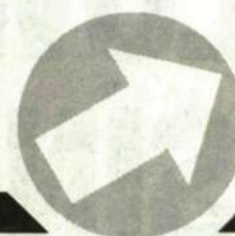


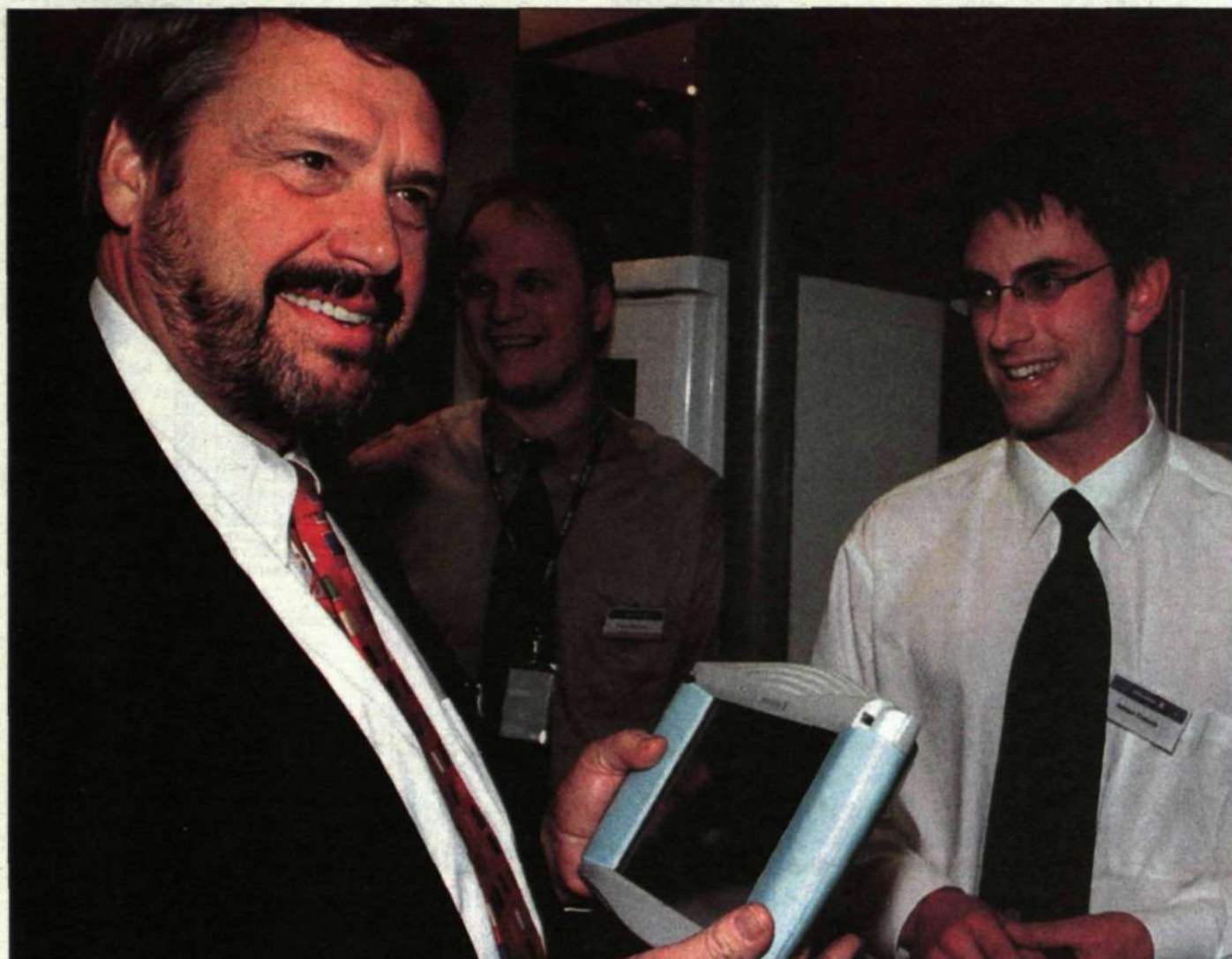
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NO. 3 · MARCH 2 2000



No more cables for Internet access, telephony and e-mail services in the homes. The Screen Phone is the latest from Ericsson's new business unit Home Communications. Adrian Crouch (right) demonstrates a unit to a delighted visitor. Photo: Lars Åström

## Screen Phone takes CeBIT by storm

At the world's biggest trade fair, CeBIT held in Hanover, Germany, Ericsson launched its Screen Phone, one of IT's hottest products. Ericsson also showed a wide range of WCDMA products, including the first macro base station for the system. A coveted award for innovation was collected, and shares in the company rallied to an all-time high as, in the words of the media, "Ericsson stole the show".

6-8



Hong Kong is one of the world's most competitive telephone markets. It was therefore a well-chosen site for Ericsson's executive conference.

## Be first, says Kurt

Ericsson must be first to present products and solutions for the new telecom markets, such as those arising from mobile Internet. This was the key point in the speech by Kurt Hellström, Ericsson's President, to 300 of the company's top executives who attended a conference in Hong Kong last week. The executive meeting was attended by delegates from 87 countries.

10-11

## Multicom device unveiled

In Hanover, Ericsson presented its first communicator platform, combining services such as Internet browsing, messaging, imaging, location based applications and mobile telephony. Ericsson also launched two new phones - the colourful A2618 and the R310 built to cope with rough treatment.

6

### NEWS

#### Finland first with 3G system

The world's first commercial WCDMA system is being built by Ericsson. Telephone operator Finnish 2G Ltd chose Ericsson as its primary supplier of a comprehensive solution for a 3G system.

5

#### Ericsson leading telecom race

Ericsson is on the threshold of a new period of glory, according to telecom analysts. However, its competitors are also expected to be profitable during coming years. Contact checked out Ericsson's largest competitors.

12

#### CDMA switch in Montreal

Ericsson is one of Canada's top companies for investment in research and development. In Montreal, a new group working with switch products for the CDMA mobile-telephony standard.

14-15

#### GSM-deal in Germany

The German operator Mannesmann Mobilfunk is replacing their GSM switches. Ericsson is delivering equipment valued at 500 million DEM. The network is growing rapidly.

5

#### DESIGN

Ericsson shows a titanium version of the R320 WAP telephone.

4

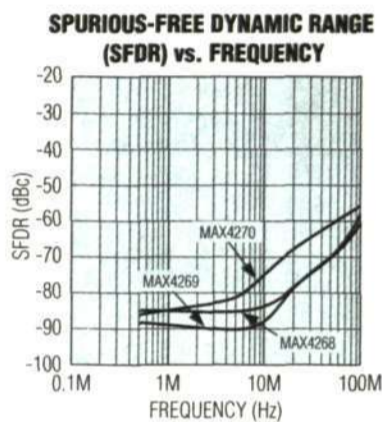
#### ERIC & SON

The comic strip "Eric & Son" explains the art of picking the best sponsoring projects.

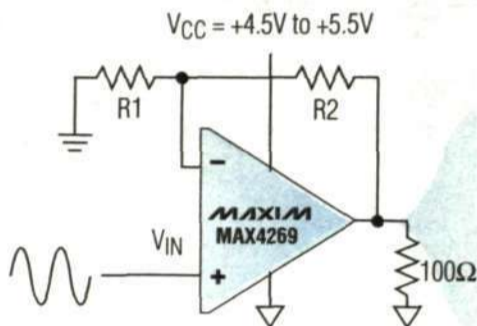
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# LOWEST DISTORTION SINGLE +5V 300MHz ADC DRIVERS

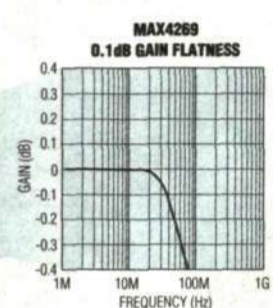
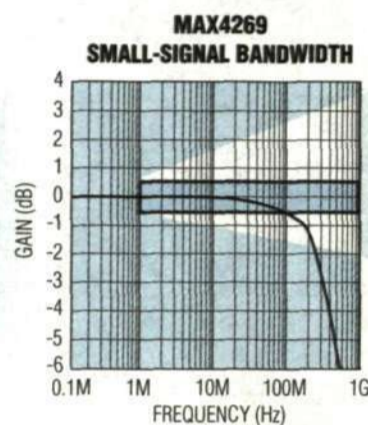
## LOW DISTORTION



## SINGLE SUPPLY



## HIGH SPEED



- ◆ Single +4.5V to +5.5V Supplies
- ◆ 900V/μs Slew Rate
- ◆ -90dBc SFDR (MAX4269)

- ◆ ±45mA Output Drive Current
- ◆ Low Noise: 8nV/√Hz
- ◆ 350MHz -3dB Bandwidth (MAX4269)

PART	NO. OF OP AMPS	MINIMUM STABLE GAIN (V/V)	BANDWIDTH (MHz)	0.1% SETTling TIME (ns)	SFDR @ f <sub>c</sub> = 5MHz (dBc)	PACKAGE
MAX4265*	1	1	300	15	85	8-SO, 8-μMAX
MAX4266*	1	2	350	15	90	8-SO, 8-μMAX
MAX4267*	1	5	200	15	82	8-SO, 8-μMAX
MAX4268	2	1	300	15	85	14-SO, 16-QSOP
MAX4269	2	2	350	15	90	14-SO, 16-QSOP
MAX4270	2	5	200	15	82	14-SO, 16-QSOP

\*Future product.



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# TDMA Systems focused on Edge

In 1998, the US was Ericsson's largest market, with Brazil in fourth place. For the TDMA Systems business unit, the Americas, meaning North and South America, are the most important markets.

"Our prospects remain excellent, for winning both new contracts and expansion orders. At the same time, we intend to be the first to launch Edge, which is a third-generation system," says Björn Olsson, who heads the business unit.

While the Europeans use their cell phones for talking, Americans, who pay higher call charges, use theirs to call for help when their car breaks down on the highway, for example.

At least that was the case until last year, when the country's largest cellular operator AT&T Wireless introduced its Digital One Rate plan, which meant that calling charges were halved and roaming charges within the US were eliminated. The result was that new subscribers signed up in droves and that call times increased.

A similar trend is also being noted in Canada.

## Trying to keep up

Both AT&T Wireless and its suppliers were caught off guard and found it difficult to keep up with demand. AT&T Wireless is one of Ericsson's largest customers.

"At the beginning of last year, we experienced difficulties in keeping up with deliveries," admits Björn Olsson. "We're on the right track now, however, and have increased production at our plants in Sweden, the US and Brazil. We have developed product packaging and taken major steps toward a more robust delivery process. The major remaining challenge is to get the installations done on time."

"We have an excellent and very close relationship with the customer, and because the rapid expansion of mobile telephony will continue, our targets for this year are very aggressive," continues Björn Olsson. "We are setting our sights high and challenging the customer to prepare for major expansions. The customer's success will be our success."

If Americans have been slow in adopting mobile phones, they have been quick to follow trends in mobile data and mobile Internet, particularly with regard to delivering content for various applications.



"In Brazil, we have just started a development center called the Mobile Internet Institute," relates Björn Olsson, head of the TDMA Systems business unit. Photo: Lars Åström

Many US operators have already introduced the packet-data technology CDPD (Cellular Digital Packet Data), which is a way to get started quickly with packet-switched data services.

"Ericsson is the leader in CDPD, which can be seen as a forerunner to Edge and 3G. With CDPD, we are helping operators to position themselves for the future," notes Björn Olsson.

## Mobile Internet Institute

North America and Latin America are the major markets for TDMA and growth in the Latin American market was also very strong last year. In Latin America, however, it is not lower calling charges, but prepaid calling that is driving subscriber growth. This service is used by as many as 85 percent of all customers in certain countries.

"Explosive growth will continue in Latin America this year, and several countries will also award new licenses," relates Björn Olsson. In Brazil, TDMA Systems has just started a development center called the Mobile Internet Institute with about 20 employees who will work to develop new concepts.

## "Increase in sales"

TDMA Systems currently has slightly less than 10,000 employees, of whom 3,000 are located in Sweden and an equal number in the US. The unit also has many employees in Canada and Latin America.

"We can look back on a significant increase in sales last year with the same number of employees," says Björn Olsson, looking both pleased and proud.

What was perceived a few years ago as competition between the

giant GSM Systems unit and the much smaller TDMA unit is now a close collaboration across organizational boundaries with respect to both technology and marketing.

One example is Latin America, where TDMA Systems is monitoring opportunities for GSM to enter the market. A special unit within TDMA Systems was also established last autumn for Edge development.

Since several of the products included in Edge are common to both GSM and TDMA, the two units work closely together.

## Important priorities

"The future and 3G systems are important, but we must not forget existing mobile systems, meaning the second generation," warns Björn Olsson. "This is where we are earning the money that will pay for investments in the next generation."

Increasing volumes and being first to market with Edge are thus the most important priorities for TDMA Systems. Other important tasks include refinement of products for second-generation systems and positioning CDPD packet-data technology as a step toward the mobile Internet.

Björn Olsson became manager of the TDMA Systems business unit in November 1998.

He joined Ericsson in 1981 and his work has included ten years in Denmark and the US.

Björn spends his free time with his family, which consists of his wife, a daughter and a dog.

His interests include old houses and architecture. Summers are spent on Sweden's west coast.

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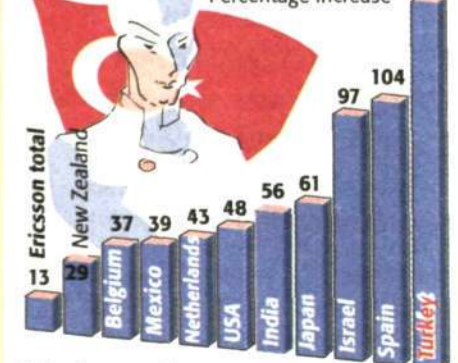
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## DID YOU KNOW THAT...

largest sales increase was in Turkey  
Percentage increase



Sales increase between September 1998 and September 1999

## IN BRIEF

**Malaysian GSM operator expands**

► Celcom Sdn Bhd, which operates a GSM system in Malaysia, has placed an equipment order worth 170 million dollars to expand its mobile phone network. The number of subscribers to its system has grown rapidly, especially since 1998, when pre-paid service was implemented. The expansion will provide both improved coverage and increased capacity. Celcom will also be purchasing several solutions from Ericsson.

**Manufacturing in Italy outsourced**

► Ericsson Transmissio S.p.A. and Finmek have signed an agreement regarding the outsourcing of Ericsson's production in Sulmona, Italy. About 230 employees will be transferred to Finmek when the agreement takes effect on March 31. This contract reinforces the collaboration initiated in 1999, when Finmek took over the Ericsson plant in Pagani, Italy.

**Autumn decision on 3G licenses**

► A decision will be made this autumn as to which Swedish operators will receive UMTS licenses (a 3G technique for high-speed voice and data traffic). Operators with plans to rapidly build large networks are in a good position, when the National Post and Telecom Agency (PTS) awards licenses on November 13 this year.

**Focus on clients and 3G**

**A focus on customers, GPRS and 3G networks. These are top priority areas when Per-Arne Sandström and Bo Bergström assume their new positions as heads of the North American market area and the GSM Systems business unit, respectively.**

The North American market did quite well over the past year, expanding by 36 percent with an increase in sales of 39 percent. Recently, Per-Arne Sandström was named Executive Vice President, in charge of the North American market area. On March 1, he will be taking over after Bo Dimert, who is leaving to become a senior advisor to corporate management.

"It will be a tough challenge to maintain that high rate of expansion, but it is something that I'm looking forward to," says Per-Arne Sandström, who has not yet had time to move to the new office in Dallas, Texas in the US.

Sandström believes that he will make good use of his experiences from the rapidly growing GSM market. Last year, he was in charge of the GSM Systems business unit.

"I've become accustomed to the rapid pace of change and have learned how complex markets are. It's important for your customers that you're always on your toes," he says.

Per-Arne Sandström foresees several major challenges during the coming year. Most important will be to win back the confidence of American operator AT&T Wireless, as well as updating the GSM, TDMA and CDMA standards into a unified third-generation mobile phone network standard using the Edge technique.

Another is to get telephones out in time and to offer customers good total solutions. The US

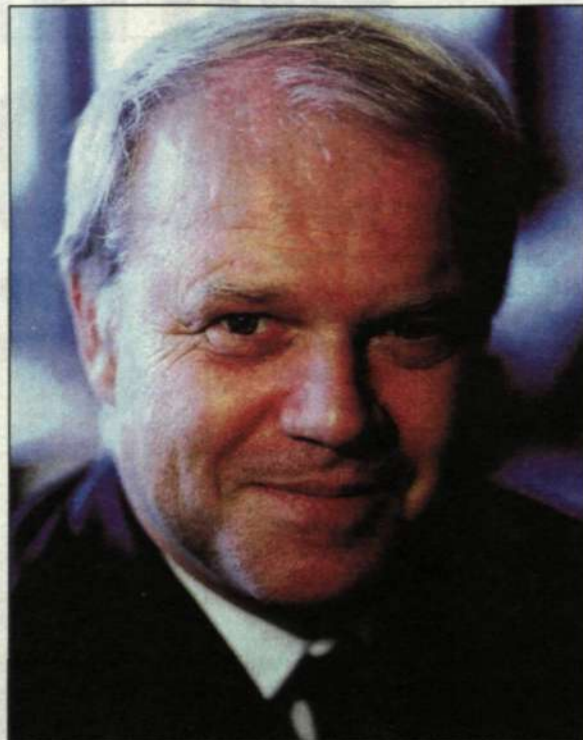
**Bo Dimert will become a senior advisor to corporate management.**



**Bo Bergström will be the new head of GSM Systems**



**Per-Arne Sandström, head of the GSM Systems business unit, will oversee the North America market area starting March 1, replacing Bo Dimert.**  
Photo: Lars Åström



has been somewhat of a pioneer when it comes to Internet usage. For example, more than half of all Americans first check Internet web sites prior to visiting dealerships to look at or buy a car.

Bo Bergström is named the new head of the GSM Systems business unit following Sandström. He is leaving his position as head of the GSM Base Transceiver Stations product unit.

"For me, this has been one of the best jobs a

person could have at Ericsson. Sure, it feels like a rather big step up to become the head of a business unit, but I feel confident from my earlier experiences," explains Bo Bergström.

The primary focus of the business unit this year will be to market and implement 3G solutions and to fulfill orders already received.

Ulrika Nybäck

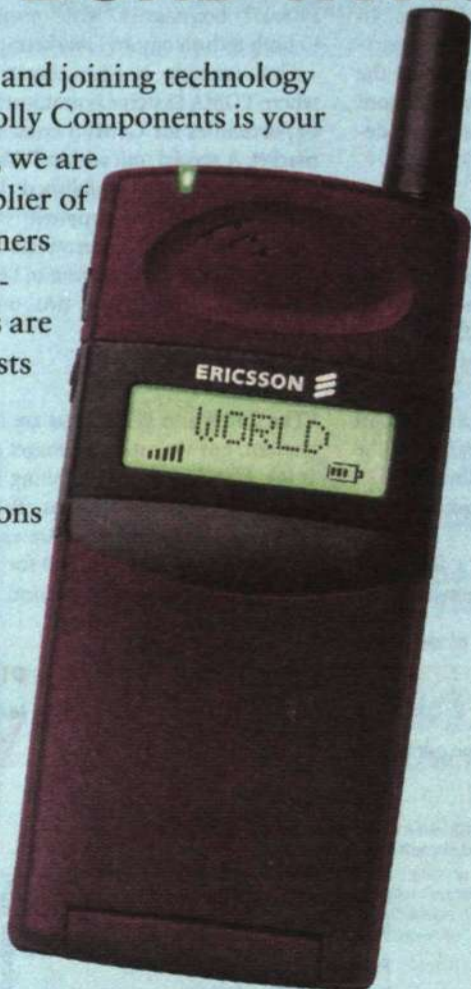
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**Titanium design attracts attention**

**From rockets to implants within the human body. Now the hard, yet lightweight, metal known as titanium can even be found in mobile phones. Ericsson showed off a special version of its R320 WAP telephone in conjunction with an international furniture show in Stockholm last week.**

The titanium telephone is the first of its kind in the world and has been manufactured in a limited edition of only 50 units.

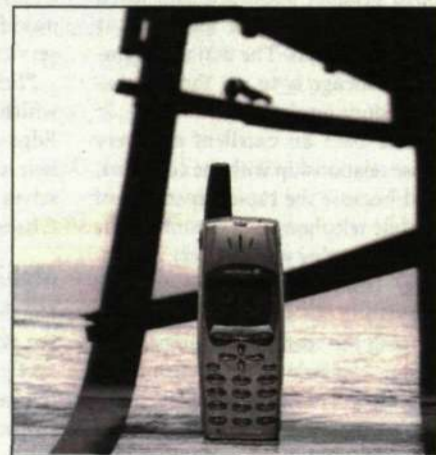
"It's not our intention to make this phone a commercial product, but rather to experiment with design and new materials," explains Michael Henriksson, head of ideas and communications at Ericsson's industrial design unit in Lund.

**Difficult to work with**

While titanium is an exclusive metal that provides strength, it is difficult to work with. That big challenge for engineers and designers has been to obtain the appropriate finish.

The final result is a durable version of the R320 with a new linear shape, that still weighs less than 100 grams. The titanium phone was put on display together with Scandinavian furniture, clothes and ceramics in Stockholm at an international furniture show last week.

"We wanted to demonstrate that our products incorporate the same elegant simplicity that can be seen in Scandinavian furniture. We're appealing to a completely different segment of the population than those found at traditional technology trade shows, namely persons interested in de-



**Ericsson's titanium R320 phone is a study in design and materials that drew attention at a recent international furniture show.**

sign," explains Helen Key, project manager for marketing activities at Ericsson Mobile Communications.

Ericsson plans to participate in design exhibitions in Milan, Italy this spring and in London this autumn, together with Swedish furniture design firm David Design.

The project could be considered a follow-up to last year's "Make Yourself Heard" exhibition at Forum for Form in Stockholm.

As the host for that exhibition, Ericsson showcased design, art and handicrafts featuring highly personalized designs.

Nils Sundström

nils.sundstrom@lme.ericsson.se

# Finland first with order for 3G system

Ericsson has landed the world's first contract to supply a total solution for a third-generation mobile phone system. The mobile phone operator, Finnish 2G Ltd., has chosen Ericsson as the main supplier for its nationwide mobile phone network integrating GSM and WCDMA.

"We're very satisfied with the decision by Finnish 2G Ltd. selecting Ericsson as the main supplier for its mobile phone

system. We're also happy to be involved in developing the mobile Internet market," says Veli-Matti Mattila, head of Ericsson in Finland.

In January of this year, Finnish 2G Ltd. obtained Finland's third nationwide GSM license. The company is jointly owned by thirty Finnish telephone companies. Essentially, the same owners are behind Finnish 3G Ltd., the company that received one of Finland's three third-generation mobile phone system licenses last March.



Soon, people in Finland will be surfing faster. Finnish 2G Ltd. has ordered the world's first commercial 3G network.

Photo: Peo Quick/Great Shots

"This contract further strengthens Ericsson's leading position in terms of third-generation mobile phone systems," says Per-Arne Sandström, former head of the GSM Systems business unit.

Ericsson offers a smooth migration from the current GSM network to a full-fledged 3G network for mobile Internet, using

GPRS packet-data technology.

Ericsson can also provide total solutions for upgrading PDC, TDMA and cdmaOne mobile phone systems to 3G.

Currently, Ericsson has 3G test systems in place on three continents.

Nils Sundström

## Mannesmann places large switch order

German operator Mannesmann Mobilfunk is currently engaged in a major project to replace all the mobile switches in its GSM network. The order, landed by Ericsson, is worth approximately DEM 500 million or SEK 2.25 billion.

Mannesmann's mobile phone system, which operates under the name D2, currently has between eleven and twelve million subscribers. During last December alone, however, the network grew by 800,000 new subscribers.

By replacing the old mobile switches, based on BYB 202, to new ones based on BYB 501, which have new and faster processors, capacity will increase significantly. The old switches were capable of handling 140,000 subscribers, while the new ones have a capacity of over 350,000. Moreover, since the new switches take up significantly less space than the old ones, capacity per square meter can be significantly increased. System maintenance will also be more inexpensive for the operator.

"We're currently replacing all BYB 202 switches throughout the entire network, which involves a hundred or so. All installation work should be completed by the end of 2001," explains Björn Eisner at Ericsson in Germany, where he is a sales representative for the Mannesmann Group.

Ericsson received the major order in competition against Siemens.

"The project is a turn-key assignment, which means that Ericsson will be responsible for the entire job, from beginning to end. We have numerous teams that will be working simultaneously throughout Germany," says Bernd Schmidt, sales representative for Mannesmann Mobilfunk at Ericsson in Germany.

In addition to this large switch replacement project, regular expansion of D2's network continues under the general agreement that Ericsson has with Mannesmann Mobilfunk.



This is the introductory image of the educational materials recently developed for the safety-training course. Here, users select which subject they wish to review, such as Office, Business Trips, or Preventing and Controlling Fires.

# Basic safety skills for all employees

**With the assistance of a mini-course, available either on CD-ROM or over the intranet, Ericsson employees around the world will be able to learn basic safety skills. Company managers worldwide will be receiving a letter from Kurt Hellström, President, encouraging them to implement safety training for all of their employees.**

The training materials, which are available in Swedish and English, take approximately two hours to review and include a final test.

"During spring 1998, we began a basic training program for all of our employees in Sweden in the two business areas then known as Mobile Systems and Mobile Telephones and Terminals. Since then, approximately 40 percent of the employees have participated in the training," says Stellan Svensson of the Supply and IT corporate function, where he

oversees the Risk & Security unit.

The project to develop training materials for all of the company's employees began last summer and is now complete.

Approximately fifty employees from both the educational and security units participated in the project.

"The materials have even been tested overseas, where they were very well received," says Bertil Olofsson, who heads the project.

## Seven subjects

The course consists of seven different subjects discussing various scenarios, such as Office, Working at Home, Business Trips and Preventing and Controlling Fires.

From the introductory page, users can choose on which subject they want to study.

Once the entire course has been completed and final test questions have been answered, users can print up their own certificates.

The course is available both

on CD-ROM and in a web version.

Bertil Olofsson believes that the latter will be the more widely used of the two.

## Local networks

By loading the course into a local network, security units will be able to incorporate their own specific questions pertaining to local conditions. It will also keep track of how many people complete the course.

Ericsson is the first Swedish company to invest in safety training for all its employees using multimedia technology.

Several other major corporations have expressed an interest in the solution.

Gunilla Tamm

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## IN BRIEF

### New telephone with Internet connection

Ericsson's new mobile phone designed for the American market, the R280 LX, offers e-mail and a number of web services. The packet data technology allows transmission speeds that are twice as fast as many of today's mobile phone systems.

The R280 LX is a TDMA phone and can be utilized on both the 800 and 1900 MHz bandwidths. In the 800 MHz band, the phone can operate in both analog and Cellular Digital Packet Data (CDPD) modes.

Packet data technology enables Internet connections of up to 19.2 kilobits per second, double the speed of today's ordinary wireless phones. With the

R280 LX, users can access a number of web services, including news, stock quotes, flight

times, weather and sports through web services from ABC-News.com, Bloomberg Online, ESPN Sportszone and Info-Space, among others.

The model was unveiled at the Comdex trade show in Las Vegas last November, and will be introduced during the first half of 2000.



### Foreign interest in Ericsson shares

Foreign ownership in Ericsson is increasing as its shares are acquired by shareholders in other countries. Last year, foreign ownership increased from 49.7 to 55.9 percent.

In December alone, foreign investors purchased SEK 6.6 billion worth of Ericsson shares, according to the Swedish Central Bank.

The largest foreign shareholder in a Swedish company is Vodaphone Airtouch, followed by an American stock fund, Capital Group, of which the largest individual holding in a Swedish company consists of Ericsson shares. Last year, foreign investors increased their ownership in Swedish companies across the board from 34.7 to 38.7 percent.

### Breakthrough for Call Center in Italy

Italy's largest electricity company, ENEL, has chosen Ericsson as the supplier of infrastructure for its new national telephone-based customer service - Sportello Telematico Enel.

This contract is for Ericsson's largest Next Call Center order to date, comprising 12 Next Call Center systems for nearly 900 call agents. Of these, more than 600 will work remotely.

The system will be integrated with ENEL's existing MD110 infrastructure. Next Call Center, however, is in principle platform-independent, since all functions are hosted on a server that is independent of the telephone system.

Ericsson's Next Call Center has been very well received by customers, following its introduction last year. The system's capabilities were a deciding factor in ENEL's choice of Ericsson over Siemens as a supplier.

# New products unveiled

Two new phones, a new type of communicator and the new Ericsson Screen Phone, were presented at the press conference at the CeBIT trade fair in Hanover last week. Company President, Kurt Hellström, delivered the news as he stressed the importance of mobile Internet.

The two new phones R310 and A2618 will hit the market mid year. The R310 is Ericsson's second shock resistant and waterproof phone. Kurt Hellström hailed the R310 phone as, "the toughest on the market."

"This phone is perfect for adventures people like sailors, mountaineers and skiers, like myself", commented Kurt Hellström with a twinkle in his eye, referring to his participation in the Swedish cross country skiing race, Vasaloppet.

## A host of modern features

The WAP phone, A2618, is fun and colourful, using WAP over SMS technology.

It is the fourth WAP product Ericsson is presenting and the first low-end WAP-phone.

Ericsson's communicator platform brings together a host of modern communication features. The Bluetooth unit boasts WAP, GPRS and HSCSD technologies, a colour touch-screen and Global Positioning System (GPS) functions, to name but a few.

"This communicator will support all these future technologies and perhaps any other combination of capital letters that you can think of," joked Kurt Hellström.

Perhaps the most striking new product is the Screen Phone, the HS210. With this device a user can browse the Internet, send e-mails and make phone calls simultaneously.

The Screen Phone too, has a colour touch screen, or the user can choose to talk to the speakerphone and leave hands free.

The Screen Phone was shown



Crowds gather to see a demonstration of the new communicator platform. The communicator device shown at CeBIT is a fully-operative prototype.

Photo: Lars Åström



A colourful array of the new A2618 which will be available mid-year.

now, but will be launched towards the end of the year.

## New platform at CeBIT

At CeBIT Ericsson showed a working prototype of the new communicator platform on which Ericsson intends to build future commercial products.

The prototype combines mobile Internet browsing, messaging, imaging, location based applications and services, mobile telephony and personal information management. This has never been shown before.

Mia Widell Örnung  
mia.widell@lme.ericsson.se



The new shock, dust and waterproof R310, unveiled at CeBIT. The R310 is designed for active use and outdoor life.

## Ericsson wins CeBIT "Oscar"

► Ericsson has won the CeBIT "Oscar" for good innovations, awarded by the popular German PC magazine Chip. Ericsson received the prize for its enthusiastic involvement in the development of Bluetooth.

"We are all very happy. It is a recognition for the whole Bluetooth team at Ericsson," comments Johan Åkesson, Technology Marketing Manager for Bluetooth.

Right from the start, Ericsson has driven the development of the new radio technology. The company showed many demos at an early stage and was the first to introduce a bluetooth product for voice, the Bluetooth headset, launched last year. Ericsson has also a development kit, which allows other company's to develop applications and products using Bluetooth.

"Ericsson has the whole range of competence, from manufacturing the

chip to developing complete applications and products," says Åkesson and stresses that Bluetooth is not only about a headset, but all product types will be Bluetooth enabled.

Last year, a dedicated Bluetooth product unit was formed. Today, there are people working with both product development, research and marketing in Emmen, Holland, as well as in Lund and Kista in Sweden.

Bluetooth is a radio technology which provides speeds of up to 1 Mbit/s, with an effective bit-rate of about 720 kbit/s. The coverage is either 10 or 100 meters depending on what type of Bluetooth chip is used.

In addition to the prize from the Chip magazine, another German magazine, PC Professional, premiered Ericsson together with the other companies in the Bluetooth interest group for the Bluetooth technology.

# Mobile Internet is here

**Mobile Internet is here now. And Ericsson is the market leader of mobility. That was Kurt Hellström's message, when speaking to the media at the CeBIT press conference in Hanover last Thursday.**

"We will see an impressive growth and within four years there will be 400 million mobile Internet users, with the potential of 600 million users", said president Kurt Hellström.

"In Japan the i-Mode, Japan's equivalent to WAP, is attracting 150.000 new users every week, which indicates the strong potential for mobile Internet usage."

At CeBIT Ericsson is focusing on mobility and the overall theme for the Ericsson stands is the "Power

of Mobility". Ericsson is showing a wide range of applications for Mobile Internet, such as mobile e-Pay, Wireless Wallet, and lots of applications for third generation mobile systems and GPRS.

"How can you say that Mobile Internet is here today, when there are no volumes of WAP-phones on the market?", questioned one of the journalists at the pressconference.

"There are phones and terminals for this, like our own MC218 and R320. But the applications, systems and telephones have to go together. I-Mode in Japan, where they have hundreds of applications up and running is a success-story. The wide range of applications are still lacking in Europe," commented Senior Vice President Marketing and Strategic Business

Development", Torbjörn Nilsson.

"Mobile Internet is here now", stressed President Kurt Hellström. "However, the real revolution will come with GPRS, which offers up to ten times the data rates of today. And what is more important, with GPRS, the user can stay always connected, be 'always on'."

"We have already shown a functioning prototype GPRS phone in a live end-to-end solution. The GPRS systems roll out will be in mid year and the phones you will see later in the fall", said Kurt Hellström.

"But are you able to deliver volumes of WAP-phones?"

"Yes, we are able," answered Kurt Hellström, confidently.

Mia Widell Örnung

# Send a message and share the image

First came the Chatboard, then the FM radio and the mp3 player. At CeBIT, Ericsson showed its latest mobile phone accessories – a camera, a smartcard reader, and a wireless wallet.

The CommuniCam is Ericsson's small digital camera for mobile phone users. Connected to an Ericsson WAP telephone, the CommuniCam delivers captured moments from anywhere to a PC or another mobile phone. The pictures are compressed in jpg-files of 10 to 20 kbits. And what's more, the weight of the digital camera is less than 70g.

"The CeBIT visitors have shown a great interest in this product. They are excited to know when it's going to hit the market. However, we only demonstrate the camera as a technology concept. We want to show that this is possible with today's technology," explains Annica Zetterlind, who demonstrated the camera.

The product is developed in cooperation with C-technologies, a company of which Ericsson owns 10 percent.

## "A hot topic"

"Pictures will be a hot topic in tomorrow's mobile system. This is a natural evolution of communication with the increasing network capacity and new technologies," says Magnus Hollström, who works with the concept development group at Ericsson Mobile Communications in Sweden.

At CeBIT, Ericsson also demonstrated the Cashboard, a smartcard reader for mobile phones. This technology concept is embedded with the popular Chatboard. By



Annica Zetterlind demonstrates the CommuniCam, a small digital camera which makes image communication possible with Ericsson phones.

Photo: Lars Åström

simply inserting a cashcard in the Cashboard, the balance of the card is displayed on the mobile phone screen.

## Wireless Wallet

"There are more than one billion smartcards in the world today, excluding SIM-cards for mobile phones. Many of these are used for banking services, like cashcards. This concept product could be the user's personal cashcard reader. The target group is young people using the Chatboard and who don't have a credit card," explains Lisa Fernström, who demon-

strated the Cashboard at CeBIT.

Smartcards could also be used for other applications, for identification or as an electronic ticket airport and train transport for example. At CeBIT Ericsson demonstrated a solution for this, Wireless Wallet, which is a convenient way to access any smartcard based service. The wallet can also handle multiple services at the same time.

"This way you do not have to pick up your wallet and insert the smartcard in a smartcard reader. It is already there, and with Bluetooth technology and WAP the Wireless Wallet communicates



With Ericsson's Wireless Wallet you can leave your wallet in your pocket and using this easy access any smartcard based service. Mårten Carlsson demonstrated the device, which communicates via Bluetooth and WAP with a mobile phone.

with a mobile phone or any other Bluetooth-enabled device," explains Mårten Carlsson, business developer at the new business unit Internet Applications.

"The Wireless Wallet could also be used for payments and other smartcards services such as authentication. Another scenario could be to download money through the device to a smartcard", says Mårten Carlsson.

## Tested in partnership

The weight of the Wireless Wallet is 100g and the prototype is made of Italian leather. A similar device was shown on CeBIT last year as a technology concept. Now it is developed into a product concept ready to be used in test systems.

In November 1999, Ericsson and VISA International, the leading payment organisation, signed an agreement to develop secure payment solutions via mobile devices. Ericsson Wireless Wallet is planned to be tested in this partnership.

Nils Sundström

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Media attention on Ericsson was high.

## Media loves the Ericsson show

"Ericsson leads the mobile telephony battle", "Ericsson stole the show", and "Ericsson won this round". Ericsson's performance at CeBIT has created very positive headlines. It was mainly Ericsson's broad knowledge and product portfolio for mobile Internet that impressed.

"Undoubtedly, Ericsson won the battle over Nokia at CeBIT. It is true that Nokia presented three new phones and Ericsson just two. However, mobile phones are not everything. The Ericsson victory was won by showing an impressive effort on mobile data," wrote the Swedish national paper Svenska Dagbladet.

"Nokia lost points by just presenting new versions of old phones. Ericsson, on the other hand launched a whole battery of new products, mostly models with new technology for wireless Internet. Especially impressive was the new phone HS 210 (the Screen Phone)," reported Swedish radio.

With the new product launches, analysts believe that Ericsson has caught up with Nokia's earlier advantages in this area.

"Now, Ericsson has as broad a product portfolio as Nokia. The large challenge for Ericsson now is to further lift its brand. To do so, hard work and additional image-creating accessories as the MP3-player and the Chatboard are needed," said an analyst to the Swedish financial paper, Finanstidningen.

Some reporters in the media were not fully positive, but rather disappointed that the industry did not deliver more products for mobile Internet.

"The products failed to charm many market watchers. They are waiting for phones that can surf the Internet. The Nordic companies won't come out with GPRS phones until later this year. Instead, they launched more WAP phones," the Wall Street Journal wrote.

# Wide range of WCDMA products

**"The year 2000 is most crucial for the WCDMA suppliers. This year many operators are going to choose their 3G supplier. With our complete product portfolio for WCDMA radio access network, we show that Ericsson is very well positioned," says Mikael Halén, Director of Product Marketing, Wideband Radio Networks.**

Ericsson unveiled a complete range of WCDMA Radio Access Network products at CeBIT 2000. This includes the first macro WCDMA base station, RBS 3202. The product portfolio also consist of a plug-in WCDMA transceiver unit and a remote radio unit, that can be placed up to 300 meters away from each other.

This way operators can re-use GSM radio base stations sites, and create 3G coverage and capacity where demand is urgent.

A similar solution is used in Ericsson's Compact RBS 1106 for the cdmaOne system.

## Plug-ins used as base station

"Over 75 percent of our installed base of GSM macro base station cabinets are prepared for a combination of GPRS, Edge and WCDMA transceivers. They have been like that since 1995, which gives us a unique opportunity to offer this solution," says Mikael Halén.

"In addition to this, the remaining 25 percent with RBS 200 macro base stations, can be expanded by the solution TG Synk. Then, the plug-in WCDMA unit can be used also for these base stations," explains Mikael Halén.

"We also show an innovative management system, including the radio and transport network planning tool kit. This way, operators can easily see how many base stations that are needed to cover a certain area and where the base station sites

should be", explains Mikael Halén.

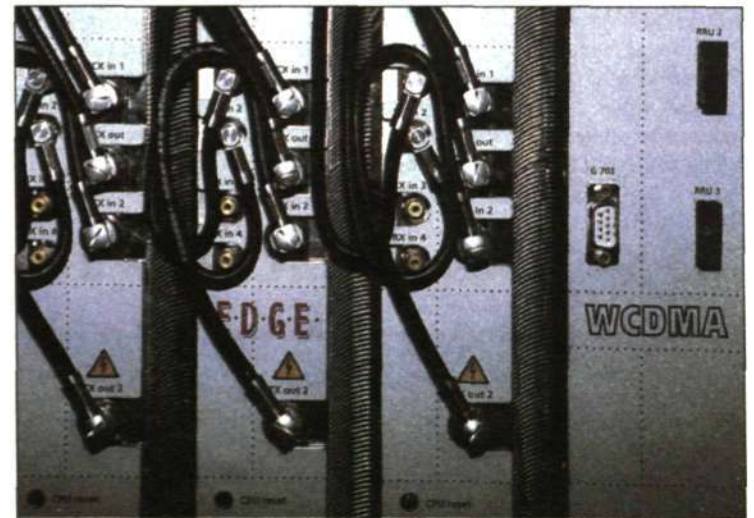
Ericsson showed four applications at CeBIT: video conferencing, video streaming, billing systems connected to the 3G services and a "multi call" between WCDMA demo centers in four continents.

"We have demo centers in Canada, England, Germany, Japan, New Zealand, Spain and Sweden connected, four at a time, to the exhibition here in Hanover. VIP customers can also go by helicopter to a demo van in Hilderheim, 30 kilometers south from here," says Mikael Halén.

## Pilot systems out next year

Ericsson has already delivered 17 test WCDMA systems to customers.

"There is an enormous activity among operators right now regarding 3G systems. More than 80 licenses will be issued the coming year. We will have pilot systems out in the beginning of 2001, along with the first commercial systems



Over 75 percent of Ericsson's installed GSM macro base station cabinets are prepared for a combination of plug-in units of GPRS, Edge and WCDMA transceivers.

during the second half of 2001. Then, in 2002, Europe will see a pearl string of commercial 3G systems."

"The battle between suppliers for

these systems is going on right now," Mikael Halén concludes.

Nils Sundström

# Home Internet products Ericsson's next mass market

Screen phones, tvs that also offer an Internet connection, and modems for broadband access. These are examples of home communication products and a market in which Ericsson sees tremendous potential, with a total value of around 100 billion USD within five to seven years, which is about the same as today's PC market.

To date, Ericsson home products have focused on cordless phones, but Ericsson will become much more active in the future. Wireless terminals and new home products for multimedia and residential broadband are examples of areas in which Ericsson intends to become active.

"When the Home Communications business unit was formed a year ago, many people questioned our reasoning. There are many manufacturers of consumer electronics, and margins are thin," says Björn Krylander, who heads the new unit.

"Ericsson can produce new types of electronic devices for the home that can compete with PCs, tvs and radios, for example," explains Björn Krylander.

"So we're not going to be making tvs and radios, but consumer products where we can take advantage of Ericsson's strengths. We are going to marry IP and the Internet to mobility. At the same time, we will exploit our strength in the consumer market. This is where we have a clear advantage."

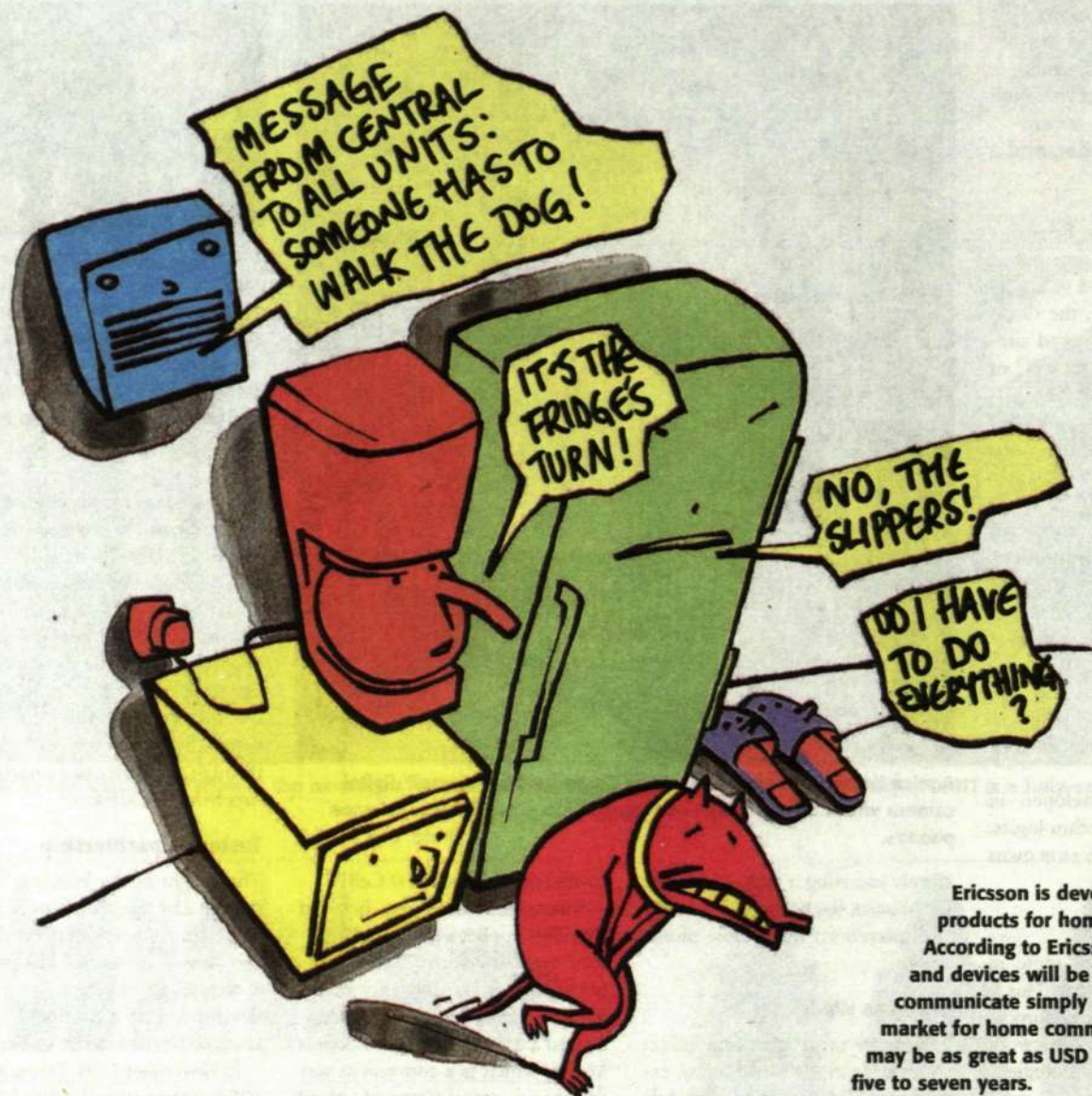
## The connected home

The paradigm shift within the telecom, IT and media industries will have a tremendous impact on the future home. Within a few years, home electronics products will undergo a radical change. The vision of a home in which everything can communicate wirelessly is a familiar one, but soon there will be practical proof in the form of products in the stores.

And in the future we might see the stereo becoming a telephone, while the mobile phone will serve as a remote control for the home and the clock radio may have a built-in speaker phone, or perhaps even streaming video so that we can watch the weather report before getting out of bed. These products will communicate wirelessly using Bluetooth radio technology, and what is called the Connected Home will become a reality.

In addition to the new Screen phone, the Ericsson Home Communications business unit has also launched a line of broadband modems for cable and ADSL networks. Furthermore, the e2 partnership has been formed with Electrolux to develop Internet appliances such as refrigerators with Internet screens.

The idea is to develop communications



Ericsson is developing a number of products for home networks. According to Ericsson's vision, people and devices will be able to communicate simply and effortlessly. The market for home communications solutions may be as great as USD 100 billion within five to seven years. Illustration: Ulf Frödin

products for the kitchen that recognize the fact that the kitchen is already the center of many homes and that also make it the center of communications. Many families already have a calendar and post reminders on the refrigerator. In nearly all American homes, there is also a tv in the kitchen. A kitchen tv on which you can surf the web would undoubtedly be easy to sell.

The original impetus for entering this area is actually a result of the branding campaign.

"Building a brand costs a great deal, so the idea was to expand the product portfolio for the consumer market and in this way to distribute the marketing costs across a broader range of products," explains Björn Krylander.

Today these product areas may be non-existent, but tomorrow they could be huge markets. There are parallels with the new mp3 players, which have become so popular.

"It was not the home electronics giant Sony that developed the first mp3 players, but rather Diamond, a small company that produces video cards for PCs," notes Björn Krylander. "The traditional Walkman manufacturers were simply not sufficiently motivated to develop a product that might mean the extinction of their own product. But we can also create completely new product segments."

## Home gateways

Many of the products will work with today's connections over the ordinary telephone network, but the market for this type of products will only take off when broadband access comes to the home.

"Broadband not only means high data speeds, but also that homes can be always connected. Every appliance in your home will have its own IP address and can be always online," explains Frank McGhee, who is manager for one of the product units within Home Communications.

Ericsson has also activities in the area of home networking and home gateways, the focal point of the home network.

There are many views of the market potential for new terminals for Internet access, modems for broadband access or cordless phones for the home. However, some indication is provided by looking at the market for tvs, for example.

In 1999, about 140 million tvs were sold with a total value of about USD 25 billion, which was about half the total for mobile phone sales. During the same year, 113 million PCs were sold with a total value of USD 100 billion.

These figures show that these segments are worth a considerable amount of money and that

by combining these products in a new segment, it should be possible to achieve substantial volumes. The number of homes with broadband access via cable tv or xDSL modem is expected to be more than 10 million in the US and 6 million in Europe by 2003. Demand for broadband access will naturally mean that demand for multimedia terminals will also increase.

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## HOME COMMUNICATIONS IN BRIEF

The new Home Communications business unit, which was established in January 1998, will develop products for the Connected Home.

- Products: All types of products for Internet access and multimedia in the home
- Strategy: Home Communications will develop wireless products that combine telephone with the Internet. In addition, the unit will focus on broadband access. In this manner, Ericsson's expertise in consumer products will be reused.
- Market: According to Ericsson's estimates, the market will be at least as large as today's PC market, meaning USD 100 billion within a few years.

Ericsson is targeting about 25 percent of this market with its forthcoming products and intends to take a 15 percent share of this segment. By 2003, more than 20 million American and European homes are expected to have networks, of which the major share will be wireless.

## New cordless Screen Phone brings Internet to the sofa

One piece of hot news at CeBIT was the new Ericsson Screen Phone, HS210, a cordless Bluetooth connected screen which offers Internet access, telephony and e-mail services.

With this device users are freed from the tyranny of cables in the home, said President Kurt Hellström, when unveiling the new product to the media.

Exhibition visitors are very positive to this product. Instead of being tied to the computer in the spare room, you can browse the Internet,

make phone calls or send e-mails simultaneously from the comfort of the sofa, explains Björn Krylander, head of the Home Communications business unit.

The Screen Phone has a color touch screen, on which the Internet and other functions can be launched at the touch of a finger. The user can talk on the phone by using the speakerphone or the hands free.

The Screen Phone will hit the market towards the end of the year.

Mia Widell



# Japanese companies prioritize environment

**A large number of companies in Japan are environmentally certified, as are many municipalities. Major multinational corporations provide detailed environmental reports about every advancement made within various fields.**

Japan is a leader in the field of environmental work for good reason. The nation faces acute environmental problems, such as waste management, while environmental laws are continually becoming more stringent.

"This is important for Ericsson," says Carl-Olof Gillgren. "Japan is one of our major customers. As for the new WCDMA broadband system, Japan's leading mobile phone operator, NTT DoCoMo, has laid out very specific environmental requirements for our products. Thanks to a solid foundation of environmental work, we've been able to meet those demands."

The Second Environmental Management Workshop, which was arranged by Swedish-Japanese and Japanese-Swedish foundations, aimed at promoting collaboration within the environmental field, and working towards common standards and information databases. Mutual

environmental accounting was also discussed.

Several leading companies, such as Volvo, ABB, Ericsson, Electrolux and Tetrapak, were among the Swedish participants. In his presentation, Carl-Olof Gillgren outlined Ericsson's focus on three important environmental issues: lowering energy consumption for both products and systems, removing environmentally hazardous elements (primarily by placing strict requirements on suppliers), and strategies for how best to deal with worn out equipment.

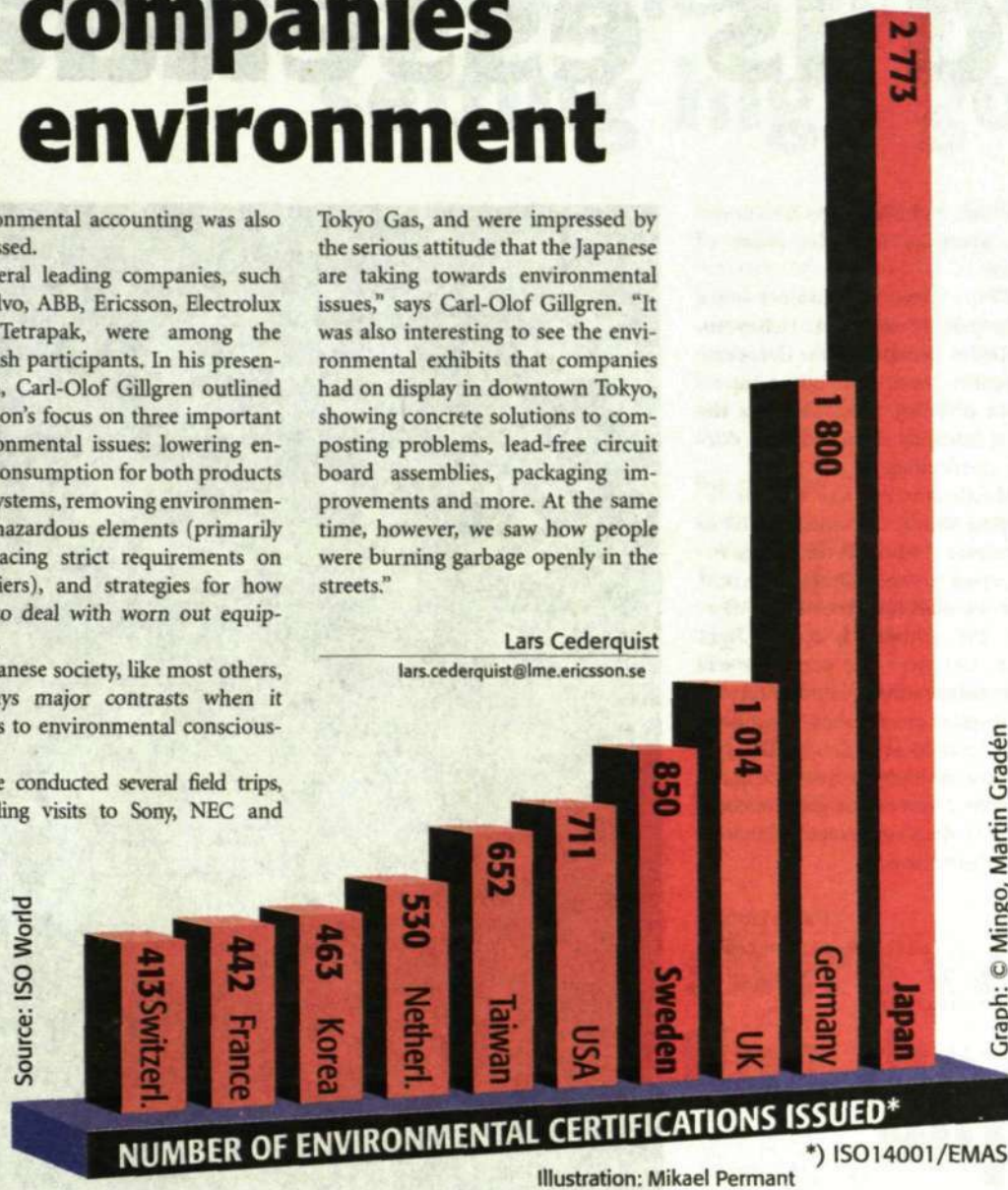
Japanese society, like most others, displays major contrasts when it comes to environmental consciousness.

"We conducted several field trips, including visits to Sony, NEC and

Tokyo Gas, and were impressed by the serious attitude that the Japanese are taking towards environmental issues," says Carl-Olof Gillgren. "It was also interesting to see the environmental exhibits that companies had on display in downtown Tokyo, showing concrete solutions to composting problems, lead-free circuit board assemblies, packaging improvements and more. At the same time, however, we saw how people were burning garbage openly in the streets."

Lars Cederquist

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## Corporations and activists break the ice

► Old antagonisms between corporations and environmental organizations, dating back 10-15 years, are thawing out.

Eleven major Swedish corporations with Electrolux, ASG, Ericsson and Volvo in the lead, met with ten leading environmental organizations, including Greenpeace and the World Wildlife Foundation (WWF), at the beginning of February to discuss concrete collaboration measures between the corporations and the organizations.

This is seen as a major step and proof that both sides now have a mutual interest in ecologically sustainable development.

"Environmental organizations and corporations will, of course, continue to have differing views and priorities in the future," says Henrik Sundström of Electrolux, who took up the initiative for collaboration during autumn 1999.

Potential for constructive collaboration is now greater than ever before. The meeting was the first step in a process that will lead to concrete programs.

Ericsson's environmental manager, Mats-Olov Hedblom, noted that this is not a question of industry merging with non-governmental organizations (NGOs), but rather an exchange of expertise.

# Satellite Solutions From Ericsson

Make your IP, ATM, Frame Relay, ISDN, and SS7 traffic flow seamlessly between remote sites connected via Ericsson's LINKWAY satellite terminals

Unlike conventional VSAT systems, LINKWAY handles circuit-and-packet-switched traffic dynamically, utilising a unique multi-frequency TDMA architecture; combined with flexible bandwidth management the system offers efficient and effective enterprise satellite communications. Its Java-based network control and management software, with a browser interface, enables quick and flexible remote access from any PC.

### Broadband Applications

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- Corporate Intranets and Virtual Private Networks
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- Public Switched Telephone and Data Networks
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# Speed is essential for

**"Be the first, preferably also the best, but definitely the first" – this was the bottom line delivered by President Kurt Hellström in addressing the over 300 top Ericsson executives last week in Hong Kong.**

The location seems well-chosen. Hong Kong is one of the most competitive markets in the world and it is completely deregulated. Here, six operators have a total of eleven mobile telephony networks for three standards. Well over half of the inhabitants have a mobile phone. Customers and consumers are extremely knowledgeable – to assert yourself here, only the very latest will do. Asia is also the fast-growing region for telecom.

Several key issues for Ericsson were discussed during the two-day session. Apart from the importance of being first, a central theme of the meeting was – as expected – the customers, and the need for Ericsson to become more cost-efficient. Without customers, being first is ir-

relevant, and if Ericsson is to develop, everyone must be aware of costs.

TTC – Time To Customer – is a large part of what Kurt Hellström, and other members of the Corporate Executive Team, mean by the importance of being first. This was the most intensely discussed issue during the meeting.

Mobile Internet was another recurring theme. Ericsson's goal is to dominate the market for mobile Internet access, and play a preeminent role in mobile Internet. As an indication that Ericsson is on the right path, last week the company was awarded the world's first contract for third-generation mobile networks – with Finland as first out. The fact that the customer is from the home market of one of our greatest competitors does not exactly diminish the achievement.

Patrik Lindén

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## Right people key to the future

**To attract the best and keep the top talents within the company, it is of the utmost importance that Ericsson is an attractive employer. The industry is growing faster than the supply of expertise.**

Ericsson has also conducted recruitment campaigns at several of the world's top universities – for example, MIT (the Massachusetts Institute of Technology) and Harvard.

Britt Reigo also presented a more aggressive salary strategy. The objective is to position Ericsson in the top quartile of the salary league in each country, for top talents and key personnel. Incentive programs shall also be competitive.

Being an attractive employer is not merely a matter of salaries and benefits. Corporate culture and leadership are also important aspects.

At the Hong Kong meeting, Kurt Hellström discussed his approach to leadership:

"Providing living leadership, serving as a model and being predictable are the three most important aspects of leadership," he said.

Living leadership means presence.



**A great deal has happened in the Corporate Executive Team recently. Johan Siberg is now responsible for Ericsson's operations in Sweden, which still account for slightly less than half of all employees and half of the company's research and development. Jan Wäreby has taken charge of the consumer segment. Roland Klein takes over on March 1 as head of information, Ragnar Bäck was recently appointed head of the Western Europe market area. Kjell Sörme heads the Asia Pacific market area succeeding Kurt Hellström. Per Arne Sandström is the new head of the North America market area. Kurt Hellström also appointed Karl-Axel Blomqvist as Chief Legal Advisor in the Corporate Executive Team.**



**Being best is no use if you are not also first. This was Kurt Hellström's distinct message to the over 300 top Ericsson executives at the meeting in Hong Kong last week.**

The executive/leader must be where the action is, be available and provide feedback, as well as be able to receive feedback and opinions.

To be an executive/leader is to be scrutinized.

It is important to practise what you preach. By predictability, Kurt Hellström means that employees must know what is expected of them, and what the goals and strategies are.

What issues have priority for today's executives at Ericsson? Increasing

the pace is at the top of Kurt Hellström's list. Thinking more about the customer. Another favorite issue is to reduce unnecessary bureaucracy.

Kurt Hellström also feels it is essential to focus on central issues. Too often, internal issues consume too much time and resources.

"We must all work to concentrate on the real problems," said Kurt Hellström.

Patrik Lindén

## Shorter

**Within a year, there will be over 80 licenses for third-generation mobile networks. Ericsson's goal is to have at least half of the contracts. The first of them was already signed last week.**

Mobile data is already available, however. It is does not have to wait for 3G. Two billion SMS messages are being sent per month. In Japan there are currently 3.4 million subscribers to I-mode, a Japanese version of WAP. I-mode is growing by 150,000 subscribers a month. In a few years, all mobile terminals will have access to mobile Internet.

### Future taking shape now

Toward the end of 2004 there will be 140 million users of 3G networks. The future is taking shape now, said Torbjörn Nilsson, Senior Vice President, Marketing and Strategic Business Development.

Mobile Internet will become available gradually. It is expected that the

# Ericsson Customer segments setting high goals

**Volume, volume and again, volume. That is what is currently most important for the Consumer business segment, according to Jan Wäreby, new manager for the segment, succeeding Jan Siberg.**

"Market shares and earnings must increase and work on building a strong brand must continue," Jan Wäreby added.

### Better delivery precision

Ericsson's credibility as one of the main players for consumer products must be strengthened – through better delivery precision, increased customer satisfaction and ensuring that the telephones really do reach the market when Ericsson says they will. For Mats Dahlin, head of the

Network Operators and Service Providers segment, what matters in the new telecom world is being Number One as supplier to mobile telephone operators and Internet operators. For wireline systems, Ericsson will focus on earnings and maintaining positive cash flow.

### Big changes

Companies are not only customers of the Enterprise Solutions segment. They also represent more than half of the operators' revenues, as segment manager Haijo Pietersma explained.

A great deal happened in Enterprise Solutions last year. Business Consulting took off, and now has 2,700 employees working in 36 countries. WAP solutions are the main attraction.

Ericsson has 400 WAP specialists helping customers with solutions, particularly in banking and finance, the travel and transport industries as well as media and entertainment.

### Sales channels important

Sales channels are another key issue for the segment. Emphasis on direct sales has gradually declined in favor of increasing use of dealers. This development will continue, and it involves considerable readjustment within the organization.

The IP strategy is ongoing, already producing results after last year's purchase of TouchWave, now an integrated part of Ericsson for IP-based business switches.

Patrik Lindén

## Boosting share value and affecting the market

**No doubt about it, the recent performance of the Ericsson share has been fantastic.**

Stockmarket fluctuations are not always directly related to how well the company is performing, but Ericsson undoubtedly has considerable power to influence the way the market values the company.

Sometimes the stock market's valuation of companies may seem mysterious; however, there are certain basic rules determining how

Ericsson and our competitors are valued.

Ericsson's performance is always the fundamental parameter. This applies to both earnings and cash flow. This basic value is multiplied by a factor based on expectations of future revenue and the expected cost of capital.

"Not only can we influence how well we perform and the expectations on us, but we can also reduce the cost of capital by creating better forecasts to increase predictability,"

says Sten Fornell, Senior Vice President, Finance.

Currently, both Nokia and Cisco are ahead of Ericsson in market capitalization. We have a good chance of exceeding their levels, however, if we just increase our margins.

The first step is to create earnings in excess of long-term goals.

"Chances are good that Ericsson will accomplish this," says Sten Fornell.

Patrik Lindén

## lead times have rapid effect

first services to hit the market will be e-mail and information services with global positioning systems (GPS). Images and commercial transactions are also expected to be available via mobile Internet at an early stage.

Today's network structure is changing. The structure currently being created is based on a backbone for all types of services, IP, voice, etc. Switches are being replaced by servers and gateways representing the various network sections that are currently separate. Jan Uddenfeldt, Senior Vice President, Technology, discussed what the future holds in technology.

IP (the Internet Protocol) will not take over completely as transmission protocol for a long time yet. Ericsson has therefore invested in ATM (Asynchronous Transfer Mode) as well, and switches/servers that can handle both IP and ATM concurrently. Ericsson is currently in the midst of a phase of powerful research and development. Standardization for 3G

is complete. The priority now is development.

"Ericsson is leading in 3G," Jan Uddenfeldt believes.

### Total resources

Changes in Ericsson's ways of conducting research and development are under way. Operations are currently spread over several geographical locations and in several organizations. This will all change.

The early stages of research and development will take place at a few locations. The same applies to maintenance of products already in the market. Research and development will also become more product-oriented. This is the solution to faster product development – that is, TTM (Time To Market).

### Speed generates revenues

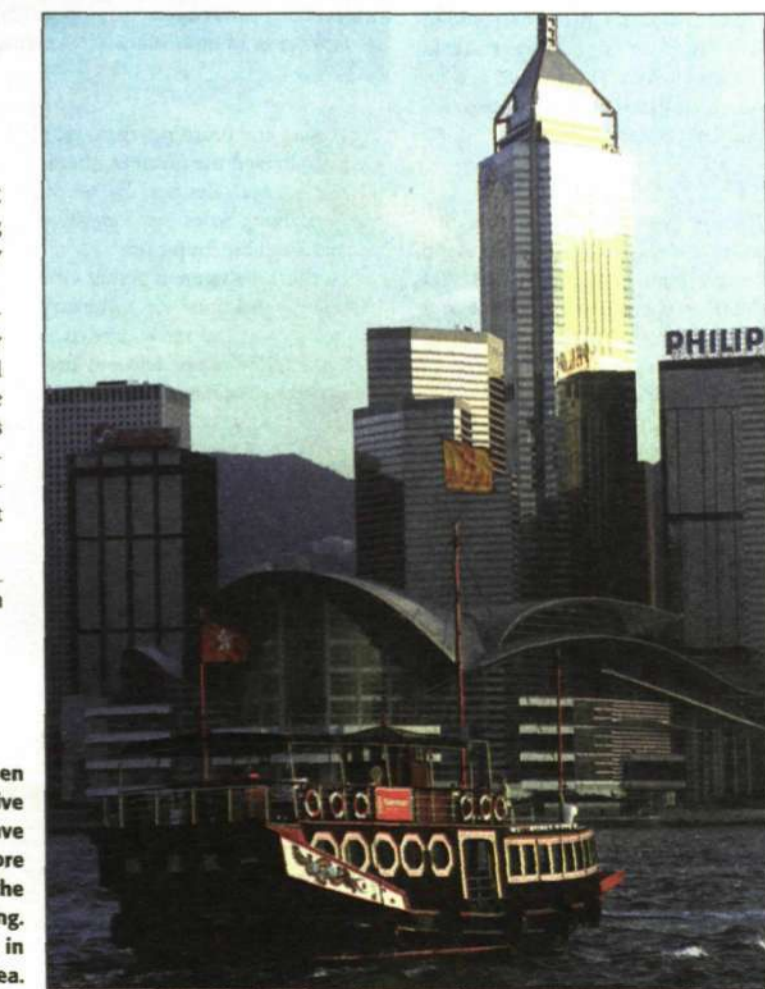
Rapid development of new products is only half the battle. The next step is to ensure that they also reach the customer quickly – that is, what is commonly referred to as TTC (Time

To Customer). Both TTM and TTC received much attention at the Hong Kong meeting, and they are highly significant for Ericsson's future.

Björn Boström, Senior Vice President, Supply and IT, strongly stressed the importance of a global delivery chain to drastically reduce lead times to the customers. There is much to be done here, and considerable savings to be achieved. Standardized product packages are part of the solution.

Patrik Lindén

**Hong Kong was a well-chosen site for Ericsson's executive meeting. Few locations have tougher competition or more rapid development in the telecom sector than Hong Kong. There are 11 mobile networks in a very small area.**



# Top-speed telecom rally

The telecom industry is racing ahead, but what is Ericsson's position relative to the competition? Contact has prepared some figures for comparison – not to identify a winner, but to show which companies are actually Ericsson's competitors.

Telecom analysts interviewed by Contact are optimistic regarding the industry's development in the next few years. Ericsson is at the threshold of a new period of glory, according to Bo Edvardsson, telecom analyst with the Swedish investment firm of Fischer Partner Fondkommission.

"The years 2000 and 2001 will be extremely good for mobile telephones and infrastructure for mobile communication. The intermediate stages preceding third-generation mobile systems will already begin to impact on sales this year," says Bo Edvardsson.

### Not purely telecom

A closer examination of the larger players in the industry shows that few are purely telecom companies. Many are conglomerates of diverse operations, whereas others are wholly devoted to certain segments. The clearest example of a conglomerate is Siemens, which builds power plants and manufactures lightbulbs.

The company's telecom component represents only 34 percent of its total operations. However, the German company is in the process of concentrating its operations to focus on telecom – for instance, component manufacturing has been dropped.

Even Alcatel has sold most of its power-plant and transmission operations, to concentrate on telecommunications. Alcatel's operational organization is therefore somewhat misleading, since the figures refer to 1998.

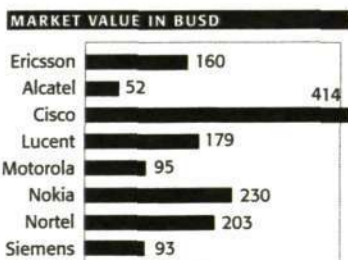
The reason for the concentration is that telecom margins are greater in most segments. This in turn is a result of the extremely high pace of development in the industry.

### Dynamic industry

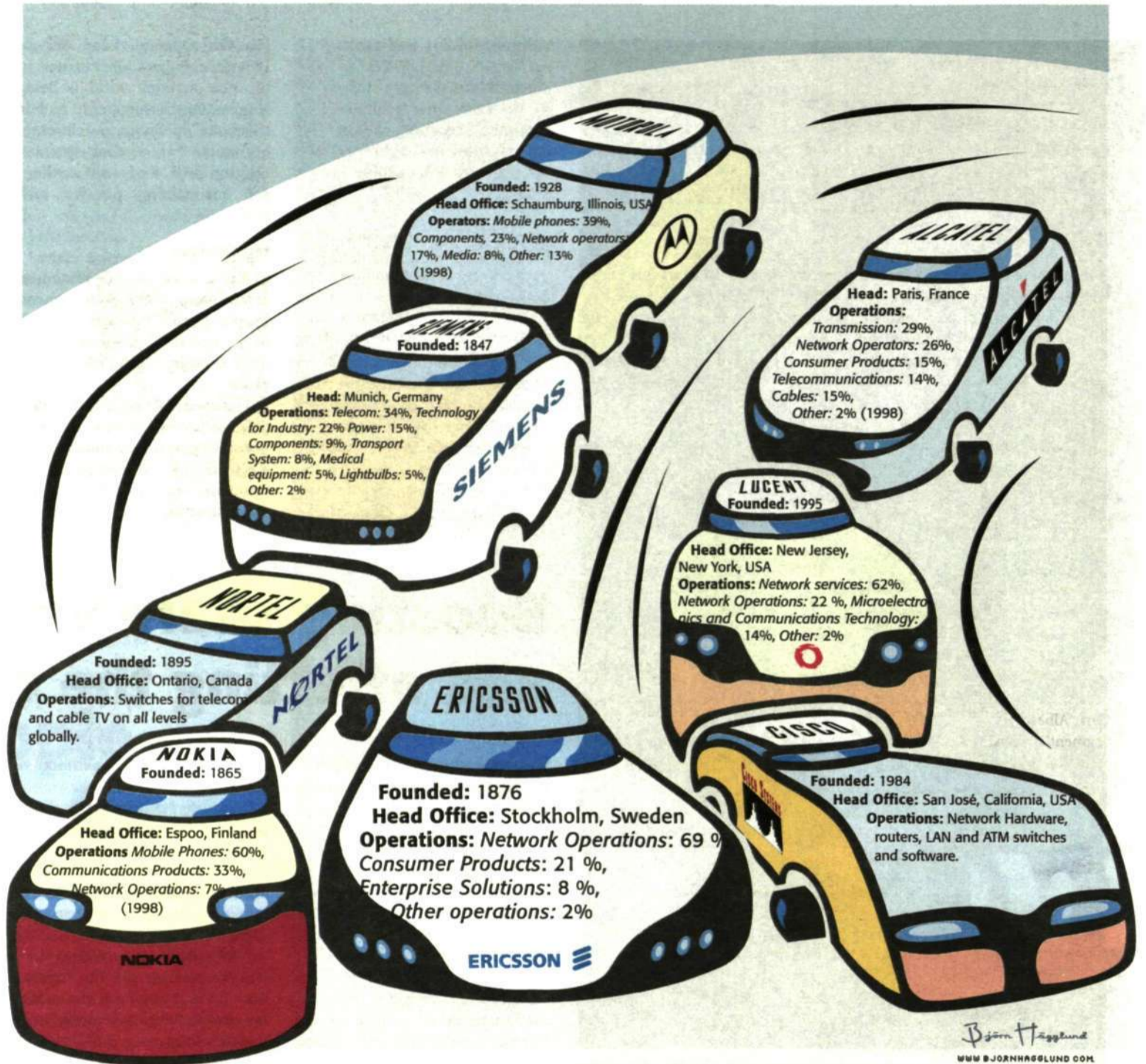
The opposite of the large conglomerates are companies that focus on specific segments. Cisco has laid claim to the routers segment and other network switches, with great success.

The fact that companies employ different fiscal years is an obstacle for comparison. Cisco, Lucent and Siemens have fiscal years ending July 31 and August 30, respectively.

However, the parameters provide certain indications. Contact looked



Market value refers to the value of all shares on February 10, 2000.



The pack runs tight in the telecom rally. The players may all be on the same track, but it is not that easy to compare them. The companies' orientations differ both geographically and in terms of segment of the telecom industry. For some of Ericsson's competitors, telecom is one of several types of operations – Siemens, for example. Others focus exclusively on certain segments – Nortel and Cisco, for instance.

Illustration: Björn Hägglund

at net sales and profit per fiscal year. We also divided the number of employees by net sales and by profit, thus obtaining Sales Per Employee and Earnings Per Employee.

"The net sales figure is perhaps the clearest indication of industry growth, but at the same time, it is not an absolute value," telecom analyst Bo Edvardsson maintains.

While net sales may be increasing in most companies, they generally rise and fall from year to year. Look at five-year periods to obtain a better perspective," he says.

### "Not a success formula"

"Research focus is another parameter indicating tendency to change –

which also happens to be something Ericsson prioritizes. It is important, but it is not a success formula," Bo Edvardsson says.

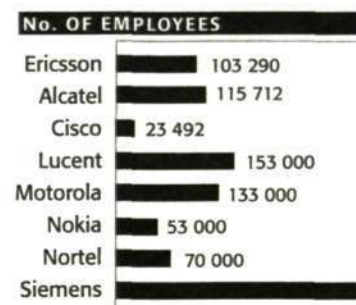
"Lucent, for example, has the greatest research capacity in the industry, and yet the company has had difficulty developing the fiber-optics segment during the past

half-year. This has enabled Nortel and Cisco to make considerable advances, and it will be difficult for Lucent to recover its head-start."

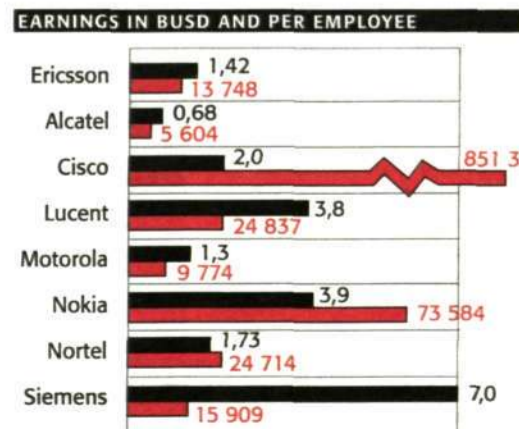
Mats Lundström

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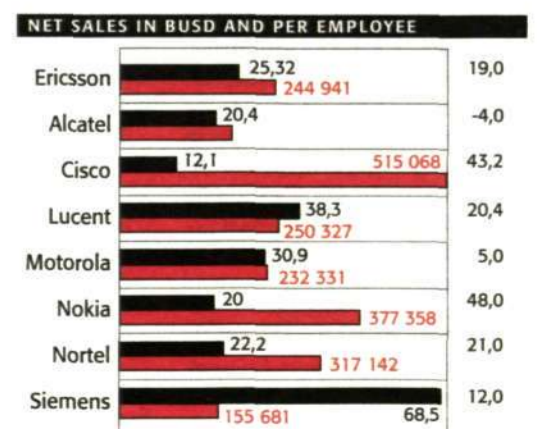
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The figures refer to 1999 at the time of the year-end report. While Siemens has considerably more employees than other players, telecom represents only 3.4 percent of the company's net sales.



The black bars show earnings per fiscal year in USD billion. The red bars and numbers show earnings per employee in USD. Cisco, Lucent and Siemens use split fiscal years.



The black bars show net sales per fiscal year in USD billion. The red bars show net sales per employee in USD. The figure to the right shows the percentage growth of the telecom companies compared with 1998.

# Beyond the Ericsson stand at CeBIT

You can find the practical to the bizarre at CeBIT. Communicator platforms give techno-junkies their fix of features, while smells sent across the Internet could be with us soon. Wafting from a homepage might be the creator's after-shave lotion, or you could smell the aroma of your favourite pizza as you place your order. Whatever your taste, there's something for everyone at CeBIT.

Within one of CeBIT's aircraft hangar-sized exhibition halls, the titans of telecoms can be found battling for attention, packed closely together. Perhaps uncomfortably close. Ericsson faces Nokia, Motorola lies within spitting distance of Siemens.

The relatively small display area the companies occupy provides a fascinating reflection on the current state of the telecoms industry; what's hot today and where the future lies. This is the industry's shop-window, where 700,000 visitors, including 10,000 journalists, are there to cast a discerning eye.

So, what of the competition? Panasonic, Motorola, Siemens and Nokia have similar consumer products on offer. A slightly dispondent Carl Alberts, Head of Consumer Segment's Business Intelligence team at CeBIT, commented.

"This is a kind of in-between year at CeBIT. I had hoped for more fun and crazy applications and innovations, if not only to give visitors an exciting time. A broad range of applications isn't here quite yet, but mobile Internet is on its way."

WAP phones and communicator platforms were commonplace from the top names, but there were a few products that stand out from the rest.

Sony's futuristic, chrome-clad stand has received much attention thanks to their latest mobile phone. The CMD-Z5, also encased in chrome, is remarkably small and lightweight at only 82g. It offers WAP, e-mail, an organiser and voice memo capable of storing ten 20-second spoken messages. An innovative navigation dial helps simplify searching the mass of menus available. It will be hitting the market in May 2000.

#### Wristwatch phones

Those with time on their hands crowded around two companies' wristwatch phones. Motorola's device is still in a prototype stage, while Samsung's creation is already available in their home Korean market. Both products are bulky, but very lightweight, so while not of appeal to everyone, sports enthusiasts who need to call but keep both hands free should be first in the queue.

TV addicts will be glued to Samsung's mobile phone/TV combination. The Seoul company has mounted a 4.5cm colour LCD into the flip cover of the device. The picture is remarkably clear and can be viewed for up to 200 minutes on a single battery charge. Its guts are crammed into a tiny space; its front remains only 92mm by 51mm, and without battery, weighs in at just 160g.

#### Bluetooth video streaming

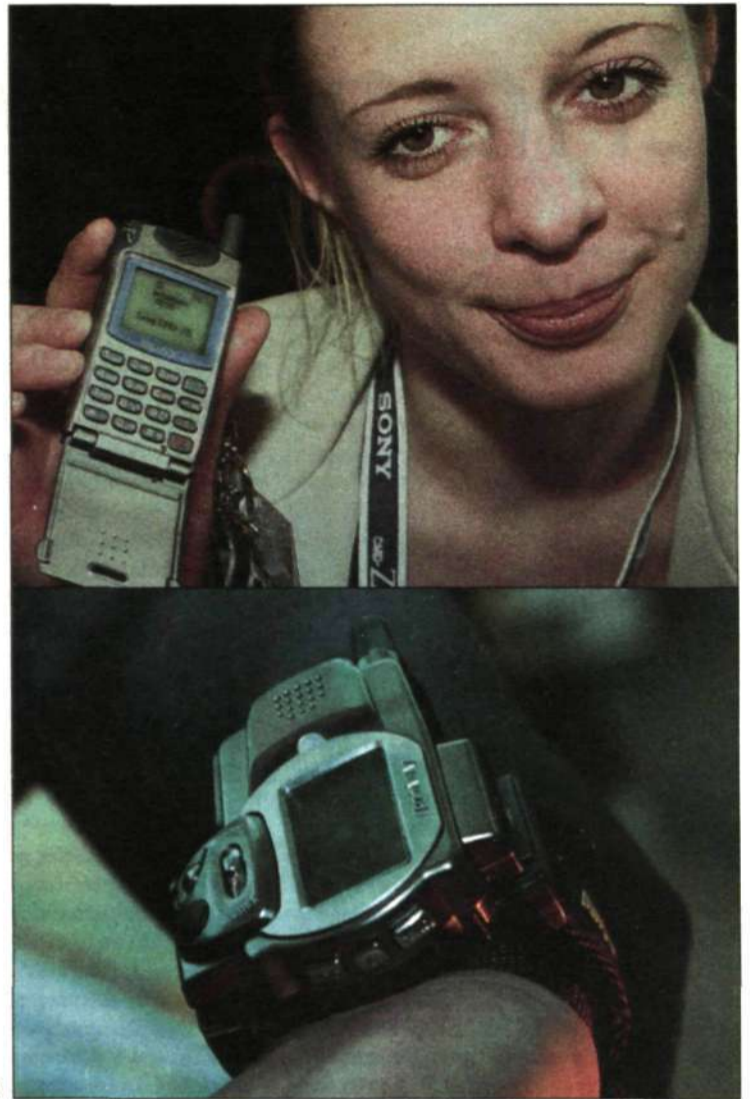
Toshiba, one of the founding members, along with Ericsson of the Bluetooth Special Interest Group, demonstrated live video streaming over Bluetooth. Using MPEG-4 technology, two laptops lying side-by-side interacted by radio signals. One of the laptops with a built-in camera transmitted moving images to the screen of the other. There was a delay of around 1.5 seconds between transmission and receiving, but the resulting image was clear.

Matthew Tapsell

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Sony's Karolin Siller shows off the sleek GSM phone, CMD-Z5 (above). Samsung's innovative wristwatch phone (below) also proved a hit.

Photo: Lars Åström



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From initially developing only software for mobile telephony, Ericsson in Montreal, Canada has progressed since the start of operations 15 years ago to assuming total responsibility for development, business and support. One of this year's greatest challenges will be meeting customer requirements for capacity expansion.

# Ericsson wins in Canadian

Ericsson Research Canada has about 1,250 employees," relates Göran Fröling, who is manager for operations. Ericsson Research Canada is the research and development unit within Ericsson Canada, Inc., with head offices and some 400 employees in Toronto.

Göran Fröling came to Montreal two years ago from Ericsson in Dallas. When Ericsson started the development center in Montreal 15 years ago, there were only about 30 employees, but after only four years, the unit had grown to more than 200 persons.

Lionel Hurtubise, who was president when the company was started, is now the chairman of Ericsson Canada, Inc.

He has played an important role in building an excellent reputation for the company, particularly in the telecom industry and with universities and colleges. Lionel Hurtubise still works half-time at the company and continues to maintain his contacts within the academic world in Quebec, the province in which Montreal is located.

### Needs to recruit 100 persons

Ericsson is one of Canada's top ten companies in terms of investment in research and development. There are also business benefits in having a research organization in Canada.

"This year, we need to recruit about 100 persons. Although it is not hard to find skilled



"We are fortunate to have access to highly trained personnel," says Göran Fröling, vice president and general manager at Ericsson in Montreal.



Sylvain Labonté is business manager of the unit that works with switching products for the CDMA standard.

engineers, finding the people with the expertise that is strategically important for Ericsson is not easy," explains Göran Fröling.

In Montreal, there are about 70 persons working on foreign contracts and an equal number of local employees working on Ericsson contracts outside Canada. Contacts with other research centers are numerous. The most frequent are with Kista in Sweden, followed by Dallas, Texas, Aachen, Germany and San Diego, California and Research Triangle Park, North Carolina.

Organizationally, Ericsson in Montreal is a research and development center within the TDMA Systems business unit.

Operations are conducted in 10 different units, of which MSC, the Mobile Switching Center product unit with 400 employees, is the largest.

### CDMA switches

The MSC product unit was reorganized a few months ago by creating an additional group within the unit that is working with mobile switching products for CDMA systems.

"At present, the PUMSC CDMA unit comprises roughly 100 people, expected to grow to 130 within the next few weeks relates Sylvain Labonté, who is business manager for the new group. The first product will be ready for FOA in June.

Although some GSM sub-systems will be re-used and there are many synergies between CDMA and TDMA that can be exploited, the development time is extremely short. The group is being asked to complete in eleven months a job that normally takes 16 months.

The CDMA group works closely with colleagues at Ericsson in San Diego (formerly Qualcomm) where the radio components for the system are produced. Sylvain Labonté finds this collaboration very stimulating and enjoys learning new technology.

He believes that there are excellent business opportunities for CDMA 2000 outside North America, naming China as one possible market.

"It is easier to sell systems when Ericsson can offer both the radio and switching infrastructure," explains Sylvain Labonté.

### University graduates dominate

The average age at Ericsson in Montreal is low, just over 33 years. As many as 88 percent of all employees have an academic degree.

There is a gym on the premises and a day care center for employees' children, which the company is planning to expand to meet the



Canada's national sport, ice hockey, is also important at Ericsson in Montreal, which sponsors a team.

increasing demand. Hockey, which is Canada's national sport, is also important for Ericsson. The company sponsors a team, and there are also four employee teams, which play regularly. Interest in sports is generally very high.

When Göran Fröling is asked about the challenges ahead, he does not hesitate in answering.

"Satisfying customer requirements for capacity expansion is the greatest challenge. Subscriber growth is accelerating rapidly, and we must live up to the demands placed on us as a result of this growth and the fact that subscribers are making more calls," emphasizes Göran Fröling.

Another important task is Jambala, which is

# developers' top division

## Customers can create own applications

Jambala is an open application development platform. Thus far, it has been used with TDMA systems, but the platform is also ideal for other cellular standards, as well as fixed telephony. Jambala's tools enable operators to create applications quickly.



Klaus Janssen of Ericsson Radio Systems and Bonnie Borenstein, at Ericsson in Montreal, both believe in the enormous potential for Jambala.

Jambala was developed by Ericsson in Montreal, Canada, and UAB in Sweden. It was first exhibited in the autumn of 1998 at a US trade show. One year later, it was placed in commercial operation in Southwestern Bell's TDMA network in Chicago.

Klaus Janssen, Jambala marketing manager, previously worked in Montreal, but transferred to Ericsson Radio Systems in Sundbyberg when the product line was transferred from TDMA to GSM Systems at the beginning of the year in a re-organization intended to create prerequisites for 2G and 3G application platforms across mobile and wireline standards.

In simple terms, Jambala is an open application which provides telecom-grade performance and reliability on standard off-the-shelf hardware and software components. The first application developed was a Home Location Register (HLR), and an SCP for ANSI 41 networks.

### Performance and reliability

In spring 2000 the first Mobility Gateway, an ILR for intersystem roaming between GSM and TDMA networks, will go live.

Another interesting application, which will be important in the future, is the Jambala WAP Gateway.

Jambala runs under the Telorb operating system, which was developed by Ericsson Utvecklings AB. One advantage of Telorb is that it provides the performance and reliability that operators expect from a central network node on commercially available PC hardware, meaning that not only cost advantages but fast

development advances in the PC industry are quickly available to Jambala users. Because it uses Java technology, Jambala has a built-in development tool. Operators can thus profile themselves in the market by developing different applications and services.

### Major business potential

"The telecom market requires open platforms, and those available today are inadequate. Jambala could become an important product for the future," says Klaus Janssen, adding that Ericsson is one to two years ahead of the competition, an advantage that must be exploited.

Jambala is the god of wealth in Buddhism. In business terms, the new technology is intended to generate revenue. The eternity symbol in the Jambala logo stands for the endless possibilities of the platform.

The trend toward open platforms based on commercial hardware is global and exists in all operator segments.

Consequently, while Jambala was originally created for the TDMA market, the product unit is currently working to introduce Jambala into GSM, TDMA, CDMA and wireline systems.

The aim is to allow the same application or service to be used regardless of the access method. Klaus Janssen also describes it as a platform based on an architecture that is prepared for 3G but is now ready for implementation in second-generation systems.

an open software platform for application development.

This year, Jambala will be fully industrialized and then launched on a wide scale. A third task is to build up competence in 3G.

Over the years that have passed since Ericsson in Montreal was started, the range of operations has become increasingly broad.

"For certain products, we have total responsibility, which is very stimulating. Our success is due in large part to the availability of highly trained employees," concludes Göran Fröling.

Gunilla Tamm  
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Foto: Scanpix

# Canada's oldest mobile operator

When Ericsson and Rogers AT&T Wireless (formerly known as Cantel AT&T) signed a three-year partnership agreement for a third-generation mobile telephone system last autumn, a long-standing customer relationship was confirmed. Rogers AT&T Wireless, which is Canada's second largest wireless operator, took its cellular network, which was the country's first, into operation more than 15 years ago.

In 2001, another important step toward 3G will be taken with the introduction of Edge. In 1984, when Rogers AT&T Wireless became the first Canadian mobile telephone operator to take its network into operation, it was using an analog AMPS system.

Eight years ago, most of the system, which currently has more than two million subscribers, was digitized.

"Up until last year, subscriber growth was relatively modest, but today it's no exaggeration to talk about record growth," says Vu Nguyen, who is heading Ericsson's Rogers AT&T Group, which includes the Rogers AT&T Wireless account. Appropriately for Canada, he describes the growth curve as resembling a hockey stick.

Driving this explosive growth is the intro-

duction of the Digital One Rate plan by AT&T Wireless in the US in 1998.

This substantially reduced call charges for cellular subscribers and has been tremendously successful throughout North America, where mobile phones are now being used nearly as frequently as in Europe. Rogers AT&T Wireless's Canadian network covers 95 percent of the population.

There are currently four cellular operators in Canada. Bell Mobility with its CDMA system has the most subscribers, closely followed by Rogers AT&T Wireless with its TDMA system.

Third largest is Micro Cell which, with 500,000 subscribers in its GSM network, is also

the country's only GSM operator. Clearnet, which is the country's second CDMA operator, has 500,000 subscribers.

"Rogers AT&T Wireless has won back considerable market share, and it won't be long before we have more subscribers than Bell Mobility," predicts Vu Nguyen.

Rogers AT&T is part of the Rogers Communications Group, which also has major interests in cable and media. In summer 1999, AT&T and British Telecom jointly purchased a 33-percent share of Rogers AT&T Wireless in a deal that has had considerable strategic and commercial impact on the Canadian operator.

A new CEO was appointed, and the business

# chooses Edge

culture underwent a major change, with greater emphasis being placed on customer satisfaction.

Rogers AT&T Wireless has also become more aggressive and creative in its marketing. The three-year contract signed with Ericsson last autumn secures Ericsson as Rogers AT&T Wireless's sole supplier of equipment for both second- and third-generation systems. In 2001, Cantel will introduce Edge, which will be tested prior to the launch by Ericsson in Montreal. Of the approximately 400 Ericsson employees located in Toronto, about 230 work with Rogers AT&T Wireless.

"Rogers AT&T Wireless is a mature operator

with whom we have a very unique relationship. Calling it a partnership is entirely correct. Rogers AT&T Wireless has a vision for the future and sees the opportunities that exist," comments Vu Nguyen.

The number of users in Rogers AT&T Wireless's cellular network is growing rapidly, and one of Ericsson's most important tasks this year will be to deliver equipment for increasing capacity.

"As a precaution, Rogers AT&T Wireless is expanding capacity one year in advance of demand. In the contract we have signed with the customer, we guarantee that capacity will be available before it is needed.



Vu Nguyen, of Ericsson in Toronto, is responsible for Rogers AT&T Group, which includes the mobile telephone operator Rogers AT&T Wireless.

One of our greatest challenges this year will be to live up to this promise and show that Ericsson is the best supplier," emphasizes Vu Nguyen.

Another challenge for Rogers AT&T Wire-

less this year will be to launch wireless data. The operator's ambition is to be the Canadian market leader in this sector.

Gunilla Tamm

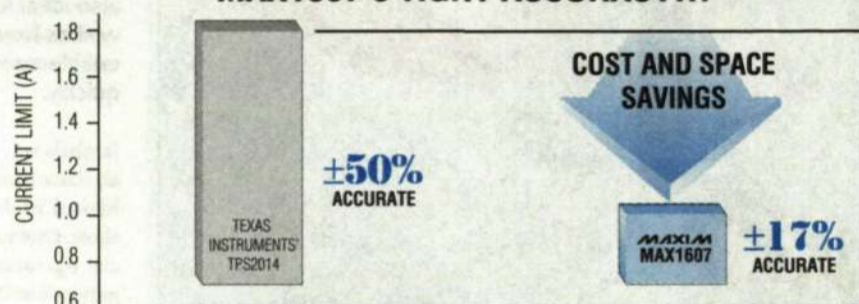
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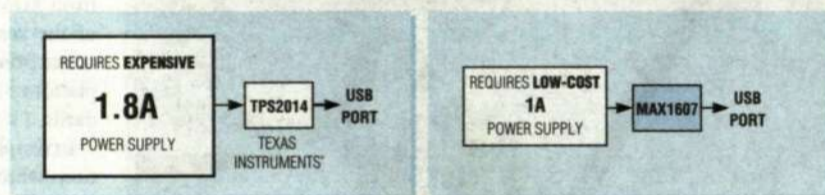
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# The Legal Web: virtual office gossip for lawyers

How do you cultivate team spirit in an organization whose employees are spread throughout the world? How do you enable people to use each other's knowledge and experience efficiently? The answer? A web service.

In the beginning was the conference. Employees would gather at regular intervals to tell each other about recent developments and compare notes in seminars and meetings – enriching their stores of knowledge until it was time to return to their regular jobs, and to silence. But why have such long intervals between conferences? Why not have a conference every day?

On the Legal Web – a web service available on the Ericsson intranet – Ericsson legal staff convene on a daily basis. Via the Internet, the staff of the company's legal function – comprising slightly over 140 employees in 27 countries world-

wide – can interact as a team. Virtual office gossip, you could say.

## Expertise should be recycled

"In an organization like ours, there is a risk that knowledge and experience accumulated by employees is not recycled," says Per Hendar, lawyer with the Ericsson company in western Sweden and project manager for the Legal Web.

Marie Skarp, webmaster for the Legal Web, agrees:

"We become isolated islands, forced to deal with everything alone. But with the help of the intranet we can become more closely linked to each other, profes-

sionally and personally.

The Legal Web has been designed with regard to the typical working day of Ericsson legal staff. Interactivity is the cornerstone.

## Lawyers' own networks

The Legal Web offers opportunities to post queries, participate in discussion groups on various topics and search for expertise needed to complete particular tasks.

Lawyers involved in special subject areas may launch their own networks containing news pages, databases and chat tools.

A key aim is to inform the rest of



Per Hendar

the company of the operations performed by the legal staff.

"To fully support the company's business processes, we must coordinate the activities of the legal function and make individual lawyers' expertise available to everyone," says Carl Olof Blomqvist, Senior Vice President and General Counsel, Legal Affairs. "We can use the intranet to allocate tasks to those best qualified to perform them."

Ericsson's legal staff is now proceeding to develop new services for the Legal Web. The next generation is to be launched during the year.

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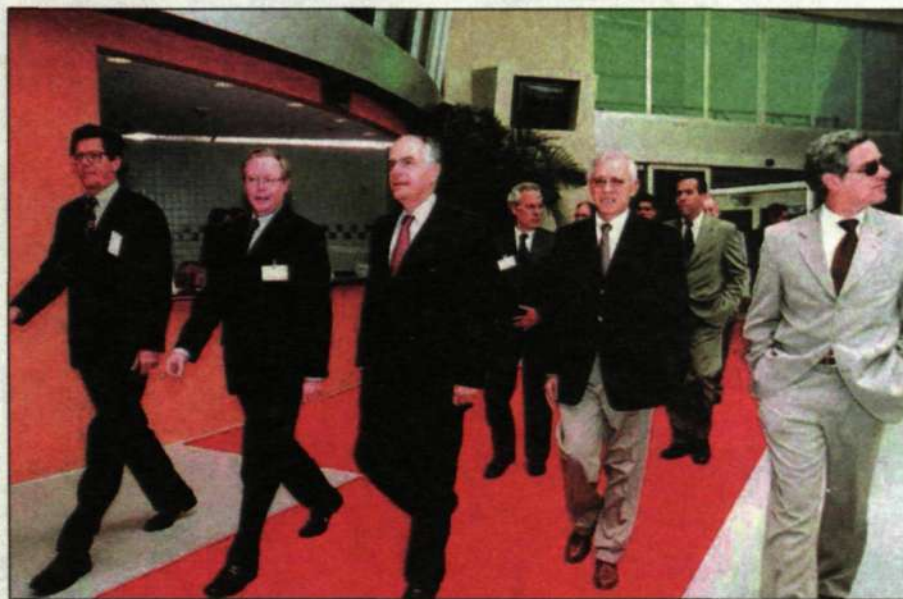
legalweb.ericsson.se

## New center for training in Brazil

Ericsson in Brazil has opened a new Competence Development Center in the São José dos Campos compound area. The new center will serve employees and customers in Latin America and will offer more than 200 different courses.

The new center has 4,400 square meters with 32 classrooms and 20 labs. This means that the center's staff of 64 persons are able to handle more than 400 students a day.

The courses will specialize in new technologies, Internet solu-



Ericsson's new Competence Development Center in Brazil was inaugurated in São José dos Campos by Gerhard Weise, President of Ericsson in Brazil, and Communications Minister João Pimenta da Veiga.

tions for both wireline and wireless access. Distance learning will also be used.

"Ericsson is an important company for the development of telecommunications in Brazil and it is developing the competence towards the future necessities," remarked Communications Minister João Pimenta da Veiga, who inaugurated the center in Decem-

ber, joined by the Major of São José dos Campos and Gerhard Weise, President of Ericsson in Brazil.

Mr. Pimenta da Veiga also commented on Ericsson's professional training initiative, saying the "Companies that care about professional training want to renew their energies, in order to follow developments in Brazil."

Ericsson has operated a techni-

cal training center for more than 40 years in São José dos Campos. The compound also includes the production facilities of Ericsson in Brazil.

A total of more than 20,000 engineers and technicians were trained at the center.

Nils Sundström

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## ERIC & SON



## Reorganization for delivery security

**Faster and more secure deliveries: that was the aim of the new delivery organization within Ericsson's operator segment. The new organization will handle all delivery operations for the GSM Systems, TDMA Systems and Wireline Systems business units.**

Most of the employees of the new organization, "Switching Platform Development & Supply," are based in Sundbyberg outside Stockholm. The idea is that the new organization, effective January 1, will develop product packages for switches and handle the supply flow to market units and final customers.

"This should now enable us to have common processes for all the business units involved," says Hans Hammarfors, project manager.

Previously, the three business units have had different products and processes. Different business and customer needs have formed the units. The products of both GSM Systems and TDMA Systems have become standardized over the years, whereas Wireline Systems has worked largely with traditional telecom companies, for which every delivery has been a custom solution.

## Enhancing precision

Today's reality is different. Development has progressed from traditional telephone companies to operators with less technical know-how but substantial capital resources and demands to construct and commission their networks quickly. Ericsson has therefore adapted its organization.

A common delivery organization enhances delivery precision and lead times, which saves the company money. The new organization grew out of a project called AXE Convergence. Delivering standardized products with short lead times is a cornerstone. The transition to this new way of working will take place during the year. The change will be most apparent in Wireline Systems, which is still working with a large number of customized solutions.

"I agree that a common business-unit process, as well as product standardization, are both necessary and logical," says Johan Bergendahl, head of the Solutions unit of Wireline Systems.

## Join forces

"On the other hand, it is not that easy to change the processes and products we have been working with up to now. The problem is not to persuade me, but to make the market units and the customers understand our new way of selling switches," Johan Bergendahl continues.

The objective is to rationalize the delivery process for AXE while maintaining customer satisfaction.

"We must join forces with the subsidiaries and convince the customers of the advantages of a common delivery process. It will improve quality, price and lead times. For me, it is a question of timing. The subsidiaries must be on board to ensure the successful implementation of this change," says Johan Bergendahl.

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**PMJ automec USA, Inc.**  
Tel: +1 972 660 1151  
Fax: +1 972 660 1106

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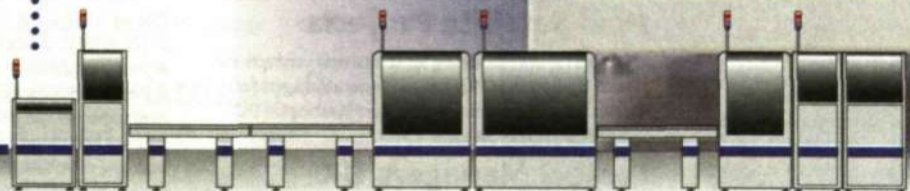
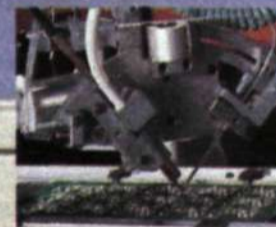
**Label  
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# Vacancies

## AT ERICSSON

■ This is a selection of vacancies within the Ericsson corporation. They are also published on <http://www.ericsson.se/jobs/international.shtml>, International Openings, updated every second week.

To advertise: mail your adverts to employment.adverts@lme.ericsson.se.

Contact No. 3 2000

Updated February 21

### ERICSSON CZECH REPUBLIC

**INTELLIGENT PRAGUE.** The Czech Republic has through its third GSM become a solid Ericsson market. Our customer Oskar has entrusted us with all major core nodes including PrePaid based on IN, and half of the BSS. The Market Unit has a good name on the market and is in a state of structured creativity. To participate in achieving a high quality level we need a few additional hungry and experienced new colleagues to work with us in the Oskar Account organisation. You will handle our technical Intelligent Network optimisation of Oskar's business.

### Local Product Manager for IN

● The IN LPM will be our central counterpart regarding IN applications beyond PrePaid for Oskar. As a liaison between the Product Unit and the customer it will be natural for you to create total IN solutions and provide expertise in this strategic area. You will exploit Ericsson's IN products and implementation advantages over our competitors. To do this you need to use all your GSM experience, creativity, and team-working ability. The concrete work consists of investigations, technical co-ordination, brainstorming, professional presentations, offers and specifications of future contracts.

### Local Product Manager for Prepaid

● PrePaid will be successful enough to provide technical and commercial challenges to a separate PrePaid LPM. The challenge here is to understand advanced commercial needs and transform them into good technical solutions. This competence will remain valuable for both Prepaid and post-paid applications. In our compact technical group you will also have the option to develop knowledge in surrounding areas. To do this you will use all your IN and Pre-Paid experience, creativity, and team-working ability. As the function above, the concrete work consists of investigations, technical co-ordination, brainstorming, professional presentations, offers and specifications of future contracts.

The first tool to handle the above is our streamlined fast organisation with only smart people. The second tool is a solid support from ERA Stockholm. The third tool is your talent and drive. Take that challenge and join our team in the beautiful city in the heart of Europe!

Contact: André Grce, Head of Oskar Account, +420 2 6119 4326, andre.grce@ecz.ericsson.se or S. Vallentin, HR Director, +420 2 6119 4391, solveig.vallentin@era.ericsson.se.

### ERICSSON RADIO SYSTEMS AB, LINKÖPING

Sub Product Unit OSS in Linköping is staffing up to meet the future. We are looking for a number of people that want to be a part of Ericsson frontliner GSM. The Operation and Support System (OSS) is a part of the Base Station System (BSS) within GSM. The OSS system is the Operation and Maintenance system for the mobile switching and radio networks, including both classic and GPRS systems.

OSS is changing to new architecture for the new OSS generation. The new Framework is based on Corba and Java is used. The system is build frequently and automatic tests are performed. Both UNIX and NT is used as operating systems in the OSS system.

### System Test

● We are looking for an experienced tester. Knowledge about OSS, AXE, Corba or Java is qualifying. We are working in teams and you are an innovative and result driven team player. You have a university degree. Contracts may be available.

Contact: Bertil Olsson, +46 13 28 46 64, Bertil.Olsson@era.ericsson.se.

Application: Ref. 00-02, Ericsson Radio Systems AB, LM/ERA/LVA/FH Eva Lindkvist, Box 1248, 581 12 LINKÖPING, Sweden, Eva.Lindkvist@era.ericsson.se.

### ERICSSON RADIO SYSTEMS AB, SUNDBYBERG

Aiming for the stars – Join our Satellite team.

Satellite Systems – a new and challenging business for Ericsson. Satellite Systems belongs to New and Special Business Operations, BNSO, who has a mission to give new small business activities the appropriate attention and conditions for successful operations.

### Senior Product Managers

● We develop satellite specific functionality within Ericsson's product portfolio. As a Product Manager you are required to be innovative in ideas to provide technical solutions to customers based on the both existing Ericsson product portfolio and future development projects. You will be on the fore front of the technical evolution working closely with the System Management for Satellite system development studies.

The job also requires interfacing with the Satellite customers and Ericsson sub-contractors, technical discussions, product presentations, responsible for preparation of technical specifications, tenders and production of technical documentation, involvement in pre-studies and feasibility studies all in close relationship with our sales and systems design organisations, as well as co-operation with different Product Units' within Ericsson. The focus is on main system level technical management. As many of the technical requirements for satellites are not standardised, the position requires a solid technical competence in overall network design.

It is a very strong plus if you have experience in GSM system management & design. Experience in any of the areas such as Ericsson non-AXE platforms, packet data switching, IP routers, ISDN, ATM, GPRS and S-UMTS is highly desirable, but not mandatory.

General Qualifications: At least five years experience with substantial achievements from relevant areas. You are a leading team player enjoying a dynamic international environment. Strong interpersonal and communication skills. Broad experience in customer contacts. Master university degree, or similar. Excellent spoken and written English. Location: Fairfax (near Washington DC)/USA, Rome/Italy and Stockholm/Sweden

Contact: Inayat Syed, +1 703 591 3963, inayat.syed@ericsson.com, Eric Sandberg, +46 8 757 17 30, eric.sandberg@era.ericsson.se.

### Senior Program and Project Managers

● The global Project Office, responsible for all our Satellite Projects, is now looking for several Program and Project Managers. As a Program/Project Manager you will be responsible for: Tender preparations as the project representative in the Core-3 team. Execution of total project including both Time To Customer (TTC) and Time To Market (TTM) projects after contract is signed. Fulfilment of time schedule, budget and quality goals. Preparation and set-up of new project organisations. Management of the customer interface. Subcontract management including third party suppliers.

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 have a broad international Ericsson network and have managed complex TTM and TTC projects. You are recognised as a leader but would not hesitate to take active part wherever needed.

We work in a very complex multi-project and multi-culture environment with MIL-std. requirements/processes. The projects include all phases from pre-study to maintenance. A lot of subcontracts are also included, internal as well as external.

### New Satellite Projects

● We are currently tendering for several new contracts and are looking for Senior Program and Project Managers for our new projects. Location: Fairfax (near Washington DC), USA and Stockholm, Sweden.

### Project Managers UK

● For our current contract we are looking for a Senior Project Manager and a Project Manager. Location: Burgess Hill, UK.

### Program and Project Managers USA

● For our current contract we are looking for a Senior Program Director and a Project Manager. Location: Fairfax (near Washington DC), USA.

### Senior Program Director Italy

● For our current contract we are looking for a very Senior Program Director. Location: Rome, Italy.

### Sub-Contract Manager

● For our current contracts we are looking for a Project Manager to manage our sub-contracts. Location: Fairfax (near Washington DC), USA and Stockholm, Sweden.

General Qualifications: At least five years experience with substantial achievements from relevant areas. You are a leading team player enjoying a dynamic international environment. Strong interpersonal and communication skills. Broad experience in customer contacts. University degree. Master spoken and written English.

Contact: Fairfax: Joe Ferry, +1 703 591 4086, joe.ferry@ericsson.com. For Burgess Hill: Mike Bale, +44 1444 23416, mike.bale@etl.ericsson.com. All positions: Lars Bergström, +46 8 404 6705, lars.bergstrom@era.ericsson.se.

### Sales Managers

● As a Sales Manager you will work with the sales and be responsible for fulfilling the customer's high expectations. You will be a part of the marketing and sales team towards the customer account. Create and maintain market plans, responsible for meeting and exceeding sales booking objectives, profitability targets, maintain and negotiate contracts and establish long-term partnerships between our customer and Ericsson.

The successful candidate should have an ability to build and maintain good customer relations, have strong sales & leadership skills and experience from several markets/regions. You should also be able to work out business cases for the new satellite development.

General Qualifications: At least five years experience with substantial achievements from relevant areas. You are a leading team player enjoying a dynamic international environment. Strong interpersonal and communication skills. Broad experience in customer contacts. University degree. Master spoken and written English. Location: Fairfax (near Washington DC)/USA, Burgess Hill, UK or Stockholm/Sweden

Contact: Per Johansson, +46 8 764 3255, per.o.johansson@era.ericsson.se. Application: Satellite, Ericsson Radio Systems AB, SG/ERA/KD/HS Mari Skoglöf, 164 80 STOCKHOLM, mari.skoglof@era.ericsson.se.

### ERICSSON SERVICES, IRELAND, TELECOM MANAGEMENT SOLUTIONS

### Project Implementor

Telecom Management Solution (formally BSS) is globally responsible within Ericsson for a variety of Telecom Management Solutions and Services, including Telecom Fraud Management, Billing and Customer Management. The unit is responsible for complete product lifecycle – from R&D through to Marketing, Sales and Support.

● Responsibilities: Working within the Operations department, you will be responsible for technical on-site implementation (installation, configuration, integration and testing) of telecommunication management systems supplied by TMS to EMEA/Americas client base, as part of the overall project delivery. Provide technical support where appropriate to TMS support function is also required.

Candidates should have some of the following skills: UNIX (Solaris, HP –UX, AIX), TCP/IP, Client/Server, Informix and/or Oracle RDBMS. Billing System and/or Fraud Management exposure would be an advantageous.

Previous experience in an IT and/or Telecommunications environment would also be advantageous. Excellent interpersonal and communications skills required. Ability to work and contribute in a team environment is required as you will be working closely with the project management, development and support groups within TMS. Further Details: Availability for international travel is essential. Appropriate training in all areas will be provided. Excellent benefits and working conditions.

### FRAUD MANAGEMENT SOLUTIONS, IRELAND

### Product Manager - Fraud Office

FraudOffice is the Ericsson Fraud Management System designed to assist Operators in their battle against fraudulent network use. FraudOffice is built on an Open Systems based IT architecture. Target customers within the Operator's organisation range from the IT department through Network Security and to Finance.

● The available position is for a technically aware, business minded person, who will play a leading role in developing the evolution of FraudOffice as a profitable and competitive solution within the Ericsson Fraud Management product portfolio.

Based in Dun Laoghaire and reporting to the Product Portfolio Manager, the FraudOffice Product Manager will have visibility and input to the total business process from idea generation through software development, project delivery and support.

The Product Manager will have responsibility for: Implementation of product strategies for FraudOffice. Securing market and product research to be performed. Development of the Product Business Plan and Product Requirement Specification.

Activities will include: Monitor competition behavior and technological trends as well as market scenario development and business trends. Sales channel support. Initiate technical studies and new product development activities and projects. Customer presentations. Management of technical and strategic partner relations.

A balanced combination of communication skills, technical appreciation and enthusiasm will provide us with the person we need. It is likely that this person will have a track record in product development and/or delivery, with an awareness of sales and marketing of IT based solutions. Some international travel is envisaged.

Contact: Jimmy Nolan, +353 1 2072191, Jimmy.Nolan@eei.ericsson.se.

Application: Jimmy Nolan, HR Manager, LM Ericsson Limited, Beech Hill, Clonskeagh, Dublin 4.

### ERICSSON SPAIN S.A. R & D CENTER, MADRID

### Assistant Product Manager

AT EEM/TD/MD within BMOG we work with mobile applications for mobile telephony systems (UMTS/GSM900, GSM1800, GSM1900, GSM1900/D-AMPS, etc.) both in the CSS (Circuit Switching Systems) and in the PSS (Packet Switching Systems) Product Units.

We are looking for a professional to work as Assistant Product Manager with special focus on security systems.

● The person covering this position shall participate in the following tasks:

Customer meetings to define and clarify customer requirements together with ERA representatives (commercially responsible). Control of requirements in the development phases. Investigations regarding future requirements within the area of security. Meetings with 3rd party supplier in order to define, clarify and validate requirements on the 3rd party product. Meetings with development partners in order to define the terms of the cooperation and the understanding of requirements.

Review of investigations and reports from 3rd party supplier as well as defining needs for technical investigations to be carried out by 3rd party supplier. Perform marketing work.

Perform Product Management work: e.g. business model, both customer's and Ericsson's business cases, product strategy, benchmarking, consolidation of market requirements, other BOT/BA, etc. LPM support. Participate in the definition of verification activities for the 3rd party products. Support ERA personnel in technical issues regarding Security. Other product and Systems activities related to security.

All the working activities aim at leading and ensuring the evolution and competitiveness of the Ericsson GSM Systems (UMTS, GSM900, GSM1800, GSM1900, GSM1900/D-AMPS, etc.).

Applicants should have an engineering degree and at least 3-4 year proven working experience in telecommunications, preferably in the security area and/or datacom. Experience in GSM system-level technical development is required.

Business Competence: The person shall as well have necessary negotiation skills for the expected meetings with Ericsson customers, business responsibilities at ERA and 3rd party suppliers and /or co-developers. Competence in Product Management is required. Competence in Business Model is a plus.

Desired personal abilities are: interest to work both in groups and independently, initiative-taking and self-confidence, being communicative, availability for frequent short-time travels abroad and co-ordinating and leading skills.

Contact/Application: Gregorio Núñez Fernández, +34 91 339 2924, emegne@madrid.ericsson.se.

### TECHNICAL TRAINING, GSM TRAINING CENTRE, MADRID

### 1 Technical teacher

To impart GSM-UMTS courses both internal and external customers and developing new courses.

● Prerequisites are: Engineering studies or similar, knowledge about new products and Ericsson internal process, communication and pedagogic skills, available to travel around the world, high English and Spanish, experience in Ericsson Systems (AXE, Datacom ...) will be positively valued, experience in similar positions will be also valued.

If this sounds exciting and you feel like coming to the very nice city of Madrid then do not hesitate to apply for this job.

Contact: Jose Luis Pastor, +34 91 339 2479, Jose-Luis.Pastor-Gonzalez@ree.ericsson.se.

**ERICSSON LEBANON S.A.R.L.**

The newly established Ericsson Middle East Regional Office is seeking experienced, competent and highly motivated RF Engineers in Wireless Design and Optimization. (Mid-Senior level, Employees)

**RF Engineer**

● The successful candidates will have a BS in Electrical Engineering (MS degree is a plus) and 2+ years of practical experience in the following: Cell Site Design & Acquisition. Frequency Planning. System Optimization. Switching System Operation. Propagation Modeling & Calibration. Field Testing.

Responsibilities include assisting engineering teams in the design, deployment, optimization, and evaluation of mobile systems.

These positions require EXTENDED TRAVEL to work on-site at client locations in various cities throughout the Middle East. Excellent team interaction and customer relation skills are required. The applicants should be fluent in English. Knowledge of Arabic is a plus. Please note that the terms of the employment are on a Local Contract basis.

Application latest 000310: Christine Andrea, Human Resources Manager, xtine.andrea@ericsson.com.

**ERICSSON INC, US****GSM CMS40 AXE Senior Customer Support Engineer, for MSC(SS) or BSC(BSS).**

Short Term Contract opportunities in Ericsson's East Coast Support Office in Totowa New Jersey, U.S.A. Very close to New York City.

● The candidate must be already working in a Customer Support role or in SystemTest/Verification. A strong working knowledge of Test System/Plexview is an absolute MUST.

This person will be able to solve complex AXE faults received from the customer, using both the Test System and Plexview. The MSC candidate, will preferably have a strong knowledge of ISUP/MAP/SS7 in order to troubleshoot interoperability problems. The BSC candidate MUST have a strong working knowledge of TEMS and OMT to be able to troubleshoot complex BSC problems. In addition, a strong command of the English language is required, as is good interpersonal skills. The candidate MUST be available to be on emergency callout, on a rotational basis, and also willing to travel when necessary.

This position is open immediately.

Contact: Rita McGinnis, Technical Recruiter, rita.mcginis@ericsson.com, +1 972 583 1666, Fax +1 972 583 1804, Mobile 972 467 1948 or David DiMenichi, CCO Manager, Omnipoint/Voicestream, +1 973 890 3596.

**COMPAÑIA ERICSSON DE CHILE****CMOS Expert**

We are looking for a CMOS engineer to the Field Support organization in Chile. We are only interested in internal Ericsson staff. Our unit is responsible for support activities to our TDMA customer, Telefonica Movil. This involves trouble report handling, emergency support, consultation handling, assisting in system additions, updates and upgrades.

● You are responsible for CMOS support to the customer, and will get second line support from the LMC, Canada. You also have to work with other systems like, Adjunct Processor(AP), Mobile Switching Center (MSC).

You should have: Strong customer orientation. Solution thinking! Broad technical experience in CMOSUNIX skills, experience in Solaris, admin. Level. Some knowledge of SUN hardware. Sybase knowledge preferred (database admin.) Thorough understanding of the support process to ensure efficient managing of CMOS support. Good communication skills in English. Spanish language is an asset, but not required.

Contact: FSC Manager, nelson.bonilla@cec.ericsson.se.

**ERICSSON RADIO SYSTEMS AB, KISTA****Technical Sales Manager**

New Venture Sales & Business Support, TDMA Systems. New Venture Sales & Business Support within TDMA Systems is responsible for capturing new business in the Americas. The opportunities we pursue are mainly new licenses for TDMA and Third Generation systems (EDGE) with focus on the Americas, and GSM licenses in Latin America.

● As a Technical Sales Manager, you will be accountable for the total solution offered, from proposal to system acceptance, including infrastructure, services, applications and terminals. You will work in different Core Three teams with tenders, and with supporting customer projects during the implementation phase. This requires keeping up to date with the whole product portfolio, involving frequent contacts with different product units as well as other business units, such as GSM Systems, Services, Mobile Internet and Terminals. You should be prepared to travel abroad for periods ranging from one week to two months.

You have a background within datacom/IP, and preferably some knowledge of cellular systems. You are a good team worker, and you are comfortable doing customer presentations. You are able to express yourself freely in English. Spanish or Portuguese is a definite advantage.

Contact: Bo Ribbing, +46 8 757 0575. Application: Ericsson Radio Systems AB, KI/ERA/AH/R, HR Helpdesk, 164 80 STOCKHOLM, HR.Helpdesk@era.ericsson.se.

**ERICSSON RESEARCH, CANADA****AXE Troubleshooters**

The TDMA-1 system support organization is urgently seeking experienced AXE troubleshooters in the areas of Group Switch, Signalling and Call Delivery. Our unit is part of the Ericsson Global Support organization and provides 2nd line support services for a wide range of products offered by the BMOA business unit, and in particular for TDMA systems. These services are provided to regional 1st line support offices (Ericsson Local Support), as well as Ericsson corporate customers located in various parts of the world.

● As part of the Switching and Networking support group, you will be providing Consultation, Trouble Report Handling and Emergency Handling services to our external and internal customers. We are called upon to resolve system outages and disturbances, specify and isolate hardware and software faults, issue Emergency Corrections when required, and travel to site if necessary.

You are an ideal candidate if you have extensive experience with the APZ/APT hardware and software used in the CMS88 product line, in either a design or support environment. You possess excellent communications skills, both written and verbal. You also have experience with tracing in live exchanges using Test System, as well as a good understanding of PLEX and ASA.

You also have two years of experience with one or more of the following functional areas: Group Switch Subsystem, Network Synchronization principles, Call Delivery Principles (TCS-Traffic Control Subsystem, HLR/VLR-Home Location Register/Visitor Location Register, MSS/MXS-CMS88 Mobile Subsystems), Intercode Signalling (R1/R2 signalling, ISUP signalling, Signalling System #7, ANSI-41). Our system support staff is regarded as experts throughout the Ericsson world. If you are up to the challenge, come join our dynamic team, and see why Ericsson Research Canada is the place to be. Local positions and long-term contracts available (contracts offered to experienced engineers only).

Application: Martine.Javelas@ericsson.com, Manager, TAC-1 System Support, Switching and Networking.)

**ERICSSON LTD, UK**

The general purpose of the Market Support Office (MSO) in the UK mainly is to provide SW supply and support for our main customers Vodafone UK, one2one, BT Cellnet, MANX Telecom and Guernsey Telecoms.

In addition, as being part of a shared service unit, similar services are provided to other domestic customers, e.g. British Telecom, as well as on a global basis, e.g. ICO Global Communications.

The Value Added and Mobile Datacom Services department is part of the UK MSO and is responsible for all non-AXE products. The VA-MDC department is divided in three sectors: UNIX Services, Messaging and Mobile Datacom.

Due to the very nature of these technologies, a great expansion in this business segment is underway and the current pool of staff now has to be reinforced. If you feel that you are a positive individual that is characterised by positive learning and development together with proactive skill and knowledge acquisition, you probably would fit into our team.

● Other significant features with a potential candidate would be a flexible approach to change, customer focus, excellent communication and influencing skills, team working, proven analysis and problem solving ability, creativity, drive to deliver results, positive learning and quality focus.

All positions below require as a minimum a technical degree or equivalent, experience in handling technical issues toward a major customer and a minimum of 2 years previous experience with Ericsson.

The terms of employment, which could come in question for the roles below are local employment or long term contracts, depending on the individual applicants qualifications and circumstances.

**UNIX Service Engineers**

● There are a number of positions vacant within the UNIX Services section related to the following product areas: OSS (Operations and Support System), SOG (Service Order Gateway) or BGW (Billing Gateway). Some positions may incur multiple responsibility within dual product areas.

Key responsibilities: These roles have the responsibility to provide expertise for the supply and support activities involved with any of the relevant products.

The products are all standard Ericsson Products, however, the MSO take a lead role during the system verification and integration phases of the product life-cycle. Local processes are used for the supply project activities which may be an initial installation at a new site or active system upgrades.

Support is carried out in a local test environment, as well as at the customer sites, through traditional fault analysis

# Broadband to the Home!

Mass-market services based on IP-networks will demand broadband access. Fixed wireless access will be a major competitive technology for the residential and small office/home office market! With your help we will be the world leader in the field of fixed Internet connections via radio.

**System Integration**

You see to that the product's quality is secured through the whole development and sourcing process.  
gert-eric.lindqvist@era.ericsson.se +46 8 764 32 52

**Senior System Manager**

You will define the technical solutions in our products.  
stefan.axelsson@era.ericsson.se +46 8 764 05 63

**Service Program Manager**

You will drive service development, procurement management and control.  
bjorn.ljungstrom@era.ericsson.se +46 8 764 08 14

**Strategic Sourcing**

You will handle sourcing agreements for our systems.  
peter.brokmar@era.ericsson.se +46 8 764 04 08

**IPR Specialist**

You will handle new inventions from idea to patent.  
peter.brokmar@era.ericsson.se +46 8 764 04 08

**Strategic Product Manager**

You will participate in the strategic planning for our product portfolio.  
peter.brokmar@era.ericsson.se +46 8 764 04 08

**Product Manager**

You will handle technical sales support on our system.  
peter.brokmar@era.ericsson.se +46 8 764 04 08

**Business Managers**

You will promote and sell the products to our customers  
anders.smedberg@era.ericsson.se +46 8 764 09 83

**Logistic Coordinator**

You will provide our customers with complete deliveries on time.  
kenneth.a.johansson@era.ericsson.se +46 8 764 06 56

**Manager Customer Services**

You will set up and manage the supply of services for our customers.  
tomas.svanfeldt@era.ericsson.se +46 8 764 06 55

**Project Manager**

You will manage the development project for our next system release.  
birger.kjellander@era.ericsson.se +46 8 764 06 05

**General Qualifications:**

- At least three years experience with substantial achievements from relevant areas
- You are a leading team player enjoying a dynamic international environment
- University degree
- Master spoken and written English
- IP and radio knowledge an advantage

Please send your application with ref. position to:

Ericsson Radio Systems AB  
SG/ERA/KD/HS Mari Skoglöf  
164 80 STOCKHOLM  
mari.skoglof@era.ericsson.se



## Make yourself heard.

**ERICSSON**



To strengthen our capabilities for this type of system work, we are looking for an experienced System Designer focusing on Datacom and IP. You should have more than 3 years of Ericsson experience in AXE10 design and experience of packet switched techniques or platforms is required. Due to the type of work performed, some travelling may be necessary.

### System Designer, Intelligent Networks

Proj.No 65/399

● To strengthen our capabilities for this type of system work, we are looking for an experienced System Designer focusing on IN development. You should have more than 3 years of Ericsson experience in AXE10 design and previous experience within Service Control and/or Service Switching Functions are regarded as an advantage. Due to the kind of work performed, some travelling may be necessary.

Contact: HR, Christina.Schneidawind, +49 2407 575 89447, Christina.Schneidawind@eed.ericsson.se.

### System Designer, APG40 Characteristics

Proj.No 63/399

Do You want to be a part of UMTS (Universal Mobile Telecommunication System), NGS (Next Generation Switch) and System 108 while you are working in a motivated area with a high level of productivity, as well as great personal gratification?

● We are looking for a person who can initiate and run capacity/characteristic issues within the APG40 area. This includes both investigations and discussions around the characteristics of the APG40 and its applications. It entails modeling and dimensioning of integrated applications and their environment. You will be required to define mechanisms for making fast and accurate estimations of characteristic behavior on the APG40.

The CAPC systems management is responsible for the system development of the Transit and Network Access products that are common for many of Ericsson's AXE based systems, both for wireline and wireless systems. This responsibility includes activities such as running product committees, handling overall technical coordination in the CAPC projects, perform system studies and source system design. Present challenges are system work for ATM backbone solutions for the UMTS and the NGS.

A successful candidate should have at least 2-4 years experience from software design or system design within an AM system. You will need good general technical and com-

munication skills. Knowledge of the NT operating system, the APG40 and previous experience or knowledge of traffic models is a distinct advantage. Since the work requires co-ordinations within the project, travel can sometimes be necessary.

### System Designer, APG40

Proj.No 62/399

● The APG40 is a windows NT based high availability platform targeted for IO and element management applications. We are looking for a person who can take an active part in developing and introducing APG40 platform into the next generation of open telecommunication systems. This includes both investigations and discussions around the software architecture, applications and interfaces of the APG40 in all parts of the development life cycle.

The CAPC systems management is responsible for the system development of the Transit and Network Access products that are common for many of Ericsson's AXE based systems, both for wireline and wireless systems. This responsibility includes activities such as running product committees, handling overall technical coordination in the CAPC projects, perform system studies and source system design. Present challenges are system work for ATM backbone solutions for the UMTS and the NGS.

A successful candidate should have at least 2-4 years experience of software or system design using software methodologies and technologies such as OO or CORBA. Experience with modern software languages such as C++ is essential. A good knowledge of NT is a strong advantage. Since the work requires co-ordination within projects, travel can sometimes be necessary.

### Source System Designer

Proj.No 41/399

● We are looking for a person who can take an active part in developing the next generation open telecommunication systems. This includes both investigations and discussions around the system architecture early on in our projects and product structure development together with co-ordination towards ongoing projects within CAPC. You will also be involved in investigations and development of new tools and methods that could be used in the Source System Handling area.

Since it is essential to discuss and investigate the system architecture in the early phases of a project, one Source System Designer is always appointed as team leader for one of our ongoing projects. You would have to take the responsibility for all tasks related to the Source System Handling and co-ordinate those tasks towards the project.

The CAPC systems management is responsible for the system development of the Transit and Network Access

products that are common for many of Ericsson's AXE based systems, both for wireline and wireless systems. This responsibility includes activities such as running product committees, handling overall technical coordination in the CAPC projects, perform system studies and source system design. Present challenges are system work for ATM backbone solutions for the UMTS and the NGS.

A successful candidate should have 1-2 years experience from software design or system design in an AM based system.

Since the work requires co-ordinations within the projects, travel can sometimes be necessary.

Contact: CAPC Systems Management, Robert Ivarsson, +49 2407 575 704, Robert.Ivarsson@eed.ericsson.se or CAPC Systems Management, Gert Wallin, +49 2407 575 8058, Gert.Wallin@eed.ericsson.se or HR, Christina.Schneidawind, +49 2407 575 89447, Christina.Schneidawind@eed.ericsson.se.

### Senior STE Methods and Tools Engineer

Proj.No 04/339

The STE Methods & Tools group is responsible for all STE activities within CSS in the area of Function Test, Design Maintenance, PLM, System Test, support organizations (ASO/SAFSC) and longer term Methods & Tools issues affecting testing.

This central group will not only cover EED needs, but also all the other LDC's that belong to CSS. The focus is on STE (Simulated Test Environment) tools and protocol and traffic simulated tools that can be used in both STE and target environment (ex. MGTS, TSS 2000, TTCN, etc.).

● As a suitable candidate, you are an Ericsson employee and should have experience in AXE 10 testing. You should be able to work well on a highly motivated team and under strict time pressure.

You also have to be service minded, be willing to travel and be prepared to quickly take new assignments. You have to be critical and always want to have the urge to improve the simulated testing environment.

You have to be open minded and willing to change in order to drive the simulated environment into the third generation mobile application systems.

Your responsibilities will include coordinating STE testing activities, gathering requirements from the customer, being involved in writing and coordinating new requirements, investigating impacts from new functionality in GSM/UMTS applications, defining methods for how to test new features, acceptance testing of new tools and trouble shooting in the simulated environment.

Contact: EED/X/SOZC, Raymond Meertens, +49 2407 575 470, eedramo@eed.ericsson.se or HR, Christina.Schneidawind, +49 2407 575 89447, Christina.Schneidawind@eed.ericsson.se.

Transit development in CAPC is responsible for design and maintenance for different software parts within the new Transit Application Module and function/system integration test for CAPC. We are looking for an

### AXE10 Software Designer

Proj.No 60/399

● We are participating in the execution phase and performing feasibility studies. To strengthen our capabilities in this area we are looking for an experienced SW designer in the AXE 10 area. You should be familiar with PLEX design methods and be able to perform technical studies as well as preparing technical documentation. A first experience in SDL would be an advantage.

We are looking for a designer with 2-3 years of experience preferable in the AXE 10 area.

Contact: EED/U/T, Joe Wilke, +49 2407 575 399, Joe.Wilke@eed.ericsson.se or HR, Christina.Schneidawind, +49 2407 575 89447, Christina.Schneidawind@eed.ericsson.se.

### Strategic Product Manager ATM and ISUP, Lawful Intercept

● Your task will be product planning for one or more CAPC product area(s), defining the direction of the development of CAPC products based on assessment of competitiveness and economical performance for the life-cycle of the products.

You inspect requirement specifications and approve function specifications and FeDs. You order and monitor the development and maintenance work of CAPC products, review financial agreements proposed by other business units and you will do Business Opportunity Tracing.

You need a BS in EE/CE/CS or equivalent, more than 3 years in system design or project management and a strong interest in strategic product management. Besides a broad knowledge in switching systems you need competence in either ATM, CSS7, Data Communications or Lawful Intercept.

Contact: Product Management Department, Ulf Henell, eedugh@eed.ericsson.se +49 2407 575 256 or Martin Hatas, Martin.Hatas@eed.ericsson.se +49 2407 575 9849 or HR, S. Seebass, eedsims@eed.ericsson.se +49 2407 575 163.

Ericsson Ltd, Guildford, UK

# PAST, PRESENT AND ..... UMTS

Software Verification Engineers, Product managers & Project Managers. International Assignments and Contract opportunities available

## UMTS – 3G

Our Guildford site now accommodates the first dedicated 3G UMTS centre in the UK. This unique facility and dedicated team make it possible to demonstrate, explore and evaluate the operating characteristics of WCDMA (Wideband Code Division Multiple Access) within a live environment, helping us to gather further invaluable data in support of future operators and determine business case potential. In order to meet the challenges of 3G UMTS, there are career opportunities for Software Verification Engineers, Product Managers and Project managers.

## UMTS Software Verification Engineers.

You will need a degree or equivalent in computer science or related engineering field, relevant experience in telecomms or IT and experience of test and fault finding. Experience of GSM/UMTS, WCDMA, WDM, knowledge of ClearCase, UNIX, C/C++, TCP/IP would be a distinct advantage. The first six months will comprise of on-the-job training in Sweden.

## UMTS Product Managers and Project Managers

To help win and deliver profitable 3G UMTS infrastructure business with network operators. The positions require a strong customer focus, the ability to present to the customer in a confident and professional manner and demonstrate high effectiveness within a team environment.

For the Product Manager roles, technical knowledge of GSM/UMTS, as well as IP (Internet Protocol) products and systems, is essential.

Project Managers should be able to demonstrate experience of planning and managing major network infrastructure rollout programmes. For both roles, the ability to respond technically to RFI's and RFQ's are prerequisite.

For further details or to apply, please contact: Louise Doherty, HR Solutions, +44-1483-478188, resourcingsolutions@etl.ericsson.se.



The America's Cup race attracts many enthusiasts. With Ericsson's wireless data communications system, 100,000 persons can follow the event on the Net simultaneously.

In early March, the final stage will be held of the America's Cup, the world's most prestigious sailing race. As one of the five main sponsors, Ericsson is making it possible for 100,000 enthusiasts to follow the race on the Net.

## 100,000 following sailing on the Net

The five months during which the race has been in progress have provided an excellent opportunity to market the company's products and services, particularly wireless data communications and the KF788 TDMA telephone.

Seven countries, Italy, France, the US, Australia, Spain, Japan and Switzerland, and eleven teams participated in the Louis Vuitton Cup.

The winner of this competition will then challenge the boat that won the previous America's Cup competition. According to tradition, the race is held in the winning boat's home waters, which in the case of Team New Zealand means New Zealand. The weather conditions in the Hauraki Gulf, where the competition will be staged, are treacherous, making the race a true test for everyone involved.

### Boats equipped with GPS

The final competition in the America's Cup began on February 19 between Team New Zealand and the Italian boat Prada.

The entire event will be concluded on March 9.

Ericsson's mobile Internet concept is being used to transfer the information required to produce the animated pictures that millions of TV viewers and Internet users are able to see.

All boats in the race are equipped with GPS (Global Positioning System) receivers, and information about each boat's position is transferred to land via Ericsson's mobile Internet system.

### Choice of camera angles for viewers

Ericsson has also contributed to the development of the Virtual Spectator, which is a new concept for covering sports events. For this event, more than 100,000 sailing enthusiasts are able to watch the race on their computer screens which provide information about sailing speed, wind conditions and other race parameters.

Viewers can also choose one of six different camera angles on their computer screens and zoom in and out in the virtual

image. The trophy known as the America's Cup is the world's oldest and was designed by a London jeweler in the mid-1800s.

The first competition for the trophy was held around the Isle of Wight off the coast of England. An American boat took home the prize, which was thereafter called the America's Cup.

The trophy has only left the US on two occasions. The race is being held for the thirtieth time.

### Red socks

Sailing is a national sport in New Zealand, and interest in the America's Cup is tremendous. In 1995, when the New Zealand boat was sailing in the finals, the New Zealanders showed their support by wearing red socks. The same applies this year, and red socks are selling like hot cakes in Auckland.

Gunilla Tamm

gunilla.tamm@lme.ericsson.se

www.americascup.org

### UPCOMING

February 28: 3G demonstration in New Orleans

March 2 3G: demonstration in Shanghai

March 9 3G: demonstration in Guangzhou

### UPDATES

February 17: Ericsson announced that the company had won the world's first contract for a complete commercial 3G system from Finnish 2G Ltd., which chose Ericsson as the principal supplier for a nationwide cellular network that will integrate GSM and 3G. See also the News section.

February 16-19: Ericsson's 300 most senior executives were gathered for a meeting in Hong Kong.

February 24-March 1: CeBIT, the world's largest annual telecom and IT exhibition was held in Hannover. Direct reports from Ericsson's activities at CeBIT may be found on InfoCenter.

www.ericsson.com/infocenter

The Finance corporate function was reorganized and split into two new units, one for Financial Reporting and Analysis and one for Corporate Financial Control. A new unit was also established for Development Finance and Administration.

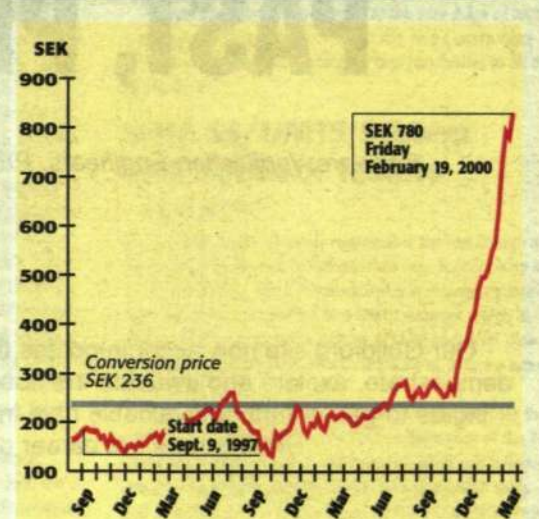
### NEW ASSIGNMENTS

John Peter Leesi was appointed as manager for Business Controlling for the Consumer Products business segment in London.

Jan-Anders Dalenstam was appointed acting manager for the new sales function within the CDMA Systems business unit.

Chris Ross was appointed manager of Operations within CDMA Systems with responsibilities that include manufacturing, network planning and service.

### THE ERICSSON B SHARE



An Extraordinary General Meeting of shareholders on September 9, 1997, approved a proposed convertible debenture program. The conversion period extends through May 30, 2003. For additional information, access the web site: <http://inside.ericsson.se/convertibles>

