


contact

ERICSSON  PUBLICATION FOR EMPLOYEES WORLDWIDE

No.18 • 27 NOVEMBER 1997



007 at Ericsson's service

Pierce Brosnan, Agent 007 in the upcoming James Bond movie *Tomorrow Never Dies*, will put Ericsson to the test. James Bond's image corresponds very well with Ericsson's brand image. The film premiere in London on December 9 will mark the start of Ericsson's worldwide campaign.

Pages 18-19

Convertibles fully subscribed

The interest in subscribing for convertible debentures was considerable. Some 40,000 employees in 46 countries submitted applications for a total value that exceeded the maximum amount of SEK 6 billion. The highest allotment was SEK 145,347.

Page 2

Full steam ahead at British plant

In January this year, Ericsson OMC (formerly Orbitel) discontinued its production of base stations for mobile telephony. The company is now focusing on the manufacture of mobile telephones. This choice seems to have been the right one, since the plant is expected to make new investments.

Pages 12-13

Futuristic traffic control

Using traditional mobile telephone technology, it could be possible to avoid traffic jams or facilitate rescue operations for traffic accidents. Intensive research and development is being done in the area of Intelligent Transport Systems.

Page 20

Colors sell

A bizarre idea became a tiny, colorful mobile phone. Ericsson today emphasizes both advanced design and top-notch technology. Follow the route of the GF 768 from vision to reality.

Pages 8-9

VACANCIES SEE PAGES 21-23

contact

PUBLICATION FOR ERICSSON
EMPLOYEES WORLD WIDE

Publisher

Lars A. Stålberg,
phone: +46 8 719 3162

Corporate Editor

Lars-Göran Hedin,
phone: +46 8 719 9868,
fax +46 8 681 27 10,
memo: LME.LMELGH

Editorial assistant

Pia Rehnberg,
phone: +46 8 719 7869,
memo: LME.LMEPRG

Editors

Patrik Lindén,
phone: +46 8 719 1801,
memo LME.LMEPALI
Mia Widell Örnung,
phone: +46 8 719 4109
memo: LME.LMEWIDE

Editorial staff

Thord Andersson,
phone: +48 8 422 0316,
memo EBC.EBCTKAN

Inger Björklind Bengtsson,
phone: +46 8 754 4454,
memo EKA.EKAIBE

Anneli Krantz,
phone: +46 8 764 1596,
memo ECS.ECSANKR

Gunilla Tamm,
phone: +46 8 757 2038,
memo ERA.ERAGT

Lena Widegren,
phone: +46 8 719 6943,
memo ETX.ETXLAWN

Britt-Marie Wihdén,
phone: +46 31 747 3662,
memo EMW.EMWBMW

Address

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

Fax: +46 8 681 2710

Distribution

Inger Bergman,
phone: +46 8 719 0069,
memo: LME.LMEKOCO

Layout

Paues Media in Stockholm AB,
phone: +46 8 665 8072

Printed at

Nerikes Allehanda Tryck, Örebro 1997

Advertising

Display AB phone: +46 90 17 79 50

If you are on a limited assignment in Sweden you may have Contact sent to your home address. Send us your name, home address, and the date you will leave your assignment in Sweden to: LME.LMEKOCO.

During your stay in Sweden, you will continue to receive Kontakten.

If you move, and inform the personnel department of your new address. Kontakten will automatically be sent to your new address. To notify us of a change in address, or to extend your subscription for Contact, please send us a memo with your new address, together with the old one, to LME.LMEKOCO.



Convertibles finalized: Worldwide interest in offer

Ericsson's convertible debenture issue was fully subscribed. Slightly less than one half of the total number of employees who were given the offer took advantage of it. The maximum allotment was SEK 145,347. Employees in forty-six countries participated.

"I am delighted with the enormous employee response, and the fact that we were able to make this offer to so many people. We seem to have hit the nail on the head. Everyone received basically what they wanted," says CEO Lars Ramqvist.

Things happened quickly. During the summer, a project group prepared information material and carried out the legal groundwork. The decision was taken on September 11, at an extraordinary general meeting. Information and application forms were distributed to 85,000 of the company's 100,000 employees. On September 25 the start signal sounded and the applications began to trickle in – and soon they were flooding in. Two weeks later, about 40,000 Ericsson employees had subscribed for convertibles. That is almost half the number that received the offer.

Highest amount

The highest amount was the most popular. Slightly more than 60 percent checked the box for subscribing for SEK 148,680.

"The result was about what we expected. We were obliged to reduce the sum by a few thousand for those who applied for the highest amount, so as not to exceed the total value of SEK 6 billion," says project manager Catrine Johansson.

Many people in the US, Mexico, Denmark and Brazil subscribed for convertibles. In the UK, Spain, the Netherlands and Ireland too, there were many subscribers. The greatest interest came – as expected – from Sweden. Here, slightly more than 33,000, or 70 percent of the employees, subscribed for convertibles, for a total value of close to SEK 4 billion.

In some thirty countries, relatively few employees subscribed to convertibles, owing, amongst other things to tax rules. Some countries had very little time, once they had decided to join in, to distribute the information – again, because of complex legislation.

Rush briefings

"To those of us in the project group, it seemed that we would have to exclude certain countries from participating in the offering. However, several countries then took on the huge



In these days of stock-market unrest, Catrine Johansson, project manager for the convertibles group, has not received a single call from uneasy subscribers. But the telephones are ringing off the hook anyway.

task of working out the legal requirements themselves. Slovakia, for example, managed to come onboard at the last minute. It's great that the convertible issue turned out to be so popular in so many countries, but personally I feel most strongly for the small countries – and the employees who subscribed for the lowest amount. Their contribution is worth just as much," says Katja Alm, corporate legal advisor.

Rush briefings

Late-comers had to be given rush briefings.

"We trained the local representatives in for example Oman, Bahrain and Saudi Arabia by telephone conference, and sent off the last application forms electronically so they'd get there on time," Catrine Johansson relates with a tired smile.

The last time Ericsson made a convertible offering to its employees, only a handful of countries could be considered. This time, the goal was set higher. At the final count, 46 countries participated.

"This has shown that we can live up to our visions, that we can carry out a complex project with speed and flexibility. The convertibles group has worked under a lot of pressure, but we've had terrific support from all around the world. That support has been indispens-

able and we are extremely grateful for it," several group members says with one voice.

However, some countries could not be included this time either, on account of their legislation or a lack of legislation in this area.

Routines

The convertibles group plans to work out routines for an internal market where employees can sell their convertibles prior to a public listing in late 1998 at the earliest. Rules to govern convertibles purchasing by employees hired after October 10, 1997, must be established. The wholly-owned Ericsson subsidiary AB Aulis has subscribed for a convertibles pool for this purpose. In any case, the telephones are still ringing off the hook.

When the Asian stock markets plummeted, and share prices began their roller-coaster ride in Sweden too, Catrine Johansson thought that she would be bombarded with calls from uneasy convertible subscribers. But this was not the case.

"The only calls about the convertibles issue were from the big Stockholm daily newspapers, wanting to know if anyone had got cold feet. But it seems that our employees understood that this is a long-term investment."

MIA WIDELL ÖRNUNG

What happens next?

- January 30, 1998, first interest payment
- November 19, 1999, first day for converting to shares
- May 30, 2003, last day convertibles may be exchanged for shares
- June 30, 2003, loans fall due

Subscriber headcount

■ Forty-six countries and about 40,000 employees participated. Most of them – 33,050 altogether – were people employed in Sweden. It is interesting that there

were so many subscribers in the US – 2,671 in total – a relatively new market for Ericsson. Interest from countries where Ericsson has been established since the beginning of

the century was also keen – for example Mexico, with 718 subscribers. Denmark accounted for 588 subscribers, Brazil, 475, the UK, 436 and Spain, 396.

The new fast modem

Ericsson has introduced a high-speed modem called Ericsson K 56DTVoice, a new product with excellent potential for market success. Its name alone lends an impression of power at 56 kilobits per second. The product is particularly well-adapted for teleworkers and applications in small companies. A voice mailbox is standard, and the modem can also be used as an Internet telephone in combination with peripheral software.

The K 56DTVoice modem is now being sold in Sweden and will soon be launched throughout Europe. The sale price of about SEK 1,400 before value added tax is highly competitive.

"Ericsson continues to project the image of a major supplier of high-tech equipment, even for small companies and advanced residential users," says Peter Walan, who works for Ericsson Business Networks as sales manager for the new modem in Sweden. "It's been a pleasure to launch the new modem. It is one of the fastest modems on the market and solves a wide variety of problems in one fell swoop."

When the modem is used as a telephone answering machine, it utilizes the computer's hard drive for incoming calls. It's also possible to monitor the answer-



Ericsson has introduced a new, high-speed modem, Ericsson K 56DTVoice.

ing machine remotely. The voice mail function is able to store incoming calls in different places or forward messages to another telephone number.

Equipped with a headset and microphone, the modem works like a telephone that can be used for conventional calls as well as three-party conversations, for example. Trio Datafax and so-called

flash memory are built into the modem to provide an upgrade capability directly from the computer.

With its broad variety of features and multi-functions, Ericsson K 56DTVoice is a prime new product, and the company is anxiously awaiting initial market response.

THORD ANDERSSON

New micro base station gives better coverage

A powerful new GSM micro base station that provides a 300 percent improvement in coverage, compared with traditional micro base stations was recently introduced by Ericsson.

Maxite, the new radio base concept, is based on an active antenna that replaces parts of traditional electronics in older base stations.

Maxite is a complete unit, or site. Because of its diminutive size, the unit can be mounted almost anywhere to quickly establish wide-range coverage. The new technology reduces electrical consumption by 65 percent, compared with large base stations offering the same coverage. The concept was developed by the mobile telephony products division of Ericsson Microwave in Mölndal, in cooperation with Ericsson Radio Systems in Kista.

NILS SUNDSTRÖM

An active antenna is the key to Maxite, a new GSM base station concept from Ericsson.



Ericsson sells Language Services

Ericsson Language Services, a subsidiary of Ericsson Infotech, was sold to Interverbum, a Swedish language and translation company, effective November 1, 1997.

"We applied a strict commercial approach to the divestment. Language Services are not part of our core operations. Interverbum was the natural choice based on its international network, an important element for Ericsson's global organization. Outsourcing was a good solution in this case," explains Stig Sjögren, President of Ericsson Infotech.

Ericsson Language Services offers translation services and language training courses for Ericsson employees in all parts of the world. The company has annual revenues of SEK 33 million and 19 employees.

Industry news

Role reversal for telephone and cable TV

■ New technology is changing the traditional roles of telecom and cable TV companies. Netcom, a Swedish cable TV company owned by Kinnevik, is testing telephone and data services in Sweden's Kabelvision cable TV network. Netcom, accordingly, could become the first network operator to enter the local telephony arena in large-scale competition with Telia.

Telia Research has presented a new application for conventional telephone lines into private homes. A new modem technology based on copper wire transmissions has made it possible for private households to receive high-resolution motion pictures, called sharp TV, while subscribers are talking on the telephone.

More pressure on drivers with mobile phones

■ Hands-free equipment for mobile telephony is becoming a requirement for drivers in many countries.

A recent survey conducted in Canada shows the risk of accidents is four times greater for drivers talking on car phones than drivers concentrating solely on their vehicles.

Six countries in Europe, with Denmark the most recent to follow the example of Greece, Italy, Switzerland, Spain and Hungary, have introduced new legislation governing hands-free equipment for motorists.

Internet creating lower prices

■ Telephony via the Internet is applying new pressure on telecom prices. According to a study conducted by Action Information Services in Virginia, the world's telecom companies stand to lose USD 8 billion dollars in revenues next year. In the past, digital Internet traffic was transmitted over telephone lines with the help of modems.

Telecom traffic that seeks out digital Internet lines to provide higher compression has become increasingly common, however. The growing trend will eventually force telecom companies to reduce prices for long-distance calls, the study showed.

Racal places large order on MD110 PBX

Ericsson has signed a five-year contract with Racal Telecom of the U.K. valued at SEK 250 million. Deliveries will include 270 MD110 PBXs. The contract is one of the largest MD110 orders ever for Ericsson.

The contract extends over a period of five years and involves a complete overhaul of Racal's communications network, which provides service to large British railway companies and other

clients. The order for 270 MD110 exchanges will be delivered in the form of 472 Line Interface Modules (LIM units) to be installed throughout the U.K. In the first stage, Ericsson will supply 15,000 MD110 lines for offices, stations and cargo terminals.

Ericsson's undertaking also includes the upgrade of Racal Telecom's existing AXE platform, which is used to connect Racal's private network to BT and other public operators.

"Modernization of Racal Telecom's

network will provide the British company's customers with sophisticated new business network services with the highest possible service level," says Bob Falconer, Director of Racal's infrastructure.

Ericsson will build three nationwide telephone centers that will provide all the services included in a Dynamic Network Administration (DNA) system included under terms of the contract. The centers will be placed in the Waterloo railway station in London as well as railway stations in York and

Glasgow. All three centers will be operated by Racal's personnel. The MD110 network will be integrated in the public AXE network.

Racal Telecom is one of Europe's leading network operators for large companies and organizations. Its customers include more than 30 departments of the British government and such well-known corporations as Heinz, WH Smith, ICI and the Allders department store chain.

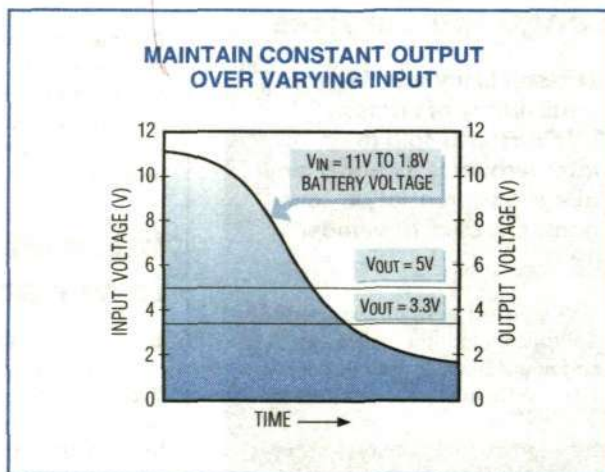
THORD ANDERSSON

DELIVER CONSTANT 5V OR 3.3V FROM 3- & 4-CELL BATTERIES

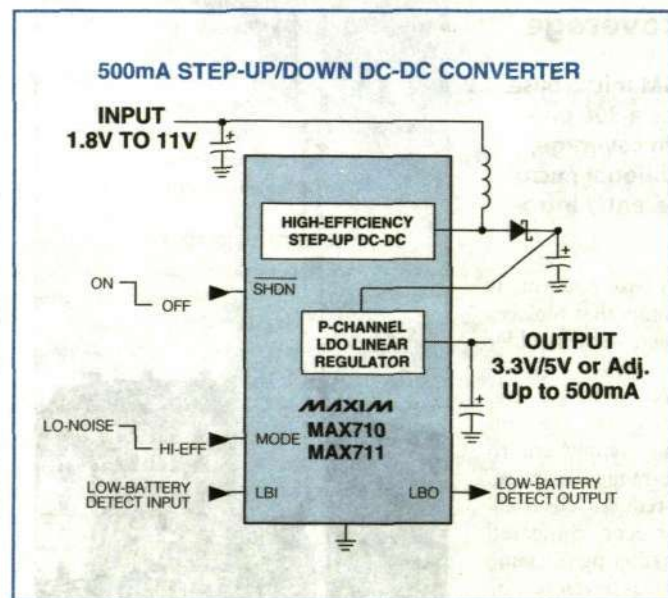
Step-Up/Down DC-DC Takes 1.8V to 11V Input, Gives 500mA Output

The MAX710 and MAX711 combine a high-efficiency step-up DC-DC converter and a low-dropout linear regulator to solve a common battery dilemma: providing a constant output voltage when the battery input is initially above and then drops below the regulated output voltage. The MAX710 has a preset 3.3V or 5V output while the MAX711's output is adjustable from 2.7V to 5.5V. The $1/2 LI^2$ energy storage requirement of the inductor is about half that of competing SEPIC and flyback solutions, saving cost and space.

- ◆ Up to 500mA Output
- ◆ Guaranteed 5V/250mA from 1.8VIN
- ◆ Output Fully Off in Shutdown
- ◆ Select Lowest Noise or Highest Efficiency Mode
- ◆ 100µA Quiescent Supply Current
- ◆ Linear Regulator Filters Output Ripple
- ◆ 0.2µA Shutdown Current
- ◆ Evaluation Kit Available (MAX710EVKIT)



The voltage on a stack of 4 NiCd/NiMH cells can range from 8V (at full charge) down to 3V (at end of life under load). Use the MAX710 and MAX711 to maintain a constant output voltage as the input varies above and below the regulated output.



FREE Power Supply Design Guide – Sent Within 24 Hours!
Includes: Data Sheets and Cards for Free Samples

Call For a Design Guide or Free Sample
U.K. (44) 118 9303388

Toll-Free in the U.S. 1-800-998-8800
<http://www.maxim-ic.com>

NOW AVAILABLE!
FREE FULL LINE DATA CATALOG
ON CD-ROM



MAXIM

Distributed by Allied, Arrow, Bell, CAM RPC, Digi-Key, Elmo, Hamilton Hallmark, Nu Horizons, and Zeus. Distributed in Canada by Arrow.

Austria, Maxim GmbH (Deutschland); Belgium, Master Chips; Czech Republic, Spezial-Electronic KG; Denmark, Arrow-Exatec A/S; Finland, Yleiselektronikka Oy; France, Maxim France, Distributors: Maxim Distribution, ASAP; Germany, Maxim GmbH, Distributors: Maxim Distribution, Spezial Electronic GmbH; Ireland, FMG Electronics; Italy, Maxim Italy, Distributor: Esco Italiana Electronics Supply; Netherlands, Koning En Hartman; Norway, Berendsen Electronics; Poland, Uniproduct, Ltd.; Portugal, ADM Electronics, S.A.; Russia, Spezial-Electronic KG; Spain, Maxim Distribución, ADM Electronics S.A.; Sweden, Egevo AB; Switzerland, Maxim Switzerland, Laser & Electronics AG; Turkey, Interex (U.S.A.); U.K., Maxim Integrated Products (U.K.), Ltd., Distributors: Maxim Distribution (U.K.), Ltd., 2001 Electronic Components, Eurodis HB Electronics; Ukraine, Spezial-Electronic KG.

MAXIM is a registered trademark of Maxim Integrated Products. © 1997 Maxim Integrated Products.

Ericsson's web site a real winner

Flashy pictures and "hot" graphics are out. Speed, simplicity and accuracy are in. That's the consensus of opinion in Sweden's financial sector. As a result, Ericsson was declared the winner in a contest sponsored by Dagens Industri, a leading finance and business publication in Sweden, to determine which Swedish company has the best financial news web site. Investor, a major investment company, came in second, followed by Allgon, a technology company.

"Ericsson was the clear winner," Mats Paulsen, an IT journalist at the Swedish daily Dagens Industri, told Contact. "Ericsson knows exactly what the market wants."

Ken Ryan, Ericsson's webmaster, was a little surprised, however.

"I was really surprised," he said in a recent interview. "Investor has only one target group, the world of finance, so it's not very difficult to understand why the company wins awards. We work with several target groups, including customers, the media, employees and, of course, the financial sector. That's why I'm so pleased about winning the first prize."

Nils Ingvar Lundin, Investor's Information Director and former Senior Vice President, Corporate Relations at Ericsson, plans to make several improvements in his company's web site before next year's competition.

"I'm happy for Ericsson, but Investor will strive to be the best next year," Mr. Lundin said with a look of determination.

Ken Ryan's baby

Ken Ryan transferred from Ericsson Data to Ericsson's Corporate Relations department 10 years ago.

After several years working as Ericsson's international press manager, Ken Ryan took charge of the new information channel in 1994, when the web site was still in its embryonic stage. Development of a web site was one of the



Ericsson's web site has been Ken Ryan's "baby" since 1994. He becomes very frustrated when things move too slowly. Speed and simplicity are the bywords of his motto. Sweden's financial analysts apparently agree with Ken Ryan, based on Ericsson's first prize in the best web site contest conducted by Dagens Industri.

Photo: MIA WIDELL ÖRNING

objectives of a new information policy formulated Ericsson. The site became Ken Ryan's "baby" and, for the past year, he has worked full-time in developing Ericsson's web system, now from a new base in Lynchburg, Virginia, in the U.S.

Dagens Industri conducted the web site contest as a low profile competition, with no advance publicity. More than 40 financial analysts were interviewed to determine the ideal properties of a good web site. Fifty points were established. Later, without their knowledge, the web sites of 93 publicly listed Swedish com-

panies were compared with the demands of financial sector representatives.

Specialized focus

The contest focused on what the financial market wants on a web site. If the contest had been based on a marketing perspective, the results might have been completely different.

"I'm quite sure Ericsson would not have won a contest focused on consumers of mobile telephones," says Mats Paulsen of Dagens Industri. "We think it should

be possible, for example, to order mobile telephones via the Internet."

Ken Ryan has no intention of resting on his laurels.

"I'm never satisfied," he says. "We have to become even better. Aim higher."

Perhaps his temperament is the driving force behind Ken Ryan. He clicks on the mouse, waits three seconds and grimaces in frustration.

"I find it very frustrating when things are too slow. It's extremely irritating."

MIA WIDELL ÖRNING

American Stock Exchange in NYC selects Freeset

AMEX, the American Stock Exchange on Wall Street in New York City, has purchased a Freeset DCT1900 communications system from Ericsson to manage its stock trading operations. The cordless Personal Communications Service (PCS) system is an ideal solution for large dynamic organizations striving to increase mobility and lower telephone costs. The system will be installed during the fourth quarter of 1997 and be operational before year-end.

"Freeset offers the type of mobile communications we need to help our brokers increase their productivity," says Mark Fichtel, Executive Vice President of AMEX. "Brokers often have to consult with four or five people before closing a transaction. Freeset will enable them to communicate more efficiently and freely, without being tied to a fixed telephone facility."

"The Freeset system for AMEX is unique in many respects," says Paul Schwartz, sales manager of Enterprise Networks, a unit of Ericsson's U.S. company in Triangle Park, North Carolina. "It will take less than one second to establish contact with a broker, as opposed to 7-10 seconds for conventional mobile telephones. Freeset also offers better sound quality and broader band width (32 Kbps).

Easy to use

Paul Schwartz has also sold cordless Freeset solutions to several other highly prestigious customers, including the Chicago Mercantile Exchange, the Chicago Board of Options, the Chicago Board of Trade and the Pacific Stock Exchange in San Francisco.

With Freeset, it's extremely easy to make and receive calls. The user only has to dial four numbers to reach another broker on the floor. The telephones can also be equipped with headsets.

A major advantage of Freeset is the



Rapid-fire decisions and mobility characterize business on the floor of the American Stock Exchange. Brokers will now be able to conduct their trading operations comfortably and quickly with the help of cordless Freeset telephones.

Photo: ALAN ROSENBERG

freedom it provides brokers to make and receive calls regardless of where they are situated on the floor. In the past, brokers were forced to stay close to a fixed telephone facility to make sure they didn't miss important calls.

The system for AMEX also includes

Ericsson's Mobility Server and a "Personal Number" service that can be programmed to channel all incoming telephone calls to the terminal of choice. It allows users to have a single telephone number for all types of communication.

THORD ANDERSSON

MICROELECTRONICS

Solutions for Your Application

Opto Electronic Products

- SDNET/SDH Telecom
- High Capacity WDM
- ATM and High-Speed Datacom
- CATV

Line Card Components

- Digital Loop Carrier
- Terminal Adapter
- Central Office
- Hybrid Fiber Coax
- Wireless Local Loop

RF ASICs & Power

- Digital Mobile Phones
- Cellular Radio Base Stations

ASIC & ASSPS

- Digital Mobile Phone
- Cellular Radio Base Station
- Telecom system Components

Ericsson Microelectronics has over 20 years experience in manufacturing and marketing micro and opto electronic products. Acting as an independent business unit, Ericsson Microelectronics aims to be the principal microelectronics supplier to major communication companies.

The Group's focus is on producing technologies that deliver improved performance at lower cost, so enabling customers to more easily achieve a competitive advantage. Technologies such as world leading radio frequency components, line access functions, optoelectronic components and modules and ASICs and ASSPs to name just a few.

So to make sure you use the very best micro and opto electronic components in your designs and products, contact Ericsson Microelectronics today.


RF Products

ASIC and ASSP

Opto Electronic Products

Line Access Products

A world of micro and opto electronic components from Ericsson

ERICSSON 

Tel: +46 (8) 757 50 00, Fax: +46 (8) 757 47 76, ECN: <http://www2.eka.ericsson.se/mikro/ecn/welcome.htm> Internet: <http://www.ericsson.se/EK/micro/>
Ericsson Components AB, Microelectronics Division, Isafjordsgatan 16, S-164 81 Kista-Stockholm, Sweden.

This is the third of six advertisements to be published consecutively in Contact.



IT TAKES MANY YEARS TO FIND THE RIGHT SUPPLIER. WE ALREADY KNOW THE BEST.

The right components at the right price and quality are the fundamentals of a good finished product. That's why Flextronics has a fine-tuned procurement organization that is in touch with the best suppliers.

Our customers consider it an advantage when we also take on responsibility for procurement, since we can always make sure that the overall costs for the final product will be as low as possible.

Our Procurement Department is part of a worldwide network that purchases in high volumes and forces prices down. Since the network includes a vast array of skills in different fields, we are always given high priority by our global suppliers.

The network's motto is "Think globally, act locally". The entire globe is our workplace, but all business transactions are tailored at our plant in Karlskrona.

We demand constant improvements from our suppliers, which is why we monitor them methodically and follow up with regular evaluations.

Only the best is good enough, or "Expect Excellence", as we say.

Flextronics International Ltd has 10,200 employees and facilities in North America, Asia and Europe. We are one of the world's largest contract manufacturers of advanced electronics for the communications, computer, consumer and medical electronics industries. In addition to Ericsson, our customers are among others Cisco Systems, Microsoft, Nokia and Philips Electronics.

Our business concept is simple. We let our customers concentrate on their core operations. Flextronics takes care of the entire manufacturing process from procurement to distribution. A staff of 1,000 works at our European Head Office in Karlskrona, where we manufacture among other things Ericsson business communications products such as the MD110 PBX and Packet/Frame Relay switch family, as well as components for radio-based DECT systems for business cordless and radio access. We deliver directly to customers worldwide.

Flextronics International Sweden AB, PO Box 532,
SE-371 23 Karlskrona, Sweden. Telephone: + 46 455 544 00.
<http://www.flextronics.se>


FLEXTRONICS
INTERNATIONAL
SWEDEN AB

It all started when Yumiko Yasuda, a scholarship student from Japan, was specializing in environmental studies for her masters degree at Tufts University in Boston. By chance, she met an Ericsson salesman at a job fair, and then the pieces of the puzzle fell into place. Now she is working at Ericsson as an environmental engineer and specialist, with the gigantic task of monitoring and pursuing environmental issues in the important East Asia.

Our environmental expert in Japan

This is a good example of the way we pick up faint signals," says Sven Broddner at Ericsson Radio's Japanese Mobile Systems unit. "When we heard about Yumiko, we realized that she could be the right person for us. So we invited her over to Sweden, interviewed her and then managed to get her to cooperate with us when she was writing her thesis, which was an in-depth study of the current regulations and the way leading companies are handling environmental issues in Japan."

Yumiko recently completed her program at Tufts University, and this spring she will also be awarded a degree at the Tsukuba University in Tokyo. Since October, she has been working for Ericsson in Japan as an environmental engineer and specialist.

Tough job

"It won't be easy, and it will require a great deal of training, but I think it is absolutely essential that we change our views on environmental matters," Yumiko says. "If we can influence design, transport, packaging and other areas, making them more environmentally friendly, we will not only have a better environment but also be able to cut our costs and become more competitive, particularly in the long term."

People tend to refer to the environmental time

bomb. In the case of Japan, there is a risk that it will explode in the near future. Japan is a densely populated country, and has waste disposal problems. In two or three years, it will be more expensive to dispose of industrial waste, and the Japanese are closely following the development of producer responsibility in Europe. In the case of environmental certification - ISO 14001 for example - operations are already in full swing.

The whole of Ericsson

Formally, Yumiko is employed by Nippon Ericsson KK in Tokyo, but in practice she will be working for all units within Ericsson.

Her main responsibilities will include monitoring developments in environmental legislation and regulations in East Asia, particularly in Japan. She will also be assisting in the introduction of environmental management systems, and will be specializing in issues involving the recycling and reuse of worn-out or obsolete products. This involves analyzing the entire product life cycle and coordination with subcontractors.

"It's important to have a positive attitude. We mustn't regard environmental operations as a burden," Yumiko emphasizes. "If Ericsson is one of the leading companies in this area, we will have a competitive advantage."

Yumiko Yasuda was employed by Ericsson in October as an environmental engineer and specialist in Japan.

Photo: ANDERS ANJOU

LARS CEDERQUIST



Ericsson research in Ericsson Review

Ericsson Review reports on research, development and production at Ericsson. The journal has monitored the corporation's technical achievements since 1924. The latest issue, which contains six articles, has been published and may be ordered via memo: LME.LMEERCO (it has also been published on the Internet at <http://www.ericsson.se/Review>).

Internet and intranet connections over GSM

Despite early predictions of an explosive growth in the use of mobile data communication, actual results have been quite moderate. Today, however, driven by the business sector's increasing need of access to the Internet and corporate intranets, the demand for mobile data services is growing. In his article, Olle Källström, of Ericsson Radio Systems, describes how the GSM Internet/intranet direct-access solution overcomes the problems of

connectivity between GSM and the Internet.

Migrating to digital wireless services in an analog AMPS network

The AMPS and D-AMPS wireless standards, which were originally developed in North America, have been deployed in 97 countries. Magnus Nielsen and Tord Stureborg describe how operators may combine AMPS and D-AMPS digital services in the same network, giving them complete flexibility in deciding when and where to start the digital migration process.

New RBS 884 base stations take IS-136 D-AMPS wireless services into new areas

By introducing a hierarchical cell structure into IS-136 D-AMPS wireless networks, operators may increase network capacity and extend wireless access into difficult locations. Mats Ek and Gunnar Genell describe how Ericsson's family of RBS 884 radio base stations enable operators to tailor-fit net-

work capacity indoors and out.

New technologies for future microwave communication

One of the most technology-intensive parts of microwave radios is the microwave block of the transmitter-receivers. Advances in the technology used in this area have led to the development of microwave monolithic integrated circuits, which yield greater functionality and power efficiency. The authors Dag Jungenfelt, Martin Löfgren and Herbert H.G. Zirath describe the technology, which is being integrated into the MiniLink, and which will also play a key role in fixed broadband radio access systems and ATM-based wireless LAN systems.

Environment, for better or worse

As a member of the IT industry, Ericsson is in the process of establishing a sound environmental platform on which to base their operations. Corporate environmental manager Mats-Olov Hedblom describes what

has taken place since the Rio Conference in 1992. Corporations are acknowledging that environmental issues permeate everything they do. This is the first of three-part series of articles on the environment. Part 2 will describe the life-cycle assessment in depth. Part 3 will describe how Ericsson can apply findings from the assessment in product design and environmental labeling.

Distributed telecommunications network access using the TMOS IntraWeb Gateway

In an increasingly competitive marketplace, network operator success depends more and more on how operators maintain and optimize their networks. Magnus Ekhed, Peter Gundersen and Olav Queseth describe how the TMOS IntraWeb Gateway makes new functions and interfaces available anywhere in the corporate network. The TMOS IntraWeb Gateway concept works with any version of TMOS, and enables opera-



Ericsson Review, which is published quarterly, reports on research and technical achievements at Ericsson. The articles are authored by engineers for persons interested in telecommunications technology.

tors to extract more from existing IS/IT investments.

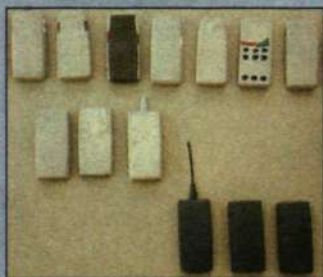
Ericsson Review, which is published quarterly, reports on research and technical achievements at Ericsson. The articles are authored by engineers for persons interested in telecommunications technology.

Road to perfection

Tom Waldner, who has been involved in the development of many Ericsson telephones, looks back on the history of the GF 768 model.

June 1994, initial contact

"Nils Rydbeck (now Vice President, Research, Mobile Phones and Terminals) and Mikael Kornby (now working with mobile telephony development in the U.S.) approached the designers with an idea for a very small mobile telephone.



"The entire concept comprised a few thoughts that would fit on a sheet of paper. Some measurements and central components were discussed and decisions were made on certain details; for example, the display field had to be small and a certain minimum distance was required between the microphone and ear, the type of antenna, and other details," Tom Waldner recalls.

August 1994

The first reality check, as Tom Waldner calls it, came in August. The wildest ideas were eliminated from the picture, and discussions focused more on details. Nine plastic foam models were produced for reconciliation with the engineers. Several different antenna variations and phones with and without covers were tested.



"Three of the variations met requirements, and we proceeded to make more detailed models and showed them to a test group for review," Tom Waldner continues.

December 1994

A six-month period of customer surveys and development work was started. Results show that a traditional flip cover is the most realistic.



June 1995

Opinions on the final design started to go in separate directions. At about the same time, it became clear there would be three models, not just one: a model that eventually became the more discreet GF 788, the American AF 738 and the current and colorful GF 768.

A decision was made whereby all three models would have the same back piece, batteries, chargers and other components. Design work on the GF 788 was conducted in Singapore, and the American model was developed in the U.S. Tom Waldner and his staff continued to work on the GF 768. He wanted "his" model to stand out, to have an attitude!



"In the end, three designs were developed for three market segments," he explains.

October 1995

Three new plastic foam models were produced. All three were well-received within Ericsson and several copies were made and sent out in market surveys. This process continued until March 1996.



Summer of 1996

"Creative design work ended during the summer of 1996," Tom Waldner says. "Our maneuverability was reduced rapidly as time became more critical. It was definitely too late to make any major changes. Now the product had to be adapted for production in large series."

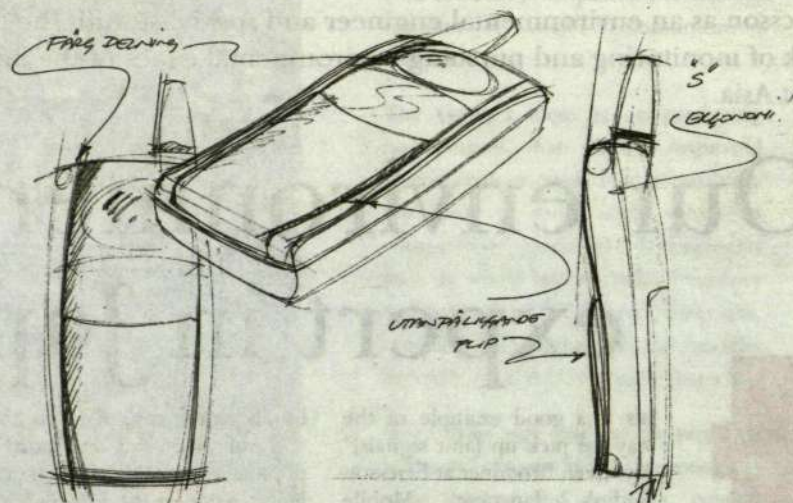


Winter of 1996

The idea for the GF 768 carrying case occurred to Tom Waldner, who is from California, while he was on his way home

for a visit. It became a mini-project he developed on the side. The case would be the same color as the telephones and made using the same material used in wet suits worn by scuba divers.

Tom Waldner and other designers involved in development of the GF 768 have worked on other projects throughout the design process. Other models have also been designed and released. The work goes in a pattern of waves.



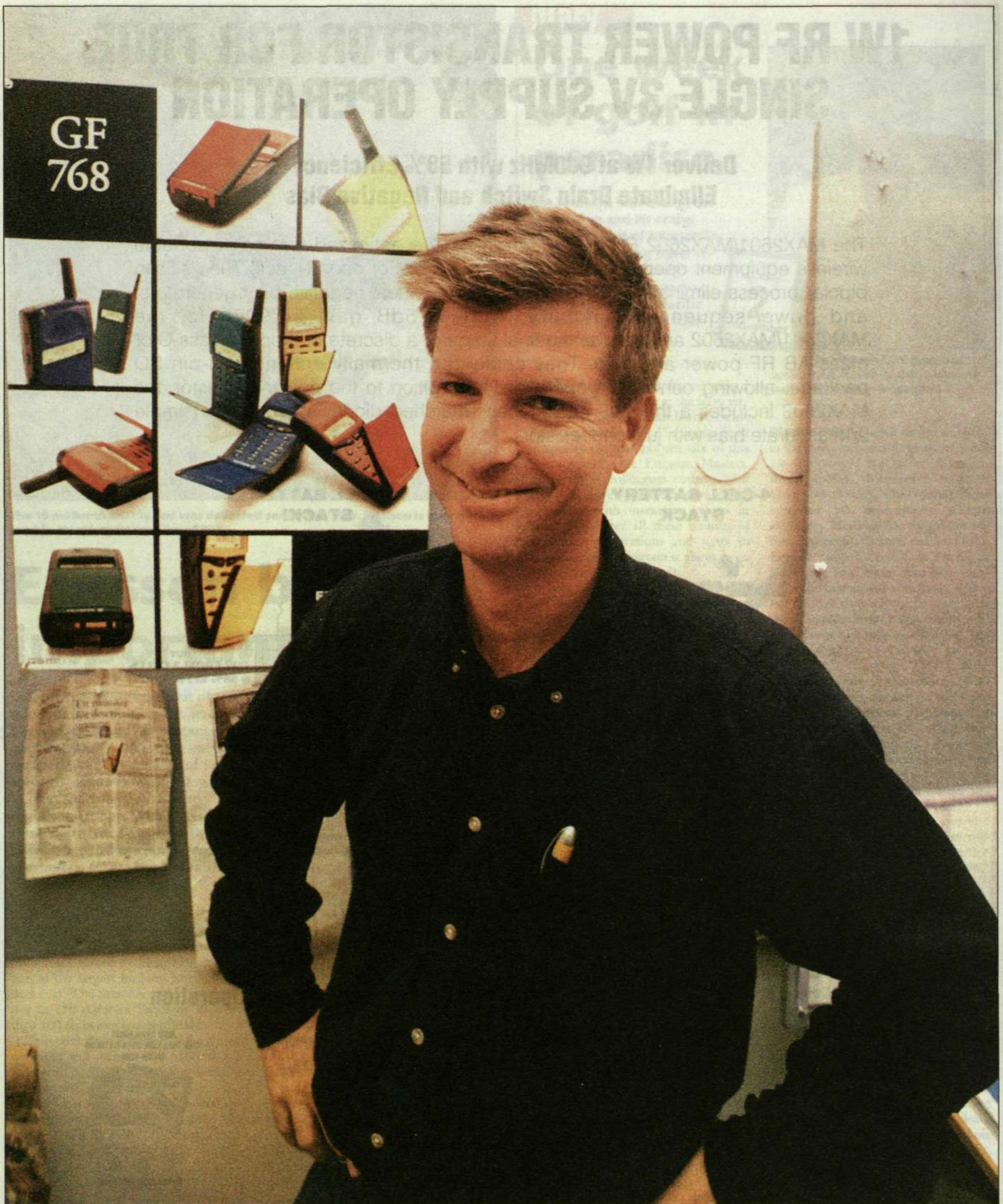
After three years of countless models and sketches, what started as a wild idea scribbled on a piece of paper in the summer of 1994 crystallized into Ericsson's colorful, new GF 768 mobile telephone. Tom Waldner has done design work for Ericsson for the past 11 years. He can happily state that Ericsson has now realized that top-notch technology is not the sole factor for success, but that advanced design also plays an important role.

From concept to telephone

he first portable telephones made by Ericsson were dictated largely by engineering. In the early days, design was focused on typefaces used on the buttons, with little regard for esthetic design features. Today, new telephone models are developed in close cooperation between engineers, product managers and designers from start to finish. "Today, engineers and technicians have more respect for product design. In the past, design was considered a necessary evil that delayed projects. Now, we are contacted early in the development process to contribute our design considerations in the planning stages. Our work creates financial gains for Ericsson. As our work gains recognition, we have earned the engineers' trust," says Tom Waldner.

Tom Waldner and his associates at Richard Lindahl Design in Malmö have been the main force behind the design of Ericsson telephones. They believe the stature of mobile telephones in Sweden is comparable to automobiles in California. Sweden is a leader, a pioneering nation that sets market trends.

"Many of our wildest ideas are lost in the development of a new model. It's happened more than once, however, that a concept not included in one model becomes a standard feature in the next, once the idea has matured and gained greater acceptance. Time is a reliable yardstick for the value of ideas. If it lasts, it usually emerges as a good idea," Tom Waldner explains.



A PLEASED DESIGNER. "Today, engineers and technicians have more respect for product design. In the past, design was considered a necessary evil that delayed projects, says Tom Walner, designer to the new GF 768.

Photo: PATRIK LINDÉN

Swedes prefer yellow and blue telephones

Ericsson's new GF 768 model went on sale in October in European and Asian GSM markets. South Africa was first, however, serving as a test market for the new product launch. The GF 768 was introduced simultaneously in other markets as part of a joint campaign.

"Things have gone very well overall. In Sweden, we have sold just about everything we had to sell. It's still

early, but right now it looks like Swedish consumers prefer the yellow and blue phones (Sweden's national colors) most of all," says Per Körner, product manager for the 768 in Sweden.

When the new model's GF 788 sister telephone – the telephone that's so small it changes your perspective – went on sale, Ericsson's biggest problem was that stores

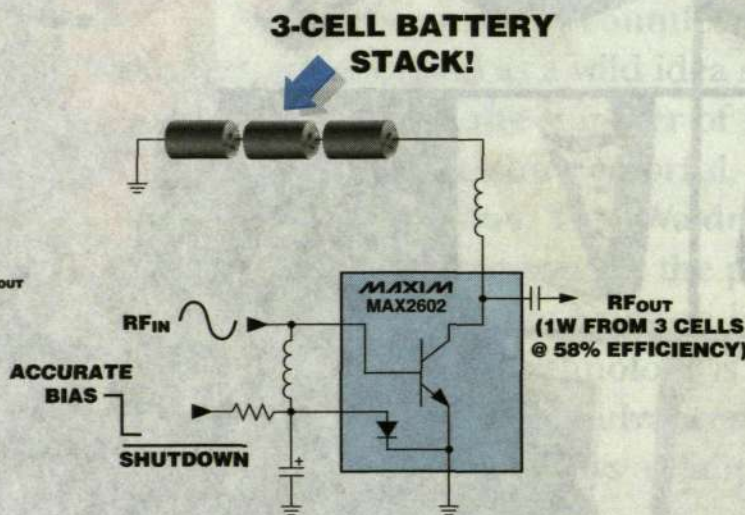
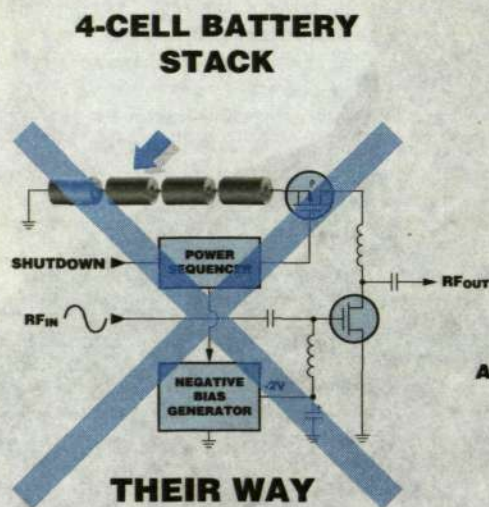
were sold out almost immediately.

"We have corrected the situation now," Per Körner continues. "Our volume production functions much better nowadays. The only items we haven't been able to get on the market are the accessory bags in matching colors, but we expect to have that under control by year-end."

1W RF POWER TRANSISTOR FOR TRUE SINGLE 3V SUPPLY OPERATION

**Deliver 1W at 900MHz with 58% Efficiency—
Eliminate Drain Switch and Negative Bias**

The MAX2601/MAX2602 RF power transistors are optimized for use in portable wireless equipment operating from three NiCd/NiMH or one Li+ cell. Their silicon bipolar process eliminates the need for drain switches, negative bias generators, and power-sequencing circuitry. With 11.5dB gain at 900MHz, the MAX2601/MAX2602 are ideal as the final stage of a discrete or module class-C or class-AB RF power amplifier. They come in a thermally enhanced 8-pin SO package, allowing continuous operation. In addition to the power transistor, the MAX2602 includes a thermal- and process-matched diode, which allows simple and accurate bias with just one resistor.



THE MAXIM WAY!

The MAX2601/MAX2602 eliminate the need for a drain switch, negative bias generator, and power-sequencing circuitry in a 1W, 900MHz RF power amplifier.

- ◆ 58% Efficiency with 3.6V Supply
- ◆ 11.5dB Gain at 900MHz
- ◆ Thermally Enhanced Package
- ◆ Output Power:
 - +30dBm (3.6V)
 - +29dBm (3.0V)
- ◆ True 3V Single-Supply Operation



FREE Wireless Design Guide—Sent Within 24 Hours!
Includes: Data Sheets and Cards for Free Samples

Call For a Design Guide or Free Sample
U.K. (44) 118 9303388

Toll-Free in the U.S. 1-800-998-8800
<http://www.maxim-ic.com>

MAXIM

NOW AVAILABLE!
FREE FULL LINE DATA CATALOG
ON CD-ROM



Distributed by Allied, Arrow, Bell, CAM RPC, Digi-Key, Elmo, Hamilton Hallmark, Nu Horizons, and Zeus. Distributed in Canada by Arrow.

Austria, Maxim GmbH (Deutschland); Belgium, Master Chips; Czech Republic, Spezial-Electronic KG; Denmark, Arrow-Exatec A/S; Finland, Yleiselektronikka Oy; France, Maxim France, Distributors: Maxim Distribution, ASAP; Germany, Maxim GmbH, Distributors: Maxim Distribution, Spezial Electronic GmbH; Ireland, FMG Electronics; Italy, Maxim Italy, Distributor: Esco Italiana Electronics Supply; Netherlands, Koning En Hartman; Norway, Berendsen Electronics; Poland, Uniproduct, Ltd.; Portugal, ADM Electronics, S.A.; Russia, Spezial-Electronic KG; Spain, Maxim Distribución, ADM Electronics S.A.; Sweden, Egevo AB; Switzerland, Maxim Switzerland, Laser & Electronics AG; Turkey, Interex (U.S.A.); U.K., Maxim Integrated Products (U.K.), Ltd., Distributors: Maxim Distribution (U.K.), Ltd., 2001 Electronic Components, Eurodis HB Electronics; Ukraine, Spezial-Electronic KG.

MAXIM is a registered trademark of Maxim Integrated Products. © 1997 Maxim Integrated Products.



The 10 millionth MD110 line was delivered earlier this year. Ericsson is now the world's third largest supplier of PBXs.

Ericsson books important orders

Enterprise Networks, a unit of the Infocom Systems business area, has booked several important orders this year. A milestone was reached with the delivery of Ericsson's 10 millionth MD110 line. Market shares are increasing rapidly in Europe, with Ericsson climbing to No. 3 among PBX suppliers. Some other impressive and prestigious orders booked recently are summarized below.

Italy

Italy's Ministry of the Interior ordered more than 50,000 business communications lines valued at SEK 150 million, one of the largest business network orders ever. The network will cover facilities in 270 different locations in more than 100 cities in all parts of Italy.

Deliveries from Ericsson Telecomunicazioni will include 300 MD110 systems with 32,000 lines and 800 Business Phone units for 20,000 users.

The University of Milan booked another major order in Italy recently. The contract calls for MD110 equipment valued at SEK 5 million.

Germany

Procter & Gamble recently ordered two large Consono MD110 solutions from Ericsson GmbH in Düsseldorf. Valued at more than SEK 8 million, the systems will provide 2,500 extensions.

One of the MD110 systems will be delivered to Procter & Gamble's head office in Germany, situated in Schwalbach, near Frankfurt am Main. The other will be installed at the company's production plant in Euskirchen, not far from Cologne.

Both systems are completely digital and will be equipped with the latest Dialog 3213 telephones. Ericsson's DNA network supervision system is included in both deliveries.

The systems will be placed on-line in December. With the new installations, four units of Procter & Gamble in Germany will be equipped with Consono solutions.

Greece

ABB has been awarded the entire contract for construction of a new airport in Athens. Within the framework of its contract, ABB will also supply telecommunications facilities for the airport, which will be supplied by Ericsson GmbH in Düsseldorf. Ericsson has been contracted to build the first stage of a basic fiber and copper cable network, an order valued at SEK 12 million.

Portugal

Shell ordered the first of five MD110 systems for its business operations in Portugal. The system includes a Call Center solution connected to the Dutch oil company's head office in the Netherlands. The order is valued at PTE 27 million.

THORD ANDERSSON

diary

One week of golf in paradise

Lisa Johnson is in charge of sponsoring and PR at the marketing unit of Ericsson in Singapore. Among other responsibilities, she has worked recently on preparations for the Asia Pacific Ericsson Masters golf tournament in Indonesia.



Lisa Johnson is in charge of sponsoring and PR at the marketing unit of Ericsson in Singapore.

Sunday At 9:00 o'clock this morning, I met my working group at the ferry terminal for a trip to Bintan Island, an Indonesian island about 45 minutes from Singapore by boat and the site of this year's Asia Pacific Ericsson Masters. My team of colleagues consists of a group of university students who have helped us with marketing efforts in Singapore. After all these months of meetings, preparations and visits to various sites, the curtain is about to go up and the show will begin.

Ericsson's logo is displayed throughout the terminal on Bintan Island and along the 15 kilometer road from the harbor to the area that will host the golf tournament. You simply cannot avoid noticing Ericsson's presence on the island.

Shortly after we arrived at Bintan Lagoon Golf and Beach Resort, we started to settle in and feel at home. Our office is housed in a four-room house with swimming pool, a facility our team chose instead of a hotel. What we didn't know, however, was that there would be precious little time for relaxing in the pool.

Monday Our guests started to arrive during the day. Although the golf course was closed to the general public, the tournament committee allowed our guests to play a last-minute round when they arrived.

In the evening, we staged a "Happy Hour" at the house for guests and a few professional players who also showed up. I discovered that one of the golfers attended the same university I did and took the same courses at the same time I was studying there - but it seems we had to travel halfway around the world to be formally introduced!

Tuesday Several more guests arrived today. Although Bintan Lagoon was still closed, our guests played nine holes at Banyan Tree, a new course now under construction a little farther away. The area around Banyan Tree is truly beautiful, and our guests understood perfectly why we plan to stage next year's tournament at the new course.

Wednesday A formal dinner was held in the evening, a very large social event for 300 persons that included professional golfers, tournament sponsors and a host of VIPs. The entertainment exceeded all expectations. Göran Berntson, Head of the Singapore office, appeared as a rock star, and John Burgess sang "I Can't Help Falling in Love with You" better than Elvis himself. The dinner was concluded with a full hour of dancing on the stage with the delegation from India. Afterwards, we all went to a karaoke club and sang until 2:00 AM.

Thursday The tournament started today and Ericsson opened its corporate tent. We also have a marketing tent with a broad range of information about Ericsson products. Personnel from the regional office accompanied our guests to the beach. It would be unforgivable to visit tropical Bintan and not spend some time at the beach.

Saturday Tournament play was suspended for a while in the afternoon due to inclement weather. In the evening, we arranged a farewell dinner for our guests, a grill party on the beach with surfboards used as tables.

Toward the end of dinner, the hotel staff distributed water pistols to everybody and the fun began. There was a cross-fire of water and ice cubes as fifty people tried to get each other as wet as possible. We all left the party soaking wet and smiling from ear to ear.

Sunday The final day of tournament play. Most of our guests already left to make flight connections in Singapore. Two players tied for the lead, and the tournament went to a sudden death playoff that was settled on the first hole of extra play. Another storm blew over, and the rains cascaded down, creating a spectacular finish to the tournament.

It will be nice to get some rest after a hectic week, but I'm already looking forward to next year's golf tournament.

Ericsson's cordless DECT-standard business telephones are now also being sold in Hong Kong. Accordingly, the world's best selling DECT system is now marketed in more than 35 countries around the globe.

"We are rapidly entering a new era in which cordless telephones are be-

New DECT market in Hong Kong

ginning to replace wired telephones in all areas," says Charles Henshaw of Ericsson Ltd. in Hong Kong. "The importance of mobile communications is growing to a point at which people will not accept anything less."

Marisa Leung, sales director of Hong Kong Telecom, says, "We are pleased to work with Ericsson in supplying cordless DECT solutions designed primarily for business applications here in Hong Kong."

The company's cordless DECT telephones were first introduced in Europe in 1993. Today, Ericsson is the world's leading supplier of DECT solutions, with a global market share of about 50 percent.

THORD ANDERSSON

Large manufacturing volumes, development projects, teamwork and cultural change – these are recurring themes when Ian Maclure, Managing Director of Ericsson OMC Limited, talks about the company and the major changes that took place during the past year. In January this year, the company shifted the focus of its development and production operations from mobile base stations and mobile phones to just mobile phones. At the same time, the name was changed from Orbitel Mobile Communications to Ericsson OMC.



Basingstoke in southern England is the home of Ericsson OMC headquarters.

Basingstoke and Carlton UK mobile phone stronghold

Basingstoke in southern England and Carlton-in-Lindrick in the North Midlands now constitute the U.K.'s mobile phone stronghold. Ericsson OMC's Head Office and development center are located in Basingstoke, and its manufacturing plant in Carlton.

In 1987, Racial and Plessey founded Orbitel Mobile Communications. Four years later, Ericsson took over 50 percent of the company, which was operated as a joint venture until the spring of 1996, when Ericsson purchased the remaining 50 percent. In January this year, the company changed its name to Ericsson OMC Limited.

"I began working here in January. At about the same time, it was decided that the company would concentrate solely on mobile phones," Ian Maclure relates. He has worked at Ericsson for nearly ten years. First, a year in Brighton with AXE systems for BT; then, as division manager for Ericsson's manufacturing and distribution operations in Scunthorpe. Before joining Ericsson OMC, he headed manufacturing of broadband and access products at the Norrköping plant for a year and a half. Now, Ian Maclure divides his working time between Basingstoke and Carlton.

Today, Ericsson OMC has approximately 1,450 employees, of whom

1,100 are based in Carlton and 350 in Basingstoke.

Development centers

Basingstoke is the third largest development center of the Mobile Phones and Terminals business area. All of the Ericsson OMC engineers who previously worked in base station development are now concentrating on mobile phones. In addition to the development of GSM telephones in cooperation with Lund, Globalstar satellite telephones are major projects, involving a large number of the engineers. Other projects include a GSM data telephone and testing equipment for cell planning in mobile telecom networks.

For Basingstoke's engineers, the past year has brought many changes. "These changes increased our capacity to undertake more mobile phone projects," says Ken Porter, technical development manager for Portable Products.

Following the decision to leave base stations and concentrate all development on mobile phones, most engineers chose to remain with us and there were no redundancies. During the last six months, training – both internal and external – has been a major consideration for the company.

From Lund

Richard Barker and Mathias Belin are good examples of co-operation between Ericsson OMC in Basingstoke and Ericsson Mobile Communications in Lund. Mathias has a commitment to spend four months in Basingstoke to transfer technical know-how from Lund. Richard has visited Lund several times to establish a mechanism to transfer projects from Sweden to the U.K. Much of their work is a matter of doing things "the Ericsson way." Both emphasize that the ex-



"At Ericsson OMC we number about 1,450," says CEO Ian Maclure. Photo: NICK LUKEY



Janet Cooper who works in the packaging department, enjoys working at Ericsson OMC in Carlton and appreciates living within walking distance from her job. Photo: NICK LUKEY

perience and cooperation resulting from the trips to the others' countries have highly rewarding in terms of education and stimulation. As in Sweden, skilled engineers are scarce in the Basingstoke area – where many of our competitors also have development units.

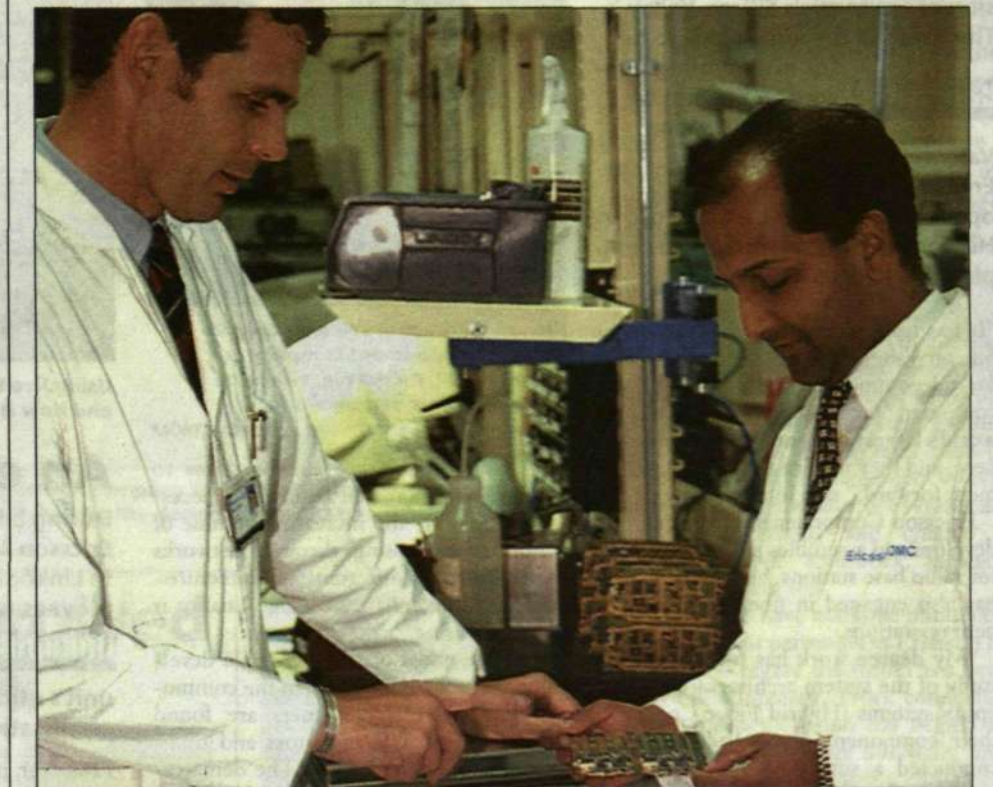
"We recruit new graduates directly from university," Ian Maclure explains. When the first official GSM call was made on July 1991 in Sweden, it was made on an Orbitel phone. At

Basingstoke, they're proud of having been the first to produce a type approved GSM phone, beating Motorola by three days.

With a new organization and new projects, Ericsson OMC engineers will help make Ericsson mobile phones even more successful. The desire to try to be first has not diminished.

GUNILLA TAMM

From two shifts to working around the clock



Rash Sahota, right, is responsible for production. Here together with Terry Lahney in the factory. Photo: NICK LUKEY

Large crates on the loading dock are labeled Portugal, France, Malaysia and Hong Kong. "Yes, we deliver to many different countries, but most of the mobile phones are sold here at home in the UK," says Rash Sahota, Operations Director at the Ericsson OMC plant in Carlton.

The Carlton plant was founded 29 years ago, for military radio production for the Racial electronics company. When the defense industry grew smaller, production ebbed, and finally, in the late 1980s, switched over to products for mobile communications. Up to January 1 this year, the plant manufactured radio base stations and mobile telephones; however, as of the past summer, base stations are no longer made.

Unemployment in Nottinghamshire is high after the demise of the mining industry that previously existed here. Ericsson is the largest private employer in Carlton-in-Lindrick and surrounding area. In the spring of 1996, when what was then Orbitel became a wholly-owned Ericsson company, the employees considered it a positive development. The average age in the plant, which had been quite high, dropped as the company hired more young people. The proportion of male employees has also grown.

Ericsson OMC has become such a major employer in the Carlton area that it is not unusual for several members of the same family working there. When the shift changes, parents replace each other, handing over car and kids in the company parking lot.

Major investments

The plant, with floor space of 20,000 square meters, houses eight surface-mount assembly lines. Two of them have just been installed. In May this year the plant received a government investment grant. Within the next year, the plan is to increase the number of mobile phones manufactured from the present number – slightly more than 1.5 million – to more than four million.

There is great demand for Ericsson mobile phones. The plant recently switched from two shifts to 24 hours per day, 7 days per week. "In

July, we managed to deliver the volumes we had promised by working overtime. In August, we managed it with less overtime. So we must be on the right track," concludes Ian Maclure.

Cell team

"Three basic types of mobile phones for GSM 900 and 1800 are manufactured here," Rash Sahota explains. "The product assembly and packing area is organized in 'cell teams' – autonomous groups of six to eight employees. This enables staff to be trained in all operations, giving a flexible and motivated team to meet the challenges."

"Product models can change frequently. And since people are more flexible than machines, it is easy for us with our working methods, to reorganize our manufacturing," says Rash Sahota. He adds that, considering all that has happened in the past year, they have weathered the changes well, although there is still some way to go before Carlton reaches its potential.

The pressure is intense, not only on our own production but also on the suppliers – particularly regarding plastic. "We're planning that a plastic manufacturer will establish operations in our neighborhood. That would be an ideal solution," says Ian Maclure.

Team spirit

Mark O'Donovan joined the plant back in 1978, working first with military radio products and later with digital mobile communications. He thinks the changes have been for the better. It's fun to work on a product that is as much in demand as Ericsson mobile phones, though the most important aspect is the people you work with. Here, there's a team spirit and it's important to continue to support it. It is also important that we establish a good rapport with the Kumla plant," he points out.

"As in Basingstoke, there's a lot of enthusiasm at this plant and a great desire to contribute to Ericsson's success. As Orbitel, the company cultivated 'customer awareness,' meaning that we knew who the end users were, addressed their problems and even met them when they visited the plant. I hope that we will continue to understand that our most important mandate comes from the customer," Ian Maclure concludes.

GUNILLA TAMM



Richard Barker, left, has visited Ericsson Mobile Communications in Lund several times. Richard, here shown with Mathias Belin, from Lund, will be working in Basingstoke during four months.



A spell at the center of things – in Morgan Hill

The city of Morgan Hill is an extension of California's Silicon Valley. The valley is the ideal place to be

california for many young telecom and computer engineers. Johan

Valentin has been based at Ericsson Components' newly opened fiber optics unit in Morgan Hill for the past six months to complete his degree work.



Johan Valentin at Ericsson Components' development company in Morgan Hill, California, where he completed his degree work.

Photo: LARS ÅSTRÖM

"It has been stimulating to work in the Silicon Valley. It is still the world center for telecommunications and traditional computer technology. Many of the world's largest companies are established here, and they inspire and drive development forward," says Johan.

Ericsson Components in Morgan Hill develops and assembles power transistors for radio base stations, but for some time has also engaged in fiber-optic component operations.

"My degree work has focused on the study of the system architecture of fiber optics systems (Hybrid Fiber Coax) and their component parts. In addition, I conducted a survey to find customers outside Ericsson, who are interested in fiber optic components, specifically optical fiber reinforcers," relates Johan.

Customer demands are changing and it is important that Ericsson remains at the forefront of developments. The type of studies made by Johan Valentin are essential to work in this area. Today, opera-

tors want to upgrade their systems to achieve the increased bandwidth necessary to handle the increasing volume of information passing through networks with many different architectures. Demand for enhanced image quality is also increasing.

"In the midst of the incredible development now taking place in the communication market, customers are found among both cable operators and traditional telecom operators. The demarcation lines between these two segments are rapidly being erased. Since February last year, there are virtually no restrictions in the U.S. for cable-TV operators to sell telephone services and for traditional telecom operators to sell cable TV," notes Johan Valentin.

INGER BJÖRKLIND BENGSSON



Using live theater, the Entertrainer AB performers communicate the environment and how it can be influenced.

An environmental performance

During a five-week period, Ericsson Mobile Communications in Linköping provided all of its employees with environmental training. The training program was part of the unit's efforts to gain ISO 14001 certification.

However, it was decided to give the program a twist by alternating lectures with theatrical sketches. Morning sessions consisted of performances given by a group from Entertrainer AB, a company which specializes in the communication of environmental messages via live theater. The concept was highly appreciated by the employees, who at the same

time learned a lot about how the individual can also influence the environment.

The message communicated, in an entertaining and informal manner by the theater group, showed how individuals and companies can influence and participate in the constant process of change which environmental work is all about.

Afternoon sessions were concluded with three presentations on Agenda 21 by Ericsson and the theater group. This included a review of work related to Agenda 21, Ericsson's views on environmental issues, in a global perspective and on work conducted locally.

HELÉN OHLSSON

Aid for orphanages

During the summer, Ericsson employee Lisa Hill and Cathy Ferris from Mercury One2One made a trip to Romania. They visited four orphanages in the eastern part of the country, close to the Russian border. The trip, which was **romania** made possible by Ericsson and a few other companies, was undertaken in a transit van filled with clothing and toys. The children in the orphanages are still living under extremely reduced conditions and external help is constantly required. Many of the children have been placed in the orphanages because their parents are too poor to support them.



Movie visit for Brazilian employees' children

■ In October, one hundred children belonging to the employees at Ericsson's plant in São José dos Campos in Brazil were invited to go to the movies and eat popcorn washed down with a soda with their parents.

Children got a free day at the movies. The personnel department at the Ericsson plant in São José dos Campos in Brazil focuses on activities for employees and their families.

The company, which has a total of 800 employees, arranges various events each year as an incentive employees with young families.

During the movie visit, the families could choose between various Disney movies and other popular children's films. Earlier during the year, the company's personnel department has surprised the workforce with gifts on Father's and Mother's Day. Many Ericsson employees also took part in a combined musical and food-and-cloth-

ing collection evening held at the plant in December last year. This resulted in a total of 19 metric tons of food and 5 metric tons of clothing being collected for distribution among the poor, elderly and other groups in need.

"An excellent way of enjoying each other's company, while also helping others," notes Adriana Souza in the human resources department, who also helped to arrange the day spent at the movies.

NILS SUNDSTRÖM

Ericsson continues to sell Rohm's components

■ Rohm Electronics Limited in the U.K. has renewed its agreement with Ericsson Component Distribution in Kista whereby the Swedish unit retains the right to sell Rohm's products in the Nordic region. Rohm is part of a large Japanese group and offers an extensive portfolio of attractively priced standard components for sale in the world market.

"Ericsson's interest focuses mainly on active components, such as transistors, IC circuits and displays, but we are also attracted by the passive components side, such as capacitors and resistors," confirms Ericsson Component Distribution's marketing manager, Lars Mistander.

Rohm is the world's largest company in the small-signal capacitance field and ranks among the world's twenty largest manufacturers of electronic components.

Cooperation with Rohm was commenced in the 1970s through AB Gösta Bäckström, which is today part of Ericsson.

INGER BJÖRKLIND BENGSSON



Display shows excellent form

Ericsson Saab Avionics and a design company called No Picnic recently won a Swedish certificate of excellence for the design of the CRT-based head-mounted display.

The jury justified its choice by declaring the "product has its own design idiom, combining a wide range of functional and ergonomic demands. A futuristic expression that required hard work and innovative skills focused on handling and safety. The product is head-mounted with two indicators, one for each eye, with a high-resolution color display in a large field of view, with stereo viewing capability."

"We are very pleased to receive the award and exposure that goes with the prize. We feel a great sense of pride," says Peter Segerhammar, marketing manager of Ericsson Saab Avionics.



Ericsson Saab Avionics and a design company called No Picnic have been awarded a Swedish certificate of excellence for the design of the CRT-based head-mounted display.

Rolf gets everyone involved in environmental work

Rolf Andersson, environmental manager of the Supply & Distribution unit of Enterprise Networks, has worked intensively with environmental issues since April 1997, formulating plans for the unit's certification process.

In October, every employee of Supply & Distribution was asked to attend a half-day seminar featuring guest speakers from the Royal Institute of Technology in Stockholm and other institutions.

"Absolutely superb," declared Ulrika Gustavsson of the customer order section. "The program was unusual and enjoyable. It really made me much more interested and enthusiastic in our environmental commitment."

"The environmental seminar was one of many different ways to increase knowledge," says Rolf Andersson. "As more people are involved in the program, we gain access to more creative ideas that will benefit the organization. However, there are also rules and regulations mandated by ISO 14001 that require thorough environmental awareness and the participation of all employees before the company is granted certification."

Rolf Andersson has worked with quality assurance questions in Ericsson for more than

20 years, is a qualified quality auditor and, accordingly, has the authority to conduct internal quality audits in the company.

What should be considered in preparing for the introduction of an environmental management system?

"With certification as the ultimate objective, a systematic approach is absolutely essential. The understanding and commitment of management is also important," he replies.

"To continue our environmental work, we have established a separate environmental organization that will represent all of our departments," he continues. "In the future, my intention is for the group to assume responsibility for, and conduct, all environmental work. We also plan to provide training courses to teach every representative the true implications of ISO 14001."

Rolf Andersson will head the group's work efforts, continuing to serve as an invaluable asset for the commitment of all employees to the environmental programs of Supply & Distribution.



Rolf Andersson.

JENNY BRÄNNSTRÖM

Ericsson helping adoptive parents

Ericsson in the U.S. has started a support program for adoptive parents working for the company. It has offered to pay as much as USD 7,500 per child for expenses incurred by employees when they adopt children.

The costs often include immigration visas, medical expenses and travel costs. The program is part of the American subsidiary's objective to enhance its image as an attractive employer. The offer was extended in August 1997 and applies to all Ericsson employees in the U.S. who have adopted children under the age of 18 after August 1, 1997.



working for other companies has also increased. A growing number of people have contacted Ericsson to ask if they can copy the concept. The media has also carried reports about the Ericsson Secretary Forum in Austria.

DANIELE HAERTEL

Quality and productivity can be improved by systematically collecting and recycling work-related experience. Ericsson Software in Karlskrona is well on the way towards creating its own "experience bank" for start-up at the beginning of 1998.

The work is being based along the lines of an "Experience Factory", a model developed and used by Professor Vic Basili at the University of Maryland in the U.S.

"Our basic concept is to create a learning organization in which one creates not only software but also optimal business opportunities," says Basili, whose research focuses on software design in general and how one works with quality enhancement in particular.

Vic Basili's "experience factory" model is an organized way of collecting exper-

Recycling experience

ience as work is performed in order to draw upon it for use in future projects.

Basili can furnish practical evidence of the success of his concept through far-reaching commercial cooperation ventures with, for example, NASA, Motorola, IBM and telephone giant, AT&T.



"We would appreciate contact with any other Ericsson units that may be working with the Experience Factory concept", says Patrik Hall.

Ericsson Software has elected to create its own version of the method.

"This is the first organized step towards teaching the organization to teach, which is a strategic success factor in the changing world in which we live and operate," says Kennet Rådne, president of Ericsson Software.



The work is being based along the lines of an "Experience Factory," a model developed and used by Professor Vic Basili.

Secretary forum cuts costs

They cut Ericsson's telephone costs. They developed an internal glossary of abbreviations and technical terms. They listed of available conference rooms on the intranet and developed a new internal training program for secretaries. They are secretaries working for Ericsson in Austria, and they have established Ericsson's Secretary Forum.

The concept of building a network for secretaries was hatched at a seminar a few years ago. Secretaries wanted to improve internal communications and create a forum to serve as a sounding board for good ideas. Ericsson's Secretary Forum, which includes secretaries at all levels of the organization, implemented several concrete measures to improve various aspects of operations and created a stronger sense of "teamwork" through increased cooperation.

Their efforts have not gone unnoticed by management personnel at Ericsson in Austria, who regard the forum as a very positive development. Work conducted by the secretary's forum has helped to create a favorable image internally, and the secretaries have contributed to cutting costs and eliminating unnecessary administrative routines.

Growing interest in the Ericsson Secretary Forum has also been noted outside the company. Among other developments, a new application created for the Lotus Notes computer program was presented recently at a large seminar for secretaries in Austria. The secretaries have compiled a register containing names and addresses of hotels and restaurants and a discussion forum now included in Lotus Notes. Ericsson in Austria also plans to present the efforts of its Secretary Forum at a major conference of secretaries in Austria in the near future. Interest expressed by secretaries

working for other companies has also increased. A growing number of people have contacted Ericsson to ask if they can copy the concept. The media has also carried reports about the Ericsson Secretary Forum in Austria.

DANIELE HAERTEL

"Basili's concept describes a complete organization that is designed to collect experience, while we instead allow our existing organization to decide," says Patrik Hall, manager of the project. "As a result, it is our own organization that determines the composition of the experience bank."

Ericsson Software has designated its own concept, the "Experience Engine." Two areas of particular importance have been identified:

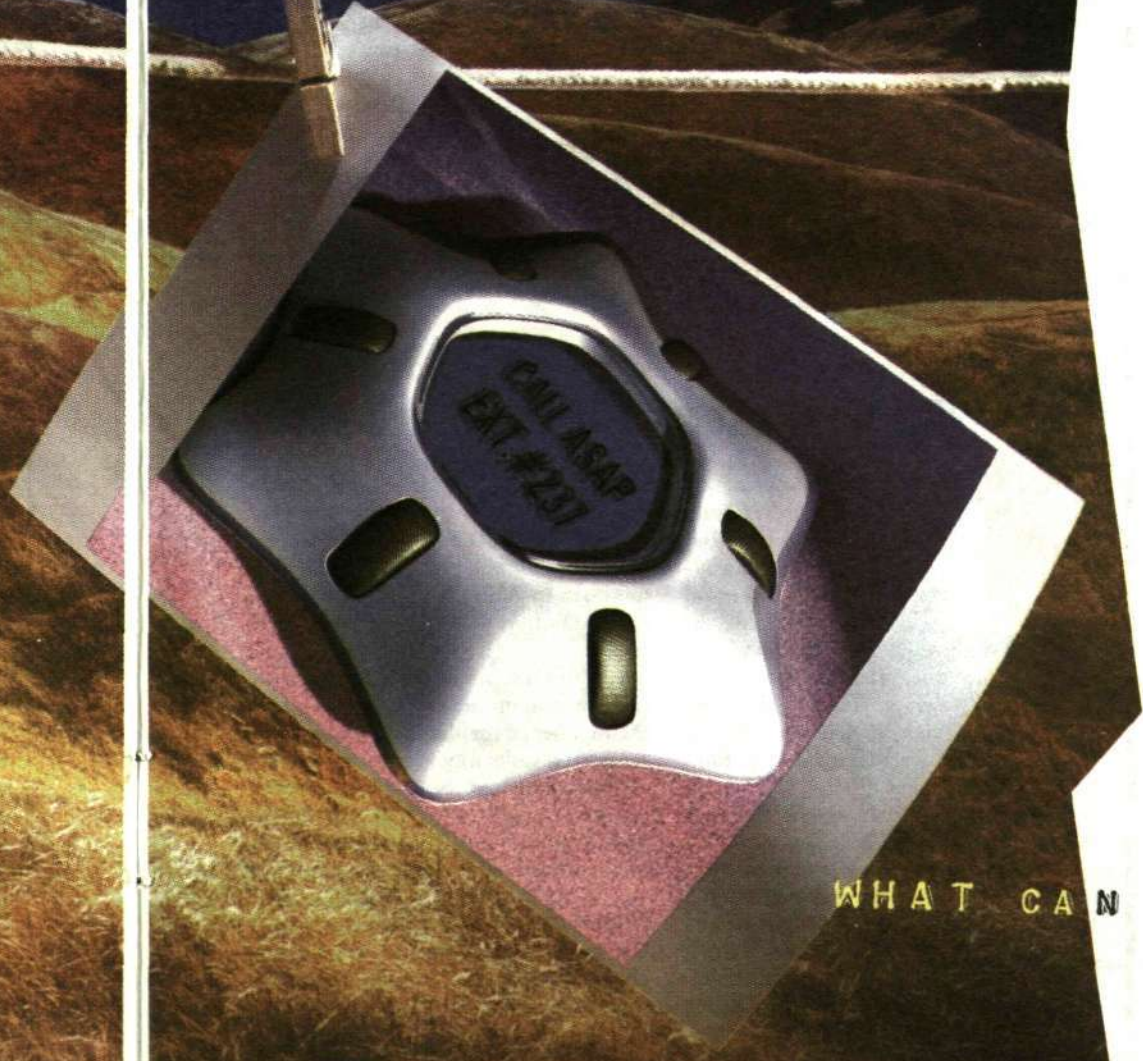
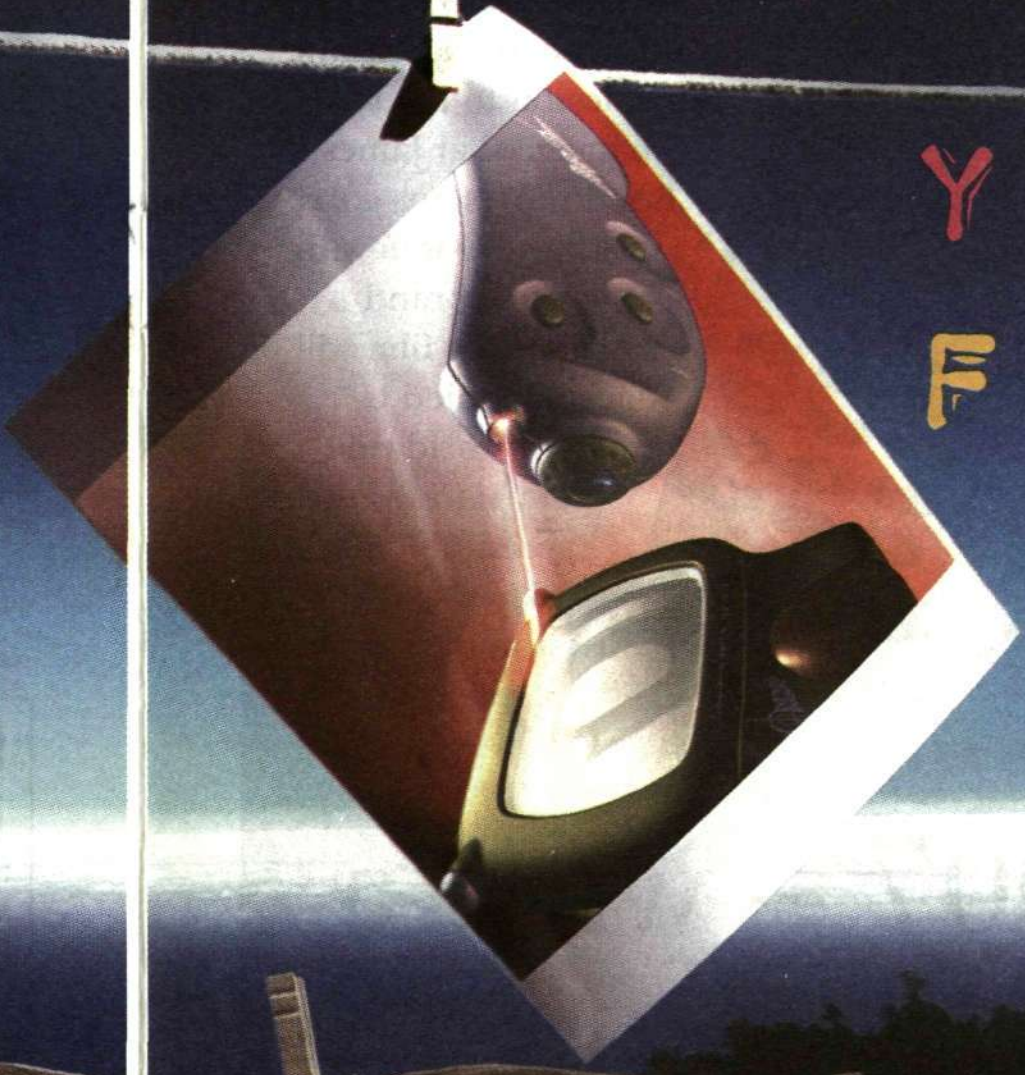
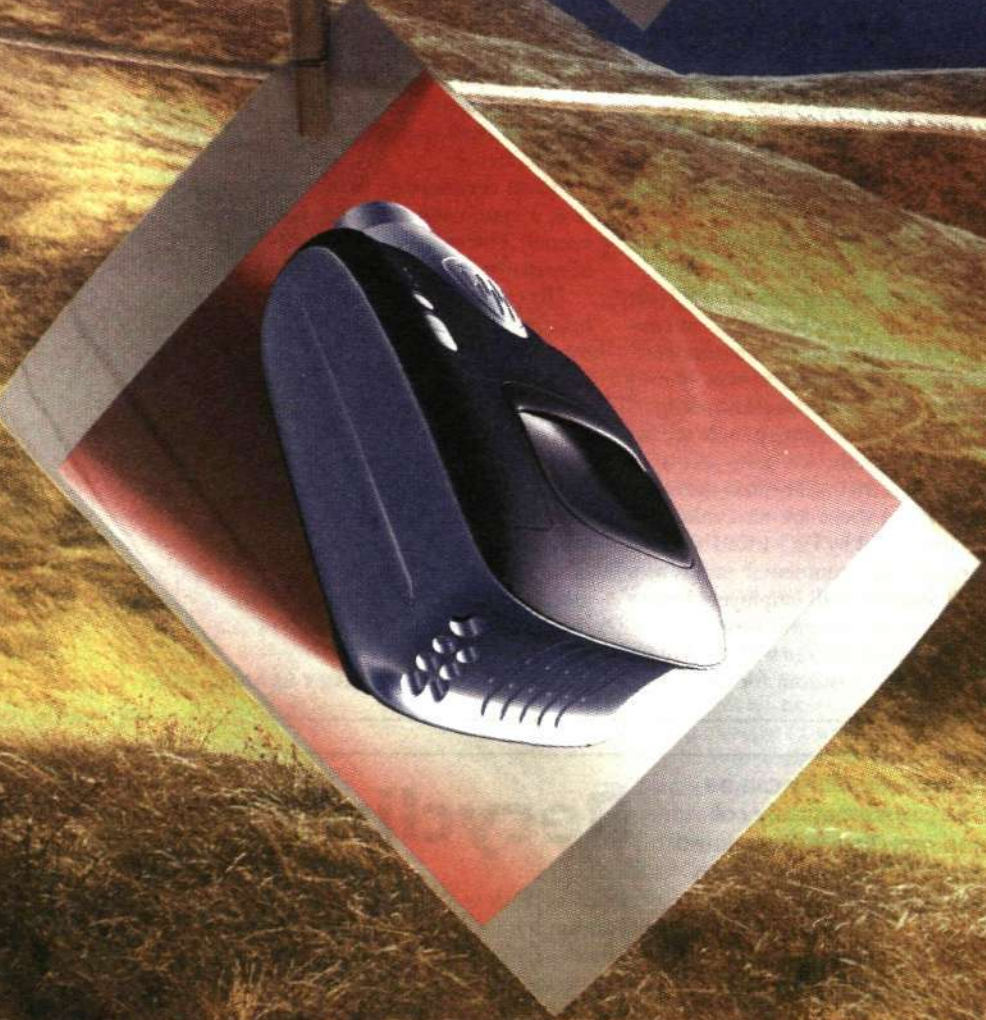
- Historical data feedback. For example, the relationship between planned hours and final result of a project.

- Subjective experiences regarding project management. Experiences based on own planning of time and methods.

"We would appreciate contact with any other Ericsson units that may be working with the Experience Factory concept, in order to help each other and exchange experiences," says Patrik Hall.

SUSANNA ENGSTRÖM

LET'S
PLAY
SCIENCE
FICTION.



YOU GO
FIRST.

You probably don't recognize any of the products here because you haven't built them yet. That's ok, you will. And we're going to help you with the trickiest part: bridging the analog and digital worlds. Nobody knows more about the ins and outs of video and audio. Or how to integrate network functionality. Or how to make the things that make information comprehensible to real, live humans. And nobody has more intellectual property for you to play with. In fact, when it comes to analog expertise, we're second to no one. And that means we can architect, integrate, and manufacture mixed-signal designs, and put them in system-on-a-chip parts so clean, so small, and so fast, you'll think they came from another planet. Hey, we just said we'd help. We don't have to tell you where we're going to do the work.

www.national.com

WHAT CAN WE BUILD FOR YOU?™



National Semiconductor®



Some employees of the Customer Response Center at Ericsson in Oslo are seen above. Standing: Randi Karlsen and Sabina Lindgren; seated: Vigdis Kvamströ and Anna-Lise Bjerke. Jorunn Seselie Kristiansen and Alf Andersen, the center's other two employees, were absent when the picture was taken.

Good service is profitable

Good service is profitable. It creates satisfied customers that stay with the same supplier and buy more products. Good service and its benefits comprise a simple rule applied by the new Customer Response Center at Ericsson in Oslo.

"We have to display a sense of professionalism in terms of service so customers will want to deal with Ericsson as a long-term partner," says Sabina Lindgren, department manager and the person responsible for development of the Customer Response Center at Ericsson in Norway. Ms. Lindgren underlines the importance of retaining established customers, a much more profitable venture than creating new customers. Calculations have shown it's seven times more expensive to cultivate new customers.

"Our present customer base offers large business potential," Ms. Lindgren continues. "If we can offer customers good service, we are able to discourage them from buying from other suppliers, and encourage them to buy more products from Ericsson."

Variety of operators

Customers comprise a variety of operators and distributors working primarily in Norwegian market areas related to Ericsson's Mobile Systems and Infocom Systems. The Norwegian operator, Telenor, is the dominant customer, but Telia of Sweden is also a major client. Other customers include Ericsson companies under service contract with Ericsson in Norway.

In the past, customers have had to call different Ericsson units for service. Today, the Customer Response Center is the only service unit and has only one telephone number.

Vantage point

"Customer Response offers customers a contact point and registration of all service instructions," explains Sabina Lindgren, which guarantees overall

high standards of service quality.

The concept of a single customer service center offers several advantages from central management of service contracts. Compared with conditions in the past, it provides an excellent vantage point with a clear picture of all service contracts.

The concentration of all customer services in a single unit also enables the Norwegian company to analyze various aspects of its service operations and access valuable information. Satisfied customers are easier to identify and overall costs for support of various products can be calculated with greater accuracy.

Statistics and analyses

"Statistics maintained by the Customer Response Center and various analyses provide important information we can use for various purposes. They also comprise background material for future improvements," Sabina Lindgren says.

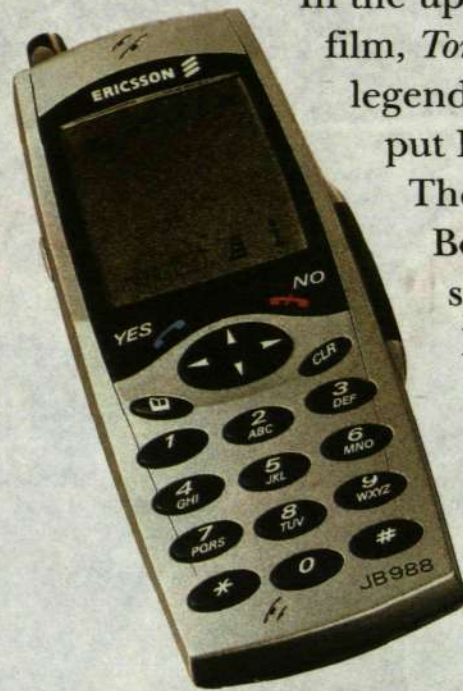
In addition to Sabina Lindgren, the Customer Response Center in Oslo has five other employees. When the center was established, Ms. Lindgren recruited her staff members externally from industries with a historically strong focus on service.

"Service is the bottom line. With the customer service approach that characterizes my employees, and their firm belief in customer satisfaction, we have developed a solid team here in Oslo," concludes Sabina Lindgren.

Ms. Lindgren started as a trainee at Ericsson Telecom in Stockholm six years ago. In 1995, she was offered a contract in Norway with total management responsibility for strategic projects.

In the summer of 1996, Sabina Lindgren accepted an offer to establish the Customer Response Center at Ericsson AS in Oslo. The center is up and running and for Sabina, who elected to complete her contract in Norway through year-end 1997, new assignments are now in the offing.

GUNILLA TAMM



In the upcoming James Bond film, *Tomorrow Never Dies*, the legendary secret agent will put Ericsson to the test. The image that James Bond represents corresponds very well with Ericsson's brand image. The film will be accompanied by a major worldwide campaign to further accentuate the role played by the Ericsson telephone.

007 – with a license to sell telephones

Mr. Bond shows off an Ericsson phone

James Bond: always manly heroic and forever surrounded by beautiful women – and clever gadgets. When it comes to technically advanced gizmos, if he doesn't own one, then it's not worth having. That is also why Ericsson has an obvious role in the upcoming film,

Tomorrow Never Dies.

"By being a part of the movie, Ericsson is associated with style, class, advanced technology and, not least, the humor associated with James Bond films," says Jan Ahrenbring, Vice President Marketing of the Mobile Phones and Terminals business area.

Campaign connected to film

Product placement, or marketing products by showing them in films, is not a new concept.

What is novel in this case is that an entire campaign is connected to the film. Advertisements, public relations activities and channel marketing (retailer campaigns) will commence in conjunction with the premiere.

"The right to use James Bond in our marketing activities will draw attention to the product and attract customers to

visit retailers," Jan Ahrenbring continues.

We will soon see ads in newspapers and magazines, as well as TV and radio commercials. In addition, comprehensive retail promotion material has been developed.

The interest in the campaign is already notable among retailers. For instance, the number of retailers in the US has increased considerably.

"This campaign also gives us more reason to establish a deeper relationship with retailers," says Per Söderström, one of those heading the James Bond project.

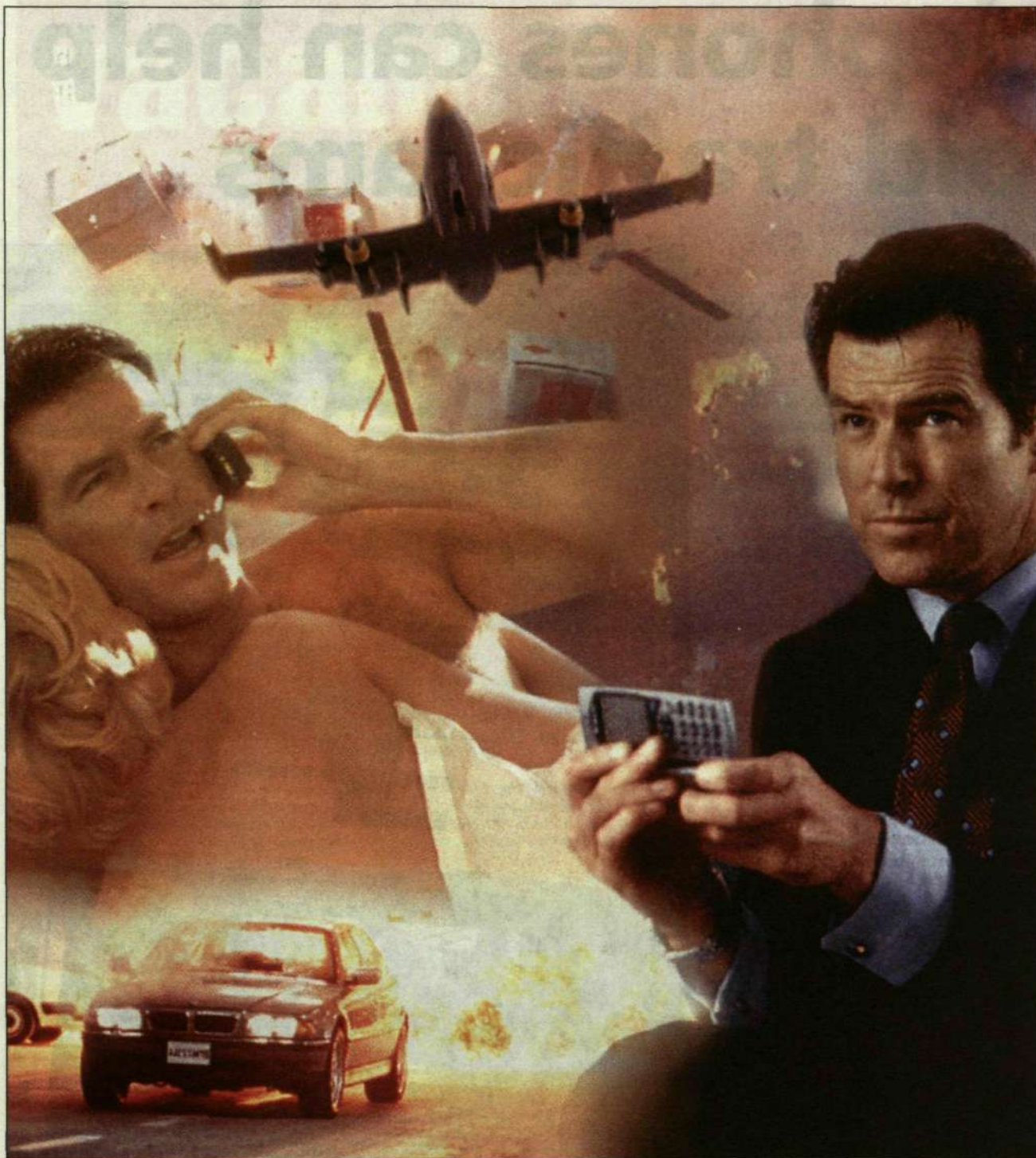
Global coverage

Using the Bond film as a marketing channel translates into global coverage, since James Bond is such an international figure.

A total of 52 countries are involved, but each country chooses which parts of the campaign it wants to use.

In Sweden, where Ericsson is very well-known, marketing will be toned down, while the US, the UK, Australia, Germany and France will see much more of the campaign.

James Bond, played by Pierce Brosnan, will be using a number of Ericsson products, including the GH 688, GA 628 and DECT telephones. He also uses the as-



A movie with the real Bond

Jan Ahrenbring, Vice President, Marketing of Mobile Phones and Terminals and ultimately responsible for Ericsson's sponsorship of *Tomorrow Never Dies*, is a true James Bond fan. If he could choose a role for himself in a James Bond movie, it would be Mr. Q, the character who supplies James Bond with all of his fantastic gadgets. Jan Ahrenbring's favorite film was *Doctor No*, a relatively early one. When asked who the "real Bond" is, he replies Pierce Brosnan.

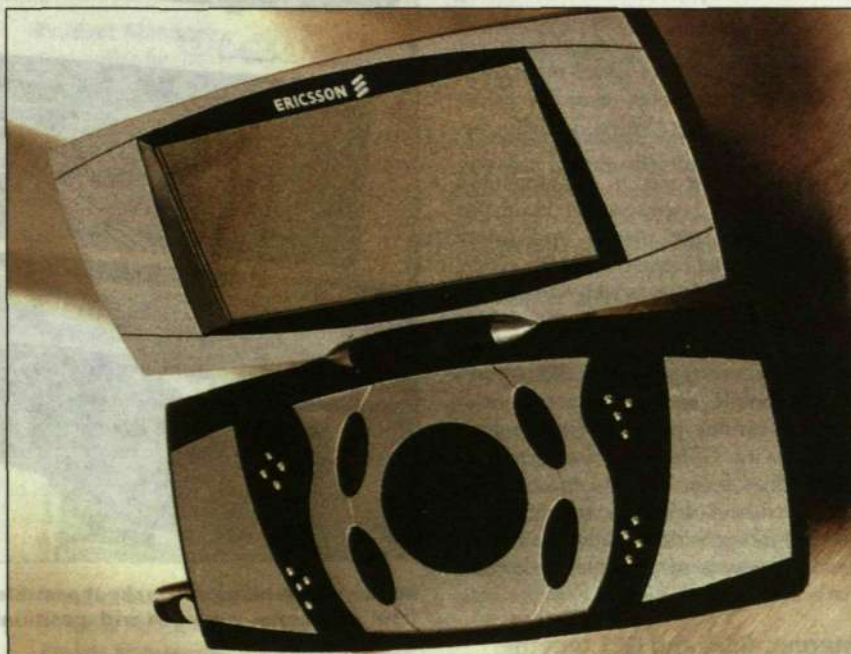
sistance of a concept telephone. It can, besides being used as a telephone, break open safes and remotely drive his car.

Even though we will not see such a telephone on the market any time soon, we might be able to recognize its sleek design in future models.

"The concept telephone accentuates Ericsson as a technically advanced company," says Per Söderström.

Image corresponds with Ericsson's
The images held by James Bond and Ericsson share many similarities in terms of being at the cutting-edge of technology.

Once again, the producers have chosen their partners carefully, which is apparent



Using this fantastic telephone, James Bond will be able to break open safes and remotely drive his car in the upcoming film, *Tomorrow Never Dies*. For obvious reasons, the phone is not available outside the realm of movie fantasy, but is nonetheless an effective marketing tool that conveys the advanced technology of Ericsson telephones.

Photo: PATRIK LINDÉN

in the choice of two other sponsors, BMW and Omega.

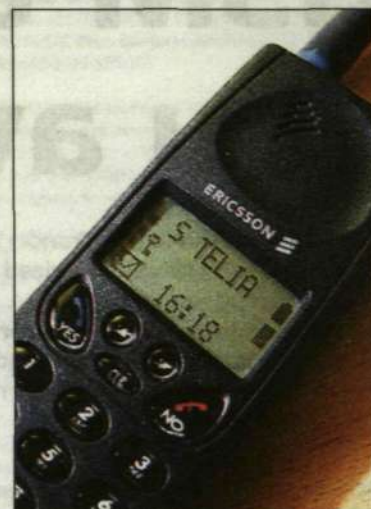
Tomorrow Never Dies, the eighteenth in a series of James Bond movies will premiere in London on December 9, followed by Los Angeles on the 16th. Stockholm and New York can look forward to seeing the film on December 19, with premieres in Latin America and Asia fol-

lowing in January. It's already possible to visit the Bond site on the Internet, where you can enter contests and learn how to program your telephone to ring using the Bond signature tune.

The address is:
<http://bond.ericsson.com>.

GISELA ZEIME

column



Excuse me, is your name Telia?

I was sitting at Stockholm's Arlanda airport and had just finished a conversation on my mobile phone. The man next to me turned and asked with an American accent, "Excuse me, I don't want to disturb you, but are cellular phones free in Sweden and how much does it really cost to use them? Back in the States, we hardly dare give out our phone numbers, because it sometimes costs us to receive a call!"

He continued, "I've been in Sweden for a week and people everywhere are talking on cellular phones. Amazing!"

I explained that Sweden has one of the highest mobile telephone densities in the world, how operators subsidize the purchase of a phone, and so on.

"Wow, you seem to know a lot about this," he exclaimed.

I smiled and replied, "Well, I work for Ericsson."

"What's Ericsson?"

Hmmm. So much for the global corporation. However, this wasn't the first time I had encountered this reaction from a foreigner.

"We're actually a worldwide leader in telecommunications," I explained to an increasingly impressed American. I then ran through the usual spiel: Ericsson has 100,000 employees, is located in more than 130 countries, etc.

I compared Ericsson to Nortel and Motorola.

"Hey, you guys are big! Do you make TV sets too?"

My new friend looked at my telephone. "It's so tiny! Can I have a look?"

I'd like to note that I do not have the smallest model.

"The antenna is impressive. Is this it?"

Our flight was called and we got up to leave.

The American suddenly turned around and asked with a smile, "By the way, is your name Telia?"

I must have had the most perplexed look on my face.

He explained, "I thought it was such a pretty name. It was on your phone."

JOSÉPHINE EDWALL-BJÖRKLUND
Communications Manager
at Ericsson Telecom Sweden

GSM telephones can help you avoid traffic jams

The market for Intelligent Transport Systems (ITS) is characterized by a very broad range of systems and technologies. Applications for navigation, traffic information and automatic traffic control are under development in all parts of the world.

Ebilits, an acronym for Ericsson Business Information Lab for Intelligent Transport, was established by Ericsson Microwave to monitor development trends in the industry and create business potential. At an ITS congress held recently in Berlin, representatives of the new Ebilits unit were on hand to establish contacts and learn more about current trends in ITS technologies.

ITS is a broad concept that embraces everything from tools for route planning of truck shipments to automatic speed regulation. Intensive research and development is conducted in the area of ITS technologies, often supported by national and international transportation authorities hoping to utilize ITS to increase road safety and reduce negative effects, such as air pollution.

Navigation systems installed in cars, which determine location with the help of GPS satellite systems through links with a communication system are one of the most rapidly expansive ITS application areas. Conventional Radio Data Systems (RDS) or GSM are used to establish communications.

The systems can be used in many different application areas. Information about traffic jams can be transmitted to the unit in the car, information about the fastest route between different points can be readily accessed and, in the case of accidents, rescue squads can be directed quickly to the scene.

Air bags

Nokia of Finland has developed terminals for the German mobile operators, Mannesmann and Tegarom, that automatically activate an alarm signal when the vehicle's air bag is deployed. Supported by the GSM system, information about the vehicle's location is forwarded from the GPS receiver to an operator who, in turn, notifies the ambulance rescue squad. The driver of the vehicle receives a message on his/her monitor that help is on the way.



Bernt Ericson, Vice President, Research and Technology, (left) and Kent-Eric Lång, manager of Ericsson Microwave's Ebilits research unit for Intelligent Transport Systems, attended the seminar in Berlin to present Ericsson's capabilities in the budding ITS sector. Photo: NICLAS HENNINGSSON

Nokia's system is also equipped to receive information about traffic jams, a common problem on the German autobahn, and suggest alternative routes.

Ericsson's involvement in ITS is being channeled through Ebilits, a unit of Ericsson Microwave. Ebilits was established in the spring of 1996 to monitor ITS developments and determine various alternatives for Ericsson to capitalize on its skills and expertise to make money in the budding ITS sector.

"Ericsson was a little slow coming out of the blocks in the ITS market," says Kent-Eric Lång, manager of Ebilits. "We lack the marketing channels to the automotive industry that some of our competitors have developed, for example Nokia and Motorola. We have noted, however, that many of their investments have come up empty, simply because there was no market for some of the systems they developed. Our more cautious approach has enabled us to avoid many of the early pitfalls in ITS development."

Ebilits has not developed a product of its own, and Kent-Eric Lång refuses to make any promises about when something new will come out of the pipeline. For the time being, Ebilits will continue to concentrate on studies of the ITS sector to determine the direction of current developments and pinpoint areas that offer the most promising future business potential.

Focus on existing technologies

The staff of Ebilits has made one thing perfectly clear, however. Whenever an Intelligent Transport System is built, it should be based on existing technologies, GSM for example, rather than entering uncharted waters. Dynaguide, Volvo's ITS, has encountered major problems because the system is based on RDS, a technology that never won the widespread acceptance Volvo initially believed.

"Ericsson's success in developing a profitable ITS is contingent upon our knowledge of the market and future trends," explains Kent-Eric Lång.

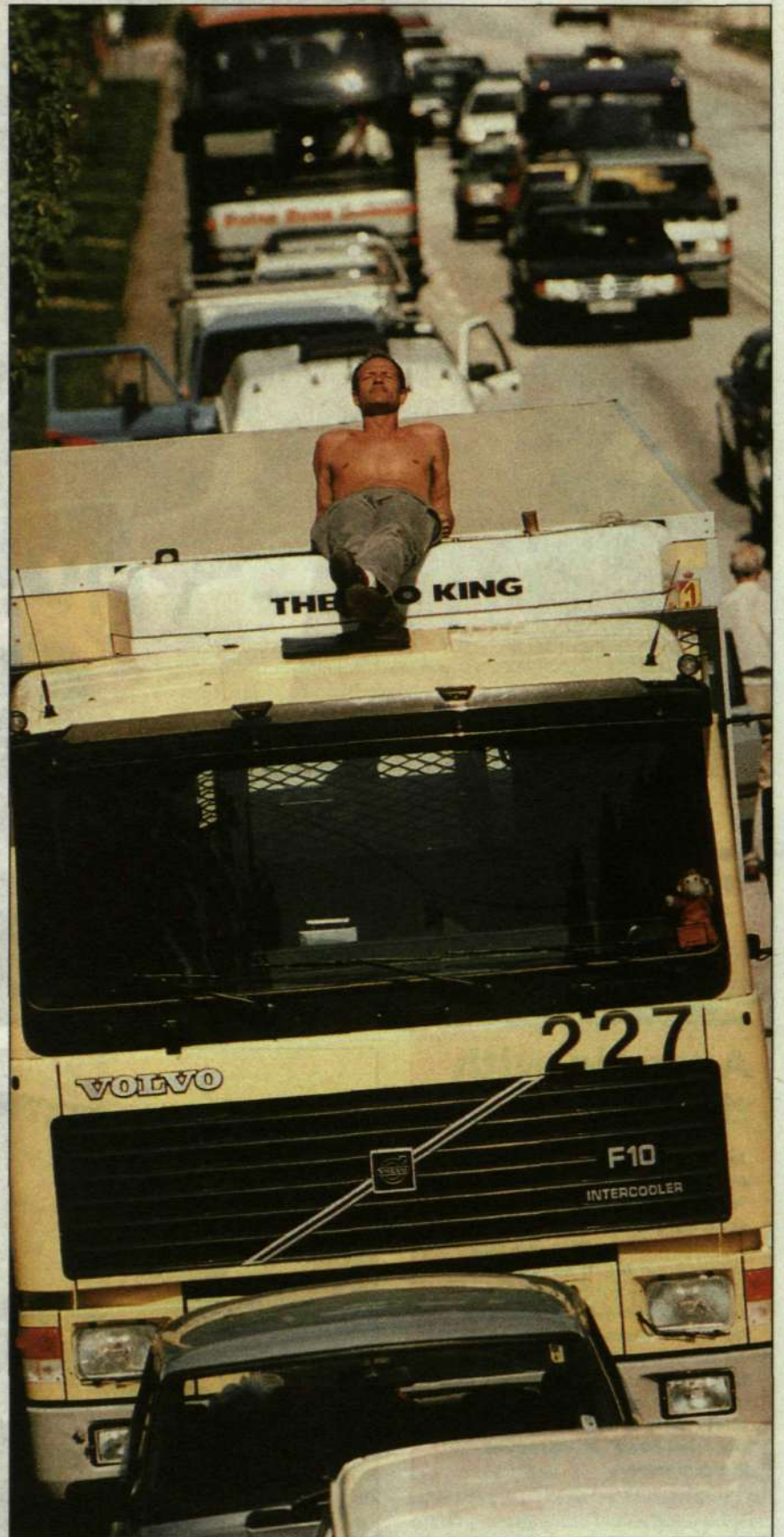
"A critical question is who will provide the services? Will it be a government authority or a telecom operator? We have noted an interesting trend today, whereby automobile and car-owner associations in various parts of Europe have started to use GSM technologies to provide various forms of road assistance to their members. It's very important for those working within Ebilits to understand the needs of new players on the market."

Internet, GSM and GPS together

According to Kent-Eric Lång, Ericsson could develop an ITS application based on a conventional mobile telephone for cars connected to a fixed unit consisting of a monitor, GPS receiver and a processor.

To communicate, the system would use the Internet to access information on the nearest gas station, rest stops, hotels, stores and other facilities.

By accessing the web site of any motorist organization, users would be able to access maps that show their present location and other information such as ac-



Modern technology will make it possible for motorists to access the Internet via GSM telephones equipped with positioning systems to redirect traffic and avoid traffic jams. Photo: PRESSENS BILD

cident scenes in the area, traffic jams, road construction sites and similar data.

Bernt Ericson, Vice President, Research and Technology, attended the ITS Congress in Berlin in October and participated in a round table discussion with representatives of manufacturers and operators of ITS services. He believes it's extremely important for Ericsson to monitor trends in the ITS sector.

"It's essential for Ericsson to assume an active role in the market to ensure that future Information Transport Systems

are built in accordance with our infrastructure, for example GSM rather than RDS. If we are going to capture a piece of this growing market, it's imperative that we understand the needs and demands of operators in terms of broadband and functionality, for example. Ebilits is an excellent tool that will enable Ericsson to develop the market savvy we need. Ultimately, this is a matter of making money based on knowledge we already command.

NICLAS HENNINGSSON

vacancies

AT ERICSSON

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

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

Contact no. 18 1997

Updated November 17

Ericsson Eurolab Deutschland GmbH, Aachen

The EEDIXISO section within our PAX system house is responsible for Product Line Configuration Management for CME20 Switching Systems. We provide test configuration management for CME20 design projects from feasibility through GA and support of testing in the simulated environment for CME20 test and design maintenance activities. To support our activities within the Simulated Test Environment Coordination Group we are looking for a

SENIOR TESTER

● The STE Coordination Group is responsible for helping EED to implement the PAX and AMC test strategy to move testing from a target machine environment towards testing in a Simulator based Test Environment. (STE)

This central STE support group will satisfy the local support needs at EED (direct support) but also work towards local STE support groups outside EED (indirect support) at organizations that perform CME20 SS related test and maintenance activities of PAX and AMC products.

As a suitable candidate, you are an Ericsson employee and should have experience in AXE function testing. You should be familiar in working in projects and have the ability to work well on a highly motivated team and under strict time pressure.

Responsibilities: Investigating new simulation techniques in CME20. We need to full fill 90% of function testing in STE in 1998. This requires new approaches

and better performance of the tools surrounding STE. Performing acceptance testing of the latest tools for STE. Examples, we have initiated studies in software mobiles for CME20 and an enhanced debugging platform for the APZ emulator. Introducing new requirements in STE. Our STE group represents RMOG CME20 SS interests in the area of STE. Through the BR STE Reference Group we can influence new APZ emulator development.

Our costumers include: - overall CME20 Function Test, currently R7 project (included subsidiaries ERA, IXG, EUS) - TCS subsystem in AMC Function Test, currently AMC phase 5 - all other STE related activities at EED

If you have questions and/or are interested please refer to

Contact: EED/H/R Doerte Kaulard, Memo-Id: EED.EEDDKA, Tel.:+49-2407-575-163 EED/X/SOC Charles (Dan) Grinstead, Memo-Id:EED.EEDCGR, Tel:+49-2407-575-341 EED/X/SOZC Jan Lindquist, Memo-Id:EED.EEDJLI, Tel.:+49-2407-575-460

The System Test & Support Department EEDIXIS within our PAX System House is responsible for the central Product Line Maintenance of the CME20 Switching System software releases which are currently delivered to 80 operators. The activities of the department include CME20 SS Maintenance and Customer Support, Industrialization of CME20 SS releases, Test Configuration Management and Methods & Tools development. As EEDIXIST section takes the responsibility

to meet the growing demand on Load, Stress and Performance testing in our Industrialization projects, we are building a new team to support those activities. Therefore we are looking for a new team member as

SYSTEM TESTER, LOAD AND PERFORMANCE TEST SUPPORT

● The System Tester, Load and Performance Test Support, is mainly responsible for planning, implementing and supporting load/stress tests and traffic simulations as well as consulting Industrialisation projects in an early phase about needed resources and tools for executing such tests.

The main activities of this person are: Design load test scripts and databases for different test tool platforms. Test and troubleshoot new scripts, databases and test configurations. Investigate new system features and check the impacts on load testing. Plan, implement and support Industrialisation load test activities. Issue and follow up requirements for test configuration and simulation tools.

As a suitable candidate you are an Ericsson employee with profound testing experience, preferably in the GSM area. Any experience with load testing, protocol simulation or progressive test methodologies is an advantage.

In this position you will need strong analytical and communication skills as well as a good understanding of the GSM switching system with its neighbouring nodes. You will have to be flexible, team oriented and

the ability to work under time pressure. The start would be in December 1997.

Contact latest 971215: EED/H/R Doerte Kaulard, Memo-Id:EED.EEDDKA, Tel:+49-2407-575-163 EED/X/STC Klaus Boeckers, Memo-Id:EED.EEDKLB, Tel:+49-2407-575-181

The EEDIXISM Methods and Tools section works on support as well as on test tools and methods for CME20 products in PAX. The Development Support group in EEDIXISM is looking for experienced designers / testers to reinforce the

LOCAL SUPPORT ORGANIZATION (LSO) FOR AXE-10 DESIGN

● Your main responsibility is to support the AXE-10 Test organizations at EED concerning methods and tools, helping them to improve productivity and quality.

Your main tasks include: Installation, Support and introduction of internal & external Test tools. Spreading and gathering information concerning methods and tools. Follow-up of trouble reports on tools and methods. Optimize the existing test environment. Maintain the LSO-Network. Maintain contact with external tools manufacturer.

As a suitable candidate you should have experience and worked within the AXE-10 environment as designer, tester or tools developer. Preferably, you have also good knowledge of UNIX. Furthermore, you are service minded, team-oriented and have good communication and cooperation skills. The department and Human Resources will give you support for your implementation and start in the new position. The start for this position will be as soon as possible.

Contact latest 971205: EED/H/R Doerte Kaulard, Memo-Id:EED.EEDDKA, Tel:+49-2407-575-163 EED/X/SMC Tiberius Sasin, Memo-Id:EED.EEDTIS, Tel:+49-2407-575-166

The AXE Mobile Network department, within our AMC System House, will reinforce our System Integration unit for the AXE Mobile Core (AMC). The AMC consists of the core subsystems that are common to the mobile applications CME20, CMS30, CMS40 and CMS88.

The system Integration unit will have as main responsibilities to perform integration verification of the AMC product components and have an active role in AMC customer support activities. The unit will further

New positions at Nippon Ericsson for third generation mobile systems

Ericsson is taking a very active role in the development of third generation mobile systems, in ITU called IMT-2000. Since Japan is taking the lead in the development and standardization of IMT-2000, it is very important for Ericsson to be present in Japan and to actively take part in the Japanese activities. Earlier this year Ericsson has been selected as vendor to two operators in Japan who are setting up W-CDMA experimental systems, NTT DoCoMo and Japan Telecom. These will be the first IMT-2000 experimental systems for wireless wideband multimedia in the world.

The unit for Wideband Cellular Systems at Nippon Ericsson is responsible for Ericsson's product management and standardization activities in Japan related to IMT-2000, both with respect to the W-CDMA experimental systems and future commercial IMT-2000 systems, as well as the IMT-2000 standardization work.

The work in Japan is now expanding and therefore we are looking for the following highly qualified personnel to join our unit:

Product Manager – Packet Data (1)

Responsible for packet data standardization and product management regarding packet data for third generation mobile systems in Japan.

This position requires deep competence on packet data solutions for second generation mobile systems (preferably GPRS). Knowledge on TCP/IP is an advantage. We may recruit two product managers for this area, one focusing on air interface issues and the other focusing on network related matters.

Product Manager – Codecs (2)

Responsible for speech and video codecs standardization in ARIB and product management for W-CDMA experimental systems and future commercial IMT-2000 systems. This position requires several years of experience from working with e. g. speech codecs, either development or standardization.

Product Manager

– Radio Network control (3)

Responsible for radio resource management related standardization in ARIB and product management for W-CDMA experimental systems and future commercial IMT-2000 systems.

This position requires several years of experience from working with radio resource management for cellular systems e. g. PDC, D-AMPS, GSM or W-CDMA.

Product Manager

– Radio Access Systems (4)

Product Manager working with BTS issues for the W-CDMA experimental systems and future commercial IMT-2000 systems.

This position requires 5 years of experience from MBS development or product management for PDC, GSM or D-AMPS.

Product Manager

– Radio interface, layer 1 (5)

Responsible for radio interface standardization and related issues for the W-CDMA experimental systems as well as future commercial IMT-2000 systems. This position requires minimum 5 years of research and/or

development of radio interface technologies and at least two years experience of W-CDMA.

Product Manager – Terminal related standardisation (6)

Responsible for the technical requirements for mobile terminal to be standardized in ARIB and related issues for the W-CDMA experimental systems as well as for future commercial IMT-2000 systems. This position requires minimum 5 years of research, standardization and/or development of mobile terminals for GSM, D-AMPS, or PDC.

Researcher

– W-CDMA (7)

Researcher in layer 1 structure, receiver technologies and/or radio network algorithms. You should have several years of experience from research or development of radio interface technologies and good knowledge of CDMA.

Product Manager

– Switching Systems (8)

You will be working with the core network part of the W-CDMA experimental system and future commercial IMT-2000 systems, as well as with core network standardization. This position requires several years of experience from working with mobile systems, preferably GSM. Competence on e.g. Mobility Management and Call Control protocols is valuable.

Project Manager

– W-CDMA Experiments (9)

You will plan and execute the experiments together with our customer and the home organization.

This position requires several years of experience from field experiments for cellular systems. Experience from work with radio network planning is highly valuable.

For more information and application on positions 1-7 contact:

Håkan Ohlén, Senior Manager

Phone:+81 3 3222 4361.

Memo: NRJ.NRJHOHL

E-mail: hakan.ohlén@nrj.ericsson.se

For more information and application on positions 1 and 8 contact:

Thomas Rex, Senior Manager

Phone:+81 3 3222 4348.

Memo: NRJ.NRJTREX

E-mail: thomas.rex@nrj.ericsson.se

For more information and application on positions 9 contact:

Mikael Halén, Senior Manager

Phone:+81 3 3222 4399.

Memo: NRJ.NRJMIIHA

E-mail: mikael.halen@nrj.ericsson.se

more also be responsible for integration verification project both on main (AMC) as well as subproject level. These projects perform in an international and intra-culture environment and is covering a vast range of development areas at the leading edge of technology, such as ISDN and Internet accesses. To strengthen our activities we are looking for

SYSTEM INTEGRATION & CUSTOMER SUPPORT ENGINEERS

● Your main authorities and tasks are: Definition of the prerequisites to perform a verification of the test object on AMC level in both target and simulated environment. Performance of the System Integration execution and reporting of the result verification. Trouble shooting.

As a suitable candidate you have good knowledge of mobile telephone systems, you are flexible, show initiative and have good communication & cooperation skills. The ability to work under pressure is also an important personal quality.

Furthermore, fluency in written and spoken English is required. Experiences from System Verification/Test and/or Customer Support is a clear advantage.

Contact: EED/H/R Doerte Kaulard, Memo-Id:EED.EED-DKA, Tel:+49-2407-575-163 EED/U/TV Mats Erlandsson, Memo-Id EED.EEDMERL, Tel:+49-2407-575-635

The AXE Mobile Network department, within our AMC System House, will reinforce our System Integration unit for the AXE Mobile Core (AMC). The AMC consists of the core subsystems that are common to the mobile applications CME20, CMS30, CMS40 and CMS88.

The system Integration unit will have as main responsibilities to perform integration verification of the AMC product components and have an active role in AMC customer support activities. The unit will furthermore also be responsible for integration verification project both on main (AMC) as well as subproject level. These projects perform in an international and intra-culture environment and is covering a vast range of development areas at the leading edge of technology, such as ISDN and Internet accesses. For further support of our growing responsibilities we are looking for

SYSTEM INTEGRATION TEST LEADERS

● Your main authorities and tasks are: Plan, control and report System Integration activities for AMC projects. Initiation and coordination of subproject planning and reporting. Initiation of reviews of the System Integration document. Technical approval of the subprojects System Integration plans and reports. Selection of test environment (simulated or target). Performance entry and exit criteria checks. Coach the team.

As a suitable candidate you have good knowledge of mobile telephone systems, you are flexible, show initiative and have good communication & cooperation skills. The ability to work under pressure is also an important personal quality.

Furthermore, fluency in written and spoken English is required. You should be familiar with System Verification/Test and/or Customer Support. Previous managerial experience, e.g. as Project leader/Testleader is a clear advantage.

Contact: EED/H/R Doerte Kaulard, Memo-Id:EED.EED-DKA, Tel:+49-2407-575-163 EED/U/TV Mats Erlandsson, Memo-Id EED.EEDMERL, Tel:+49-2407-575-635

Ericsson Ltd, Guildford, UK

CN312 SS SUPPORT PRODUCT EXPERT

● Responsibility:- To be responsible for the supply processes defined per group, the development of the processes and how the work is carried out by the group members. The supervisor is responsible for the development of the personnel in the group and to see that the development of the group and group members goes in line with the needs of the total department. The supervisor is responsible for highlighting any problem areas within the group and see that proper action is being taken. The supervisor shall find and keep group objectives to actively contribute to create a group feeling. The supervisor's main areas of responsibility is, man management, track and assist in daily work, resource planning for the group, resource development, information flow and customer interface to develop and to get acceptance of new and improved processes.

Competency: Technical:- Minimum HNC/HND in Electrical Engineering, Telecommunications, Computing or equivalent. Understanding fo CME20 PLM AC handling. Design/PLM AC test.

Business/Human:- Focuses on both internal and external customers and develops understanding of the issues they face in order to identify and meet their needs. Motivates and empowers individuals to take responsibility and develop their skills for the benefit of the business. Proactively co-operates and interacts with colleagues across the organisation and encourages personnel to develop a team orientated approach to work. Actively listens and communicates ideas and information in a clear, concise and open manner through a wide range of contacts. Demonstrates the personal commitment to take responsibility and overcome obstacles in order to deliver results which achieve business objectives. Uses strate-

gic vision to define priorities and plan time, budget and resources realistically to achieve business objectives.

Ideal background/experience:- Minimum 5 years relevant experience in the Telecommunications industry. Minimum of 3 years AXE10 testing experience. CME20 experience at an ESO or FSC.

CN311 BSS SUPPORT PRODUCT EXPERT

● Key Responsibilities: Take responsibility for providing a very high level of technical expertise on AXE support, conduct detailed and exhaustive investigations of highly technical or sensitive issues, actively contribute to business development by providing leading edge technical solutions to problems, foster good relationships with internal and external customers, work closely with field/customer support centres and nodes, work with customer supply to contribute to the evaluation of prospective projects and identification of potential risks/issues, make significant contribution to the technical aspects of tenders for businesses, monitor and maintain quality standards in problem resolution, prepare and make formal presentations to external and internal review meetings regarding existing and future systems functions and undertake the role of team/project leader as required for problems in any AXE related area.

Qualifications/skills: Technical:- Either CME20/CMS40 (BSS -BSC/BTS products) or experience with other mobile systems knowledge at expert level. Experience of fault investigation, System Upgrades and/or the integration of complementary products (OSS,NMC, Abis transmission systems using lease line, microwave and/or Digital Cross Connect systems). Good working knowledge of PDH/PCM G703, C7 MTP, SCCP, TCAP, and BSSAP(DTAP and BSSMAP) Signalling System protocols. Operator network experience and/or SDH knowledge also desirable

Business/Human:- Understands the "broader picture". Enjoys new challenges. Understands issues the customer faces. Ability to influence others. Good motivating and empowerment skills

Ideal Background/experience: At least 6 years experience in AXE support. Essential HNC or equivalent in telecoms/ computers/ electronics. Willing to work outside normal hours on occasions. Desirable but not essential - qualified to degree or equivalent level and/or Member of IEEE.

Contact: Michael Chance ETL.ETLMLCE@memo.ericsson.se or Peter Shiret ETL.ETLprst@memo.ericsson.seEricsson Eurolab

Telefonaktiebolaget LM Ericsson, Technical Office U.A.E.

GSM SUPPORT ENGINEERS UNITED ARAB EMIRATES

As a result of recent project expansion, we are seeking recruitment of a number of GSM Support Engineers. Applicants should be dynamic, team players, good communicators and keen to excel their abilities in an ever increasing competitive market.

● Responsibilities: Correction Handling, AC-A, CN-A, Trouble Report Handling, Troubleshooting, Testing, Operations & Maintenance, Consultation, Emergency Support

Experience: GSM CME 20/IOG 11, AXE Software, PLEX & ASA Programming, ISUP/SCCP/MAP Signalling This is an exceptional opportunity for enthusiastic, capable engineers to join the fast moving pace of telecommunications technology in the Middle East.

Contact: Hettige Jayatissa GSM Field Support Manager, Dubai Tel +971 4 315250, Fax +971 4 328357, Mob +971 50 6424085

Ericsson Eurolab Deutschland GmbH, Aachen

PROGRAM PRODUCER

The XISO section within our PAX system house is responsible for Product Line Configuration Management for CME20 Switching Systems. We provide test configuration management for CME20 design projects from feasibility through GA. Additionally, the section is responsible for support of testing in the simulated environment for CME20 test and design maintenance activities. The AS Handling group is responsible for AS Specification, Program Production, Parameter Administration and Library Specification for Product Area Switching (PAX) and AXE Mobile Core (AMC) development projects. In addition, AS handling activities support Product Line Maintenance Projects for the CME20 Switching Systems (CNP packages) as well as Market TSS productions for the CME20 markets.

● The program production activities will mainly consist of SWAXE testbed productions and production of CNIs or lifted products with PRODAX. Deliveries from program production will be objectfiles, emitfiles, plexview and furaxtables for CME20 development projects. Market TSS productions will have to be performed upon request from the ASOs. AD support and release support will have to be provided to design projects. Suitable candidates should be familiar with the SWAXE program production environment. Experience with HLPLEX and RPD software production, with PRODAX production environment and with FURAX pro-

duction is advantageous, but not absolutely necessary.

Good cooperation and communication skills are as important as good networking in the Ericsson Program Production world. You should be good team worker and have the ability to work under high time pressure. Good analytical skills are essential. The position is to be filled by 1.1.1998.

Contact/Application: EED/H/R Doerte Kaulard, Memo-Id: EED.EEDDKA, Tel.:+49-2407-575-163 or EED/X/SOL Elke Busch, Memo-Id: EED.EEDEL, Tel.:+49-2407-575-357

The System Test & Support Department EED/XIS within our PAX System House is responsible for the central Product Line Maintenance of the CME20 Switching System software releases which are currently delivered to 80 operators. The departments activities include CME20 SS Maintenance and Customer Support, Industrialization of CME20 SS releases, Test Configuration Management and Methods & Tools development. Due to organizational changes within our Test & Support Department we are looking for a

QUALITY COORDINATOR FOR X/ST

● You will work within X/ST (Industrialization) section, the main responsibility of which is to verify the CME20 SS system developed in various design centers and to implement it successfully in the customer network. The focus of this task is on

Project Quality Assurance: This task includes the verification of the quality with the help of measurements, moderation of inspection meetings, participation in milestone reviews and tollgate decision meetings. Process Engineering: This task includes the verification of existing processes, the development, adaptation and follow-up of new processes in order to insure the quality of the products and improvement of the operations.

You will work in close cooperation with the X/S Quality Coordinator. As a suitable candidate you are an Ericsson employee with broad AXE competence in the area of AXE design or AXE testing. Previous experience in project management would be beneficial. The ideal candidate has a strong interest in quality issues. In this position you will need a methodical approach to your work. You should be hard working, cooperative, able to work under time pressure and able to communicate your ideas and solutions effectively. You should be able to increase the awareness that everybody is responsible to develop and deliver a good quality. The start would be as soon as possible. If you have questions and/or are interested in this task please refer to your colleagues until 05.12.1997.

Contact/Application: EED/H/R Doerte Kaulard, Memo-Id:EED.EEDDKA, Tel.:+49-2407-575-163 or EED/X/STC Klaus Boeckers, Memo-Id:EED.EEDKLB, Tel.:+49-2407-575-181

SYSTEM MANAGEMENT ENGINEERS, PRODUCT AREA SWITCHING

● If you enjoy demanding work and can respond well to significant challenges, why not become a member of our team? Here at EED we have the overall Product Area Switching responsibility for CME20 & CMS40 and we are looking for people to work in system management.

We are working with the following mobile applications: GSM 900, 1800 & 1900 systems. Global and regional satellite network applications. Studies about GSM MSC evolution. UMTS.

System Management focuses on a range of system level tasks which are necessary to ensure progressive development of Ericsson's CME20 & CMS40 switching nodes. This work involves a broad range of activities including RS writing, system investigations, standardisation and system level tasks related to dimensioning and platform management. Please refer to the department homepage in the www for further information about the department's activities "http://www.eed.ericsson.se/services/eed-x-d/Welcom.html"

Suitable candidates possess a relevant engineering degree (eg telecommunications, electrical, or software engineering) with a minimum of 3-5 years of AXE development or testing experience, and preferably at least 2-3 years of experience in system-level technical development or testing. Experience with GSM or other mobile telephony development is advantageous, but not absolutely necessary. Good analytical skills are essential.

Good cooperation, verbal and written communication skills are important human skills. Experience in working in close customer relations would be advantageous.

Contact/Application: Human Resources: Doerte Kaulard, Memo:EED.EEDDKA, Dial:+49-02407-575-163 PAX System & Product Management Andreas Thuelig, Memo:EED.EEDANT, Dial:+49-2407-575-246 Pieter van Rijnsoever, Memo:EED.EEDPVR, Dial:+49-2407-575-172

Ericsson Toshiba Telecommunication Systems K.K., JAPAN - ERJ

PRODUCT MARKETING MANAGER

The business for Ericsson in Japan is growing. At present we are 700 employees, approximately one third is expatriates. Presently there is three companies established in Japan, Nippon Ericsson NRJ (MLC) 230 em-

ployees, Ericsson Toshiba Telecommunication Systems ERJ (JV) 460 employees and Ericsson Mobile Communication EMJ (JV) 15 employees.

Today our main business is PDC (Japanese standard for mobile phone system) but we are entering the market for mobile phones and are developing solutions for 3rd generation of mobile phone systems.

Our mission is to identify new business opportunities and to develop total communications solutions for our existing CMS 30 customers. This involves a business oriented mentality and an aptitude to create and seize opportunities in a very fast and dynamic environment.

● Your role is to develop new business opportunities and carry out product marketing activities to our customers. This includes product offering, customer negotiation and creation of commercial contracts. These activities shall be conducted in harmony with the cultural bounds and be consistent with our business processes.

This position will report to the Senior Product Marketing Manager.

Your personal record includes a good theoretical background at technical university level plus at least 3-5 years of experience within the marketing environment. You have experience from the areas of business development, commercial matters and have had direct customer responsibility in a highly competitive environment. As a person, you demonstrate co-operative ability, result orientation, initiative, creativeness and professionalism. A prerequisite for the position is presentation and negotiation skills as well as highly developed skills in English, both spoken and written.

In short, we are looking for: Willingness to transfer knowledge to local employees. Prior customer experience (closely have worked in an environment with direct customer interface) 3-5 years or more. Good knowledge of Ericsson mobile communication products. Excellent negotiation skills. Independent person/feels comfortable to act on his/her own. Ericsson organisation knowledge. Good communication skills (English is a must, others advantage). Business oriented / Solution thinker. Good knowledge of commercial matters (contract knowledge). Attitude to work in a multi-cultural environment.

Contact: ERJ/M/BC Vafa Sahms, memoid NRJ.ERJVS Application: ERJ/P/PC Michael Regné, memoid NRJ.ERJMR

Beijing Ericsson Mobile Communications Co.,Ltd

GSM TESTING EXPERT

Length of Assignment: 1 year contract Starttime: 1997-12-01

● Description: The candidate should be able to transfer knowledge so we can build up the GSM testing competence in the group (15 testers); by actively run some small seminars, give first line Support on/off sites and work as a testleader. Should be able to do integration tests for all subsystems, HW/SW upgrades such as APZ upgrades and AS-changes, be very familiar with trouble-shooting activities (Test system) etc. He/She will spend around 50-80 % of the time in the Field.

Requirement: MINIMUM OF 3-5 YEARS experience with similar activity in the GSM field is a must.

Contact: Jan Mannfolk (AXE/MSC-IMPLEM.) phone +86-10-64601122, memoid ETC.BMCJAMA or Ulrika Martinus (RMOG Resource Agency) phone: +46-8-404 2565 memoid: ERAC.ERAMSSS Application: Jan Mannfolk memoid or fax +86-10-646 19 026

Ericsson Toshiba Telecommunication Systems K.K., Japan - ERJ

Ericsson is supplying the CMS30 systems for the PDC (Japanese cellular standard) network in Japan. Our customers networks are now handling more than 2.3 million mobile subscribers and are increasing rapidly. In addition to the tremendous growth, the network will also soon be added with our sophisticated AM based Intelligent Network. Our headquarters is situated in Shin Yokohama (near Tokyo) with regional offices spread around Japan.

To cope with the promising future, we have vacant positions, long term and short term, in both Sweden and different locations of Japan. Employment in Sweden includes possibilities for future assignments in Japan. We are looking for people from all over Ericsson to support us in this challenge. If you are up to challenges you should not skip this opportunity. See you in Japan.

APZ/IOG SUPPORT ENGINEERS

● Main tasks: trouble report handling; participate in 24 hr emergency support; correction packages handling; support roll-outs and provide technical support (on-site/off-site).

You should have at least 4 years field support experience in the APZ and IOG systems. Experienced in CMS30 is highly an advantage. We work as a team. As part of our support team, you will be working together to solve problems on-site/off-site. Trouble shooting skills is mandatory. Good team spirit and customer focus are demanded.

Starting date: 1998-01-05 Location: Japan

IN EXPERT

● The responsibilities include on-site trouble-shooting, problem analysis, technical support of IN System

Integration Testing on customer sites, technical consultation and communication with customers.

We require solid experience of IN and working experience within Ericsson.

Starting date: 1998-01-05 Location: Japan

Contact: Peter Nilsson, phone +81 45 475 6761, memoid NRJ.ERJPENS email: NRJ.ERJPENS@memo.ericsson.se Application: Ericsson Toshiba Telecommunication Systems K.K., Peter Nilsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-48building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

Ericsson Toshiba Telecommunication Systems K.K., - ERJ

FIELD SUPPORT OFFICE MANAGER (FSO) UNIX BASED PRODUCTS MXE/SMAS/OSS PACKET DATA etc

● We are now looking for a Field Support Office Manager that can meet our present challenges in Japan. This area handles the support services for PDC-CMS 30 customers across different regions with a subscriber base of nearly two million.

The Field Support Manager position requires a long and varied background from AXE testing, O&M or Field Support. The job responsibilities are diverse and involve frequent communications with the on-site customer management team.

Experience from management/leadership is required. As the manager, you will be responsible for leading and motivating the team, as well as developing their competence.

As the ideal candidate, you have a university degree in engineering sciences. In addition, you have strong leadership skills and are able to make decisions under pressure. The ability to communicate in English, both spoken and written, is essential.

We presume you are openminded, outgoing and can easily adapt to a culturally diverse working environment.

Contact: Peter Nilsson, phone +81 45 475 6761, memoid NRJ.ERJPENS e-mail: NRJ.ERJPENS@memo.ericsson.se Application: Ericsson Toshiba Telecommunication Systems K.K., Peter Nilsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-48building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

Ericsson Radio Systems AB, Sundbyberg - PT ERICSSON INDONESIA

Ericsson has long maintained a strong position as a cellular supplier in Indonesia. Currently the company is supporting two existing GSM customers in their network roll-out and expansions but marketing towards potential operators on the 1800 MHz band will be a major task during the rest of 1997 and into 1998. In order to meet our growing competence needs and to fulfil our goals for knowledge transfer to the local organisation we urgently seek applicants for the following positions.

TECHNICAL MANAGER

● The Technical Manager is together with the Marketing and Customer Project managers forming the Core Three team. The Core Three team has a "turn key" responsibility from system tender preparation to network commissioning.

As a Technical manager in the Core Three team, you will be responsible for: the entire technical content of tenders, co-ordinating requirements to and responses from expert units (Radio Network Design, Access Network Design, Hardware Dimensioning etc), technical consultancy in negotiations, product and network solution presentations.

A successful Technical Manager should have a technical university degree, a good knowledge of the entire Ericsson product portfolio with an in-depth experience of mobile telephony, preferably in the areas of both switching and radio. Frequent customer contacts puts requirements on your commercial skills and on your ability to co-operate with people from other cultures.

You shall be able to lead and motivate a team of junior engineers while transferring your knowledge to them. You should be self-motivated, flexible and fluent in English, both oral and written.

RADIO NETWORK ENGINEERS

● The Radio Network Design, RND, department in Indonesia is supporting our customers' GSM networks with advanced cell planning activities.

This includes new techniques and methods for high capacity planning, such as the Multiple Reuse Pattern (MRP) concept, indoor coverage, microcells etc. in order to create a modern, high quality cellular system.

The license process for the 1800 MHz band creates new challenges in marketing and tendering to tentatively successful operators. The RND department is strongly involved in this work by preparing and presenting cell plans for license applications. We are looking for two experienced Radio Network Engineers for positions in Indonesia.

The Radio Network Engineers are expected to be responsible for all radio network activities including tender preparation, network surveys, frequency planning and radio network tuning. In addition to this, the Radio Network Engineer should: be responsible for all

Radio Network Design related parts of tenders, in negotiations and presentations, share knowledge and build up the competence level within the RND department, ensure proper work methods and procedures are in place.

Our work is completely customer focused and you will work in cross disciplinary teams with marketing, technical and project managers. The successful candidate should have a technical university degree with an in-depth experience from mobile telephony. You should also have good knowledge of the CME20 system and experience of Radio Network Design.

Contact: Sean Gowran, phone +62 21 751 9697, memoid: EID.EIDSEGO, Nils Torstensson, phone +46 8 757 26 39 eller Bengt Måler, phone +46 8 404 50 31. Application: Ericsson Radio Systems AB LNH Carin Kasberg, 164 80 Stockholm Memoid: ERAC.ERACASA

LM Ericsson Ltd, Dublin, Ireland

MASTER SCHEDULER/ RESOURCE CONTROLLER

● A vacancy has arisen within the Africa/Middle East Regional Centre (RC), based in Beech Hill, Clonskeagh. The Master Scheduler will report directly to the Business Area manager for the Resource Centre.

The Master Scheduler will have clearly defined responsibilities, the demand for which will vary and be decided by management from time to time. The role will involve the following:- handling and control of the RC Order Office, liaison with other sections within LMI, with Market Units in Sweden and with RC Project Managers on RC projects, planning and project tracking of LMI RC projects in Africa and Middle East, monitoring and planning the activities of operational resources in countries in Africa and Middle East, developing LMI RC planning and reporting systems, liaison with Market Units in Sweden, the Supply Centre in Spain and Global Operations Management in Sweden on the Sales and Operations Planning process (SOP), being responsible for the annual ABCD Classification assessment of the RC.

Applicants should have a good knowledge of Manufacturing Resource Management (MRP II) principles. They should also have knowledge of Ericsson processes in the area of Installation Engineering (IE), Data Transcript (DT), Software Production & Verification (SWPV) and Implementation (NWI). We invite applications from personnel internally and externally who believe that they have acquired sufficient expertise in the relevant areas to undertake this task. The position may involve a certain amount of foreign travel to Sweden and to some of the markets in Africa and Middle East.

As a screening process based on applications received will take place, it may not be necessary to interview all candidates.

Application latest 971121: Margaret Gaffney Employee Relations Manager LM Ericsson Limited Beech Hill Clonskeagh Dublin 4 Memo ID LMIIMGY

S.A. Ericsson in Chateaux Malabry

We are still looking for an

MD110 SUPPORT ENGINEER

● ACTIVITY: As a support engineer you will within the customer support organization perform emergency support, trouble shooting and operational support on MD110 and peripheral equipment. You will be working towards external customers, installers as well as Ericsson personnel with the maintenance and installation departments. You will work as the interface towards the ESC in escalation processes.

SKILLS: At least three years MD110 experience. A good overall knowledge of the system, signalling principles, system functions and peripheral equipments like DNA, CCM and CAM systems. Knowledge of CAS and CCS signalling systems, basically ISDN, Q-sig and R2. Be able to perform and analyse signal tracing, read software documentation (PlexView) and write fault corrections. Knowledge of Eripax is a plus. Fluency in English is required and a good knowledge of French is desired. Position to be filled asap

Location: S.A. Ericsson (EZF) in CHATENAY MALABRY (Just outside Paris) FRANCE

Contact: Jean AUDRAN, Customer Service Director Memoid: EZF-EZFJAUD(fax nr 1.40.83.75.93)

The Software Support Centre, SSC, in Norway

has Regional responsibility of software verification and support of fixed networks within the Nordic region. This implies activities such as AS-Design, AS-verification, AS-replacement and AS-Maintenance for our customers, the local Ericsson companies, within that region.

We are situated in Arendal, a small town along the South-coast of Norway, 250 km South-West of Oslo.

We are still looking for:

EXPERIENCED TROUBLE SHOOTERS AND TESTERS ON LONG TERM CONTRACTS TO SSC, NORWAY

● You are an Ericsson employee, open minded, highly motivated individual with focus on sharing competence to others and AXE test experience for at least 3

years. This expertise would preferably be from a fixed network (AXE Local 3 and Local 4) background.

Job description: As a tester you will be included in the team responsible for the Test-process. This includes activities such as test design and test execution. The trouble shooters will support the test- and maintenance team and solve problems connected to those activities.

Contact: Finn Helgesen (memoid: ETO.ETOFH, email: etofh@eto.ericsson.se) Ann Elisabeth Ludvigsen (memoid: ETO.ETOAEI, email: etoael@eto.ericsson.se) Anna Karin Thorell (memoid: ETO.ETOAKTH, email: etoakth@eto.ericsson.se), telephone: +47 37051000

Ericsson Italy - Mobile Radio Division

Is looking for short/long term assignments expatriates to reinforce the organization for existing and new operators. Positions open are the following:

NETWORK PLANNER (ref. C/A)

● Specialists in the definition of the architecture and planning of switching networks. Location: Rome and Milan.

SYSTEM ENGINEER (ref. C/B)

● Specialist in hardware dimensioning, MSC signalling, changing numbering/routing, measurement, GSM/DCS network features. Location: Rome and Milan.

CELL PLANNER & RADIO NETWORK OPTIMIZATION (ref. C/C)

● Specialist in the planning of GSM/DCS 1800 Radio Networks and specialists in the analysis of the system performance and in the elaboration of solutions for the optimization of GSM/DCS 1800 networks. Location: Rome, Milan Bologna, Naples and Mestre (Venice).

PRODUCT MANAGER (ref. C/E)

● Account and Product Managers for BTS/BSS, MSC, management systems, customer services, high value added services (intelligent network, customer care and billing systems, voice/data message). Location: Rome, and Milan.

TACS/GSM/DCS SYSTEM SUPPORT SPECIALIST (ref. C/G)

● Specialists for acceptance, after sales and trouble shooting of equipment, systems and services for TACS/GSM/DCS.

Location: Rome, Milan Bologna, Naples and Mestre (Venice).

TECHNICAL TRAINER (ref. C/H)

● Trainer for telecommunications networks with competence in the learning processes, strongly orientated to service and to the customer. Location: Rome and Milan.

PROJECT MANAGER (ref. C/I)

● Manager of projects for the implementation of equipment and services in the telecommunication network. Location: Rome, Milan Bologna, Naples and Mestre (Venice).

FIELD ENGINEER (ref. C/L)

● BTS installation supervision, BSS/MSC Commissioning Integration, OMC, After Sales and system management specialist. Location: Rome, Milan Bologna, Naples and Mestre (Venice).

Application: to Mr. Massimo Lolli (EITA.TEILOMA) - HR & Quality Manger- Ericsson TEI Italy.

Nanjing Ericsson Communication Company Ltd. - ENC

MSC/BSC TESTING SUPERVISOR FOR SHORT TERM CONTRACT

● We are looking for Testing Supervisors due to a big GSM expansion in Shandong during this December to March 1998.

The Testing Supervisor shall control and supervise the Installation Testing work in according with applicable instructions.

Principle responsibilities are independently start-up and complete all function testing of new MSC/BSC, integration Testing of BTS 200 and BTS 2000, hardware expansion testing of MSC/BSC, prefer Trouble Shooting in CP and BSC.

You have a minimum of two years experience as Testing Technician on CME20.

Contact: Jessie Tianxuhong, GSM testing section Mgr, +86 25 210 1188, ETC.ENCJETI or Ulrika Martinus, RMOG Resource Agency, +46 8 404 2565, ERAC.ERAMSSS Application: Jessie Tianxuhong, ETC.ENCJETI, fax +86 25 210 1199

Ericsson Communication Software Research & Development, Shanghai, China

LONG TERM CONTRACT FOR: TEST MANAGER

Ericsson is establishing a Research & Development (R&D) center in P. R. China. The R&D Company will fo-

cus on development of telecom and datacom products, both for the Global and the Chinese markets.

The company is based in Shanghai and aims to be around 100 SW-designers by the end of 1998. Our task is to work with design and verification of software products for access networks, with an initial focus on Internet Access.

● We now have a position open for a Test Manager on Long Term Contract. Your task will be to lead a small team of people that will be responsible for the set-up and maintenance of our System Test Plants; run the TCM activities and support ongoing projects with test competence.

You have a degree in Bachelor of Science or equivalent. You have working experience from setting up and maintaining test plants and have a deep knowledge of SW testing. You should also have a good command of the English language and understanding of team working.

Key words about your personality are that you are outgoing and a catalyst, flexible with the ability to motivate and achieve results through others. Goal-orientation and taking pride in sharing knowledge are key factors for the success of our organisation. If you are willing to take on new responsibilities, face a challenge and develop yourself, this is a very good opportunity.

Contact: Simon Evans, Systems manager E-mail: simon.evans@ericsson.com Tel: +86 21 6279 7245 extension 4930 or Bo Danielsen, Human Resources E-mail: bo.danielsen@ericsson.com Tel: +86 21 6279 7245 extension 4910 Application latest 971128: Simon Evans, System Management E-mail: simon.evans@ericsson.com

Ericsson Telecommunicacoes S.A Brazil - EDB

Take the opportunity to increase your professional skills while working under demanding, exiting and challenging conditions by applying for a position in our local company in Sao Paulo, Brazil - 'The fastest growing Latin American Market'.

SYSTEM SUPPORT ENGINEER

● As System Support Engineer you will be responsible for the development procedures in field support, investigate and solve problems of complex nature in both hardware and software. You will also provide technical expert support to Ericsson's customers and transfer knowledge within the OSS Field Support Center.

You should have a degree in Electrical engineering/ telecommunications or equivalent. A minimum of 5 years work experience in the telecommunication or computer industry. You should also have a minimum of 3 years experience working with Ericsson Customer Support for CMOS/TMOS/SMAS. Other assets are good knowledge of CMS88, Data communication protocols and some knowledge in Cell Planning Statistics. Fluency in English, Spanish and/or Portuguese is a must.

Contact persons EDB, Brazil: Operations Customer Support: Albert Beets - BRA.EDBAB or Human Resources: Jacira Gomes - BRA.EDBJRFG Application: EDB Brazil: BRA.EDBAB

Ericsson Communications Inc. Canada

SUPERVISOR, SWITCH INSTALLATION ENGINEERING

● Ericsson Canada is seeking a candidate to fill the position of Supervisor, Switch Installation Engineering. Responsibilities would include the scheduling and managing of multiple switch projects as well as the further development of the personnel in the Installation Engineering department. Presently there are 7 staff in this department with experience in both CMS 8800 and CMS 40 switching products.

The successful candidate will have several years experience with Installation Engineering for AXE preferably coupled with leadership experience. Ability to work with Project Management and the Customers in a quickly changing environment is essential. Good spoken/written English is essential.

Contact: Jim Leet, phone 905-629-6803, fax 905-629-6704, MEMOID EMC.EMCILEET.

Ericsson Communications Inc, Canada

SUPERVISOR, DATA TRANSLATIONS

● Ericsson Canada is seeking a candidate to fill the position of Supervisor, Data Translations. Responsibilities would include the scheduling and managing of multiple switch and RBS projects as well as the further development of the personnel in the Data Translations department. Presently there are 8 staff in this department with experience in CMS 8800 and CMS 40 switching and Radio products.

The successful candidate will have several years experience in Data Translation preferably coupled with leadership experience. Ability to work with Project Management and the Customers in a quickly changing environment is essential. Good spoken/written English is essential.

Contact: Jim Leet, phone 905-629-6803, fax 905-629-6704, MEMOID EMC.EMCILEET.

contact

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

On the island of Fredagsholmen off Sweden's west coast, the same pattern has been repeated every year for a number of years during the last weekend in August. For four days, the island is colonized by eight Ericsson Microwave employees who come here to fish, camp and enjoy each other's company. It provides a welcome break from work and a chance to be together in more relaxed circumstances.



Four of the eight inhabitants of Fredagsholmen compete in the Friday's pentathlon. Stig Hollström, Ingvar Sundström and Lars-Göran Svensson watch on while Arne Elisson tries to throw a ball into a water-filled bucket.

Photo: ANNA REHNBERG/KAMERAREPORTAGE

Expedition Fredagsholmen

In 1965, Bjarne Segerström, Gustav Wennerberg, Nils-Erik Bolin, Lars-Göran Svensson, Thorwald Karlsson, Ingvar Sundström, Stig Hollström and Arne Elisson were working on development of the nose radar for the Draken fighter aircraft at Ericsson in Mölndal. The work was intensive, and to take everyone's mind off the job, Gustav invited his colleagues to join him at his summer cottage at Orust off the western coast of Sweden. They spent the entire weekend setting out nets for crabs and flounders, jigging for mackerel and casting from the cliffs for cod and sea trout.

Year after year, the group repeated its August tradition, and as the twentieth anniversary approached, a decision was made that it was time to change the format for the fishing expedition.

Gustav felt they should move closer to the actual fishing location, and Fredagsholmen, a few minutes by boat from Orust, was selected as the new destination for the trip. A military tent was ordered, and in order to give themselves plenty of time to land a good haul of fish, the group—middle-aged by now—took a couple of days' vacation and were already en route to Fredagsholmen on Wednesday. Fredagsholmen has remained the destination for the group's August fishing trip every year

since then. Now the tent is set up on a level grassy area about 30 meters from the little bay where Gustav's old double-ended gig, a veteran dating from 1942, is moored.

Bjarne, the group's quartermaster, in charge of food and cooking equipment, stands in the mess tent boiling up some coffee.

"It's a terrible chore every year getting all this stuff out here," admits Bjarne, gesturing toward the two kerosene stoves, the wooden boxes containing the cooking equipment, crates of drinks, jerry-cans for carrying water, washing-up bowls, thermos flasks and stocks of canned food.

Home-baked

After coffee and home-baked cookies, Nils-Erik, otherwise known as Nisse, fetches his guitar. He sits down, plucks a few chords, and begins singing Swedish folk tunes.

Gustav and Arne sing along where they know the words, and everyone joins in the final chorus.

During the 32 years that the old friends have been meeting for their annual fishing trip, the procedure has settled into a pattern that it would be unthinkable to change. The August tradition remains the same, year after year.

The highlight of the Friday program is the pentathlon, which belies its name by having six events rather than five.

The contestants take part in various throwing events, shoot at targets with air rifles and hammer nails into an old log already peppered with rusty nailheads that bear witness to the pentathlons of bygone years.

"In years past, we got up to a lot more on our trips," relates Bjarne. "Like the time when Gustav took along some rockets and pipes, and we did target-shooting at balloons we hung in a crab-apple tree.

"We used to swim in the sea-fire at night and light enormous bonfires down on the shore. Now we take things a bit more quietly."

But how is it that they have kept their tradition alive for so many years?

"It's largely because we are a group with such a variety of characters," suggests Bjarne. "There is no rivalry between us and we have no trouble reaching agreement."

For his part, Gustav believes the answer lies partly in their jobs and the attitude people used to have to their work in years past.

"Most of us started working for the company when it was initially formed in Mölndal," he explains. "We started from scratch and learned all about radar technology in only one or two years. The first few years were characterized by a strong pioneering spirit that formed a common bond between all of us working there."

NICLAS HENNINGSSON

end line

Tiresome disunity

For the past few years I have had a special task to take care of at this time of year—writing material for Ericsson's annual report. It's a stimulating activity that provides an excellent insight into what is going on in the company.

This year we have shifted our perspective considerably regarding content, opting to observe Ericsson from a more international viewpoint. I cannot reveal more about the contents of the report at this point, and in any case this was not the theme I was planning to focus on. Instead, I thought I would resume singing the praises of the mobile telephone.

How amazing it is to be able to travel from country to country and from one continent to another, and to know all the time that your loved ones, not to mention your office, are no further away than your pocket. Just press a few buttons on your smart mobile phone and contact is made. And if someone needs to get an urgent message to you, there's a shrill sound in your jacket pocket and in seconds you know what is on their mind. There is an incredible power in this little device that more and more people never want to be without.

But permit me to wonder quietly—how is it possible that agreement on a common mobile telephony standard could be so elusive? Why do all the industry decision-makers seem unable to realize what an incredible stimulus it would be for mobile telephony development to be able to offer global access to telephone services?

Why is there no consumer organization capable of raising a fuss and taking the powers that be to task for once again allowing national protectionism and complex competitive maneuvers to take precedence over concern for customers. It seems that in the worst case there could end up being as many different standards for what we now call "third generation" mobile telephony as there were for the previous two generations. It's depressing to think that the industry could still be so immature after all these years!

I must also take this opportunity to report the arrival of a welcome addition to the editorial staff in the form of Mia Widell



Örnung. Mia worked at Ericsson Telecom for several years before studying journalism. After a few years with Radio Skaraborg and two years of parental leave, she is now back at Ericsson. Together with Pia Rehnberg and Patrik Lindén, Mia will be keeping the Contact ship on course while the skipper is absent from the bridge, so to speak. And as readers, you now have another person to whom you can pass on your ideas for articles. You will find the telephone number and memo address in the editorial box on page 2.

We wish you a warm welcome, Mia!



LARS-GÖRAN HEDIN