part of the Regional Centre, one of the most exciting business ventures at Ericsson Australia. If you meet these requirements we encourage you

Contact: Warren Halliday, TAC Manager, epa.epawjh. Application latest 980309: EPA Employee Services Sue Holman (EPA.EPASMH)

Cia Ericsson de Chile S.A.

OSS IMPLEMENTATION & MAINTENANCE SUPPORT EXPERT

● Our local company in Chile (CEC) is looking for a candidate to work with OSS implementation and maintenance support.

To qualify you must have worked with installation/support/test of OSS systems and have a broad knowledge of Unix HW & SW, Sybase, X.25 and preferably Radio and Telecommunications. You will be primarily responsible for OSS customer support and transfer your knowledge to local engineers. You should be self-motivated and work easily on your own and within a team to achieve goals and customer requirements.

We are offering a one year contract position starting as soon as possible.

Contact: John Glimtoft, memoid ERA.ERAGLIM, tel 08-40 46916 Application: Ericsson Radio Systems AB KI/ERA/AH/H Tom Larsson, 164 80 STOCKHOLM

Ericsson GMBH, Germany

EXPERIENCED FIREFIGHTERS, TROUBLESHOOTERS, SUPPORT ENGINEERS & TESTERS ON LOCAL/SHORT/LONG TERM CONTRACTS

We are key players in the new CME20 support structure. Join our international teams, come and work in a demanding environment with the latest functions on the fastest growing AXE application. We have a number of vacancies in various areas of our responsibility. We are look-

ing for experienced personnel (3-10 years) who can participate in:

● FOA Firefighting. Application System Replacement development. Hot TR Troubleshooting. Package production. Emergency correction production. Correction testing. Technical consultancy. AC-A testing. Global support co-ordination. CN-A testing. Function testing. Deskchecking.

Come and develop your skills further here with us. We are regarded as the primary competence centre for CME20 HLR/MSR support. We work closely with all worldwide CME20 support organizations, with the most demanding operators at network/system/function level. We tackle the high impact problems that affect the worldwide Switching System. We work closely with Design organizations to fix faults and test and implement new functions.

Opportunities for personal and technical development are outstanding, also are the opportunities for worldwide contact networking. Watch yourself make a global impact with your efforts. Get more info on us from our homepage: <http://www.eed.ericsson.se/services/eed-x-sl/>

Applicants should be educated to degree level or equivalent and should demonstrate a solid AXE background and a determination to tackle problems and meet new challenges. An open minded and flexible attitude and the ability to work well in a team environment are important personal qualities. As a support engineer you should also show good written and verbal communications skills.

Contact latest 980509: Human Resources Simon Seebass, Memo: EED.EEDSIMS, Dial +49 2407 575 163 or Section Manager EED/X/SLC Thomas Busch Memo: EED.EEDTHB, Dial +49 2407 575 178

Ericsson Transport & Cable Networks (BU/ETL), Horsham, UK

ASSISTANT BUSINESS CONTROLLER - TRANSPORT MARKETING

We are looking for a flexible and motivated person to join our team in Horsham. This role is an excellent opportunity to develop your skills and knowledge within a busy Finance Department.

● Main Duties: To co-ordinate and report ETX part of budget, estimates and actuals. Analysis and commentary on the above reports. Special responsibility for co-ordinating system maintenance. Report from a financial perspective on the Business Unit's marketing transport operations, involving feedback and close interaction with the Marketing and Operations departments. Take a proactive part in the transfer of knowledge / competence to local employees within the Finance Department.

Qualifications: Fluent communications skills in English and Swedish. Hard-working with the ability to work under pressure. Able to take on and enjoy responsibility. In-depth experience of ETX financial systems. You will have worked with marketing-related issues and possess an excellent working knowledge of Ericsson consolidated accounting. You will have established an extensive network of contacts within the BN Finance organisation in Sweden. Essentially educated to a higher education standard.

Contact: Mats Thuresson, phone + 44 1483 277505, ETL.ETLTHUR Application: Peter Sheppard, HR Manager. Phone + 44 1483 277566, ETL.ETLPRSD

Ericsson Research Canada, Montreal

COMPETENCE CO-ORDINATOR (CERTIFICATION)

● We are currently looking for a Competence Co-ordinator (Certification) who will deliver approved LMCT certification programs, within the TAC 1 customer support area of responsibility. You will provide certification specific coaching packages to assist candidates to meet the required standard of competence in the certification programs.

As technology evolves, you will also be responsible for ensuring that the certification programs evolve in accord. Sharing of knowledge and experience with other Ericsson business units will form an important part of the role.

The successful candidate has a broad knowledge of the AXE 10 system, with particular attention to CPS, SPS and Test System (wrt Operations and Maintenance procedures). The ability to assimilate information quickly and create clear and understandable knowledge

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sharing packages to convey that information as well as excellent communication skills (written and oral).

Contact: Hélène Schwelb (Imchesc) in Human Resources or Nathalie Quirion (Imcnafq).

Ericsson Business Networks, UK

3 IMPLEMENTATION ENGINEERS

Ericsson Business Networks in the U.K. are seeking Apprentice Implementation Engineers.

● The Implementation Engineers are responsible for ensuring implementation and commissioning of solutions meet customers needs and their total satisfaction.

Applying the technology offered by the entire portfolio of Consono, MD110, Call Centre Applications, DNA, CTI, Data and Mobility. The Systems Engineers will work closely with all other areas of Business Networks and become the key link between Ericsson and the customers representatives.

Requirements: Suitable candidates must have a strong and proven track record of commissioning MD110, including voice and data integration and have a sound and demonstrable knowledge of Windows NT and LAN/Networking environment and protocols.

It is important that you are proactive and take initiative without supervision, based on site/at home the individual must be prepared to work where and when required.

We have the best products, we need the best people.

Contact: MaryAnne Morgan-DeGray Etl.etlmemn@memo.ericsson.se

Ericsson Radio, Spain

SENIOR PRODUCTION TEST ENGINEER

● We are looking for a Test Engineer to work in Ericsson Radio- Indelec Division in Bilbao (North of Spain). Our main business is Radio in the Local Loop products for GSM, DAMPS, NMT and systems, designed in our R&D center in Bilbao. We also manufacture some other BR and BT products. The company is located in a nice countryside area close to Bilbao.

The position involves the design of the production test systems at board level, final test and exhaustive climatic tests (level 2). The systems are designed to test Radio in the Local Loop terminals (GSM 800/1800, DAMPS 800/1800 and NMT), GSM terminals for special applications and some parts of the GSM RB52000 base stations.

They are designed for high production, this means that has to be reliable and fast. The actual test team is young and highly qualified, a very interesting group to work with.

We are using the most advanced test techniques and tools.

REQUIREMENTS: Radio engineer or similar. Experience on developing test systems. C++ programming under Windows environments. Measurement technics. Basic knowledge about the air interface in cellular systems (GSM or DAMPS). Basic knowledge about radio and low frequency hardware, at block level. Spanish language it is not needed (but english yes).

Contact: Gorka Martínez. Phone +34 4 4858054. Memo: INE.INEGMAR. Ericsson Radio, Parque Tecnológico 108, E-48170 Zamudio, Bizkaia. Spain.

Ericsson Telecomunicações Lda, Portugal - SEP

NEW OPPORTUNITIES IN PORTUGAL

Ericsson Telecomunicações in Portugal is supplier to all three GSM operators, both GSM 900 and 1800. Portugal had the highest GSM penetration increase in 1997 within Western Europe and therefore we are growing fast with a need to fill positions in the following areas.

FSC MANAGER

● We are looking for a Manager with at least 4 years FSC experience and good knowledge in leadership. The ideal candidate shall be customer oriented, good team spirit and proven capabilities in transfer knowledge to the local staff.

Contact: Kjell Pettersson, memo: SEP.SEPKPE

RADIO NETWORK PLANNER

● Tasks are related to complete responsibility for Cell planning and Optimization for an operator, but also to work with swapping out other suppliers BTS's. Requested experience is minimum 2 years of Cell planning or Optimization, preferable both areas.

Contact: Kjell Pettersson, memo: SEP.SEPKPE

INSTALLATION ENGINEER, AXE

● A-pack specification, C-module production, site surveys, methods and process improvements and competence transfer to local personnel.

Contact: Conny Andersson, memo: SEP.SEP-CAND

DATA TRANSCRIPT

● Collection of exchange requirements, I-module production, methods and process improvements and competence transfer to local personnel. Knowledge of GSM is required, MIN is an advantage.

Contact: Conny Andersson, memo: SEP.SEP-CAND

TESTLEADERS INSTALLATION TEST, AXE

● Test planning, testing of extensions and new switches, acceptance test with customer, methods and process improvements and competence transfer to local personnel. Knowledge of GSM required, MIN and other third party products an advantage.

Contact: Conny Andersson, memo: SEP.SEP-CAND Application: SEP.SEPUBA, fax +351 1 4249366, Att. Ulla Baginha Ericsson Telecomunicações Lda Rua da Barruncheira, 4 2795 Carnaxide PORTUGAL

Ericsson Eurolab Deutschland GmbH, Business Unit Hildesheim

The EEDIEIP department has the worldwide product responsibility for the Ericsson optical Access System LOC2i including its management system iRIDES. We cover the whole product life-cycle from the Technical Product Management, HW and SW development, Test, Verification and Maintenance. To support our iRIDES activities we are looking for a

SOFTWARE DESIGNER NETWORK MANAGEMENT SYSTEMS

● You will work within a team to further develop the management system product iRIDES. You will work in all phases of the SW Design Process. This includes participation in Pre- and Feasibility Studies, Design, Implementation, Test and Maintenance.

As a suitable candidate you have an academic degree in Computer Science/Telecommunication or equivalent. You have been working for Ericsson for at least one year in the area of SW development. Practical experience in C is needed, experience with relational data bases (Ingres), GUI-builder and/or development of network management systems is a clear advantage.

In this position you will need initiative and good cooperation and communication skills. You also should have a clear focus on customer satisfaction.

Furthermore you will have to be flexible and have the ability to work under time pressure. If you have questions and/or are interested, please contact us until 04.04.1998. Please refer to Project No. E0598.

Contact: Torsten Rosenthal, Phone: +49 5121 707260, Memo: EED.EEDTORO; Astrid Mayer, Phone +49 5121 707400, Memo: EED.EEDASMA Application: Ericsson Eurolab Deutschland GmbH, Human Resources, Astrid Mayer, Daimlerring 9, 31135 Hildesheim, Germany

Ericsson Telecommunicatie, B.V. Rijen, Holland

GLOBAL RESPONSE CENTER HUB MANAGER EUROPE/AFRICA HUB

Join a high performing team at the core of Ericsson Customer Support.

● You enjoy a high degree of personal responsibility and creativity to deliver objective driven results. You will lead and value a staff of committed high competence professionals that together with local Customer Support Offices deliver outstanding Customer Support to Ericsson's customers.

You have the right blend of enthusiasm, flexibility and commitment to both manage day to day hub operations and drive forward the changes needed to achieve our shared vision of 'Ericsson Support- Perfect'.

As part of the GRC management team, you see the big picture, are customer orientated with a business sense, and are creative in devel-

oping goals, and inspiring in meeting them. The position is based in Rijen, The Netherlands

Contact: Camilla Sundstrom ETXT.ETXCUSU +46 8 719 7139, Dave Eales ETM.ETMDES +31 161 249362, Karin Ljungren ETXT.ETXKALJ +46 8 719 5503, Peter Dicksson EUS.EUSDCKN +1 972 5831356, Andreas Luiga EPA.EPAADL +61 39301 1814.

Ericsson Telecom AB

"ASIA CENTRE"

Ericsson Telecom AB, Public Networks, Market Unit Asia-Pacific - we are looking for a new team!

We are establishing a Regional Centre in Kuala Lumpur, Malaysia, focusing on Access solutions, Multimedia, Datacom and Internet applications. The Centre will be located within the Multimedia Super Corridor together with other Ericsson units. The regional centre will be effective from the 2nd quarter of 1998. The unit will be a catalyst to help our Local Companies in Asia enhance the marketing skills and techniques which are needed for the future. The new unit will be smaller, faster, located closer to the customer, and staffed by specialists representing the competence need for the future.

● The unit will initially employ product and solutions specialists who will share their knowledge and experience in respective areas, taking advantage of the latest communication and transport facilities within the MSC concept. The unit shall develop and provide technical support to other Ericsson companies in the whole Asia region. This is a manifestation of our commitment towards our customers in Asia.

Your profile: To meet this challenge we need more of the right kind of people. People with various backgrounds but focus on value based marketing and that can conclude business deals together with our local companies. To be part of the future success, we need you that have a good knowledge in telecom and computers. You have an ability to not only recognize opportunities, but can create and act upon them. You also enjoy to work intensively in a group and is motivated by responsibility.

To be part of the "Asia-Centre Team" we require that you have a technical degree, and that you are a person who: has a pioneer spirit, is interested in working close to the customer, enjoys working intensively in a group, is fluent in English.

Contact: Magnus Karnsund, Vice President Market Unit Asia-Pacific, +46 8 681 1228, memo: ETX.ETXMGKA (e-mail: magnus.karnsund@etx.ericsson.se) Send your application to: Ericsson Telecom AB HF/ETX/PN/APF Marianne Olsson "Asia-Centre" 12625 Stockholm or by e-mail: marianne.olsson@etx.ericsson.se

Ericsson South Africa (Pty) Ltd

SS AND BSS SYSTEM SUPPORT EXPERT

The Southern African markets are developing rapidly. Ericsson has been very successful in the region. The new networks will be live shortly and will be supported from South Africa.

To strengthen our support organisation we are looking for one SS and one BSS System Support Expert for a long term contract in South Africa.

● OBJECTIVES: To provide technical expert support to Ericsson's customers and Field Support Centre within the coverage of the field support area. To be accountable and responsible for the efficient running of the System Expert function within FSC in order to reach a higher level of customer satisfaction.

RESPONSIBILITIES: To assist in building up the expertise and to transfer knowledge within the department. To make judgement of the most efficient way, technical and economical, to solve a problem. Full reporting shall be done.

MAIN TASKS: To review, develop and improve the procedures in Field Support. To ensure that all activities within the department meet the Ericsson Quality standards.

To identify, investigate and report or solve problems of a complex nature in the both hardware and software. To be able to explain highly technical issues to different levels within the organisation. To be part of the 24 h emergency service if appointed.

REQUIREMENTS: Degree in Electronic Engineering/Telecommunications or equivalent. A minimum of five (5) years relevant experience working in the telecommunications/computing industry where at least three (3) years has been working for Ericsson within testing or customer support of CME20.

System skills (respectively SS and BSS) as good knowledge of e. g. switching, traffic con-

cepts, telecommunications networks, inter-exchange signalling, GSM900/1800 Radio environment (Cell Planning and Fault finding), AXE 10 Operations and emergency recovery procedures and product functional demands.

Have a sound knowledge of the CME20 Switching System, trouble shooting and trouble report handling, CN-A and CN-I handling and correction implementation.

System Expert needs to be familiar with the product structure at a level equivalent to the components of a function block (hardware and software functions).

Knowledge of MIN (Mobile IN) applications and complimentary products as VMS and SMS-C applications is an advantage.

Personal skills as a thorough and methodical approach to work, be able to work as a team member, perseverance in tracing and proving the existence of faults, be flexible and responsive to changing work patterns and demands. There will be a need to travel in Southern Africa at short notice.

Very good knowledge of English is a must.

Contact/Application: Riku Vastela, Memoid ESA.ESARIKU, phone ESA +27 11 283 2000.

Ericsson Radio Systems AB, Kista

Mobile Telephone Systems GSM, NMT, TACS (RMOG) are now looking for

DIRECTOR - MARKETING

We are a marketing unit with approximately 60 employees responsible for the worldwide marketing of infrastructure for GSM, NMT and TACS. The unit is currently divided into five departments for Marketing Communications, Solutions Marketing, Business Marketing, Strategic Planning and Global Marketing Communication.

● We are now looking for a leader of this unit. We want a strong personality, energetic and result oriented with a social flexibility and sensibility to customers and employees.

Your mission will be to join, coach and inspire a competent team of professionals. Together with your team, you shall be able to transform strategic decisions and analyses into practical business results. You will be working with many other units at Ericsson locally and globally to achieve these practical results.

You need experience within Radio Communications and a good marketing knowledge as well as business awareness and proven leadership capabilities.

Experience from working at an Ericsson company outside Sweden is an additional merit.

In order to be successful in your application we expect you to have good references from earlier leading positions.

If you find this interesting and believe that you have the qualifications to be the Director of this unit, please do not hesitate to contact us for more information.

Contact: Carl-Gustaf Leinar, Director Human Resources & Organization, tfn: +46 8-404 51 42 or Eva Fransson, Human Resource Manager, tfn: +46 8-757 57 38 Application: Ericsson Radio Systems AB K/VERA/LH/S Jaana Norén 164 80 STOCKHOLM jaana.noren@era.ericsson.se

Ericsson Telecom AB, Business Unit Datacom Networks & IP Services

MANAGER, BUSINESS LINE NETWORK MANAGEMENT

The Datacom Networks & IP Services Business Unit is now Ericsson's most exciting area, the spearhead of our big push into the Information Society. Our main target are the Internet Service Providers.

We work closely to the market and have a very business-minded and flexible way of doing things. We have recently launched a new series of products like the AXD301 ATM switch, Multi Service Management Suite, the Public Intranet platform and the Internet Telephony gatekeeper.

● The Business Unit is now looking for a new manager for the business line: Network Management

What is the scope of the business line The mission of the business line is to create value to Internet Service providers by supplying complete carrier class management solutions, products and services. The service providers are looking for increased availability and new services which puts high demands on our management solutions.

The overall strategy is to combine the best from the datacom world such as defacto standards, open platforms and user friendliness with the best from the telecom world such as scalability, customer care and billing. We have recently launched a new set of products and

applications under the name of Multi Service Management Suite which is now being introduced all over the world.

Responsibility: Reporting to head of BU and participating in BU DN&IP Management team. Based on Business unit objectives and strategies, define and communicate the strategy and objectives of the business line. Profit and loss responsibility. 50 people in three design centers. Nacka, Oslo, Mölndal. Sales of 50 MSEK 1998 and 200 MSEK 1999. Development budget of 66.7 MSEK 1998.

Valued qualifications: Excellent management capabilities. Business orientation and experience from marketing and sales. Strong background from datacom, internet or telecom management industry. Good knowledge of Ericsson and preferably international experience. Pragmatic approach. Driver and implementer. Result orientation. Known for high speed. Experience from development.

Contact: Olle Bergström, HR manager, ETXOL-BE, +46 8-4220745

Ericsson Radio Systems AB, Kista

CONTROLLER LG BUSINESS MANAGEMENT EUROPE-AFRICA

ERA/LG is the Business Management unit responsible for supporting RMOG (Mobile GSM infrastructure) business in Europe and Africa. Some of Ericsson's largest and most successful mobile customers operate in this region and recent analysis of the market shows continued high subscriber growth well into the next millennium.

● An opportunity has arisen for an experienced controller to join the Finance team of ERA/LG. This represents a good opportunity for someone who has the ambition to progress to a Business controller in the near future.

The main responsibility of this role is to support the Business Controllers. This will involve: Being fully responsible for the financial reporting and estimates process. Working closely with Business controllers to determine the consolidated financial results of each market. Liaising with Business controllers and KAM controllers to prepare the ERA/LG estimates and forecasts. Preparing financial and operational analyses. Core role in devising and implementing new standardised processes and tools.

The requirements for this role are: Good understanding of ERA's accounting systems. Good knowledge of accounting principles. Previous experience in a similar position. Good command of English language.

Contact: Sit Kow Yeung +46 08 757 0070
Memoid: erac.eraskyg or Kenneth Karlsson +46 08 757 3345
Memoid: erac.erakek
Application: Ericsson Radio Systems AB
KI/ERA/LGHS Ingela Vikenfolk 164 80 STOCKHOLM

Telefonaktiebolaget LM Ericsson, Standards and Regulations

INTERNATIONAL COORDINATOR

The environment This corporate unit performs Ericsson Standard & Regulations activities in co-operation with and on behalf of all Ericsson Business Areas and Business/Core Units. The purpose is to facilitate and support a consistent and effective handling within Ericsson, and externally, of matters concerning Standards and Regulations.

● The task is to stimulate, manage, and support internal and external co-operation and activities. A number of Ericsson-internal networks are managed to assist in building Ericsson positions and engagement in important areas. There are European, Latin American, US and Asia-Pacific networks. The unit also represents Ericsson in various external standardisation fora.

The position: We are looking for a younger person to complement our current team. Initial tasks will include taking responsibility for our "Infobase" and contributing to our support to Ericsson Business Areas/Units. The exact composition of tasks will depend on the interests and qualifications of the applicant. The position offers excellent opportunities for growth both in complexity of tasks and in responsibility. You will report to our Area manager responsible for Europe and the Infobase.

Qualifications: General interests in broad ICT (Information and Communication Technologies) issues: politics, markets, technology. Good working knowledge (written and spoken) of English. Capability to progress tasks in a pro-active manner without detailed guidance. Some travel will be required. Interested?

Contact: Tom Lindström, LME/DTU, tel. +46 8 7195338, email: tom.lindstrom@lme.ericsson.se or Björn Troili, LME/DTU, tel. +46 8 7190906, email: bjorn.troili@lme.ericsson.se
Application: Mats Bjerlöv, Telefon AB LM Ericsson, HF/LME/P, 126 25 Stockholm

Ericsson Telecom AB-Telefon plan, Marketing & Business Management, Switching

PROJECT LEADER, NEW PRODUCTS SALES FORCE

A dedicated sales force for new products Switching will be formed. A cross functional task force with members from Product Marketing Business Management the Programmes and Marketing and Sales.

The responsibility of this position is to form and lead the "New Products Sales Task Force". The mission of the Task Force is to increase customers awareness of Switching new product portfolio, initiate sales generating activities globally and drive image building activities.

The Task Force Leader will report to a Switching Management group.

● JOB REQUIREMENTS: The ideal candidate will have account manager background, competence in or interest for new products in InfoCom and familiarity with the AXE system platform. Experience in marketing in other companies will also be greatly valued.

Contact: Hans-Erik Svensson ETX.ETXHASSE +46 8-7194154

Ericsson Radio Systems AB, Sundbyberg

MARKET APPLICATION MANAGER - MIDDLE EAST AND ASIA-PACIFIC

Business Management Middle East and Asia-Pacific (ERA/LO) is the marketing unit responsible for business operations for Mobile Telephone systems of European standards GSM, NMT, TACS. We are responsible for key accounts in Middle East and Asia-Pacific.

● We are looking for a Market Application Manager to work with the following activities: introduction of new products to the market. business cases and value argumentation. regional product requirements. market introductions of end-user applications.

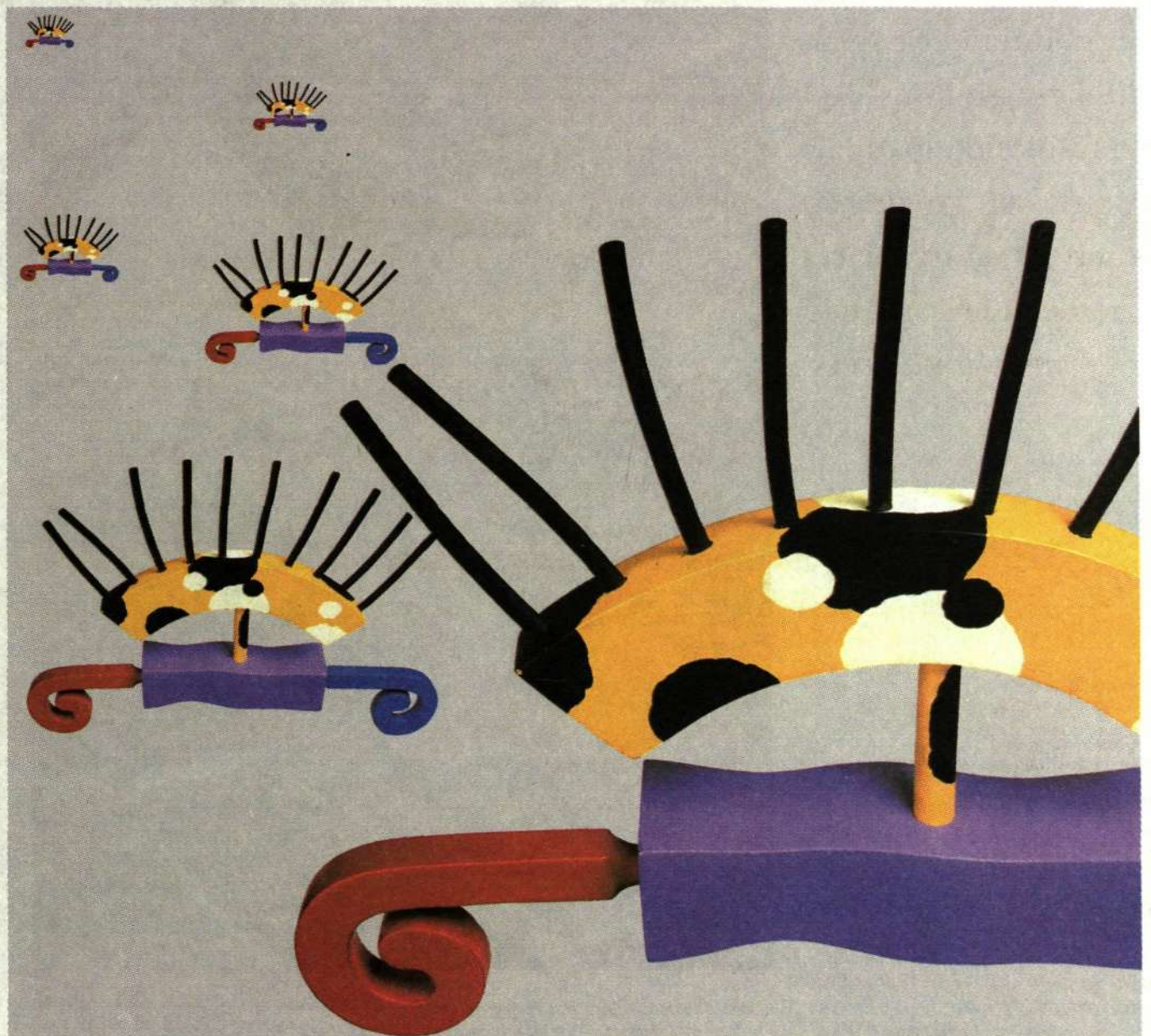
You have a technical background, preferable with Mobile Telephone systems, combined with commercial skills.

You shall also have the ability to act as a project leader i. e. for product introductions.

We are a small team with many flexible work tasks and a lot of internal and external contacts.

We work in close co-operation with Business Managers, Price Managers and Product Units in order to continue our success in the marketplace.

Contact: Nils Torstensson, phone +46 8 757 26 39, memo id: ERAC.ERANIT or Carin Kasberg, phone +46 8 404 55 87, memo id: ERAC.ERACASA
Application: Ericsson Radio Systems AB SG/ERA/LOH Christel Bjurevad SE-164 80 Stockholm memo id: ERAC.ERACBJU



How can you bridge the gap in your access network?

The new UMUX 1500 bridges the gap in your access network. UMUX 1500 extends the flexible UMUX platform from the end customer to the transport network, permits seamless expansion with SDH technology, offers V5.x services and increases the capacity and flexibility of your infrastructure. What's more, UMUX 1500 can be equipped with the full range of UMUX interfaces, allowing you to configure your access and transmission network according to your individual needs. And when it comes to making new services available to your customers, UMUX does this quickly and efficiently using the existing network infrastructure. To find out more about how the UMUX 1500 can bridge the gap to your end customers, contact Ascom Transmission Ltd, Belpstrasse 37, CH-3000 Berne 14, Phone +41 31 999 13 03, Fax +41 31 999 18 74, E-mail martin.ueltschi@ascom.ch, Internet www.ascom.ch/transmission.

Ascom Transmission Ltd is a partner of Ericsson in the field of carrier access.

Ascom is an internationally active Swiss telecommunications and service automation group, with 12 000 employees worldwide.



ascom *thinks ahead*

contact

Ericsson, HF/LME/I, Room 811023, S-126 25 Stockholm

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During your stay in Sweden, you will continue to receive Kontakten. If you move, and inform the personnel department of your new address. Kontakten will automatically be sent to your new address.

To notify us of a change in address, or to extend your subscription for Contact, please send us a memo with your new address, together with the old one, to LME.LMEKOCO.

In the computer age manuals are essential

Forget about the Internet, CD-ROMs, and interactive computer programs. Good old-fashioned manuals are still hanging in there as an irreplaceable aid for mobile telephone users.

Eva-Britt Hallerström is responsible for the development of mobile telephone instruction manuals.

"The challenge is to get people to be interested enough to open the manual," she says.

Yes, that must be a challenge. Who doesn't feel a love/hate relationship towards that little book? You hold off as long as possible, experimenting with that new telephone by trial and error instead. Finally, you realize that it would perhaps be worthwhile to pursue the manual instead of subjecting your telephone to this push-all-the-buttons abuse.

It is a long process to put together an



Despite the inroads being made by the Internet and CD-ROM, manuals will be around for some time to come.



There are many masculine attributes illustrated in Ericsson's manuals.

Photo: KENNET RUONA

instruction manual parallel to production of a product. First an English version is written, which is carefully proofread. Then the translation is done by trained translators in the respective countries. It is up to the local company to ensure that the correct terminology is used. Manuals are translated into approximately 40 languages and more are added all the time.

Everybody has tried looking, in vain, for an explanation of a particular function. It cannot be found for the simple reason that the wrong search word is used. Eva-Britt Hallerström promises improvements in this regard, where more everyday names are included.

Surprised by the covers

When I look at the cover of the manuals I am somewhat surprised. Historically, the illustrations consist of men, men and more men. It began with the Hot-Line series with the "man from the wilds" standing in Manhattan, which was meant to symbolize total freedom. Today GH 688 personifies the shirt-clad man in a tie.

Eva-Britt Hallerström agrees. Even if she is responsible for the content and not

the cover, she has received comments from both men and women around the world. Women especially say that they would never dream of purchasing a telephone with manly attributes. So much for Sweden as a model of equality.

Not threatened

Despite the fact that the Internet and CD-ROMs are starting to make inroads, even in this area, the handbook has no reason to feel threatened. The Internet is still mostly designed to appeal to computer freaks in the western world. That is why so much work still goes into making handbooks easy-to-read and understandable.

"We always try to choose the simplest way to explain how to perform a function. It is important to get up and running as soon as possible with one's new telephone," says Eva-Britt Hallerström.

GISELA ZEIME

end line

Nagging with positive intent

Just because one nags does not mean that one has to be nasty. In recent years, I have become known as a "grumpy old man," at least in two respects. I talk constantly insisting that we should not use as many abbreviations as we do within the company, and I have repeatedly directed criticism at units that we on the editorial staff have been, and are, dependent on as suppliers. Why, and with what right one could ask?

The question as to why I complain is the easiest to answer.

I do it because I believe in nagging and complaining as a method to attain improvements. "Idiotic," says one of the more constructive readers, perhaps. "Hardly," I say. Experience has taught me - I'll refrain from examples here due to a lack of space - that we often have a difficult time here at Ericsson with internal signals. The higher up a boss sits, the more filters there are to distort or eliminate important pieces of information.

The result is that critical opinions, negative facts and such things which are not considered so desirable do not make their way up to the boss.

Management is robbed of the opportunity to intervene and correct things. Perhaps the context does not become clear for them until it is too late. Perhaps we react incorrectly, defending something that should not be defended and appear to those who brought the original viewpoints as completely nonchalant, like ostriches with their heads in the sand.

Where is the editor going with this, you are perhaps wondering? I want us to be critical of ourselves when that is needed, and to not be afraid to report things which aren't so good. Stop patting each other on the back, competing for other people's favors or whatever it is that we do. Considering how good people are at appointing managers in this company, I am convinced that everyone could benefit by being straightforward towards one's boss.

As far as with what right I use the column to nag, I hope that I have already given the answer above. I feel as though it is not a question of rights but rather of duty to point out obvious shortcomings.

If you are convinced that the above attitude of hiding in our messages with abbreviations or the inability to give customer what they have a right to expect, then that is damaging to Ericsson, and one must react. I believe that the power of the word, and my power as a commentator, is large. I want to use that power to highlight, in my own little way, things that are detrimental for Ericsson.

So that we can correct them and make our great company even better.



LARS-GÖRAN HEDIN

contact

in depth

A THEME SUPPLEMENT
TO CONTACT NO. 5, 1998

ERICSSON

Strategy
shaping up
for 2005

Theme: Ericsson – a company in transition

Teeming with activity

Ericsson is a company undergoing change. Those who have not noticed must be both blind and deaf.

Throughout the company, intensive work is underway to change organizations, work styles, routines, meeting agendas, dress codes, stationary – in short, everything that has to do with Ericsson. These changes are not being made for their own sake. The goal is to make Ericsson stronger in the face of the impending future we came to know last year from the report, "2005 – Ericsson entering the 21st century". On the way there, a new century will be entered, and the company established a number of "Wanted Positions" – our desired positions in terms of business, the employees and the structure of the company.

We presented all of this in Contact's very first theme supplement which came out last February. Those who were not here or who made the mistake of misplacing that important document are welcome to order a new one from the editors. In the first Contact supplement for 1998, we are presenting a follow-up on the theme "2005" and "Wanted Positions".

We have made it easy for ourselves by pulling material that was published in this year's annual report and personnel report. Since these documents were also produced here at the offices of the Contact staff, I am not embarrassed to use this method. Rather, I think that it is good that we can, with the help of Contact, spread this very important material.

The interesting story of how a few Ericsson companies set out to realize their and the company's desired positions, is told here. As with everything else, it is perhaps important to point out that these are only a selection. Many, many others have taken the challenges of the future just as seriously as the companies and managers presented here.

I am certain that we will have cause to return to this subject both through Contact and in other ways. For it is no doubt important that we share our experiences with each other.

LARS-GÖRAN HEDIN
THEME SUPPLEMENT EDITOR

contact in depth

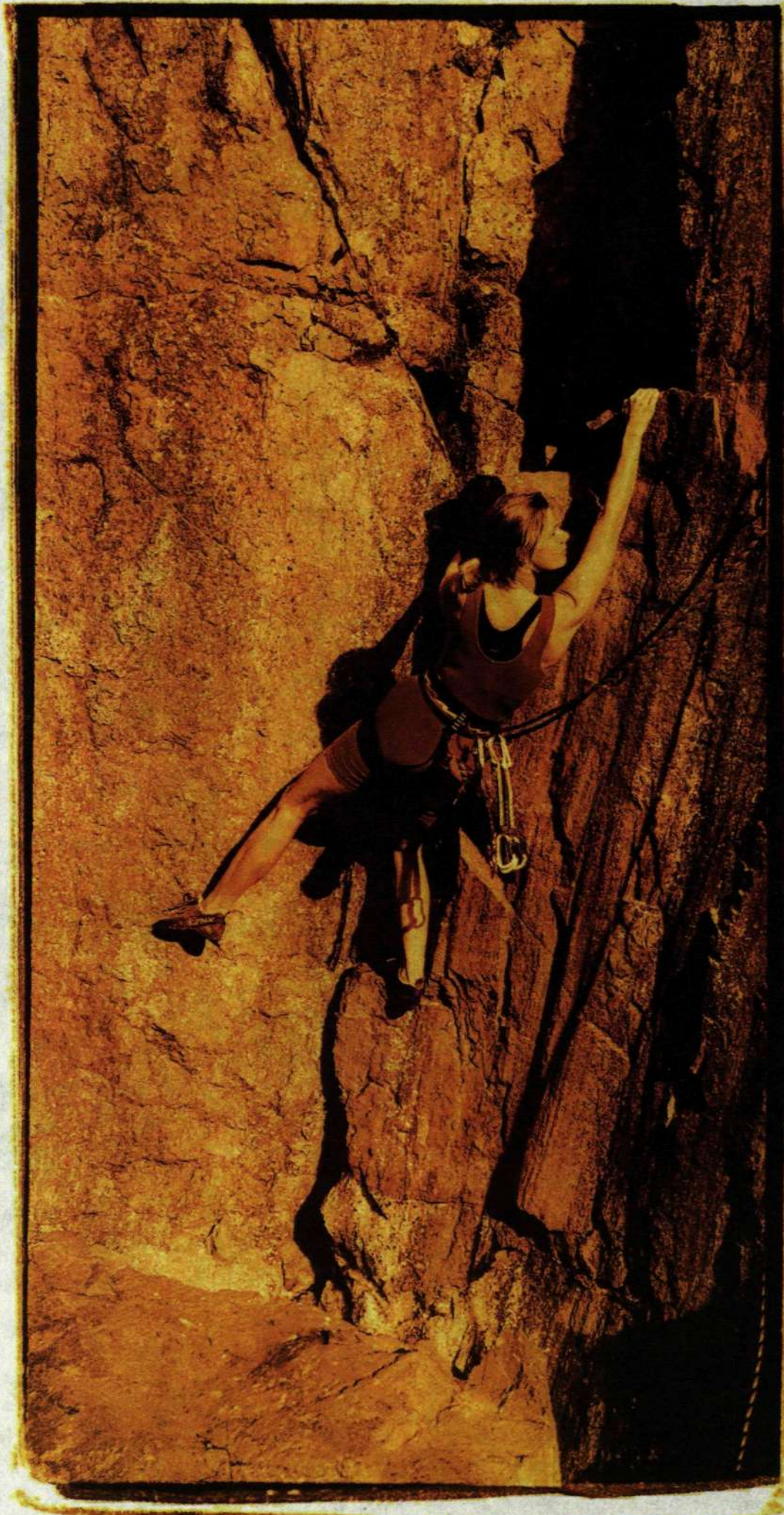
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Editor: Lars-Göran Hedin,
tel +46 8 - 719 98 68,
lars-goran.hedin@lme.ericsson.se
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memo LME.LMECOKO.

Nothing can stop our progress toward 2005



One and a half years have gone by since "2005 – Ericsson entering the 21st century" was presented. That major strategic study with its three future scenarios is still just as up-to-date. The scenarios are still valid but, not unexpectedly, advancements in the telecom industry are moving even faster than were predicted in the 2005 study.

THE INFOCOM INDUSTRY IS becoming increasingly complicated and fragmented into different sectors. It is becoming increasingly obvious that Ericsson's opportunities to be dominant are in those market segments in which we are already the strongest player.

"We must get away from our ingrained desire to have a product portfolio of our own which is all-encompassing. Cooperation and partnerships with several large and many small entrepreneurial companies is the correct strategic choice," maintains Lennart Grabe, Senior Vice President, Corporate Business Development. Lennart and his colleagues are leading the ongoing efforts to update the 2005 scenarios. The work, which will be finished later this year, has so far confirmed that the three scenarios, Gran Tradizione, Service Mania and Up and Away, still provide good descriptions of feasible directions of development within the telecommunications industry.

The conclusion of the original 2005 study, that not just one of these scenarios but all three of them will become reality, is also still valid. Different parts of the world are moving in different directions, and at different speeds.

"We can clearly see how the U.S. is on the way to Service Mania and how Northern Europe and Scandinavia are following close behind. Continental Europe is still in the Gran Tradizione phase, as is Asia. Deregulation will take time, since politicians are reluctant. Up and Away, the scenario in which the end-users have access to the most advanced communications solutions, seems to fascinate Asian markets, but is still far from reality."

The fact that different countries are moving in

different directions and at different speeds is not just the result of political ambitions for deregulation versus control of telephone markets varying so much between countries and political systems. There are also significant differences between cultures and how they react to change.

"In the U.S., people are decidedly more prone to taking risks. That is natural, since the nation was built up by risk-takers who left their old countries for an uncertain future on the other side of the ocean. Sweden is a country that is marked by greater caution, but on the other hand, we are quick to follow other peoples' lead.

Lennart Grabe uses Japan as an example of a country where traditions that hold people to certain sets of rules and an authoritarian system, can create problems in a future "Web world," where flexibility and speed are key traits.

"What we are seeing becoming reality, and much more quickly than we thought, is the convergence of the telecommunication, data communication and media fields. The infocom industry which emerges from all of this is becoming increasingly fragmented and divided up into smaller segments."

"INCREASINGLY, DOMINANT COMPANIES ARE appearing in different segments. We have a clear pattern of 'winner take all' – look at Cisco in terms of routers or Microsoft in terms of software," says Lennart Grabe. "Ericsson's challenge in such a market is to become dominant in those areas where we have a reasonable chance of doing so," continues Lennart. "Such a strategy is based on the company freeing itself from its tradition of being able to offer customers a product portfolio which was not only comprehensive, but which more or less consisted entirely of its own products.

"This desire to do everything independently is deeply rooted in the soul of Ericsson, but it still must be resisted. We must stop developing products which already exist on the market. In the fast-moving infocom market, it is flexibility and

entrepreneurship that matter. Ericsson's future lies in its ability to develop these skills and to capture innovations where they occur – something which is happening more and more in small companies."

Lennart Grabe sees a future Ericsson that works with thousands of entrepreneurial companies rather than having one's own employees in large, cumbersome organizations. The word "consultant" takes on a much more positive connotation than it has today.

"We can start by eliminating the "quarantine" that is imposed today on employees who wish to have greater freedom and take their competence with them into their own consulting businesses.

"Not invented here," is the attitude to reject what others have done, and is another one of the attitudes that must be fought. And when we develop our own products, we must be faster. The new ATM switching system is a good example of how Ericsson actually has the ability to make sophisticated products for the infocom market.

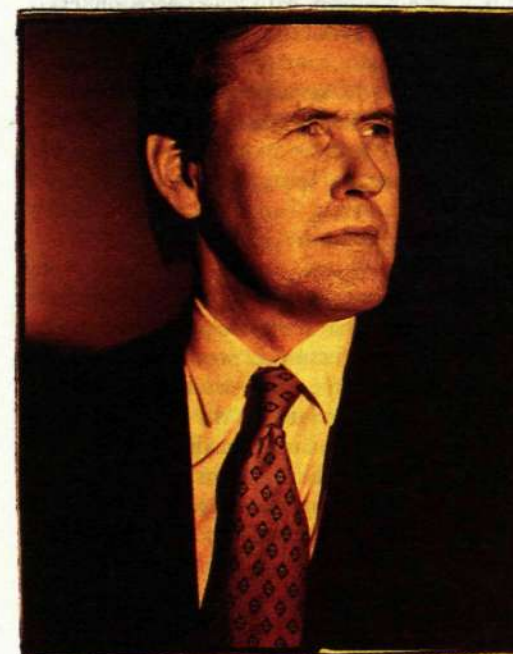
"Our ability to work effectively on projects is strongly dependent on what kind of economic controls the company uses. The project currently underway to develop new, considerably more business-oriented and flexible result-measurement models is therefore incredibly important to Ericsson. Not least because the current method of measuring profitability in Ericsson companies strongly undermines the need to work across boundaries."

"ONE COMPANY THAT SUPPORTS ANOTHER Ericsson company in the completion of a project has nothing to show for it today. It is only the company that was assisted that benefits from the cooperation, when it comes time to do the accounting."

"We know from the measurements we have recently made, that Ericsson has only come a short way on the path in terms of strengthening its reputation, and becoming more well-known in markets in many countries. The need to present the company with a single face – one face to the customer – on the market is therefore of central importance. Based on this, we understand that we must do even more to cooperate across business area boundaries and other limits."

Lennart Grabe cites the ongoing project to coordinate Ericsson's selection of services for telephone operators as a good example of crossing the line to cooperate. This is one of the prioritized areas that have been identified in Ericsson's strategic planning, (ESP).

"And in order to further strengthen our position in the market, we must continue the strong effort to build up our trademark which was initiated and which is mostly overseen by the Mobile Telephones and terminals business area."



As Senior Vice President, Corporate Business Development, Lennart Grabe is responsible for Ericsson's strategic planning and led the work behind "2005 – Ericsson entering the 21st century."

Photo: ULF BERGLUND

The "2005 study" and its goals in "Wanted Positions" does not seem to be anything new to Ericsson Australia. The company has worked intensively with goal-oriented management for many years and with establishing a culture for change. Ericsson Australia has set its overall strategic goal high – to achieve World Best Practice – and become the best of the Ericsson companies!

Aiming at world-class

THE AUSTRALIAN TELECOM MARKET was one of the first to be deregulated. This relatively young nation has always been among the first to adopt new technology. Refrigerators, VCRs and mobile telephones in their time all spread rapidly across this expansive country. The willingness to change, which to a great extent is an Australian hallmark, places special demands on the companies that want to succeed in the Australian market.

As a result, Ericsson Australia has established a corporate culture that accepts change. The company was also among the first within Ericsson that recognized the importance of establishing close partnerships with customers. An agreement on a strategic partnership was signed in 1993 with Telstra, the dominant telecom operator in the country. This agreement led Ericsson Australia on the success path that projected the company to a position of total dominance in the public telecom market, for fixed as well as mobile telephony.

The effort to develop Ericsson Australia's work methods in the direction of "World Best Prac-

tic" began as early as 1991. After several years, improvement projects and new work methods began to yield tangible results. The years 1994 and 1995 were characterized by major successes and in 1996 the company won the national quality award in Australia and its production operations were classified in accordance with MPR II Class A, an internationally recognized "quality classification" for industrial operations.

"THE WORK WITH THE QUALITY AWARD CONFIRMED that we had begun to gain significantly better control over our operations," relates Kjell Sörme, president of Ericsson Australia. "We also received confirmation from our customers – particularly Telstra – that we were perceived as a considerably more reliable and responsive company than before. The focus on World Best Practice has resulted in lower costs in our operations. To do it right the first time is not only profitable, but also necessary for a company working in a market as competitive as ours."

One of the most important elements in the change process at Ericsson Australia is that the employees have gained increased responsibility and greater opportunities to affect their jobs. Each quarter, discussions are held between the employees and immediate supervisors about personal goals established for all personnel. The goals are linked to the pay and incentive system, which is an important part of the company's new approach to work.

"Consequently, the results of our improvement benefit all three of our interest groups. Shareholders can be pleased about improved profitability, customers in that we do a better job for them and the employees that their efforts are rewarded in their pay envelopes," explains Sörme. "But," he adds, "a large measure of patience and perseverance is required to achieve world-class level and remain there."

ANOTHER KEY ELEMENT IN ERICSSON AUSTRALIA'S corporate culture is the extensive investment in

changing managers at all levels in the company. From the top – Kjell Sörme – and downward in the hierarchy it is important that all managers set an example in terms of willingness to accept changes and that they truly prioritize improvement efforts.

A new organization, with fewer decision levels, is an important part of the changes being implemented. The main principle is that the customer meet one face – the same person – in contacts with Ericsson. Ericsson Australia has three customer-oriented business units – one for each of its major customers, Telstra and Vodafone, and one for new operators – an increasingly important market segment in Australia.

THESE THREE BUSINESS UNITS ARE SUPPORTED BY units that ensure that there are products to sell and deliver to the customer: production, technical development and customer service. There is also central administration at the head office in Melbourne, with personnel, quality, finance, communication and similar units.

"Today, we have a significantly flatter organization than in the past. In order to avoid excessive disturbance in our daily operations, we implemented the new organization in several stages. Since we created a corporate culture that accepts changes, we are prepared to change and further

develop the organization as quickly as the situation demands," Sörme emphasizes.

Similar to many other Ericsson companies, Ericsson Australia has worked intensively on reviewing its production. Parts of production – for example, manufacturing and assembly of circuit boards – has been outsourced. This process has proceeded uninhibited in Australia. Naturally, this is attributable to the new corporate culture, with its deep understanding of the need for changes, which has yielded results. In Australia, these types of change measures are not questioned to any great degree. It is understood that they are necessary.

The years immediately ahead will continue to place heavy demands on changes. Ericsson Australia is now beginning to see the end of an era in which most of the deliveries to customers was hardware, such as AXE switches, radio base stations, and transmission equipment. Soon the fixed network will be digitalized and the mobile radio system expanded to full capacity coverage. Then you have to have something else to offer the market. Ericsson Australia is today well prepared for this development.

"OUR FOCUS ON PARTNERSHIP WITH THE customer is largely about advancing our own undertaking in the value chain," explains Kjell

A model country. Australia is not only a country, but an entire continent with 18 million inhabitants. By tradition, the nation has an appetite for change and a strong interest in new technology. This is why Australia is today one of the front-runners of modern telecommunications. Mobile telephony caught on early, as did ISDN. Ericsson has often faced challenges from Australian customers that are not encountered in other parts of the world until much later.

Photo: ULF BERGLUND

Sörme. "We are not satisfied today with selling new products and services to the customer. We become deeply involved in helping to identify new business opportunities and formulating business plans. We assume more of the service functions in the customer's network and develop new solutions for improving networks. For the new telecom operators RSL and Western Mining, we have actually undertaken responsibility for operation of the network. In cooperation with Telstra, we have a method for sharing risks and profits on new telecom services that are developed and marketed jointly."

"Today, we work more on assignment from our customers instead of acting as the sales arm of the Ericsson business units, which was previously the case. This is a stimulating and necessary change where we can now exploit the great development potential offered by customer service. By the turn of the century, we estimate that a third of Ericsson Australia's revenues will be attributable to services to customers."

Wanted position from a business viewpoint

1. The business partner customers prefer.
 - Our customers prefer us as a business partner and perceive us as their best choice in the markets or market segments in which we elect to operate.
2. The number one supplier.
 - Besides being the number one supplier, we are regarded as the industry leader: a prime innovator, setting new standards, introducing new systems, and procures strategic patents in fixed and mobile infocommunications.
 - We use the strength of our brand name and our corporate image to create competitive advantages in all markets.
 - We build partnerships in all the business segments in which such arrangements can strengthen and secure our competitiveness and leading position.
3. Competitive return for shareholders.
 - We offer our shareholders a competitive return on investments and generate a strong positive cash flow.

"We work more on assignment from our customers instead of acting as the sales arm of the Ericsson business units. Our focus on partnership with the customer is largely about moving upward in the value chain and exploiting new business opportunities."



KJELL SÖRME, PRESIDENT OF ERICSSON AUSTRALIA PTY. LTD.

Wanted position

as regards our employees

1. Life-long learning for pro-active people.
 - Our company offers an environment that encourages life-long learning on the part of our employees.
 - Our employees are pro-active and exercise their own initiative.
2. Competence when and where it counts.
 - We have access to the "right" competence at the right time and in the right quantity – in the right place and at the right cost.
 - We have employed and developed world-class innovators. We have also generated an environment that fosters creativity, thereby making the company attractive to new talents.
 - We recognize and support the entrepreneurial spirit in order to create an effective link between innovation and rapid commercialization.
3. Leadership for empowerment, motivation, speed and flexibility.
 - We develop and enhance leadership characteristics to improve speed, flexibility and business success.
 - Our leaders act in a manner that conforms with, and strengthens, Ericsson's common values.
4. Strong corporate culture and common values.

Global network is an advantage in Brazil



in brief

- Investment boom opens new opportunities for Ericsson in Brazil
- Local knowledge and access to Ericsson's global experience is a strong card in competing for deliveries to international telecom operators.

Mobile explosion pending. Brazil is a gigantic market for mobile telephony. Many operators are battling for licenses for the digital systems and have been prepared to pay exorbitant amounts to be able to reap the benefits of the massive growth expected from the digitalization of the Brazilian mobile telephony market. Photo: ULF BERGLUND

When a telecom market is deregulated and new operators are given access, Ericsson often enjoys major advantages stemming from its often well-established contacts with these new operators in their home markets. In Brazil, a goal-oriented focus on improving organizational and production efficiency has yielded further competitive advantages. Ericsson's long history in Brazil will ensure that Ericsson Telecomunicações is a strong player, on the market.

BRAZIL HAS ALWAYS BEEN AN important market for Ericsson and one in which Ericsson has held a strong position. A presence in the country was established as early as 1924. In 1970, the Brazilian company was introduced on the stock exchange in São Paulo, but in 1979 Ericsson was forced to sell its voting majority in the company to local interests due to new legislation. In 1996, the law was changed again whereby Ericsson could regain its position as majority owner. However, the successful financial partnership with one of Brazil's largest banks and investment companies is being maintained. Today, this market is a prime example of how conditions for Ericsson's business can change radically – and in a very short time. Liberalization of the Brazilian legislation has had other and more extensive consequences for Ericsson in the country. The current government has assigned top priority to the telecom sector and is now proceeding with a deregulation program that opens the market for competition. The government considers that investments in the telecom network must increase dramatically. At least 5 million of the country's 170 million inhabitants are waiting in line to receive their own telephone subscription. The first step in deregulation is the license auctions for mobile telecommunications systems which are now being completed. The auctions are a lucrative affair for the Brazilian government. One party, a consortium led by BellSouth, paid USD 2.4 billion for the right to install a mobile system in São Paulo. This is the highest price per potential subscriber ever paid in such a situation! Virtually all the other large international mobile operators are battling for the licenses for ten regions now being auctioned. International interest is also high with regard to privatization of the fixed telecom network in Brazil. The traditional Telebras system with 27 state-controlled operating companies is being reorganized into three large holding companies which will be privately owned. Embratel, which dominates long-distance and international telecom traffic, will also be privatized. Due to the international economic turbulence of the past autumn, it is uncertain if the timetable for the planned deregulation and privatization can be kept. This, however, does not mean that Brazil is no longer a market undergoing rapid growth. When the new holding companies are privatized, France Telecom, Italian Stet and Telefónica of Spain are interested buyers. The Spanish operator has already established a position in the southern province of Rio Grande del Sul. As a result of the very good relations between Ericsson's Spanish company and Telefónica, the Brazilian company has been assigned as the main supplier in Telefónica's venture in southern Brazil.

"When internationally active telecom operators move into our market, Ericsson's global network is our greatest asset," relates Gerhard Weise, president of Ericsson Telecomunicações, "By capitalizing on other Ericsson companies' experience and contacts, we have much to offer the new players on the market."

"We know this market better than any other international telecom supplier. We know the fixed network, most of which was built with our equipment, and we have access to the experience and expertise of the sister companies within Ericsson. Ericsson's method of assigning main responsibility for all contacts with the operator to a company – as a rule the unit active in the international operator's home market – provides us with a well-established entry with all of the international telecom operators who are eyeing the Brazilian market."

Ericsson Telecomunicações does not talk about "Wanted Position 2000". Instead, 1998 is the future – the magic year. There are new elections scheduled for next autumn and there is every indication that the current government intends to complete its privatization program prior to this.

"We have worked intensely in recent years with changing our work methods and enhancing the efficiency of our operations so that we can cope with the competition on the new market. Ericsson is not alone in the fight for the new business which the pending investment boom will generate. All of the traditional competitors are in place."

"Here in Brazil, we have chosen the same path as in other countries where Ericsson is confronted with a market in which the number of customers has increased dramatically. We have established a customer-focused organization and we have outsourced those segments of production that others can manage more efficiently. All of our mechanical production is now handled by a company that we formed jointly with General Motors and our assembly of circuit boards has been sold to Solecron, an American company, which took over the 350 employees."

DESPITE THE OUTSOURCING OF THESE AND SEVERAL other operations, the number of employees is increasing. This is a result of the successes in mobile telephony – both systems and terminals. Accordingly, recruitment of skilled personnel has a high priority, as well as investment in skills development within the company. A recruitment program has been under way for three years in which young persons with a college degree are invited to apply for some 20 senior trainee positions. In the first year, 3,000 applied for these positions, and interest keeps growing. In cooperation with a university in São Paulo, an 18-month evening training program has been arranged for Ericsson employees. Currently, there are 130 participating in the program, which results in an MBA degree. The employee pays a symbolic fee, but invests his own leisure time in the educational program.

"Our focus on skills development and employee relations has given us a very good reputation in the Brazilian labor market. This reputation is reinforced by our very active participation in community programs in the areas in which we are established. We support local cultural events and provide several hospitals with telecommunications systems. As a result, our employees share a sense of pride in their company and their loyalty to Ericsson has increased," Gerhard Weise contends.

- We have employed and developed world-class innovators. We have also generated an environment that fosters creativity, thereby making the company attractive to new talents.
- We recognize and support the entrepreneurial spirit in order to create an effective link between innovation and rapid commercialization.

3. Leadership for empowerment, motivation, speed and flexibility.
 - We develop and enhance leadership characteristics to improve speed, flexibility and business success.
 - Our leaders act in a manner that conforms with, and strengthens, Ericsson's common values.

4. Strong corporate culture and common values.
 - Our culture is based on common values: professionalism, respect and perseverance. It is a culture that encourages a flexible, business-oriented way of working in different markets, segments, product areas and new business.

"By capitalizing on other Ericsson companies' experience and contacts, we have much to offer the new players on the market."



GERHARD WEISE,
PRESIDENT OF ERICSSON
TELECOMUNICAÇÕES S.A.

Wanted position where our structure is concerned

1. A customer-focused and networked organization.
 - We have developed an organization that is totally focused on "solutions and services for our customers." Local staff within the organization work together in global networks to ensure that we deal with customers as one single company.
 - Our method of organization encourages open communication within the company and fosters the development of internal networks and group work.

2. Geared for responsiveness and world-class execution.

- We continuously develop our organization and processes to achieve world class execution. We offer our customers the best solutions; our operations are the most cost-effective; our quality is world-class; and we have the capacity to change our course of operations quickly
- We use information technology, based on a common architecture, as a major enabler to achieve business excellence and we are recognized as a leading edge user of IT.
- We have a management information system for steering, supported by multi-dimensional reporting which allows us to respond quickly to meet the needs of our customers.
- We have a fast, reliable and state of the art financial reporting system.

Wanted position 2000

Local competence improves profitability

With 970 million inhabitants and a geographical area the size of Europe, India is a telecom market with tremendous future potential. Ericsson has enjoyed considerable success in India during recent years, and the new company established in 1995 has grown quickly. For the past few years, Ericsson has made ambitious and concerted efforts to raise local competence and skills levels among employees in India. The percentage of foreign employees must be reduced to secure long-term profitability in the highly competitive Indian marketplace.

INDIA IN THE AUTUMN OF 1995.

The country faces massive expansion of mobile telephony. The government has auctioned off 48 new licenses for GSM networks. Some 20 consortia, each with Indian interests in cooperation with established international mobile operators, have spent billions on the "admission ticket" to this massive and very promising market. Ericsson and other suppliers compete for the available contracts. Rapid network construction is one of the customers' main requirements and the industry presently resembles a gold rush. Ericsson has captured a third of the market, but has to invest substantial resources to meet commitments to customers. Rapid network expansion is one of their most important and immediate demands. The solution, as usual, was to bring in large numbers of experts, mostly from Sweden and other European countries, where the first major wave of GSM expansion had been completed.

"OUR TACTICS WERE SUCCESSFUL IN THAT WE MET our commitments," says Rolf Granström, President of Ericsson India. "But we paid a high price. Foreign employees, who numbered more than 160, incurred very substantial costs. Profitability was poor in the new Indian company, which had been responsible for all operations in India since

1975. We needed a new approach to secure local competence and skills in the company".

When Rolf Granström was appointed president in the summer of 1997, work had already been started to reduce the Indian company's reliance on foreign labor. Ulf Hålgesson, personnel manager, had started a project to develop local skills and competence. The project began yielding results as early as March 1997, when the number of foreign employees was reduced by 20 persons. At the same time, operations grew considerably. In two years, between 1995 and 1997, the number of employees in India increased from 100 to 700. Rolf Granström intensified efforts to reduce the company's dependence on outside experts. He realized the issue was not simply a matter of reducing the number of expensive foreign employees, but, more importantly, ensuring that their skills and knowledge were transferred to local employees. This principle was accepted, after some initial doubt, by those who would be responsible for the knowledge transfer.

Every foreign employee was assigned the task of selecting two local employees to eventually succeed them. The company also took stock of available knowledge and subordinate skills among its foreign experts, and inventoried skills available in local employees with particularly promising potential. Information on what skills needed to be transferred to "successors" were

listed in separate files on every foreign employee. A systematic reporting routine was established to determine how and when various subordinate skills would be transferred to local employees, thereby ensuring control over practical transfers of skills and expertise.

"The entire transfer process has worked very well," says Ulf Hålgesson. "Our approach has enabled us to further reduce our dependence on foreign employees. Toward year-end 1998, we expect to have only about 20 foreign experts on our payroll."

Another important element in the program Ericsson India calls "Local Competence Development" is a vocational school started last year to provide professional training for installation personnel and other technicians. The school is designed for young, highly educated Indian engineering graduates and provides them with practical skills needed to install radio base stations, for example.

"We have trained three groups of 10 young Indian engineers in the program, which is conducted in various theoretical stages interspersed with practical work. Results so far have exceeded our expectations, with nearly all 30 of the student engineers now working in the field as highly skilled installation personnel and technicians," says Ulf Hålgesson.

Rolf Granström relates, "When we built the latest GSM network, the order was contingent upon the use of no more than three foreign employees; the rest of the job was handled by Indian nationals. As a result, the percentage of foreign employees in GSM operations has been reduced by 85 percent!"

"AND THIS HAS BEEN ACHIEVED WITHOUT compromising the quality of our work," he adds.

There was skepticism over how customers would react when Ericsson started using a greater percentage of domestic labor. Today, little doubt remains, and efforts to develop strong local competence have contributed strongly to enhancing Ericsson's status among customers and Indian society in general.

"Most of the comments we hear today are about how fantastically skilled our local employees have become. Naturally, we shall continue to concentrate on developing local competence," Rolf Granström says. "We are now looking at all jobs in the company, not just technicians." Competence and skills development programs are being conducted at all levels in all departments of the Indian company.

"Before too long, we also plan to have a majority of Indian nationals on the management staff. Our first Indian senior executive, Ramesh Awtaney, was recently appointed as the head of the Northern Region. About 60 Indians have been targeted in a Management Planning Program, and several have attended Ericsson's higher management training programs," Mr. Granström continues.

National pride. India Gate in New Delhi is a magnificent monument from India's period as a British colony. Nationalist sentiment is very strong today. Thus, Ericsson's emphasis on development of local skills is highly appreciated by Indian customers and government authorities.

Photo: LARS ÅSTRÖM

in brief

- Goal-oriented development of local competence and skills has reduced the percentage of foreign employees by 85 percent.
- Concentration on domestic talent has enhanced Ericsson's image in India.
- All customer relations will eventually be handled by local employees.

Ulf Hålgesson also points out that one of the company's goals is to have Indian nationals handle all customer relations.

Rolf Granström adds, "They are the only ones who can negotiate successfully with an Indian counterpart. It's not always easy for Scandinavians and Europeans to find their way in the Indian business climate."

"It's important to underline one thing in particular," says Ulf Hålgesson. "We do not plan to get rid of all foreign experts. We will always need a core group of skilled technicians and specialists with many years of experience in systems development and design. If nothing else, it will serve as insurance in case serious problems should arise with something we have delivered."

Regional Chinese organization improves career paths

China is another market in which Ericsson is placing a heavy emphasis on developing skills on a local level. The need for knowledgeable staff is enormous in a market that is presently growing faster than any other within Ericsson.

Ericsson recently completed a total reorganization of its Chinese operations, with a shift from a centrally controlled organization to a highly regionalized and customer-oriented organization.

"In order to get closer to our customers, we are intentionally redistributing our skills and important functions to the various regions," explains John

"We want many more Chinese in key positions within the company. The new organization provides considerably better career opportunities for local employees."

John Gilbertson, President of Ericsson's Chinese company.

Gilbertson, president of Ericsson's Chinese company. "At the same time, we are focusing more on local recruitment and training. We want many more Chinese in key positions within the company. The new organization, with four strong regions, provides considerably better career opportunities for local employees than what we previously could offer."

In November of last year, the latest addition to Ericsson's investment in local skills development in China was inaugurated. The Ericsson China Academy was established in cooperation with several Chinese and international universities. High-level managers will be offered training that will make them even better prepared to face the great

challenges of the next century. This initiative has been met with considerable appreciation from the Chinese. It is one of the largest investments ever made by a foreign company in order to help China develop its own information-based society for the 21st century. Skills development on a slightly lower level has been available for quite some time at Ericsson's training center in Beijing. More than 30,000 training days were completed there last year - with both Ericsson employees

and personnel from Ericsson's Chinese customers in attendance at the courses. Regional training centers will also be a part of the new organization. "Ericsson in China has also cooperated closely with universities and colleges for several years," John Gilbertson adds.

"THESE TYPES OF ACTIVITIES GENERATE considerable interest in working for Ericsson. China has a high standard of education, so there are plenty of qualified students to choose from. However, there is tough competition to attract really gifted recruits, so it's important for Ericsson to stand out as an attractive employer. Ericsson in China had more than 3,300 employees at the end of 1997. By the end of this year, the company expects to recruit an additional 700 people. When that time comes, it will be vital to have a good reputation among China's engineering students."

3. Competitive return for shareholders.
 - We offer our shareholders a competitive return on investments and generate a strong positive cash flow.

"We can safely say that we have learned what trademark development means: we understand our market and we exercise stringent control over our market investments."



ROLF GRANSTRÖM, PRESIDENT OF ERICSSON IN INDIA.

Wanted position as regards our employees

1. Life-long learning for pro-active people.
 - Our company offers an environment that encourages life-long learning on the part of our employees.
 - Our employees are pro-active and exercise their own initiative.
2. Competence when and where it counts.
 - We have access to the "right" competence at the right time and in the right quantity - in the right place and at the right cost.
 - We have employed and developed world-class innovators. We have also generated an environment that fosters creativity, thereby making the company attractive to new talents.
 - We recognize and support the entrepreneurial spirit in order to create an effective link between innovation and rapid commercialization.

3. Leadership for empowerment, motivation, speed and flexibility.
 - We develop and enhance leadership characteristics to improve speed, flexibility and business success.
 - Our leaders act in a manner that conforms with, and strengthens, Ericsson's common values.

4. Strong corporate culture and common values.
 - Our culture is based on common values: professionalism, respect and perseverance. It is a culture that encourages a flexible, business-oriented way of working in different markets, segments, product areas and new businesses.

Wanted position

- where our structure is concerned
1. A customer-focused and networked organization.
 - We have developed an organization that is totally focused on "solutions and services for our customers." Local staff within the organization work together in global networks to ensure that we deal with customers as one single company.
 - Our method of organization encourages

Wanted position 2000



Focus on expertise on the Emerald Isle

Ericsson Systems Expertise Ltd. in Ireland specializes in software development and advanced training. The supply of expertise is accordingly one of the key issues facing the company. This one of the companies within Ericsson that does the best job of utilizing its human resources. A special career path for experts and an expertise-focused organization have been established as important factors in ensuring the supply of expertise.

AN INCREASING PERCENTAGE OF THE added value in Ericsson's products consists of software. It is generally estimated that at least 80 percent of this value, and of ongoing development programs, consists of software and software development. It is against this background that one should regard Ericsson's worldwide technical organization, of which a greater portion consists of centers for software development. Access to competent personnel is critical in determining how these strategic centers function. As a result, it is within this sector of the company's operations that one finds the best examples of the manner in which Ericsson handles its supply of expertise. Ericsson Systems Expertise, with operations in Athlone and Dublin, Ireland, is a good example of how the supply of expertise is now being assigned priority within the company. Of the nearly 900 employees within Ericsson Systems Expertise, 300 work in the design center in Athlone. This unit reports to the Public Networks business unit in the Infocom Systems business area. In line with the new way of working that was introduced in 1997, this means that the Athlone unit has a global product responsibility and supervises the work in its field – operating support systems for network elements in fixed-wire telecommunications networks.

Such an important responsibility naturally

requires access to competent personnel. Development work is generally conducted in the form of projects, so the demands for expertise vary greatly over time and from one area of expertise to another. This situation has been tackled in Athlone by focusing on a distinctive organization model. Diarmuid O'Colmain, president of Ericsson Systems Expertise explains what his company has done:

"We have introduced a matrix organization in which two types of managers work with each other. One dimension of the matrix consists of the groups that work on the various development projects. These groups are supervised in the traditional way by experienced project managers. When a project is started and is being staffed, the project manager turns to one of the Athlone unit's "expertise managers." The job of the latter, who is in charge of the elements that make up the

second dimension of the matrix, is to manage the expertise within a group of 20 to 30 employees and assign appropriate expertise to the different projects. His selection is based on an "expertise profile" that the project manager has prepared for the immediate project.

What distinguishes the expertise manager from a traditional line manager is that the former can see to it that his employees do not cease to develop their expertise. Accordingly, the individual employee's need for broader experience and new work assignments is highly important in the selection of persons for projects. As a member of the Athlone unit's group responsible for managing expertise, the expertise manager also plays an important role in the development of employees' careers.

There is a distinct career path for engineers within Ericsson Systems Expertise. But a person is not forced to become a manager in order to have a successful career, although managerial positions may be an important part of personal career development.

"We appreciated some years ago that we had to do something about career paths for our experts," Diarmuid O'Colmain says. "So we created an expertise-based career path that, parallel with a traditional managerial career, provides opportunities for personal development."

The new career path is based on the company's

definition of five levels of expertise and the requirements for achieving each one. Upgrading from one level to the next requires distinct improvements in expertise. An individual's opportunities to be upgraded are discussed during the personal "expertise interviews" that are conducted twice a year. The tools for documenting expertise and expertise requirements that are now being employed generally throughout Ericsson are used as a basis for these discussions. A longer interview is also conducted when it is deemed to be time to raise an employee to a new level of expertise. The "expertise management group" then decides whether or not to upgrade.

"If a career path of this type is to be meaningful, it should not be too easy to advance along it," Diarmuid O'Colmain emphasizes. At the same time, it must also be worth one's while to be upgraded.

WHEN AN EMPLOYEE JOINS THE COMPANY, HE OR SHE is placed on Level One. After an introductory program lasting several months, and the first rounds of internal training, the employee is raised to Level Two – the basic level. Most of the experts are on the basic level or the next one, the "Senior" level. A small number have advanced to "Master," the next-to-highest level.

The average age of the experts is still so low that only a few have scaled such heights. And, of

course, many skilled employees still prefer to concentrate on the traditional career path, the one leading to line managerships.

"An employee who wants to reach our highest level on the expertise-career path should certainly expect to change career paths along the way," the president of the Irish company points out. A "good" career can involve shifting from the "Master" level as an expert to the managerial career path as a section manager – and then back to "Master" again, to be upgraded to "Principle," which is the highest level of expertise.

The development unit in Dublin handles assignments from the Mobile Systems business area. The Dublin unit applies another well-structured model to ensure its supply of expertise. The two units (Athlone and Dublin) share a database containing information on the level of expertise of all employees. An "expertise index" is also calculated for the company as a whole, showing how its expertise develops over time, at the "macro" level.

"As a result of our strong emphasis on expertise, all our employees understand how important it is to take care of their personal development," Diarmuid O'Colmain declares. "And we send clear signals that the company really assigns a priority to technical expertise and prizes it, which is not always the case in large organizations like Ericsson."



A human focus. Ericsson Systems Expertise is one of the Ericsson companies that focuses mainly on software development. Accordingly, strong focus is placed on employees and their expertise. Photo: ULF BERGLUND

we are regarded as the industry leader, a prime innovator, setting new standards, introducing new systems, and procures strategic patents in fixed and mobile infocommunications.

- We use the strength of our brand name and our corporate image to create competitive advantages in all markets.
- We build partnerships in all the business segments in which such arrangements can strengthen and secure our competitiveness and leading position.

3. Competitive return for shareholders.

- We offer our shareholders a competitive return on investments and generate a strong positive cash flow.

"The cooperation between project managers and expertise-managers ensures that we are using expertise where it is needed in projects."



DIARMUID O'COLMAIN, PRESIDENT OF ERICSSON SYSTEMS EXPERTISE LTD.

Wanted position as regards our employees

- ▶ 1. Life-long learning for pro-active people.
 - Our company offers an environment that encourages life-long learning on the part of our employees.
 - Our employees are pro-active and exercise their own initiative.
- ▶ 2. Competence when and where it counts.
 - We have access to the "right" competence at the right time and in the right quantity – in the right place and at the right cost.
 - We have employed and developed world-class innovators. We have also generated an environment that fosters creativity, thereby making the company attractive to new talents.
 - We recognize and support the entrepreneurial spirit in order to create an effective link between innovation and rapid commercialization.

3. Leadership for empowerment, motivation, speed and flexibility.

- We develop and enhance leadership characteristics to improve speed, flexibility and business success.
- Our leaders act in a manner that conforms with, and strengthens, Ericsson's common values.

4. Strong corporate culture and common values.

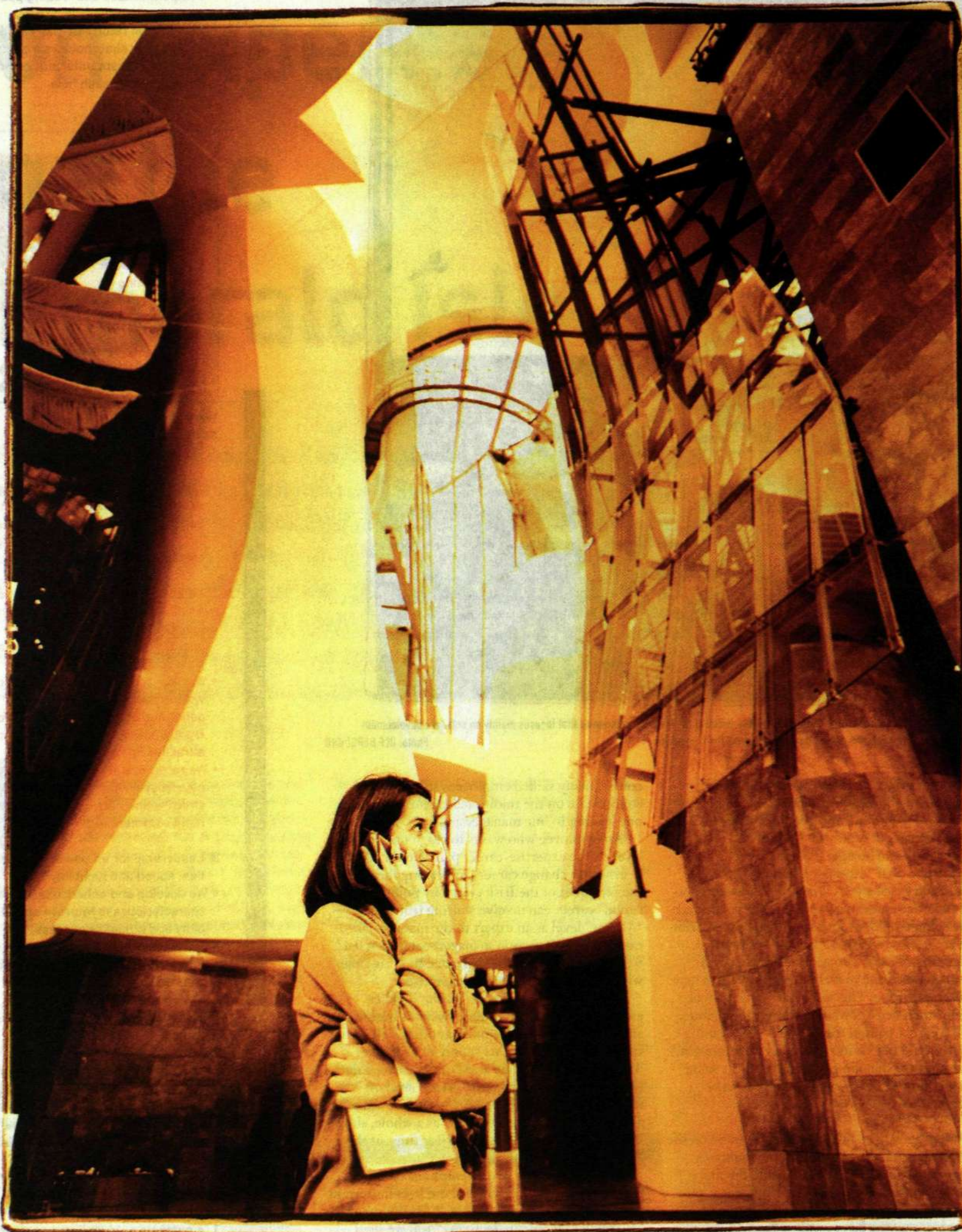
- Our culture is based on common values: professionalism, respect and perseverance. It is a culture that encourages a flexible, business-oriented way of working in different markets, segments, product areas and new businesses.

Wanted position where our structure is concerned

1. A customer-focused and networked organization.
 - We have developed an organization that is totally focused on "solutions and services for our customers." Local staff within the organization work together in global networks to ensure that we deal with customers as one single company.

Wanted position 2000

Successful solution in Spain



Freeset in a modern environment. The new, futuristic Guggenheim Museum is located in Bilbao, Spain. Museum personnel have been equipped with Freeset telephones from Ericsson. Cordless communications in Spain generally use the system from the world-leading Swedish supplier. Photo: ULF BERGLUND

When the Spanish Government granted a license to a second GSM operator and that operator wanted to buy its system from Ericsson, a completely new situation arose. How would Ericsson's Spanish company be able to also deal with a competitor of Telefónica and avoid customer-relations problems? Raimo Lindgren, President of Ericsson S.A. in Spain, created a new customer-oriented structure with watertight "bulkheads" between the units.

WHEN THE EUROPEAN UNION (EU) decided to deregulate the European telecommunications market by January 1, 1998, Spain applied for and received a grace period of five years within which to open up its market to free competition. The government wanted to shield Telefónica from foreign competitors for a few more years. But Telefónica, which had gradually become a larger player in the international arena, rather quickly came to appreciate that the Spanish protectionist mentality was a handicap in its own efforts to penetrate foreign markets. Telefónica explained to the Spanish government that the company no longer wanted any protection in its home market and recommended, instead, that Spain deregulate at the same time as the other EU countries. This proposal was not adopted in full since the government realized that such rapid liberalization would not give a second operator in the fixed-wire telecommunications network adequate time to become established. It was therefore decided that the Spanish market would be deregulated on December 1, 1998 – 11 months after the other countries in the European Union.

The decision to nonetheless deregulate in 1998 has radically changed the conditions in the Spanish market. The Spaniards are now waiting to see what will happen when competition is also permitted in the fixed-wire telecommunications network. What happened when the forces of competition were unleashed in the market for mobile telephony gives a clear indication of what may be expected.

"Operating as a monopoly, it would have taken 12 years for Telefónica to achieve a density of one percent in mobile telephony," Raimo Lindgren says. As soon as it became clear that a second GSM operator had actually received its license, everything changed. Telefónica stepped up its marketing programs and became much more aggressive in the market. When Airtel, the second operator, placed its network in service a price war broke out. The subscriber density rose to 10 percent within 30 months.

The second operator in the fixed-wire network was also selected in 1997. The winner was a con-

in brief

- Deregulation of the Spanish market is being implemented earlier than had been anticipated.
- The situation in the Spanish telecommunications market is effectively playing into Ericsson's hands.
- A new organizational structure with customer units and smaller production facilities is making Ericsson S.A. much more efficient than it had been.

sortium in which Telecom Italia is responsible for the telecommunications know-how and Spanish financial and power companies are supplying capital and an existing network structure. Interested parties who were not selected this time are now sharpening their claws awaiting the continued liberalization of the market. Many of them want to play a role and have a share of the large Spanish telecommunications market.

"Developments in recent years clearly illustrate how exciting and complicated the telecommunications market has become," Raimo Lindgren says. "At the same time, I am glad that the trend is well in line with Ericsson's strategic plans. We see a great many opportunities for new business ahead of us. But there is also a short-term risk of a decline in business with Telefónica as a result of the new market situation."

"Telefónica is beginning to reorient its strategy and does not appear to be as interested as it once was in modernizing its network – at least not for the sake of modernization. Instead, the company is looking at investments more in financial terms, which can mean that the traditional business will decline in volume."

Raimo Lindgren points out that Telefónica's international programs more than fully offset any slowdown in its Spanish investments. Ericsson S.A., which has overall responsibility for Telefónica International as a global Ericsson customer, supplies telecommunications equipment to the Spanish operator's networks in a number of Latin American countries.

In the new competitive situation that Telefónica is facing today, pressure on the prices of the products that Ericsson is delivering is also increasing. This is having an impact on the Spanish company's program to improve the efficiency of its operations. The new organization is an important element of this program.

"WE CAN NO LONGER AFFORD TO OPERATE SEPARATE companies for different business areas within Ericsson," Raimo Lindgren says. "Instead, we have now built a new organization in which we deal with our large customers via separate units. Each unit is headed by a key account manager who has full responsibility for the results for 'his' customer, and who is the only Ericsson person dealing with the customer at a high level."

"Since we have to guarantee that no sensitive information leaks from one customer to another via Ericsson's organization, we have established 'watertight bulkheads' between the customer units," Raimo Lindgren declares. The experience gained from Telefónica Moviles and Airtel demonstrates that this is possible.

"They are both very satisfied customers and are not particularly concerned because we also have a competitor as a joint-venture partner."

The customer units are supported by strong common functions for administration and various service functions. All logistics are also handled in a common center. The factory in Madrid will be one of Ericsson's future global production centers, serving customers mainly in the Middle East, Africa and parts of Latin America.

- right cost.
- We have employed and developed world-class innovators. We have also generated an environment that fosters creativity, thereby making the company attractive to new talents.
- We recognize and support the entrepreneurial spirit in order to create an effective link between innovation and rapid commercialization.

3. Leadership for empowerment, motivation, speed and flexibility.
 - We develop and enhance leadership characteristics to improve speed, flexibility and business success.
 - Our leaders act in a manner that conforms with, and strengthens, Ericsson's common values.

4. Strong corporate culture and common values.
 - Our culture is based on common values: professionalism, respect and perseverance. It is a culture that encourages a flexible, business-oriented way of working in different markets, segments, product areas and new business.

"Airtel and Telefónica are today two very satisfied customers who are not concerned by the fact that Ericsson is working with both of them."



RAIMO LINDGREN, PRESIDENT OF ERICSSON S.A.

Wanted position where our structure is concerned

1. A customer-focused and networked organization.
 - We have developed an organization that is totally focused on "solutions and services for our customers." Local staff within the organization work together in global networks to ensure that we deal with customers as one single company.
 - Our method of organization encourages open communication within the company and fosters the development of internal networks and group work.
2. Geared for responsiveness and world-class execution.
 - We continuously develop our organization and processes to achieve world class execution. We offer our customers the best solutions; our operations are the most cost-effective; our quality is world-class; and we have the capacity to change our course of operations quickly.
 - We use information technology, based on a common architecture, as a major enabler to achieve business excellence and we are recognized as a leading edge user of IT.
 - We have a management information system for steering, supported by multi-dimensional reporting which allows us to respond quickly to meet the needs of our customers.
 - We have a fast, reliable and state of the art financial reporting system.

Wanted position 2000

Ericsson is today one of the world's leading suppliers of mobile telephones. Its success in one of the most expansive and competitive markets in telecommunications is not due exclusively to the company's ability to produce attractive, technically advanced and reasonably priced products. A very deliberate and successful program to build a strong brand name is another important reason for its success. This program will benefit Ericsson as a whole.

A strong brand name for Ericsson

ERICSSON'S SUCCESS AS A SUPPLIER of mobile telephones began in connection with the introduction of the GSM system in Europe. The prices for telephones were good at the start. The demand for instruments was overwhelming. It did not take long to appreciate the potential this market offered. Later, as sales grew – which occurred at a furious rate – it became increasingly clear that more than good products were required to maintain a position of market leadership over the long term.

The mobile telephone market is a consumer market, offering totally different challenges from those Ericsson was accustomed to meet in recent years. The need for a strong brand was obvious. An intensive effort to create the conditions for a stronger brand image was begun within Ericsson Mobile Communications, the unit that develops, produces and markets the company's mobile telephones. This unit invested in very comprehensive international research to determine how the Ericsson brand name was perceived by various categories of customers in different countries and cultures. The work of defining a brand platform for Ericsson was then begun in association with leading international consultants in the field. The brand platform that has now been developed can be described as a collection of the valuations and descriptions of the portion of the market on which Ericsson is now concentrating. The brand platform describes in a structured manner the expectations and demands that the market is imposing on

A targeted and comprehensive campaign is now under way to increase awareness of the Ericsson brand name in the U.S. The various image-building activities are now beginning to yield measurable results. The Ericsson name is becoming more familiar to the average American.

During the past few years, Ericsson's mobile telephones have been very successful on the U.S. market. Through noticeable marketing efforts, the company has established itself as a market leader in one of the fastest growing market segments, namely, digital mobile telephony.

"We are involved in a large number of activities, on both a national and local level, to make

Ericsson, and the actions required to measure up to them.

"We soon came to appreciate that Ericsson's three shared values – professionalism, respect and perseverance – and the corporate culture they represent, also constituted a good foundation upon which to build a brand platform," says Johan Siberg, president of the Mobile Telephones and Terminals business area.

"As a result of our comprehensive work on the brand platform, we can now say that we have learned what brand-name enhancement is based on, that we understand our market, and that we have good control over our investments in marketing."

A NUMBER OF DIFFERENT TOOLS CAN BE USED TO SPREAD the message about the Ericsson brand name. Advertising is the most visible, but does not yield good results over the long term without the support of other activities. Cultivation of the media, investor relations programs, special events of various types, sponsorship and so-called product placements are tools in the company's arsenal.

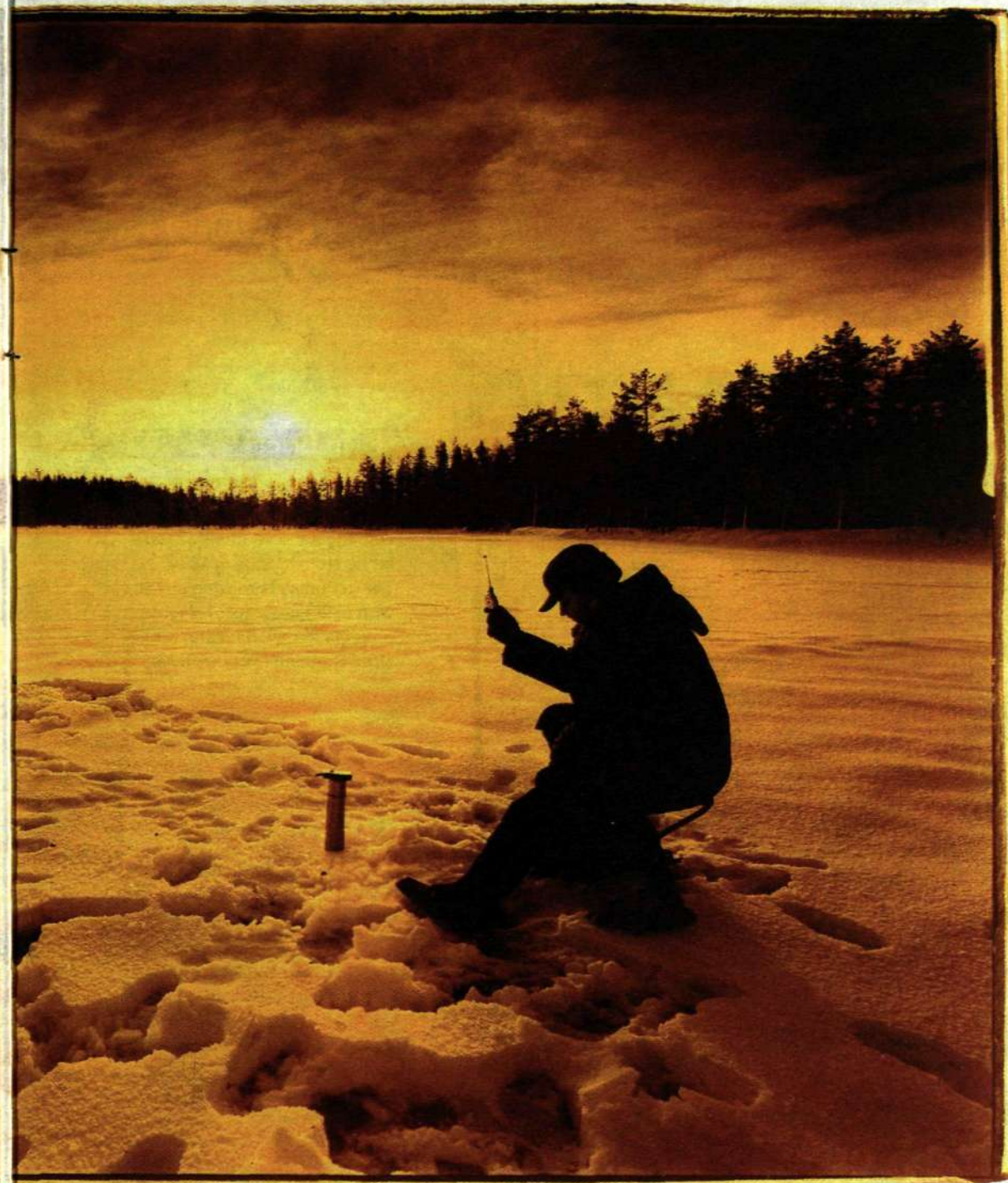
"The investment to gain exposure for existing and specially produced Ericsson products in the most recent James Bond film is a good example of how we are now expanding the boundaries of our marketing programs," Johan Siberg says.

"In many markets, notably in the United States, this program has been highly successful. Our campaigns in connection with the Bond film have resulted in greatly increased interest on the part of

A good name is worth lots of money

Ericsson known as a responsible and good citizen in American society," explains Bo Hedfors, head of Ericsson's U.S. operations.

One of the most spectacular projects to strengthen Ericsson's brand name in the U.S. is the contract with the Carolina Panthers football team. The team's new home stadium in Charlotte, North Carolina, is called the Ericsson Stadium, the main sponsor of which is Ericsson's mobile phone operations.



dealers there in selling Ericsson products and in thousands of contacts with individual consumers."

"As a result of our various activities before the Bond film project, we have increased brand awareness in the U.S. from 1 percent at the end of 1996 to 15 percent a year later. We are now waiting expectantly to see how 'Agent 007' has helped us to further boost that figure."

"We are conducting continuous measurements in all our key markets to determine how awareness of the brand name is growing, and the impact of our various marketing programs. Data is collected in a central database in which managers responsible for the programs can read the

"We have invested heavily in the Ericsson Stadium, but then Ericsson's name is mentioned several times daily before a giant television audience on prime time," says Bo Hedfors. "This single investment has been a strong contributing factor to the 15-percent spontaneous recognition rate of the Ericsson name and its association with mobile telephones among Americans. Just two years ago, a very small percentage of Americans associated the Ericsson name with the right product."

At that time, Ericsson sold mobile telephones for millions each year. Today, revenues from this portion of Ericsson Inc.'s operations can no longer be calculated in the millions, but in the billions.

results of the marketing investments that are being made. These results also constitute an important part of the follow-up report that is distributed throughout the business area. Of the more than 20 different measurement figures presented in the report, eight are market-related and obtained from the international surveys."

UNDERSTANDING WITHIN THE COMPANY OF THE importance of the brand image and the efforts being made to enhance it is a prerequisite for establishing a strong brand. It is exceptionally important that all who are engaged in designing and shaping telephones of the future have a clear understanding of the brand platform. Johan Siberg says that there is no operation in the Business Area that does not require such knowledge.

"We are therefore carrying out a number of internal programs and activities," he says. "We are now implementing a program known as 'living the

A big little messenger. Today, mobile phones aren't very large objects, but they are more important than any other product when it comes to spreading Ericsson's brand name. Millions of people worldwide have an "Ericsson" within reach.

Photo: ULF BERGLUND

brand,' in which all employees are participating. It takes the form of workshops in which groups of 30 or 40 employees first study an interactive 'information package' and then discuss the brand and brand enhancement. All of our 12,000 employees in the business area will have been through this program before the end of 1999."

Ericsson's mobile telephone business was the first to operate in a truly competitive environment. Ericsson Mobile Communications has thus been the driving force in the company's branding activities. Sales of mobile telephones have paid for the comprehensive programs that have been carried out but the business area's management naturally appreciates that Ericsson as a whole is benefiting from these investments.

"When we defined our brand platform, we also made sure that it would work for Ericsson's two other business areas," Johan Siberg notes. "We are happy to share our success in this way. We are now starting a new institutional campaign in 1998 that does not deal specifically with mobile telephones. The campaign – based on the 'Make yourself heard' theme – is designed so that it will strengthen the Ericsson brand name in all of the company's different product areas."

in brief

- The brand platform is in harmony with Ericsson's corporate culture.
- A comprehensive program ensures internal understanding of the importance of the brand image.
- Follow-up ensures control over the investments in marketing.

Wanted position 2000

- Wanted position from a business viewpoint
1. The business partner customers prefer.
 - Our customers prefer us as a business partner and perceive us as their best choice in the markets or market segments in which we elect to operate.
 2. The number one supplier.
 - Besides being the number one supplier, we are regarded as the industry leader: a prime innovator, setting new standards, introducing new systems, and procures strategic patents in fixed and mobile infocommunications.
 - We use the strength of our brand name and our corporate image to create competitive advantages in all markets.
 - We build partnerships in all the business segments in which such arrangements can strengthen and secure our competitiveness and leading position.
 3. Competitive return for shareholders.
 - We offer our shareholders a competitive return on investments and generate a strong positive cash flow.

"We can now say that we have learned what brand-name enhancement is based on, that we understand our market, and that we have good control over our investments in marketing."



JOHAN SIBERG, PRESIDENT OF ERICSSON MOBILE COMMUNICATIONS AB.

Wanted position as regards our employees

1. Life-long learning for pro-active people.
 - Our company offers an environment that encourages life-long learning on the part of our employees.
 - Our employees are pro-active and exercise their own initiative.
2. Competence when and where it counts.
 - We have access to the "right" competence at the right time and in the right quantity – in the right place and at the right cost.
 - We have employed and developed world-class innovators. We have also generated an environment that fosters creativity, thereby making the company attractive to new talents.
 - We recognize and support the entrepreneurial spirit in order to create an effective link between innovation and rapid commercialization.
3. Leadership for empowerment, motivation, speed and flexibility.
 - We develop and enhance leadership characteristics to improve speed, flexibility and business success.
 - Our leaders act in a manner that conforms with, and strengthens, Ericsson's common values.
4. Strong corporate culture and common values.
 1. En nätverksbaserad och kundorienterad organisation.
 - Vi har utvecklad en organisation som är helt inriktad mot lösningar och tjänster

Ericsson's company in the Netherlands has given top priority to forming its own objectives for Wanted Position 2000. Five major improvement projects are central to the work being done. The aim of these projects is enable the company to attain Business Excellence, the highest level in the European quality model.



in brief

- Ericsson Telecommunicatie won the national quality award in the Netherlands in 1994.
- The company is moving ahead with extensive improvement projects aimed at further strengthening in competitiveness.

On solid ground. Ericsson's company in the Netherlands has worked intensively to establish its own "Wanted Position 2000." The company's management is now conducting a series of improvement projects that will provide Ericsson Telecommunicatie with a more solid base as it strives to maintain its position as the country's leading supplier.

Photo: ULF BERGLUND

Full-circle in the Netherlands

WHEN ERICSSON BEGAN WORKING with the Wanted Position 2000 project, there was not much in the goals set for Ericsson that was unfamiliar to the Dutch company. There is a strong correlation between the Wanted Position and the quality criteria underlying the European Quality Award, and the Dutch Quality Award, which Ericsson last year captured for the second time. The senior management in the Dutch company took Ericsson's Wanted Position 2000 and compared the sub-goals with the quality model in the Netherlands – which in all significant respects is a reflection of the European model. Five major projects were identified in a short time, each of which influences one or more of the success factors presented in the model. A leader was selected from senior management for each of the projects.

A company that focuses on operations of its entire production chain is considered to be in the fourth of five phases of its development as defined in the European quality model. When Ericsson Telecommunicatie won the quality award it had achieved phase four. Moving on to phase five is the goal of an improvement project

for which Haijo Pietersma, president of Ericsson Telecommunicatie, is responsible.

"Our continuous work with Business Excellence is necessary for further development of our business leaders in order to create optimal opportunities for good relations between customers, employees and shareholders. In this way, we will be able to take the initiative and act on the changes that characterize our industry," Haijo Pietersma explains.

Improvement project number two is closely related to the company's policy and strategy. It aims at the change which Ericsson is now undergoing – from being a producing company to being a knowledge-based company. Much of the production activities in the Dutch company has also been outsourced to external partners.

ERICSSON TELECOMMUNICATIE'S CORPORATE POLICY is based on how the company can best utilize and develop the skills of its employees, creating a positive environment for the proactive participation of employees. The third improvement project focuses on this area. Information technology and how it can be applied in the company is the focus

of the fourth project. SAP R/3, which is a powerful computer tool for companies that are enhancing the efficiency of administrative routines, is being implemented within Ericsson worldwide. The Dutch company was one of the first in Ericsson to install this integrated information system.

INCREASED EFFICIENCY AND REDUCED COSTS OF operations are the goal of the last of the five major improvement projects now under way in the company. The project is aimed at getting the various steps in the delivery chain to function better together.

This involves shortening the time-to-market and time-to-customer. Advances in this area are measured continuously.

The five projects will strengthen Ericsson's competitiveness significantly in the Netherlands. Ericsson has a long tradition as a successful supplier in the Netherlands to fall back on. "Our organization has been totally customer-oriented for many years. As a result, we can concentrate optimally on each customer and this has resulted in being able to constantly work closer with the customer," relates Haijo Pietersma. ■