# contact

ERICSSON PUBLICATION FOR EMPLOYEES WORLDWIDE

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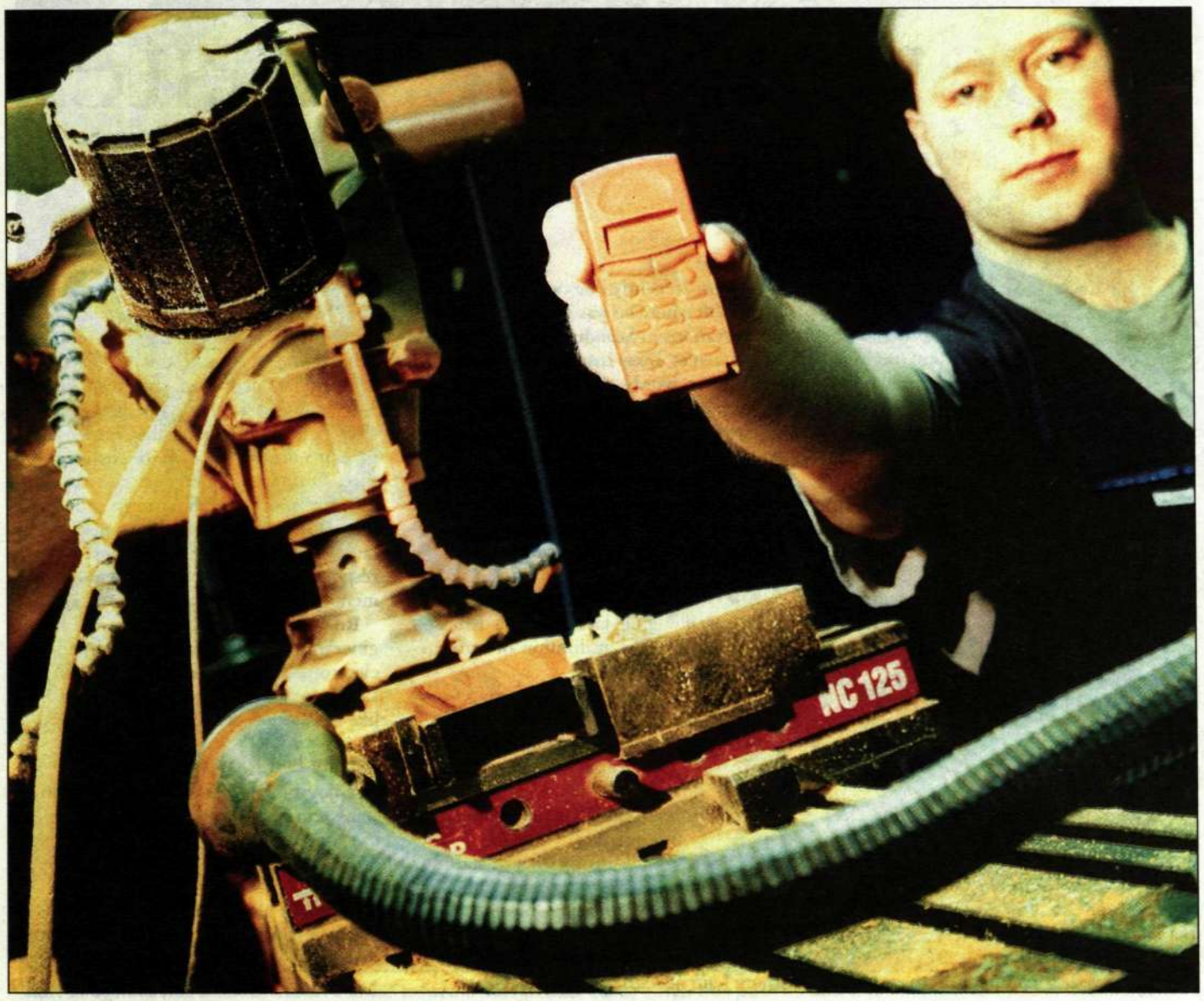


**Producing the advanced manufacturing equipment needed at Ericsson's mobile telephone unit in Kumla, Sweden, requires a mix of Santa's workshop and an advanced development effort.** Photo: CARL HJELTE

# Do-it-yourself in Kumla

Ericsson's mobile telephone plant in Kumla manufactures some of its own production equipment. Although it may appear that this is definitely not an Ericsson core operation, the truth of the matter is that there is no equipment available to buy on the market. To be first and maintain world-class production, you have to produce your own machines. **15**

## Success in the Ukraine

Just a few years ago, the Ukraine was written off in Ericsson's strategic reports.

Today, Ericsson is expanding in the Ukraine and doubling the number of employees. The demand for telecommunications services is so enormous that within three years Ericsson has become the main supplier of fiber-optic cable and mobile telephone systems. Ericsson is the sole supplier of the D-AMPS system in the Ukraine. **12 – 13**


Ericssons B-share, 22/5

## A tough job in a fast world

Rolf Skoglund is Ericsson's Chief Information Officer (CIO). His task is to ensure that Ericsson uses IT in the best manner. He has been at Ericsson since this autumn, which in Rolf's world corresponds to seven years. **2–3**

## Just 80 more weeks to go

The year 2000 is drawing closer. Many of Ericsson's computers and systems will face problems with surviving the millennium shift. Now there is a program acquired by Ericsson for checking that PCs will be able to handle the shift. **11**

## Lab for users

A lab to test how difficult or easy it is to use Ericsson products is now established in Kista. A technically fantastic product is of little benefit if few understand how it is used. **16–17**

## A bit to go in the U.S.

Ericsson is still relatively unknown in the U.S. and many customers still believe that Ericsson does not have one face to the customer.

This was revealed in an opinion survey conducted in 29 countries. **7**

**diary:** In China on assignment without tools **11**

**endline:** There is a lot of money in knowledge. **32**

**contact**

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Rolf Skoglund says that he has worked the equivalent of five years on the job, even though he was hired by Ericsson just last autumn. In terms of information technology and the Internet, advancements are occuring so rapidly that one could equate seven Internet years to one regular year.

# His time goes by seven times faster

**up close with**

*Rolf Skoglund*

His title is Chief Information Officer (CIO) and he is the first person at Ericsson to hold that position. The title is not uncommon at many other international corporations. In the same way that a company has a Chief Executive Officer and a Chief Financial Officer, CEO and CFO, the CIO is someone in executive management who is responsible for ensuring that information technology is utilized in the best way possible. That is the job that Rolf Skoglund has.

Rolf answers Contact's questions calmly and methodically. This is a man who knows what he wants. He thinks for a moment before he replies and is careful to make sure that what he says is correct. He was formed by American corporate culture. Ericsson is the first Swedish company he has worked for. Most recently, he was working for Microsoft where he was involved in starting up operations in Scandinavia. Prior to that, he worked at Texas Instruments and Intel.

In other words, the sort of companies that are now either partners or competitors of Ericsson. Rolf sees no point in making comparisons, however.

"Every company is different. The interesting thing about Ericsson is that it is truly a global company and that there are resources available for expansion."

### A job requiring cooperation

It is a challenging task to make Ericsson number one in the utilization of information technology.

"This is not a job that I can accomplish by myself. But I will make sure that we are all pulling in the same direction, sharing the same vision. Good examples are out there. It's my job to see to it that they are implemented throughout the entire company," says Rolf.

He has not built up any kind of staff nor does he have a fixed workplace. These are things which could perhaps be seen as indicative of his job.

"I work with virtual organizations and go where I am needed."

Currently, for example, he has two different offices and he travels quite a bit.

"Many of the people who have my job in other companies also are responsible for operational activities. In the case of Ericsson, that would be LM Ericsson Data (EDT). But not having that responsibility gives me greater freedom to see the big picture. I can avoid emergency responses and can focus on overall visions and spread ideas. Of course, I have a great deal of contact with Ericsson Data and those who are responsible for IT and business development at various Ericsson companies."

Rolf grew up in Sala and received his engineering degree in applied physics and electrotechnology at the University of Linköping. Privately, he admits that he is like most other people.

### Family is important

"I enjoy hiking in the mountains, playing some tennis and golf. Skiing is also high on my list, both cross-country and downhill. So far I've managed to ski one Vasaloppet ski race."

Family is also important to Rolf. Three children between the ages of 10 and 16 demand a great deal of attention.

**PATRIK LINDÉN**

# Still much to do at Ericsson

**"Ericsson should be on the absolute cutting edge when it comes to information technology. That is not the case today. There is still a way to go. The ideas and the skills exist at Ericsson, but a common vision is required. We have to speed up the changes. Quite often the essential decisions are made but it takes too long to convert those into reality."**

That is what Rolf Skoglund, Chief Information Officer (CIO) for Ericsson, believes. He is working his hardest to convert those ambitions into reality.

After about six months at Ericsson, he has gotten an overview of the situation and now it is time for action. Several major changes are in the works.

### Efficient processes

Something which has hardly escaped anyone's attention is the implementation of more efficient processes in order to reduce delivery times (TTC processes) using the SAP R/3 business application system. Another change is to make sure that all of Ericsson has a standardized setup of PC software applications, known as Ericsson Standard Office Environment (ESOE). Another goal is to put all of Ericsson into the same e-mail system. In the near future, everyone will be converting to Microsoft Exchange with Outlook or to a Web reader in UNIX environments.

"It is important to understand that it is not the particular piece of software that is important, but rather that we have smooth administrative routines so that we can devote more time to our customers. We are currently committing major resources on things which can be overseen more easily. SAP R/3 and MS Exchange are steps towards that goal."

### More time for customers

Many units consider their operations so special that they find it difficult to implement the necessary changes. If one looks closely, however, in most cases there is a way around problems.

There is a great deal of talk within Ericsson about shorter lead times in getting products out onto the market and to the customer, often referred to as TTC (Time To Customer) or TTM (Time To Market). Without trivializing the importance of these goals, Rolf Skoglund wants to add another acronym to the context – TWC (Time With Customer). The goal is to simplify our administration so that more time can be spent with the customers instead. That is at the heart of our goal to improve our internal IT operations.

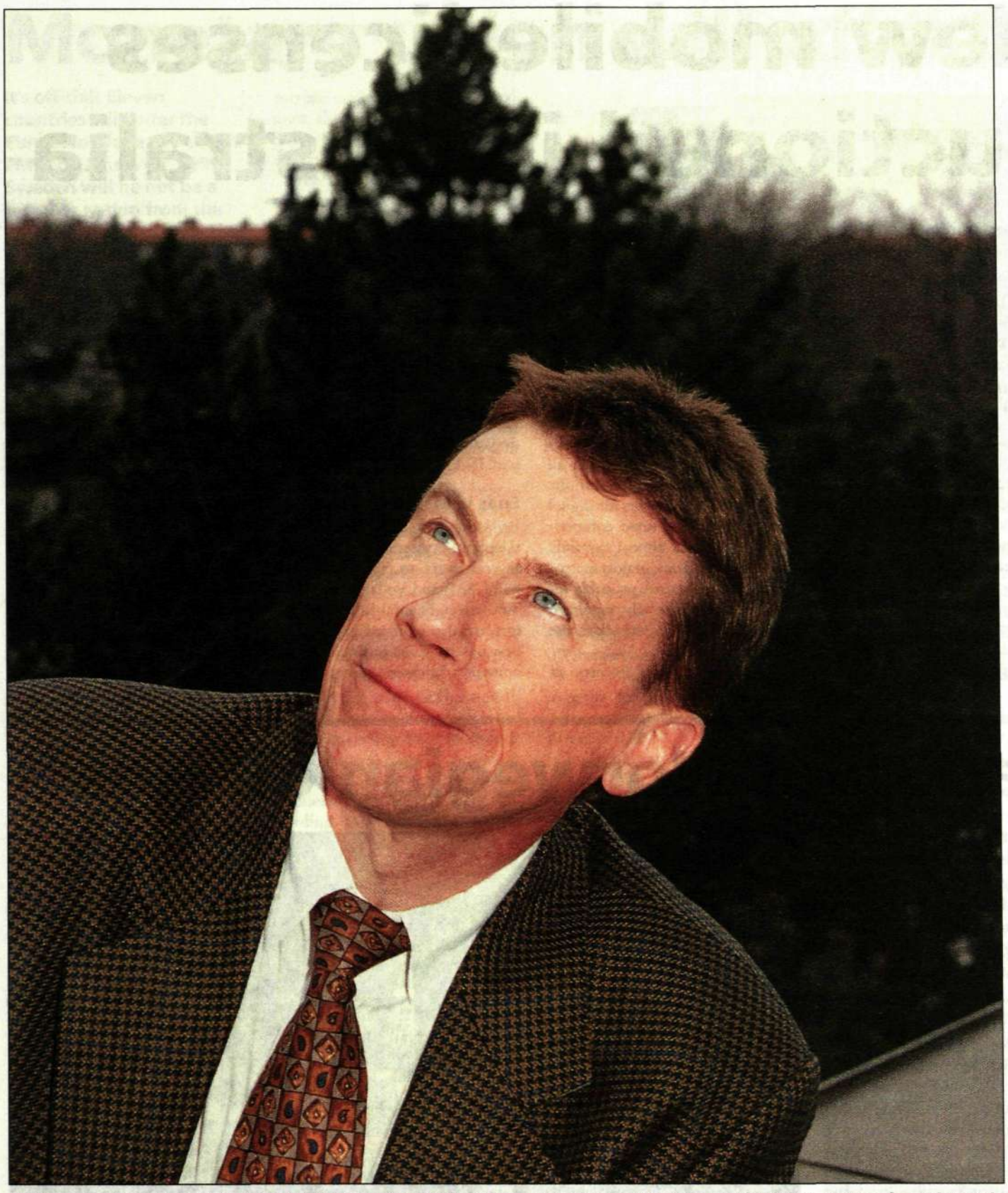
### Greater revenues

"Ericsson generates about SEK 1,000 per hour per employee. The more time that we can free up from sitting and manually filling in time sheets and travel expense accounts, the more we can devote that time to something which benefits our customers, which corresponds to greater revenues," says Rolf Skoglund.

"There are large resources within Ericsson that can be freed up and be directed outward instead."

This is especially important since it is difficult to find enough competent people within many important fields.

"I absolutely do not want to say that administration is unimportant. The point is



**Rolf Skoglund has been Ericsson's Chief Information Officer (CIO) since this past autumn. It's his job to ensure that Ericsson is using information technology in the best way possible. His position is new at Ericsson, but the job title is very common at many other companies, especially American ones.**

Photo: PATRIK LINDÉN

that we should conduct it in the most efficient manner."

He believes that we must constantly ask ourselves how we can use new technology.

"We must get away from the concept of viewing IT as the plumbing and the idea that if only we got things organized on the network,then everything would be peace and tranquillity. Instead, that is when the real work begins. How can we maximize the utilization of the tools we already have? At Ericsson, IT is still looked upon in many areas as a cost and not as development."

### New view

"Ericsson designs and sells many systems that we let customers test out in the field. Instead, we should be the first to come up with new ideas internally. Ericsson must begin to see IT on a strategic level," says Rolf Skoglund.

Being new to a company means that one sees things in an untainted way. When Rolf started working at Ericsson, he asked to see all of the forms that were used internally, in order to see what could perhaps be circulated electronically instead. He never got to see all of the forms. Instead, he received a 50-page summary, on paper, telling him about which forms exist. That says quite a bit about what Ericsson has yet to accomplish.

**PATRIK LINDÉN**

## news briefs

### Ericsson leaving Danish Terma

■ Ericsson has sold its shares in the Danish electronics company Terma Elektronik A/S. The buyer was the company's majority shareholder, the Thomas B. Thrige fund. Ericsson sold its shares in order to focus on its core operations. Among other things, Terma has been working together with Ericsson Microwave Systems on artillery radar equipment, a cooperative venture that will continue.

### Wireless access to the Web

■ The standard for wireless applications, WAP (Wireless Application Protocol) version 1.0, has now been published on the Web. Ericsson, Nokia, Motorola and Unwired Planet are all behind the effort. An open standard was intentionally created so that many developers could partake in the production of mobile services and applications for mobile telephones, among other things.

The specifications can be found at the following Web site: http://www.wapforum.org

### Pico base stations to Japan

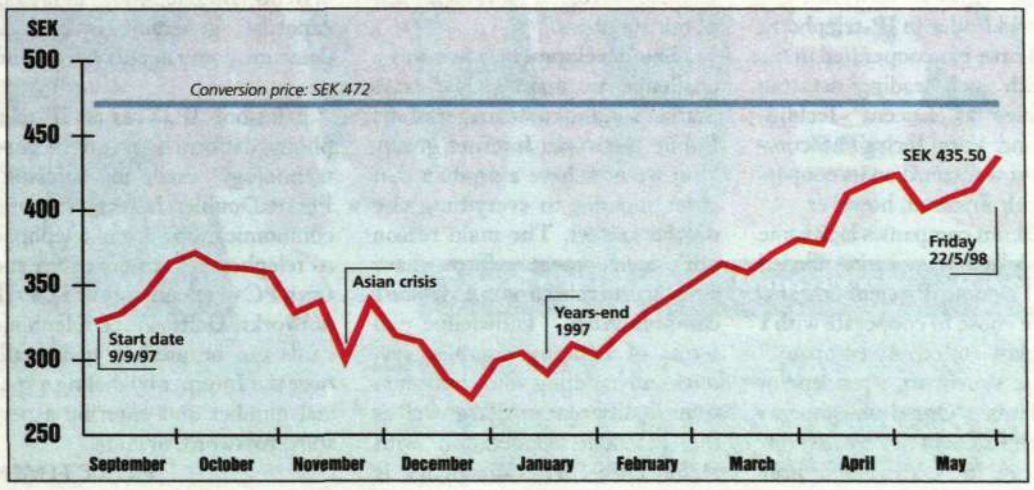
■ Ericsson recently signed a contract to deliver the first pico base stations for the Japanese PDC standard. Delivery will begin in June. Pico-type base stations are the smallest on the market. Only eleven liters in size, they can operate as boosters for mobile telephone networks both indoors and outdoors, in places where size is especially important, handling up to 500 subscribers.

### Ericsson selling operator shares

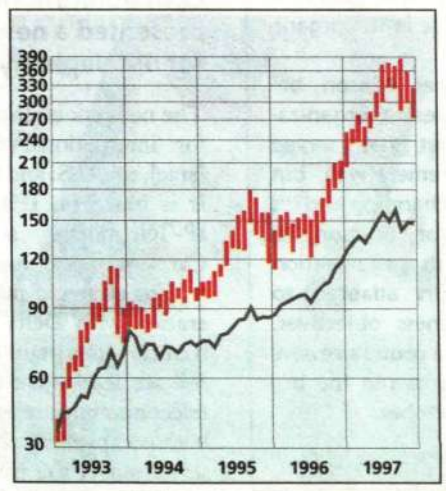
■ Ericsson is selling its shares in Turkcell, Turkey's main GSM operator. Ericsson owns 15 percent in Turkcell. Finland's Sonera is purchasing 7 percent and Turkey's Cukorova Holding is buying the remaining 8 percent.

"It is only in special cases that we depart from our strategy of not being shareholders in network operators. This strategy is based on the fact that we do not want to compete with our customers," says Sten Fornell, Chief Financial Officer for the Mobile Systems business area and chairman of the board of Ericsson Turkey.

## Keep track of the Ericsson share price with Contact




**On September 9, 1997 an extraordinary meeting of stockholders approved a proposal to issue convertible debentures to Ericsson employees. The conversion period extends through June 30, 2003.**
**For more info, see: http://inside.ericsson.se/converti.htm**




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

## in brief

### Unrest in Jakarta

■ A decision was made on Friday to close Ericsson's office in Jakarta until further notice in view of political unrest and rioting in the Indonesian capital. Ericsson has approximately 500 employees in Indonesia, all of whom were safe when Contact went to print. Approximately 50 employees working in Jakarta on foreign contracts have been evacuated from the country.

### Better sound in new 788e

■ Ericsson is now introducing a new GSM telephone, the GF 788e, to succeed its GF 788 model. The new telephone is similar in appearance to its predecessor, but the technology inside has been improved. Among other improvements, the sound is clearer, with less static.

### MINI-LINK to China

■ Ericsson Microwave (EMW) has received a multi-million dollar order from Cesec, a telecom operator in China, for delivery of MINI-LINK installations this year. The Ministry of Post Telecommunication, MPI, signed the contract with EMW for radio links to be installed in one of the provinces served by MPI.

"The order is another step in our successful sales efforts in China," says Lars Lönnstig, sales manager of the radio links division in Mölndal, who hopes for additional orders in the future.

### Review of organization

■ Sven-Christer Nilsson, President and CEO of Ericsson, has asked a small group led by Kurt Hellström, Head of the Mobile Systems business area, to conduct a review to determine how well Ericsson's organization supports our business activities.

The group will interview various people in the organization.

Sven-Christer Nilsson believes the present organizational format has served Ericsson extremely well, but the world is changing and it's important for Ericsson to know that its organization offers support adapted to present business objectives. Results of the group's review will be presented in the beginning of October.

# New mobile licenses auctioned in Australia

**Nine companies are taking part in the auction of new mobile telephony licenses now in progress in Australia. The licenses apply to the 800 and 1800 MHz band and represent new business opportunities for Ericsson.**

Australia has been one of the world's densest mobile telephony markets for many years, and approximately 30 percent of the country's population have mobile telephones today.

An analog AMPS network has been in commercial operation since the 1980s, supplemented by GSM systems in 1992.

Telstra, Optus and Vodafone, Australia's three GSM operators on the 900 MHz band, have a combined total of three million subscribers. In addition, Telstra's analog AMPS network serves two million other subscribers.

### Analog network

A question mark in the ongoing auction concerns the fate of the country's analog AMPS network. In 1995, the Australian government resolved to close down all analog mobile telephone traffic and use the frequencies for digital technology to increase competition. AMPS will almost certainly be removed from major metropolitan areas, but will probably remain in certain sparsely populated regions, called the outback in the Land Down Under.

The new mobile licenses in Australia are attracting well-established operators as well as domestic newcomers to the telecom arena. Qualcomm of the U.S. is backing Ozphone, one of the bidders. The American company advocates a CDMA solution, IS-95, for the 800 MHz band. Once again, accordingly, a technology battle is looming between CDMA solutions and Ericsson's D-AMPS system, IS-136, and GSM systems.

### Ends in May

Ericsson has delivered mobile telephone systems for the past several years to Telstra (AMPS and GSM) and Vodafone (GSM). The strongly established operators are also believed to have the best potential for business development. Ericsson offers GSM networks for 1800 band and D-AMPS networks for the 800 band.

"For Telstra, the advantage of a D-AMPS solution is simplicity in upgrading from AMPS, since the company would be able to use existing hardware and sites. For new operators, there is strong potential to differentiate themselves by adopting D-AMPS and various data applications," explains Toste Junestrand, sales manager for D-AMPS systems to new customers in Australia.

The bidding procedure is expected to be completed in May. Bids on the 2Ghz band reserved for future broadband UMTS systems will be requested at a later date.

**NILS SUNDSTRÖM**

# Cable for Norwegian oil rigs

**Ericsson has been contracted to deliver a communications system for Statoil's oil platforms in the North Sea. Supplies will include fiber optic cable and the installation of a communications system for voice and data.**

The order is valued at approximately SEK 115 million (USD 15 million). In the initial phase of development, a 250-kilometer cable connection will be drawn between Tjeldbergodden and the Heidrun Platform. The entire project is scheduled for completion in the year 2000. Telia and DSC Communications have been commissioned as subcontractors for the project.

The contract was created by growing communication needs within Norway's Statoil, which is concentrating strongly on IT development. Optical fiber cable has proved to be more economical than satellite systems.

**PATRIK LINDÉN**

**The quality of communications between the Norwegian mainland and oil rigs in North Sea, and between the platforms, will soon be improved by equipment from Ericsson.**

Photo: VICTOR LENSON BROTT

# New solution for IP-telephony presented

**Ericsson and Delta Three, a division of RSL Communications, recently presented a new solution for IP-telephony.**

The network is already functional for international calls between Israel, the U.S. and Great Britain. It is based on IPTC, Ericsson's IP-Telephony solution for Carriers.

"For strategic purposes, cooperation with Delta Three is extremely important to Ericsson. We are able to use the combined telecommunications expertise of both companies to offer the same services over the Internet as conventional telephony services," explains Ingemar Nilsson, Manager of Ericsson Public Networks.

A world leader in IP-telephony, Delta Three has cooperated in the past with such leading datacom companies as Lucent Technologies and VocalTech. The company is now focused on its cooperation with Ericsson, however.

"Datacom companies lack some of the skills and expertise needed to build a good IP-telephony system. We chose to cooperate with a world-class telecom company," says Elie Wurtman, President of Delta Three. "Our close cooperation with Ericsson has created opportunities to be extremely precise in stating our wishes, which resulted in IPTC, but Ericsson has also increased its value as one of our suppliers."

"The development work was a challenge in many ways," says Staffan Lindholm, manager of the Public Networks Internet group. "But we now have a product that is far superior to everything else on the market. The main reason our development efforts have been so successful was Ericsson's comprehensive knowledge in terms of building complex systems and handling voice transmissions in different media, as well as the excellent cooperation with Delta Three. The knowledge is attributable to Ericsson's vast experience in working with radio systems and telephony, an area of expertise generally lacking in datacom companies," he continues.

Ericsson's IPTC is an IP-telephony platform based on the same technology used in Ericsson's Phone Doubler. It accommodates communications from telephone to telephone, from fax to fax and from PC to telephone via TCP/IP networks. Delta Three telephone cards can be used to make calls over the Internet by dialing a special number and entering a personal password, or code.

**PATRIC ELMÉN**

# Monetary union will affect Ericsson

**It's official! Eleven countries will enter the European Monetary Union, EMU, on January 1, 1999. Sweden will be not be a member nation from the start, but will certainly feel the effects. EMU will impact Ericsson in several ways. The effects have already started.**

Considerable progress has been made in the Netherlands, with the Dutch subsidiary serving as Ericsson's pilot company for the introduction of EMU in all systems. The conclusions are clear. Many systems and routines have to be adapted, and it takes more time than originally anticipated.

In the long-term, EMU will represent a simplification for Ericsson, since there will be fewer currencies to manage and monitor. In its capacity as a business enterprise, Ericsson also supports EMU. During the initial conversion period, however, a great deal of work will be required. Financial reporting routines and programs must be reviewed, for example. Agreements and offers quoted in currencies that will be eliminated must also be examined carefully. Salary and wage systems as well as databases will also be affected.

One aspect that both simplifies and complicates EMU is that many of the people who are qualified to make the necessary system adaptations are busy working on Year 2000 compliance in Ericsson's computer systems, in parallel with the introduction SAP R/3, a new administrative support system. The most appropriate course would be to implement all changes simultaneously.

Siska Meerkerk is coordinator of the EMU project at Ericsson in the Netherlands.

She believes it would be imprudent to adapt all systems to EMU before introducing SAP R/3. Ideally, they should be implemented in parallel, but that would require a meticulous study of all the various requirements.

IT systems are the most critical components, but virtually all areas will be affected to some extent.

At the corporate level, Ericsson will continue to report financial results quoted in Swedish kronor (SEK), since Sweden is not a member of the European Monetary Union. However, according to Johan Fant, Senior Vice President, Corporate Finance Control, the company will also report some form of sales and earnings quoted in Euro, the new currency, beginning in January 1999.


**When trading in Euro notes and coins begins in the year 2002, they will look like this.**


Responsibility for required conversions lies with the individual companies, which are dealing with Year 2000 Compliance problems in the same manner. Ann Westergren is coordinator for the Parent Company. She stresses the urgency for every company to start preparing for the conversion in ample time.

In addition to reviews and conversions of Ericsson's internal systems, customers will also have to cope with the changes.

The invoicing systems of telecom operators, for example, will have to be adapted to accommodate Euro as the billing currency. Ericsson, in addition, will have to prepare price lists, offers and agreements in the new currency.

To facilitate the conversion work and support increased coordination, Ericsson has established a website on the intranet that features information and lists of contact persons.

Additional articles concerning EMU effects on Ericsson will be published in future editions of Contact.

**PATRIK LINDÉN**

The EMU Web site may be accessed from "Inside Ericsson" or directly at the following address: http://inside.ericsson.se/emu.

**This is the symbol of EMU's new currency.**

# D-AMPS campaign wins advertising prize in Canada

**Ericsson was awarded three prizes at a recent meeting of Universal Wireless Communications (UWC) in Vancouver, BC, Canada. An advertising campaign for the D-AMPS system received one of the awards.**

Ericsson received another award for the best mobile telephone for the TDMA standard, and Sven-Christer Nilsson received a special award.

Universal Wireless Communications is a global association comprising more than 100 members that include operators and equipment manufacturers working for development of the IS-136 standard, among other objectives.

The prize-winning telephone was Ericsson's dual-band, dual-mode PD 398 model. The winning advertising campaign showed how large companies can use Ericsson's technology and the D-AMPS system.

**PATRIK LINDÉN**

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**ERICSSON**

# Important to strengthen brand-name recognition in U.S.

**Ericsson still has a long way to go before reaching the goals established in Wanted Position 2000. That is the finding of a comprehensive opinion survey undertaken by the British consulting firm BPRI on behalf of Ericsson.**

"Generally speaking, Ericsson is considered to be an industry leader. But there are areas where there is clearly room for improvement. In the U.S., for example, Ericsson has weak brand-name recognition, and among Internet operators, the Ericsson brand name is virtually unknown," says David Willan, manager of BPRI.

By conducting 1,200 interviews in 29 different countries with key decision makers, including customers, potential customers, opinion leaders and government authorities, Ericsson is meeting one of the goals established in Wanted Position 2000.

### Reliable supplier

The study paints a picture of a strong Ericsson among our traditional target groups and in our traditionally strong markets. In those places, Ericsson is considered to be a market leader, with high levels of telecommunications expertise. Customers believe that Ericsson is a confidence-inspiring and reliable supplier of problem-free equipment.

The Ericsson brand name is associated with a number of positive traits including reliability, high quality and higher degrees of functionality than its competitors. The brand name is strong thanks to a significant international presence with operations in many countries.

Still, the study shows that Ericsson has a ways to go until it reaches the goals outlined in Wanted Position 2000. Above all, Ericsson's weak position in the U.S. and among Internet operators and business customers needs to be quickly improved.

### The U.S. a weak spot

"We really need to improve here, since the U.S. is an important country strategically, in addition to being our second largest market. It is a leader for the rest of the world. The same is true of the Internet industry. This is where our future customers are. That is why it is important that we really continue to make improvements in those areas," says Lennart Grabe, Senior Vice President of Corporate Business Development, and also responsible for strategic planning.

Even in terms of customer relations, there are some things which Ericsson could do better.

"Most people would like to have one Ericsson contact person to be able to turn to, regardless of whether it pertains to mobile telephones or public exchanges. Only one third of the respondents think that the company has one single profile today. But in many countries, this is starting to change," says Mats Rönne, corporate marketing communications director, who ordered the study.

### The face of a Viking

Ericsson's brand name signifies reliability and honesty, but there are those who seek a somewhat softer qualities.

"Ericsson has the face of a Viking, but it needs to add a little Brazilian warmth into the picture," said a Brazilian interviewee in the survey.

The requirements in the little red book, Wanted Position 2000, are tough. They are important to reach, however, in order to be able to live up to the customer requirements of the next century. Ericssonmust become and be considered the best – number one.

"Within Ericsson, we have been conditioned to sell system consisting of Ericsson products. Forget it! We are moving towards a world where the systems will consist of products from many different suppliers. We have to choose to be the best at certain procucts that everybody wants to have in their systems regardless of the supplier. There won't be room for second best in the future," says Lennart Grabe.

MIA WIDELL ÖRNUNG

**Ericsson's brand name is weak in the U.S. and among Internet operators. Ericsson is now focusing on showing that the company can and will be a part of expanding the Internet.**

Photo: VICTOR LENSON BROTT

## Here are the results of the survey

**A total of 1,200 representatives from Ericssons business customer markets in 29 countries were interviewed in what was the most comprehensive opinion survey that Ericsson has ever conducted. The survey shows where Ericsson stands in terms of the goals outlined in Wanted Position 2000.**

In Europe, Ericsson was considered an industry leader, ahead of Siemens and Cisco, for example. But only in Eastern Europe was Ericsson considered the best business partner. In Western Europe, Ericsson and Siemens shared first place.

In Asia, Ericsson was generally ranked second behind Motorola. But differences were minor, and leave the possibility open for Ericsson to gain ground. In Japan, Ericsson is still weak.

In Latin America, Ericsson ranked in first place for questions regarding which company is the industry leader, but its ranking was not as good regarding perceptions of the best business partner. In other words, work needs to be done on customer relations.

In the U.S. and Canada, the Ericsson brand name is weak. Cisco, Nortel, Lucent and Motorola are all ranked higher than Ericsson.

Ericsson still does not have the most satisfied customers in the industry. That title goes to Cisco.

Overall, Ericsson has the strongest brand name, since Ericsson is the most international of the companies. The brand name is strongest among mobile telephone operators and, to a certain degree, also among fixed network telephone operators.

The brand name is much weaker among Internet operators and business customers, for example.

If you want to find out more, contact Lars Svanström, memo address ETX.ETXLEOS or Mats Rönne LME.LMEMARO

**"There are areas that need improvement at Ericsson", says David Willan manager of BPRI, a consulting firm that has conducted an opinion survey for Ericsson.** Photo: MIA WIDELL ÖRNUNG

# Number one on the Net

**Ericsson is essentially unknown among Internet Service Providers, according to market research conducted by BPRI. The results are alarming since a large number of Internet operators are Ericsson's future customers.**

"I am not especially worried about the results. Up until 1994-1995, our investments were rather meager, but since then we have invested more in the area," says Rolf Johansson, market manager of the Internet unit within the Infocom Systems business area.

"Our goal is to be the leading Internet company. We have the products. Now we have to get people to think of Ericsson as an Internet company."

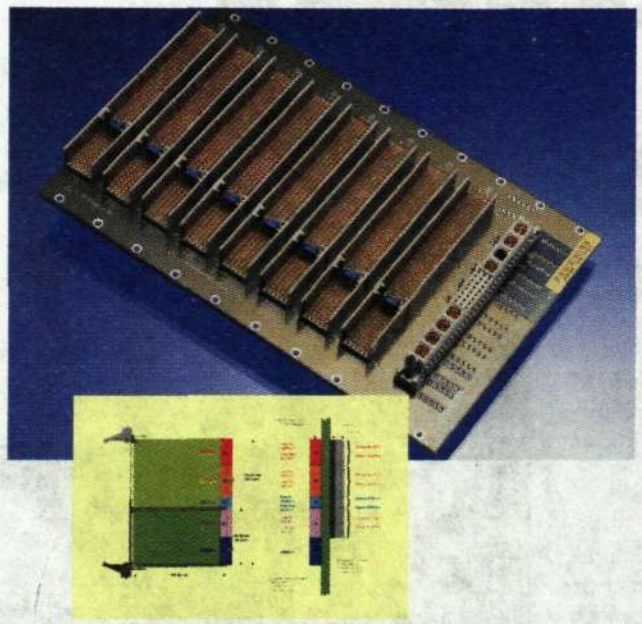
*But isn't it unrealistic to aim at becoming number one?*

"No. Ericsson has very good resources in terms of radio access and Internet services, for example telephony over the Internet. That is where we will become number one," says Rolf Johansson.

Considering the results of the market research, Ericsson has a long way to go to be considered the leading Internet company. But Ericsson has already started working hard to strengthen its position regarding the Internet.

"More than half of the datacom companies are located in the U.S. That is why we are increasing our presence and our operations there. In addition, most of the influential analysts and journalists in the computer industry are in the U.S. I think that those are two important channels which we must focus on to clearly demonstrate that we can and will be active in constructing the Internet," says Rolf Johansson.

MIA WIDELL ÖRNUNG



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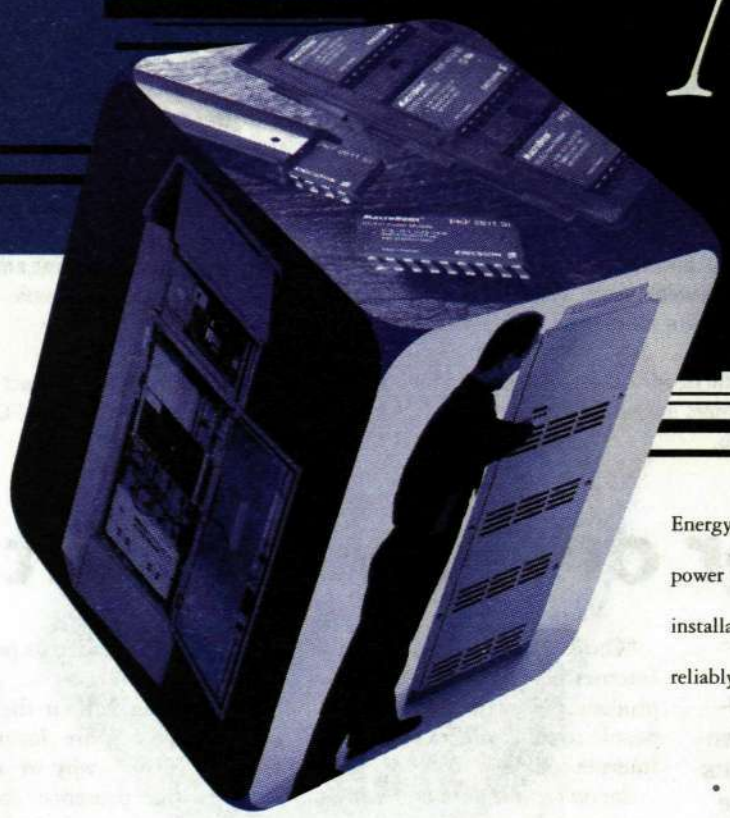

# *Masters of Energy*

Energy Systems, as part of Ericsson Components, offers total energy solutions. These range from miniaturized power modules that fit directly onto circuit boards, up to complete energy solutions for large exchange installations. Companies throughout the world rely on Ericsson's energy solutions to power their systems reliably, **shouldn't you do the same?**

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ERICSSON

Ericsson's objectives with the new open AXE architecture are perfectly clear. By the year 2001, sales are to double, market share to increase to 20 percent and profit margins to rise.


# Increased sales with the new AXE architecture

The new open AXE architecture is the first real step towards an integration of computers and telecommunications.

"We are expecting significant growth during the next three years," says Göran Olsson, manager of Switching at the Public Networks business unit.

The architecture is state-of-the-art in the telecom world right now, and a key product for the future.

"It is a comprehensive and open solution for both fixed and mobile communications, narrowband and broadband, computer and telephone traffic," says Göran Olsson.

The idea is that increased computer traffic on public networks, along with new telecom services, will accelerate sales of the new AXE products: AXE Local 6 and AXE Access 910. The world market for public networks is expected to grow from a total of USD 55 billion to USD 87 billion, or approximately SEK 700 billion, by the year 2001. During the same period, Ericsson is expected to increase its market share from 15 to 20 percent in the switching segment.

"Within a short period of time, computer traffic on public networks will exceed telephone usage, and we have to market products that can handle both. The concept behind AXE's open architecture and the new products was directly developed for infocom, i.e. a large network of cooperating smaller networks such as networks for IP, mobile networks and public networks," explains Göran Olsson.

**Göran Olsson**

The new open architecture includes a number of advantages for network owners, in addition to the fact that they can also utilize investments already made in AXE. Advantages include reduced costs, greater scalability, increased capacity and the possibility of offering a large selection of services. With the open architecture, there are also possibilities of expanding the range of services to other companies products and solutions. The background of AXE's open architecture is based, among other factors, on demands for faster integration of various technologies and protocols, as well as the development towards more open markets.

"Ericsson is already active within all existing network areas, and with the new open AXE architecture, cooperation can seriously begin," explains Göran Olsson.

The new local exchange, the AXE Local 6, will be initially launched alongside traditional telephone services. It offers the added possibilities of Intelligent Network services and connections to new access systems, for example.

"AXE has been continually and systematically developed and adapted to new technologies over the years. When making comparisons between AXE of the past and the current version, one is really talking about completely different products," explains Göran Olsson.

New connection equipment is also a part of the new product range. AXE Access 910, for example, can handle a number of different technologies including ISDN, xDSL and networks based on Internet protocol. Göran Olsson does not give credence to the criticism directed towards Ericsson, that AXE is part of a dying breed.

"We view computer communication and the Internet as big opportunities for us. And the new AXE architecture is a bridge between ordinary telephones and multimedia communication," he says.

**TORBJÖRN CARLBOM**

## chronicle

Lynne Howell Wiklander is one of the people at Ericsson who evaluates possible sponsorship commitments. Many submit inquiries, some receive a yes answer. Lynne explains why some requests are accepted and others are declined.

# Communication isn't everything

About five years ago a new phrase was born in Ericsson. Together with the first corporate image advertising campaign, life was breathed in the now well-recognized tag line, "It's about communication between people. The rest is technology." It is, of course, exciting and rewarding to hear outsiders repeat this phrase in a way implying that it is a self-evident description of Ericsson's operations.

And in fact, one of the more popular uses for the phrase is in conjunction with sponsorship. It explains precisely why Ericsson should sponsor a person, team, event or location. It has become an all-encompassing description for why Ericsson should provide mobile telephones to an expedition, or why we should have banners at a football stadium, why we should support an experimental artists' group, and why Ericsson is the perfect sponsor for motor sports. And so on, and so on.

As an infocom organization, we appreciate being recognized for the simplicity and common sense behind this important phrase, but that alone isn't enough to justify our engagement in a project. There's much more behind that phrase and behind our sponsoring activities. And that has to do with values. Our corporate values, our customers' values, and our brand values. The Oxford Modern English Dictionary defines "value" as both a noun and a verb: "the worth, desirability or utility of a thing" but also as "one's standards; one's judgment of what is valuable or important in life."

What are the long-lasting standards (values) that we are trying to deliver to all of our target groups? It can be summarized with a number of key words. Words such as integrity, commitment, fulfillment and cooperation.

Agreeing to and managing a sponsorship project, regardless of the size or location means constantly living up to our standards. You don't see the word "charity" in the values list. And you don't see the words "casual" or "accidental." Sponsorship is a business decision, supported by a business case which takes our standards (values) into consideration.

Yes, it is about communication between people, and so much more. It's about communicating carefully considered values across our target groups as well as living up to our benefactors' expectations for long-term cooperation with the highest levels of integrity.

And the rest is all about, well, you know.

Lynne Howell Wiklander

**One of Lynne Howell Wiklander responsibilities is Ericsson's corporate sponsorship commitments. She participated in the development of Ericsson's sponsorship strategy which can be found on the intranet at: http://www.lme.ericsson.se-LMER/corp-dir/policy.htm**

# RF Silicon Design in Europe

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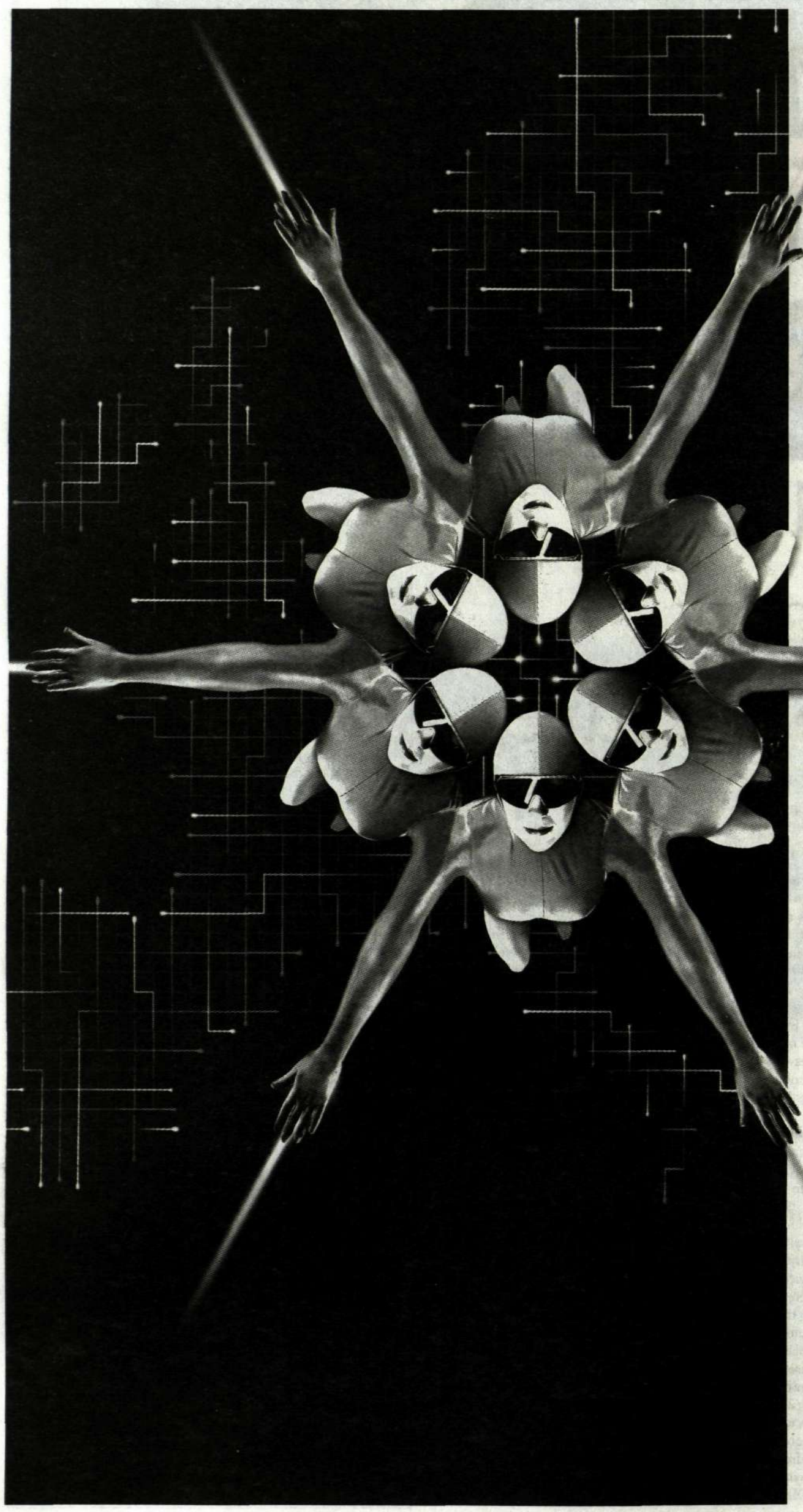

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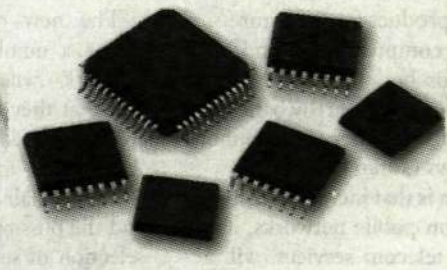

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# 14,000 hours until the year 2000

**The arrival of the turn of the century is not negotiable. There are only 82 weeks remaining. And yet, personal computers are still being delivered that are not year 2000-compatible. Is your PC year 2000-tested and ready for the millennium shift?**


**This is the sticker that Ericsson Utvecklings AB has designed to earmark computers that have been tested and found to not be year 2000-compliant.**

"We won't have time to test all of the systems. Today, we have to prioritize and think about contingency plans and alternative solutions."

Christer Ekengren is coordinating the year 2000 (Y2K) transition for Ericsson's support systems.

He is understandably worried about the short amount of time remaining until we will be standing with results in hand over which computers and systems managed the Y2K transition and which did not.

### Money not the answer

"Of course the Y2K problem will cost money, but money is no longer the problem, but rather time and competent personnel. Regardless of how much money one has, only one person at a time can work on each individual aspect of every program. And that takes time," says Christer Ekengren.

"The fact that you have Ericsson Standard Office Environment (ESOE) on your computer is no guarantee that you won't experience problems. Your actual computer still must be tested and programs have to be installed locally."

**Christer Ekengren.**

Each unit must take responsibility itself for making the Y2K transition. Ultimately, it is the president of every company that has the responsibility of making sure that this gets done. There isn't any extra money to take care of the Y2K problem. Instead, money must be taken out of the regular budget. It will be a question of priorities.

### Check 2000 big help

The reason why personal computers are still being delivered which are not Y2K compliant, and why few manufacturers will issue guarantees, is the fact that so many sub-contractors are involved. It isn't enough to just test one computer per shipment. There can be differences between two computers that are manufactured on the same day in the same factory.

Some assistance is on the way in the form of a tool known as Check 2000. Ericsson has purchased 50,000 licenses for the program which checks through individual computers and makes sure that they can handle the Y2K transition, sort of like a virus-checker program.

IT managers in every unit can run Check 2000 to see which computers need to be replaced. At Ericsson Utvecklings AB, they have started doing this and have designed a sticker to label those computers which will not handle the Y2K transition in their current configurations.

That is one way to make the problem visible.

### Much uncertainty

"Even if we test large systems, we cannot be sure that everything will operate properly. Oftentimes, information is transmitted over the network through various routers and so forth, which are outside our control. And should everything work that far, there still could be problems with simple things like electrical power interruptions because a local power supplier can't control its operational and monitoring systems."

Ericsson is relatively far along in its Y2K preparations, but that will not be enough. Christer Ekengren wants to encourage people to do as much as they can, as soon as possible. It is his opinion that those who are not ready by the middle of 1999 will most likely not have time to do anything.

In order to facilitate the process, information and names of contact people have been gathered on a Web site. Within a short period of time, help will also be available for Y2K questions through the global help desk operated by LM Ericsson Data.

For those who want to find out more, a great deal of information is posted on the Internet. A five minute video on the problem has also been produced. It can either be downloaded or a videocassette can be ordered from the Web site.

**PATRIK LINDÉN**

## Advice on the year 2000 problem

■ A Web site pertaining to the year 2000 (Y2K) dilemma is located at: http://millennium.ericsson.se/

A help desk pertaining to the Y2K problem will open on June 1 and will be staffed by LM Ericsson Data. For details see the Web site. Responsibility for the Y2K problem is delegated among a number of people: Christer Ekengren is responsible for Ericsson's support systems, Jorma Mobrin for Ericsson's products, Harald Johanssen for production facilities, Anders Olausson for buildings and infrastructure and Britt-Inger Eriksson for overseeing and coordinating the entire program. All of these people work at the parent company. If you are an IT manager and need to obtain copies of the PC test program Check 2000, you should contact Krister Ranlind at LM Ericsson Data.

## diary


**Jacqueline Kalmár works at Ericsson's development company, testing AXE products. Here she tells about a week she spent in China, testing equipment for a customer.**

# Without tools in the Middle Kingdom

**Wednesday** I'm leaving the familiar corridors of floor 3 in building 25. Someone shouts enthusiastically after me to watch out for Chinese prisons. With that admonition ringing in my ears, I begin my journey towards the Middle Kingdom. A portion of the party, which consists of myself, Tommy, Ola, Katalin, Karin and Linda, gets lost at the airport. Some of the uniformed customs officials look somewhat confused when we storm past them from the wrong direction.

**Thursday** From above, Hong Kong looks like a gigantic green construction model with pink Lego towers lined up in a row. With that impression still lingering in my eyes, I am suddenly jolted to attention as the pilot decides to land. Surely anyone who has had the pleasure of landing at Hong Kong's Kai Tak airport has experienced the feeling of stopping in midair, and then rapidly dropping down to the runway. The whole thing is rounded out with an elegant screech of the brakes.

Once at the local Ericsson office, we view a presentation and sit through an hour-long review of the situation at the FOA (First Office Application) facility in Nanhai and Ericsson's testing facility. In both places, hardware and software upgrades are underway, and the purpose for our visit is to assist the demonstration team in the debugging of the customer demonstration.

**Friday** Unbelievable traffic, millions of wheeled vehicles, the only thing that can be heard is the sound of motors; it is forbidden to honk. Upon arriving we find the most sacred of items – the AXE system. Today we are going to upgrade the hardware and software. Installation and recabling is being done by Karin and Linda with the help of two local technicians. We replace cards and cables and upgrade the software for the group chooser, central processor and Input/Output system. We work until early morning the next day.

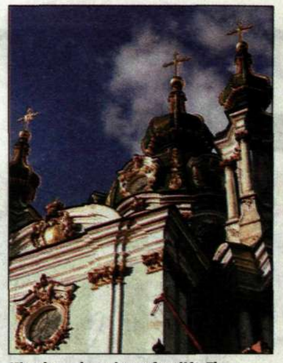
**Saturday** Slept for a couple of hours before heading out to the testing facility to do more or less what we did in Nanhai. The customer demonstration is scheduled to begin on Monday. End the day at a genuine Chinese restaurant. Good thing that Ivy Li is with us. I have the pleasure of following her to a serving table and pointing out what I want to eat. Am satisfied with my chopstick technique.

**Sunday** Have the day off. We do our best to see as much as possible. We four are the only Westerners as far as the eye can see. I feel like a blue elephant covered with pink polka dots. It seems as though the host country's inhabitants are all staring at me. We wander around on narrow back streets as well as the heavily trafficked shopping street, Beijing Road.

**Monday** Our project leader informs us that we will soon begin the acceptance test. First the customer will be shown how the system works. Then it will be implanted onto the customer's network. The APZ gang furiously looks for problems. Why doesn't the initial installation at the test facility work? Tommy and Ola suspect that there could be some sort of problem with the equipment. Katalin works on the I/O system and Markus tries to get the group switch to work. The whole thing is hindered by the fact that we have trouble finding the proper tools. Miracles are accomplished, however, with a 0.7 millimeter pencil and a pocket knife. The women from Östersund took their toolbox home with them to Sweden. We'll have to wait until tomorrow to deal with things. In the evening I become engrossed in a Chinese soap opera.

**Tuesday** Markus and I sit at the testing facility and contemplate our fate. The others are out at Nanhai, looking for problems, so that the acceptance test will be conducted without too much of a delay. The station software doesn't correspond to the hardware in the station. One person works on solving that, which takes time, even if most of it is on files on the PC network. Markus is still unable to replace cables or cards in the group switch. We have been waiting for screwdrivers since 8:30 this morning. After lunch, a man shows up with newly purchased screwdrivers. They are, however, the wrong kind. He leaves again to exchange them. Eventually we give up and go home.

A poor economy, political instability and uncertain prospects for the future. The Ukraine was classified in Ericsson's strategic reports as uninteresting just a few years ago. Despite that, a small office was opened. Today, Ericsson is the Ukraine's largest supplier of the mobile telephone systems and fiber optic cables that is connecting the country more closely with Europe.



Kiev is undergoing a facelift. The facade of the Andreevskaja Church is one of many that are being refurbished.

# Ericsson tests its wings in the Ukraine

Telecommunications are being expanded within the Ukraine, just like everything else – the banking system, private companies, and roads. This former Soviet republic still has a long way to go, however.

"The need for telecommunications is enormous here. Only about 20 percent of the 53 million residents have a telephone. I think that we have many opportunities for expansion here, particularly in terms of mobile telephones," says company manager Leif Edvall, who was one of the first Ericsson employees to arrive in the country.

Economic development in the country since its independence has been poor, with a shrinking gross domestic product (GDP). Privatization reforms have lumbered along at a snail's pace, and experts do not expect things to move any faster now that the communists won the parliamentary elections in March.

### Slow growth

Still, the Ukraine has potential. The country is strategicly located, it separated from the Soviet Union with several large industries intact. It has rich farmland, minerals and good ports and inflation is now under control. In addition, the country receives major support from international organizations and is the U.S.'s third largest recipient of foreign aid. And, in the first quarter of 1998, the Ukraine showed a small increase in GDP.

"We are starting to see very slow economic growth. But it has just begun," says Viktor Zhenzhera, head of the Ministry of Communications.

Victor Zhenzhera

"Telecommunications is one of the things we are now prioritizing, and we are getting a great deal of help in that regard from Ericsson. We are currently planning to privatize the state run operators."

It was in May 1995 that Ericsson took the definitive stride into the Ukrainian telecom market.

A few marketing people, from what is now the Infocom System business area, began by opening a small office in Kiev. The year before, Ericsson had presented a centralized market analysis which more or less eliminated the Ukraine as a promising market for Ericsson. But since the plans were far along, they decided to go ahead and test the waters in Europe's second largest country. The following year, Ericsson in the Ukraine became its own company.

Despite the fact that Ericsson entered the Ukrainian telecommunications market relatively late compared with several competitors, Ericsson received a series of orders.

### Only supplier of mobile networks

Ericsson sold a few AXE switching systems to a few small, private telephone operators, became the sole supplier of D-AMPS mobile networks to the operator DCC, as well as supplier of GSM mobile networks for the operator Kyivstar. Ericsson also became the largest supplier of fiber optic cables and SDH transmission equipment.

These networks are very important for the country's development.

"Thanks to Ericsson putting us in contact with Poland and other countries to the west, we now have a window on Europe, as Peter the Great called it in his day," says Viktor Zhenzhera.

The transmission project has also strengthened Ericsson's position in the Ukraine.

"We entered the Ukrainian market quite late. This has put us a bit behind, particularly with regard to switches, but I think that now we have built up confidence in Ericsson," says Leif Edvall.

Leif Edvall

Trust and good relations are important in the Ukraine. For example, Ukrainians place a great deal of importance on whether the Swedish government supports Ericsson.

"We notice when Helmuth Kohl or Bill Clinton have been here. Business suffers for a while as a result. We really have had no support from the Swedish government. Up until now, they have not been especially interested in the Ukraine. Last year, when Sweden Days were held here, the Swedish trade minister was scheduled to participate. But, at the last minute, he declined, and all of a sudden there was nobody present on the same level as the Ukrainian government ministers. That was very embarrassing," says Leif Edvall.

The biggest uncertainty in the Ukraine is financing. The state has little or no resources to invest. They are dependent on credit from international banks and organizations, or suppliers. The same is true of most private operators. Ericsson must always be sure of getting its money back over the long term, and especially ensure that the operators will continue to expand their networks. Ericsson in the Ukraine is now in the process of expanding its organization to provide support both for fixed and mobile telephone networks. The number of employees is expected to grow from today's 21 to approximately 55. But the mere fact that Ericsson in the Ukraine is expanding its organization to handle the growth in the Ukraine is not enough. Good support also requires resources and involvement from product owners.

"The reorganization within Ericsson has been a bit of a problem for us. So far, the authorities have been very satisfied with our fiber optic cables, but if the product support doesn't work, then there is a risk that we will loose that confidence," says Leif Edvall. "However, to date the telecom authorities have been very satisfied."

"I believe that Ericsson has every chance to expand here. The Ukrainians are very interested in technology. This will be particularly apparent with regard to data communications. When this technology catches on, the pace will accelerate tremendously," says Leif Edvall.

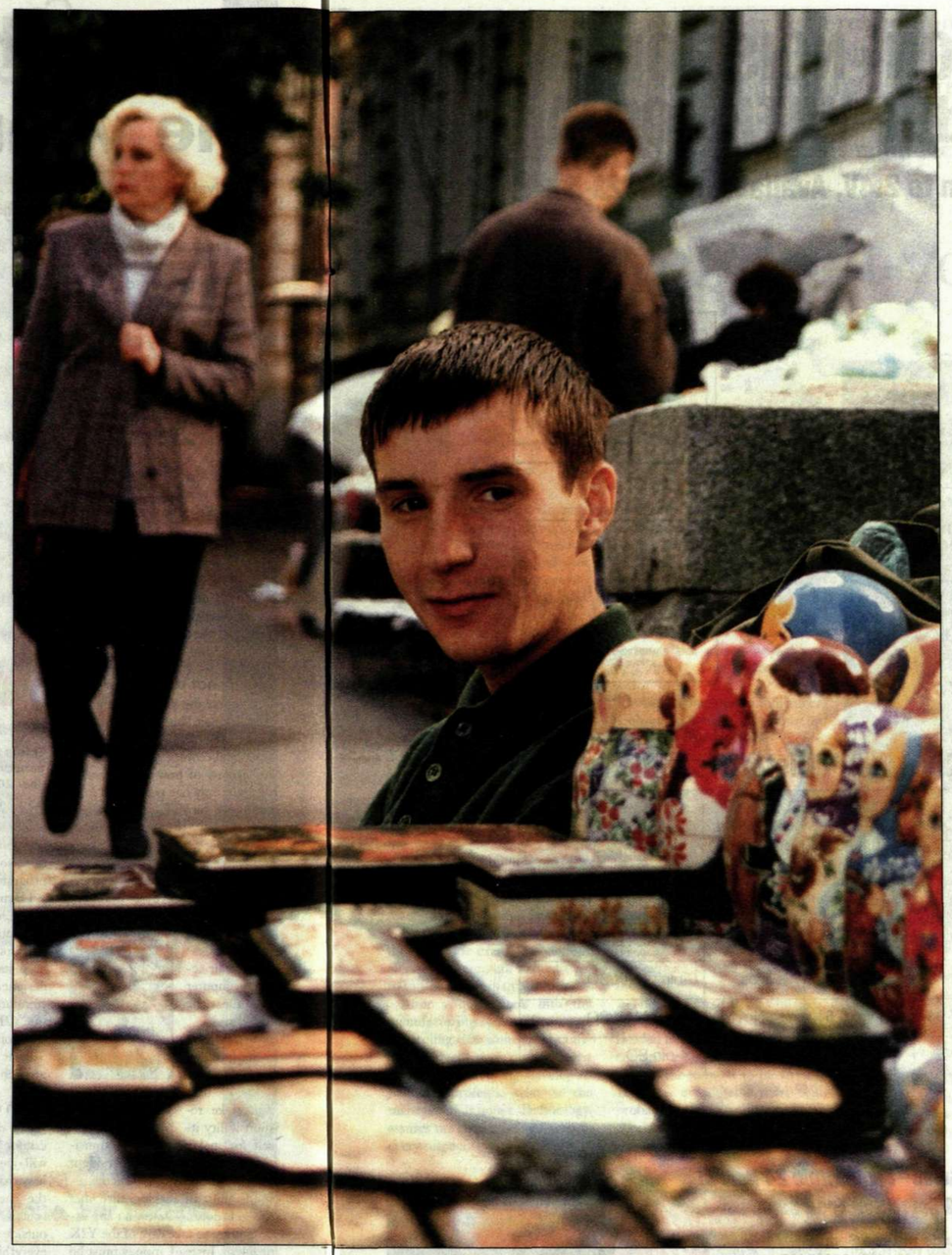
MIA WIDELL ÖRNUNG

## Ukraine in brief

■ Next largest country in Europe, with an area as large as France and Denmark combined. Population of about 53 million. Capital city. Kiev, is two hours by air from Stockholm. GDP in 1997. minus 3 percent, first quarter 1998, 0.2 percent. Inflation in 1994, over 400 percent. About 10 percent in 1997.

## Ericsson receives cable order

■ Last week, Ericsson received an order worth SEK 30 million from the Ukraine. The order is for fiber optic cables and network products for the construction of a fiber optic transmission network between Nikolaev in southeastern Ukraine and Sevastopol on the Crimean peninsula.



A Ukrainian boy sells Russian dolls on Andreevskiy street. Most of the people in the Ukraine do not have a telephone. Only slightly less than 20 percent of the approximately 53 million inhabitants have access to a telephone. However, there is a growing group of wealthy individuals who are now becoming mobile telephone users. Photo: MIA WIDELL ÖRNUNG

## The company is expanding sales

■ Sales: SEK 100 million in 1996, approximately SEK 300 million in 1997. Strong growth is expected for 1998.
Fixed telephony: Ericsson is the largest supplier of SDH transport networks with fiber optic cables. A few AXE stations have been sold to private operators. Ericsson is not, however, one of the four telecom companies that the telephone authorities designated to be suppliers of public exchanges.
Mobile telephone systems: Sole supplier of mobile telephone networks based on the American D-AMPS standard for the operator DCC. Ericsson is also the sole supplier of GSM networks to Kyivstar, one of three GSM licensees in the country.
Mobile telephones: Motorola and Nokia are popular here, but Ericsson is showing strong growth. There is also a grey market for mobile telephones, which is posing some problems for Ericsson in the Ukraine.

# Kyivstar and Ericsson cooperating closely

**The situation is rushed. There are only a couple of days left until the European Development Bank's delegates arrive at their big conference in Kiev. Building facades have been replastered and hotel rooms have been freshened up. Now the new mobile telephone operator Kyivstar needs to complement its GSM network with a couple of micro base stations inside the large conference building in order to ensure optimal radio coverage.**

An installer from Ericsson in Finland has been called in. He received the notice that he was to go to Ukraine the same morning.

At the airport in the Ukraine, he stands in line to arrange his visa as he did not have time to do so before he left. Several problems have arisen and need to be quickly cleared up.

For the past three years, the Ukrainian operator Kyivstar and Ericsson have been working together. The operator and supplier have helped each other out with licensing applications, bids and frequency applications. It has been a close working relationship that has led to good results.

### No choice

"Despite the risks involved, we realized that we didn't have any choice. If we wanted to get into this market at all, we had to be there at the beginning when the government sold the GSM licenses," says Ralf Rehnström, marketing director for the Ukraine from Ericsson in Finland which put together the contract with Kyivstar.

Ralf Rehnström

The initial construction phase with 21 radio base stations is now complete, and recently Ericsson and Kyivstar signed a general agreement worth over USD 100 million, in which Ericsson will expand the network over a three-year period. Already this summer, an additional 55 base stations will be installed and messaging services and network monitoring systems will be installed.

"There is definitely a market for mobile telephones here. It is difficult to say how big it is, but we believe it could run between two and four percent, which would mean at least a million mobile telephone subscribers," says Sigmund Ekhaugen, vice-president of Kyivstar. He became a part of the company when Telenor purchased a portion of Kyivstar, an investment that cost the Norwegian operator USD 40 million.

Like in many other countries, mobile telephones are a luxury item in the Ukraine. A new group of individuals has appeared, however, able to afford new Mercedes and Ericsson mobile telephones.

### Fast supplier

"So far, ordinary people in the Ukraine are not buying subscriptions. Mostly, it is foreign companies, ambassadors, and also a growing number of business leaders from both large and medium-sized companies," says Irma Mazur, the person responsible for subscription contracts at Kyivstar.

Coverage is the most important thing for Kyivstar right now. They need to quickly reach an acceptable degree of coverage in Kiev, especially now when the European Development Bank is paying a visit.

"I am very impressed by Ericsson's speed in regards to delivery of the products we ordered prior to the bank conference," says Sigmund Ekhaugen.

The day that a number of the European bank delegates are to arrive, a group of Ericsson employees are sitting at the airport. The hotel has made room for the important guests and thrown out as many others as possible. But despite the short, somewhat chaotic amount of time, the new micro base stations are now in place.

"Now everything should work. Coverage is good," says Sven Langkaas from Ericsson in Norway, who is the project manager for the construction of Kyivstar's GSM network, before climbing onboard the plane home to Norway.

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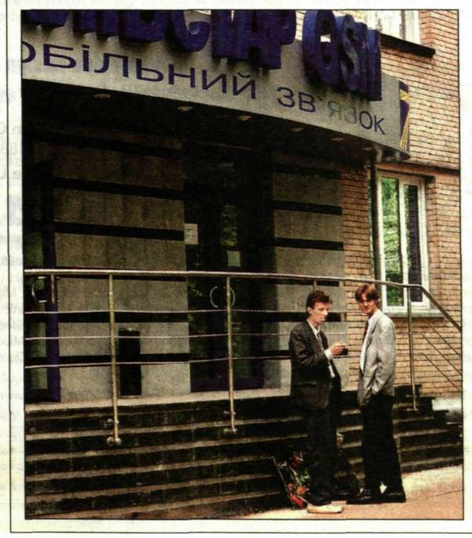


The mobile telephone operator Kyivstar recently opened a new service center in Kiev. In the first week, 35 subscriptions were sold. Kyivstar is now attracting subscribers by promising that you can call on your telephone 10 minutes after signing the subscription

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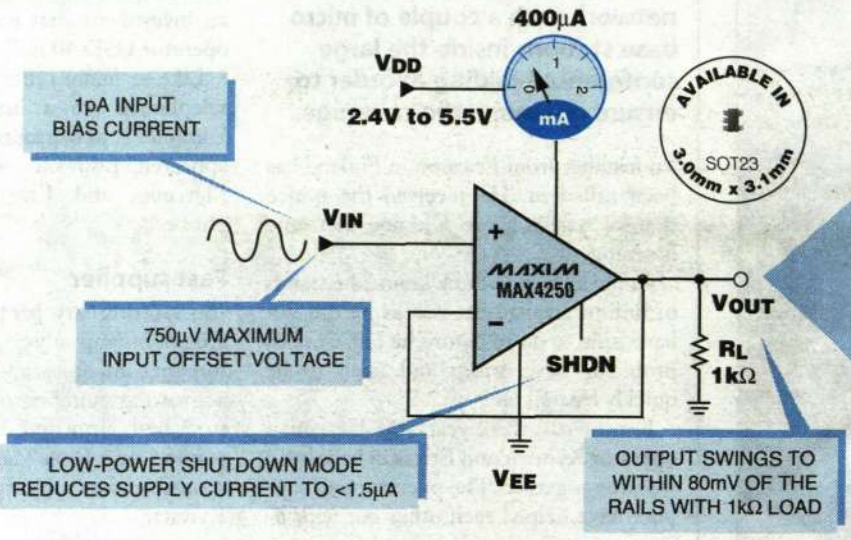


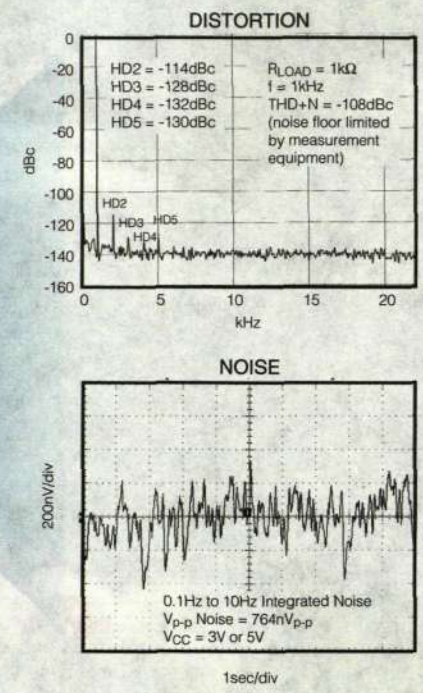


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| PART | MIN STABLE GAIN | NO. OF AMPS | GAIN-BANDWIDTH PRODUCT (MHz) | THD + NOISE (dBc) | SUPPLY VOLTAGE RANGE (V) | SHUTDOWN AVAILABLE | PACKAGES |
|---|---|---|---|---|---|---|---|
| MAX4249*/53* | 1/10 | 2 | 3/22 | -108/-98 | 2.4 to 5.5 | Yes | 10-pin µMAX, 14-pin SO |
| MAX4250/55 | 1/10 | 1 | 3/22 | -108/-98 | 2.4 to 5.5 | No | 5-pin SOT23 |
| MAX4251/56 | 1/10 | 1 | 3/22 | -108/-98 | 2.4 to 5.5 | Yes | 8-pin µMAX/SO |
| MAX4252*/57* | 1/10 | 2 | 3/22 | -108/-98 | 2.4 to 5.5 | No | 8-pin µMAX/SO |
| MAX4254* | 1 | 4 | 3 | -108 | 2.4 to 5.5 | No | 14-pin SO |

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**Advanced, rapid-paced technology requires equipment that can quickly adapt to changing demands. The Kumla plant realized a few years ago that it was difficult to find manufacturing equipment on the market that corresponded to the demands of the technology. A few clever inventors put their heads together and today a large portion of the equipment is manufactured under the same roof as the mobile telephone manufacturing.**

# High-level do-it-yourself operation

Tomas Hartman, production technology manager explains, "By having our own equipment manufacturing, we were able to make changes more quickly. It was also easier and more cost-effective to do it that way."

Today, the unit has grown from a few toolmakers in 1991 to 46 designers, preparers, purchasers, and safety analysts. Inhouse Technology, as the unit is called, has become a registered trademark. Nowadays, new ideas and prototypes are developed here while serial production is contracted out.

"We feel as though we have to pull ourselves up a notch. Our goal is to develop applications for machines," says Tomas Hartman.

Parts of a machine which are the same, for example robots or electronics, etc., are turned over to sub-contractors to produce.

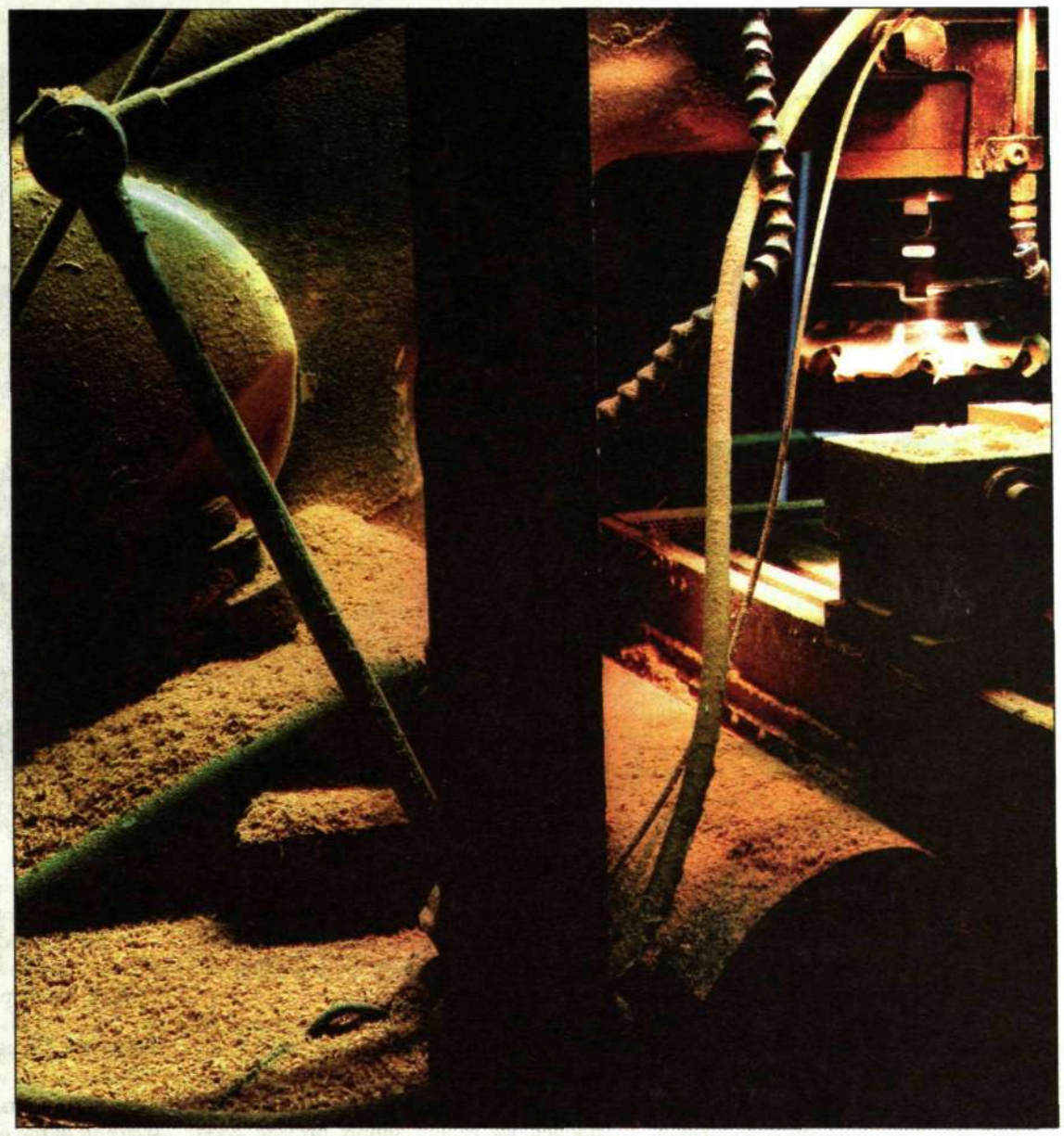
After a quick look into the manufacturing hall, one still gets the feeling that some hand-crafted work still goes on when the prototypes are being developed. Joakim Torpfeldt, who is the manager of Inhouse Technology, assures me that it is high-tech in every respect.

With the assistance of various CAD programs, one can, for example, simulate the design of a machine in order to see how it will work in reality. As a result, one can plan better and be well prepared when changes occur in the production of mobile telephones. "We must always be a step ahead," says Joakim Torpfeldt.

When a company manufactures equipment, it must, according to EU requirements, also be CE certified. Requirements placed on Ericsson fall into three areas: mechanical requirements – making sure that equipment operators do not risk injury; low voltage requirements – which pertains to the electrical equipment; and the EMC requirement, which pertains to devices which could generate electromagnetic interference, or be affected by such interference. Today, all CE certification testing can be done within the unit.

The creation of an idea incubator like Inhouse Technology has also led to numerous jobs for subcontractors. Joakim Torpfeldt estimates the number to be around 100 jobs or so, and there will probably be more as development continues.

**GISELA ZEIME**



**Ericsson's mobile-telephone plant in Kumla manufactures some of the advanced production equipment it requires, items which simply cannot be purchased on the open market. A few years ago there were only a few toolmakers. Today there are 46 people employed at the Inhouse Technology unit.**

Photo: CARL HJELTE

**The Kumla plant has set up its own lab for measuring electromagnetic radiation and its effects. The lab is the most advanced of its kind in Sweden, says Savo Zabradac, who is in charge of the lab.**

# Own testing saves time

**In a room which looks like an artistic installation, Sweden's most advanced measurements of electromagnetic radiation are performed according to the EU's rigorous standards.**

A month ago, the Kumla plant opened its own laboratory for the measurement of radiation, the so-called EMC lab. Tests are conducted on tools and machines which are developed by the Kumla plant's own operation, Inhouse Technology, before they are put into production.

EMC stands for electromagnetic compatibility, which relates to the ability of an apparatus or a tool to operate satisfactorily in its electromagnetic environment without affecting, or being affected by, anything else in this environment.

Measurements are made in a large room with a high ceiling. The walls are covered by several layers, including metal, wood and conical absorbers made of Styrofoam.

**Savo Zabradac**

The room is designed to isolate machines and tools from outside radiation.

"This lab is one of the most advanced of its kind in Sweden," says Savo Zabradac, manager of the EMC lab.

The technical equipment must, according to European Commission regulations, meet certain safety requirements in order to be CE certified. Meeting the EMC requirements is one of them.

There are only a few labs of this kind, and manufacturers of electronic products often pay large sums of money to get their products tested. For the Kumla plant, being able to conduct these tests under the same roof as equipment manufacturing and other production saves an enormous amount of time.

Eventually it may also be possible for neighboring manufacturers to get their products tested here.

**GISELA ZEIME**

How do you get people and technology to work together?

With machines becoming increasingly complex, it isn't just the technical aspects which are attractive to buyers. Just as important to making a product design succeed is to communicate the machine's function.

At the user laboratory in Kista, Ericsson's future mobile telephones and system applications are tested from an end-user perspective.

**Mikael Goldstein, Mikael Anneroth and Robert Book oversee the work conducted at the User Application Lab in Kista. The goal is to participate from an early stage in the development process.**

# Mobile multimedia on the user's terms

Products designed for the mass market need to be understandable. If the bells and whistles are too complicated, they will remain underutilized by the user which, in the telecom industry, results in reduced revenues for both the operator and the supplier.

Behavior studies show the naked truth about how consumers experience various technical products.

"The classic example is modern video cassette recorders. Today, almost all models have so many programming possibilities and functions that users are easily confused. In the end, that creates a negative experience with the product – people feel stupid," explains behavior expert Mikael Goldstein.

### Understanding the end-user

Robert Book, along with Mikael Goldstein and Mikael Anneroth who has a more technical background, form the core of the User Applications Lab in Kista.

There are several different units within Ericsson at various levels which study user friendliness. The User Applications Lab in Kista was established in 1994 and tests and evaluates prototypes, products and services for mobile telephony, based on the requirements of the end-user. That information is fed back to the designers and manufacturers to make products as usable as possible for the entire target group.

### Secret prototypes

"Developments within mobile telephony are taking place more and more rapidly. In order to be leading in the field and maintain a fast pace, we need to understand the end user, which means that our job is becoming an increasingly integral part of the development process," says Philip Nyströmer, manager of the research unit of which the User Applications Lab is a part.

"Behavioral science is a necessity to be able to handle this job. It is important to see the technology from different perspectives than those of the people who design it. As a supplier, we cannot simply provide good technical solutions, we also have to be just as good at understanding the end user in order to sell successfully."

Everything from ideas on paper to computer animations to secret prototypes to finished products and services are tested in the lab.

"Tests could be on new services for electronic commerce, for example, or for the mobile office. Usability is not just about terminals. The quality of service is determined by the system as a whole and, for example, how much time is required to access a certain service," says Robert Book.

He emphasizes that the earlier in the process that usability studies are conducted, the more money can be saved on systems and products which otherwise have to be redesigned.

A dozen or so test subjects are involved in every test. The selection of individuals is based on the market share that the Consumer Lab in Lund has determined regarding user profiles for different products.

In the tests, the test subjects get to try various functions or solve certain tasks without any help from a user manual.

### Tests are filmed

"This is exactly what can happen in a store, when a salesperson is too busy to demonstrate all of the finesses of a new terminal," says Robert Book. "For the customer, the design of various functions can completely determine whether a sale is made or not."

The interaction of the test subjects with the products is closely monitored by several video cameras during the tests. The material is then efficiently analyzed using special software. The final reports include edited video footage in order to illustrate possible problems for the manufacturer.

"The idea is for designers to see, with their own eyes, how test subjects utilize their designs. It is an efficient way to illustrate, for example, problems with navigational paths," says Mikael Anneroth who emphasizes that it is not about giving pointers.

"We are not design experts. However, we can show, for example, that nine out of ten users have chosen to do something in a different way than what the designer considered to be obvious. Basically it is about trying different types of services that we humans need to communicate and how those services should be formed in order to be usable."

**NILS SUNDSTRÖM**

■ The User Applications Lab is seeking more persons for their tests. Registration and more information about the lab can be found on the Web at: http://usability.ericsson.se

**At the User Applications Lab in Kista, mobile telephone terminals and services are studied from the perspective of the end-user. All interfaces must be well thought out from a user-friendliness standpoint. Test subjects' work with the test products are closely studied with the help of cameras and microphones. And just as in a good spy movie, the analysis lab is hidden behind mirrored walls.**
Photo: KURT JOHANSSON

**How should new products be designed in order to be understandable? And which functions does a user have the most benefit of? Ericsson employee Pär Forslund has acted as a test subject for various prototypes for future mobile telephone products. For security reasons, it is the well-known MC 12 in most of the photos, however.**

## Development with costumers in mind

**Usability has become an increasingly important part of Ericsson's software development.**

**The Systems Engineering Lab research unit in Linköping in Sweden operates using a method that, among other things, constructs support systems for mobile telephone operators' networks.**

"Usability is the sum of everything that is done to make a computer system efficient, easy to use and easy to learn. That is why it is important that there are methods available, at an early stage, to develop products that fit the needs of both the operators and the end users," says Martin Rantzer, manager for the Systems Engineering Lab, ZeLab, which conducts applied research in the areas of usability and computer-supported cooperation.

Many new mobile telephone operators have little experience within the telecom industry and, as a result, they require easy-to-use support systems to operate their networks. The same demands for good usability are coming from the established telecom giants as competition increases.

The research lab in Linköping has, together with the University of Linköping, developed the Delta method which is a process of structuring software development, from an early stage, to identify customers' and users' requirements for future systems. This occurs primarily through user studies, interviews and through the development of prototypes.

"Involving customers and users in the development of a product generates a greater understanding of their needs, as well as reduced installation and product support costs," says Martin Rantzer.

This method was recently recognized by Ericsson's System Software Initiative (ESSI), as a good example of how the company's design office should reach its quality goals.

A basic course in methodology is given by the Technical Competency Development unit in Kista. "This training is for everyone who designs straightforward user interfaces. Things which are often considered not useful often are the result of decisions made early in the development process. Being able to identify user problems at an early stage allows for competitive services and products," concludes course coordinator Georg Lewin.

**NILS SUNDSTRÖM**

More information can be found on the Internet:http://www.lmera.ericsson.se/~eradelta

## Interaction between man and machines studied

**Advertisements increasingly emphasize the user friendliness of products, rather than their technical functions. This trend has made cognitive researchers a sought-after professional group in the IT industry.**

Shorter product cycles and constantly new interfaces place demands on designers. If advanced new technical solutions are going to be successful, they have to be evaluated – on human terms.

Within the field of cognitive science, the interaction between humans and machines is studied, as well as how information is stored and utilized. Interest in the subject has increased sharply since the 1970s.

### Complex computers

"Today, computers are everywhere in our daily lives, and they are incredibly complex. That is why it is important to adapt them to the needs of humans," maintains Arne Jönsson.

He is the director for the cognitive science research program at the University of Linköping, which currently offers the only graduate-level program in the field in Sweden.

"Many manufacturers concentrate on producing a neat exterior, without delving into the best way to present the contents so that we will be able to avail ourselves of them. For Ericsson's operations, this involves the ability of people to remember the design of mobile telephone displays and menus. Without knowledge of how people handle these, it is difficult to design them correctly.

### Several subjects

Included in cognitive science are the fields of computer science, linguistics and psychology.

"Language is one of the most common ways for humans to communicate and therefore it is important to study it. At the same time, cognitive psychology is important to know how we think and operate," says Arne Jönsson who also emphasizes the focus on computer programming training.

Cognitive science is used in, among other things, Web design, the construction of control systems for pilots and computer-based handicap aids such as voice synthesizers. Altogether, there are about a hundred colleges and universities around the world which have cognitive science researchers and programs.

**NILS SUNDSTRÖM**

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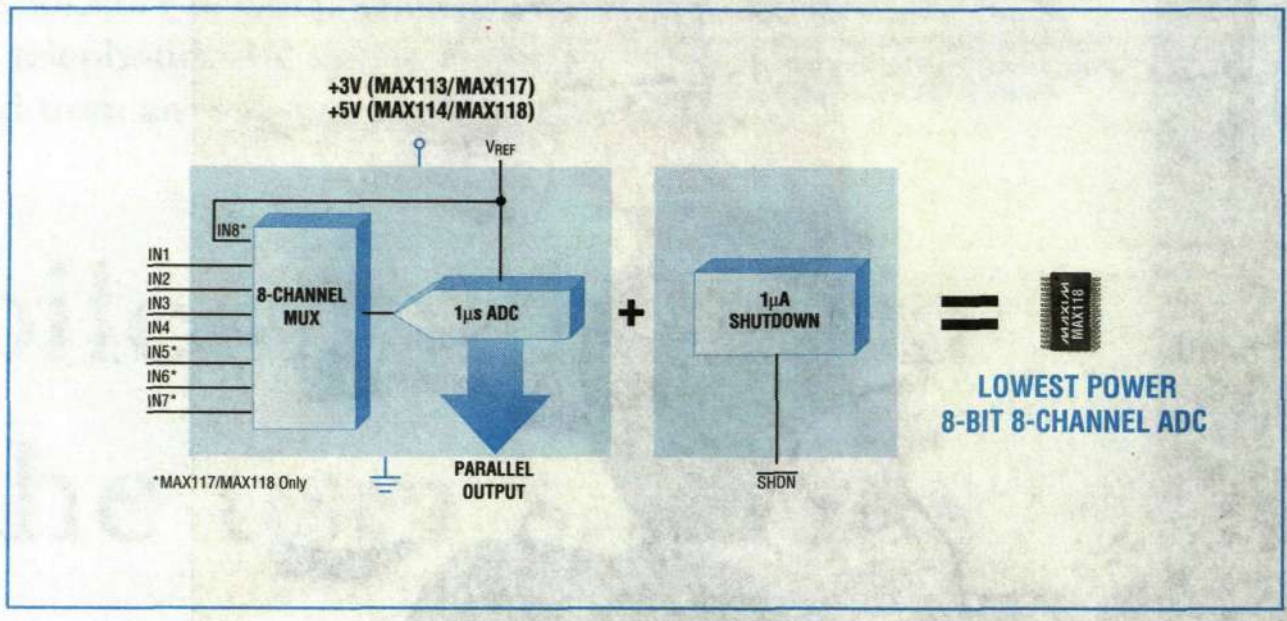
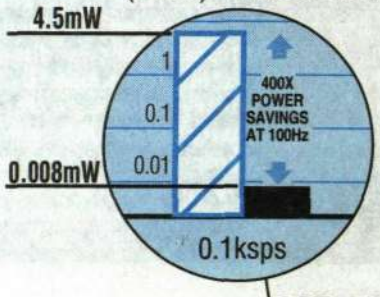
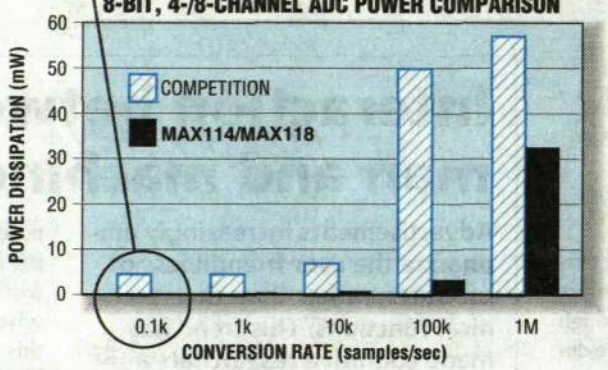
## Single +3V or +5V Supply—Ideal for Portable Applications




The MAX114/MAX118 are 8-bit, 4-channel (MAX114) and 8-channel (MAX118) ADCs designed for a wide range of data-acquisition/data-processing applications. They feature fully tested DC and dynamic specifications and a TUE of ±1LSB (max). These devices operate from +5V and sample at up to 1.2Msps. At the maximum sampling rate, the MAX114/MAX118 dissipate only 40mW. At slower sampling rates, the 1µA shutdown mode cuts supply current even more. The MAX113/MAX117 are intended for +3V low-power applications. They sample at up to 400ksps and dissipate 7.5mW.




**8-BIT, 4-/8-CHANNEL ADC POWER COMPARISON**




**LOW-POWER 8-BIT PARALLEL-OUTPUT ADCs**

| PART | NO. OF CHANNELS | SUPPLY VOLTAGE | MAX. SAMPLING RATE (sps) | PACKAGE |
|---|---|---|---|---|
| MAX117 | 8 | 3 | 465k | 28 DIP/SSOP |
| MAX118 | 8 | 5 | 1.2M | 28 DIP/SSOP |
| MAX113 | 4 | 3 | 465k | 24 DIP/SSOP |
| MAX114 | 4 | 5 | 1.2M | 24 DIP/SSOP |
| MAX152 | 1 | 3 | 465k | 20 DIP/SSOP |
| MAX153 | 1 | 5 | 1.2M | 20 DIP/SSOP |

The 8-bit MAX114/MAX118 use less power at **all sampling rates.**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# Monica first woman on the Board

**Monica Bergström, SIF chairperson at Ericsson in Nynäshamn, is making history as the first woman to sit on the Board of Directors which, up till now, has been completely male-dominated.**

**Monica Bergström from Ericsson in Nynäshamn is the first woman to ever sit on Ericsson's Board of Directors as an employee alternate.**

It was at the Annual General Meeting on April 29 that the new chairman of the board, Lars Ramqvist, had the opportunity to open the first-ever board meeting with the historic words: "gentleman and my lady."

Ericsson's board of directors is composed of 10 representatives from management, 3 employee representatives and 3 employee alternates. Monica Bergström is one of the employee alternates and is filling the Professional Employees Cartel (PTK) mandate. Monica was appointed by the Central Group for business issues (CAG) to represent PTK on the board.

It is an exciting and interesting world which has opened for the SIF chairperson from Nynäshamn. It will also be a tough job for Monica to involve herself in all of Ericsson's various operations both in Sweden and abroad.

**BERT BJÖRKLING**

# This telephone is full of foam

■ It actually says "massage waiting" on the display of this mobile telephone which was purchased in England. There are no microchips housed inside the telephone, but rather shower gel, a good example of how mobile telephones have become very popular items that are now showing up in all sorts of contexts, many of which have nothing to do with telecommunications.

Marks & Spencer is the company that is marketing the discreetly perfumed shower gel. And there actually is a massage. The front side of the "mobile telephone" can be used for to massage, using small circular motions, according to the directions on the back.


Photo: BJÖRN SEGER

# Ramqvist receives honorary doctorate

**Ericsson's new Chairman of the Board has been** moscow **awarded an honorary doctorate from Moscow Technical University for Telecommunications and Informatics (MTUCI).**

This is the third honorary doctorate to be awarded in the history of this prestigious university.

"Of course I am very happy and proud of this award," said Lars Ramqvist when he received the doctor's hat and diploma from the university's president, Vahgan Shakhgildyan.

He added, "But I am even more proud of Ericsson, since this honorary doctorate stands as a symbol of the good friendship and cooperation that exists between Ericsson and Russia. Things are going well for Ericsson in Russia. This year, the company will have sales of USD 600 million, and by the turn of the century, that figure should approach USD 1 billion."

"Ericsson has been operating in Russia since 1881, and we will always be here. With the help of fiberoptics and the Russian railroad, Ericsson will soon make sure that no portion of Russian territory is isolated."

In the speeches that preceded his award, it was not only Lars Ramqvist's expertise that was honored, but also the cooperation between Ericsson's Training Center in Moscow and MTUCI.

"The cooperation has been both dynamic and exciting as well as successful. MTUCI now has 14,000 students who are studying modern communications technologies. And some 350 students represent 42 different countries in addition to Russia," said president Vahgan Shakhgildyan.

**MARIA ANDERBERG**

# Network formed for antenna buffs

**Ericsson Microwave is arranging a conference on** sweden **the theme of antenna technology. The idea is to form a network for those in the company who are interested in antennas.**

The conference will be held at Ericsson Microwave in Mölndal on June 4 – 5. There will be two days filled with interesting lectures at which the 70 or so registered participants will be able to take part in the latest news in the field of antenna technology.

Representatives from Mannesman Mobilfunk, among others, will be in attendance to provide the customer's viewpoint on antennas for cellular systems.

Torbjörn Sundström, manager of antenna construction at Ericsson Microwave's division for Mobile Telephone Products, is coordinating the conference. According to him, there are several reasons for arranging the conference.

"We want to try to form a network of employees within the Ericsson company that have an interest in antennas, but we are also trying to market the unique antenna skills that exist at Ericsson Microwave in Mölndal," he says.

**CATHRINE ANDERSSON**


# Theater troupe goes on tour in Europe

**On May 8, the Folk Opera's production of Marie Antoinette is going on tour. The troupe will visit three European cities.**

The first stop was in Brighton at the Brighton Festival on May 14.

On June 3 the tour bus will arrive in Lisbon and the world exhibition Expo '98. There, the Swedish king and queen, along with 800 other invited guests, will attend a performance.

The tour ends on June 25 – 26.

All of the performances will be sung in Swedish with English texts provided.

The tour is being sponsored by Ericsson and the Stockholm Cultural Capital. Ericsson has been associated with the Folk Opera for ten years.

"Culture raises the quality of life. We want to contribute to that," says Annelie Hellström, project manager for Ericsson's venture with the Folk Opera.

**LOTTA MUTH**

# International sport stars to attend Ericsson gala

■ The Ericsson Grand Prix is being held on June 13 in finland Finland. The track and field competition will be held at the Olympia Stadium in Helsinki. A number of international stars within the sport will be participating. Among them are Marion Jones of the U.S., Haile Gebrselassie of Ethiopia, Moses Kiptanui of Kenya and Colin Jackson of England.

According to Jukka Rantala, communications director for Ericsson in Finland, this competition will provide good publicity for the company, both in Finland and internationally.


**Sports, communications and rock 'n roll. The world's fastest woman, Marion Jones, receives a jacket from Jukka Rantala at the Ericsson Grand Prix press conference.**

# A grrringo takes place on the Internet

**May 1st was the premier for the new Web site Grrringo. It began as a mailing list for Swedes abroad and has grown so much that it now has its own spot on the Internet.**

The Web site includes information about different cities and places around the world where grrringos live (everywhere from Helsinki to Jakarta). There is news for Swedes abroad, interesting links, and a diary written by Swedes living abroad. Each month a Grrringo-of-the-Month is presented.

All of the material on the Web site is in Swedish, with only an informational page in English.

For more information go to: http://www.grrringo.com

## column

# Change and cooperation

Once again we find ourselves at a time of change with the approach of the magical year 2001. We face great challenges in terms of the third generation mobile telephone system, the so-called IMT 2000. The driving force behind it is to merge the Internet and mobile telephony into a future telephone network. It is expected that by the year 2001, the IMT 2000 system will be put into operation. That will be almost exactly ten years after the GSM system was started and 20 yeas after the NMT system was put into operation.

The fact that we won the standardization approval from ETSI in January is only the first step. The great challenge will be to win the battle for market share where competition is, to say the least, fierce.

The reorganization that we are currently undergoing involves a clear investment in IMT 2000. At the same time, we are taking advantage of the synergies that exist between our different business units, and creating common units for switching systems, i.e. exchange systems for GSM, PDC and IMT 2000, as well as new packet systems for all of our mobile telephone standards.

By the year 2001, the new generation of base stations, Multiple Standard Radio (MSR) for existing standards, will also be on the market. Advances in technology mean that we can construct base stations in an entirely different manner than before, a method which drastically reduces costs (See the article on the adjacent page).

Furthermore, the same hardware can manage all of the various mobile telephone standards: GSM, D-AMPS, PDC, TACS and NMT. Another advantage is that it will be easier to handle the large assortment of base stations that we currently have.

This new generation of base stations also means better cooperation between our R&D units, with a new way of working together to create savings on the development side.

Change and cooperation could be our motto. It is through our being able to change both our organization and our way of working that we lay the foundation for continued successes within the field of mobile communications.

**JAN UDDENFELDT**
Vice President, Technology
Mobile Systems

**Tomas Vedin, Bo Hedberg and Gösta Lemne study the new Multiple Carrier Radio that radically can simplify radio equipment in mobile telphony networks.** Photo: KURT JOHANSSON

# Revolution for radio base stations

**In parallel with the developments in microelectronics and increased digitalization, an increasing number of functions can be easily managed and altered within software. The latest development is with mobile systems' radio base stations, which cab be greatly simplified using standardized hardware modules, resulting in large savings in terms of costs, as well as development work.**

At the end of April, an internal demonstration within the Mobile Systems business area was secretly held. It could result in, as yet, unknown consequences for the entire mobile telephone industry. In the test, a research unit within the business area demonstrated the first functional prototype of a radio that can both transmit and receive several carrier waves at different frequencies, configured to different standards. The names of the products are Multiple Carrier Radio (MCR) and Multiple Standard Radio (MSR).

"The technology now exists and we are world leaders," explains Jan Uddenfeldt, Vice President of Technology at Mobile Systems. "Now it is essential that we utilize our head start and take the next step forward."

### Transceivers disappearing

In today's mobile telephone systems, each radio carrier wave has its own physical transceiver (receiver/transmitter) which can communicate on a predetermined, rather narrow, frequency channel which is determined by an oscillator and a filter. The analog signal is converted in an A/D converter into a digital signal. One converter for each carrier wave.

The MSR is different in that the functions have been switched from the analog radio area to the digital, which is easier to program and which can be controlled with a digital filter. This means that one can get by with a single broadband radio which receives the entire frequency bandwidth (the 15 MHz band), in other words, all channels which previously required separate transceivers. The A/D converter then receives the entire package and it is only in the next step that the channels are pulled out. (The same thing happens on the transmitter side when the D/A converter recreates the analog signal).

### Great demands

"This places great demands on the A/D converter," says Bo Hedberg, who is responsible for the development of MSR. And that is what has been the main problem that has hindered a faster development of the technology.

A/D converters need to handle all frequencies as well as have a large dynamic range so that it can receive both strong and weak signals from mobile telephones that are far away. The current 8 bit GSM converters can handle 270,000 samples per second, while MSR's 12 bits can handle 50 million samples per second.

"It is worth noting that we can handle the technical challenges, but that we still have a way to go until we reach certain test specifications which are set very high and which represent cases that never occur in reality," says Bo Hedberg.

There are several advantages with MSR. For the supplier of base stations, it means a simpler range of products as well as synergistic advantages in production and development. The model is approaching the one used in the auto industry with standardized modules.

For both operators and customers, it opens opportunities for new services and functions. With all of the programming controlled digitally, the operator can upgrade using new modulation formats or by mixing different systems (i.e. GSM or D-AMPS) and frequencies according to need. The network planner can also choose between fewer carrier waves with improved performance, or more carrier waves with a lesser effect.

**LARS CEDERQUIST**

## The process began four years ago

■ The process of developing a multi-standard radio began back in 1994, but a couple of attempts failed due to insufficiently advanced technology. The project was put on the back burner, but continued to be monitored. An new evaluation of the performance of new components was made, and in 1996, it was decided to form a separate division for the MSR project on February 1, 1997, which now consists of about 200 employees. Currently, there is a completed test bed ready for the first version of the radios and a new, so-called G interface, between base station units and the radios. A prerequisite for MSR is Multi Carrier Power Amplifiers which fulfill the very demanding GSM requirements. Concrete projects need to be started together with the business unit in order to get training for the next generation of base stations.

NEWS FROM MOBILE SYSTEMS

# Future mobile telephony in focus

**The Mobile Systems business area is increasing its focus on the development of the third-generation mobile telephone system. A special project unit, IMT 2000, was formed when the Mobile Telephony Systems PDC business unit, along with portions of GSM development, was reorganized. Altogether, about a thousand people are directly affected in Sweden.**

In the next few years, the Mobile Systems business area will be developing products for the third generation of mobile telephony systems, known as IMT 2000 or UMTS in Europe. The system, which is expected to be operating by the year 2001, will be able to handle numerous Internet and multimedia services.

"Ericsson's focus on this project requires a new organization. At the same time, new development in the current digital system means that great economies of scale are to be had in a new organization within the Mobile Systems business area," explains Stellan Nennerfelt, vice president, Human Resources and Organization.

Mats Köhlmark, the former manager of the Mobile Telephony Systems PDC business unit, will become the general manager for the new IMT 2000 project unit. Ingemar Blomqvist, the former head of Ericsson Radio Messaging, has been appointed to the position of general manager of the Mobile Telephony Systems PDC business unit. It will soon become clear exactly what the rest of the organization will look like. "Taken as a whole, this is an aggressive effort to strengthen our business position," emphasizes Stellan Nennerfelt.

### Proposals for reorganization

The new IMT 2000 project unit will receive, according to the reorganization proposal, total responsibility for the third-generation mobile telephone system until the first system is put into operation. In order to handle the new challenges, four new product units have also been proposed, divided into the following areas:

- WCDMA Radio Access
- Packet Switched Systems
- Circuit Switched Systems
- Value Added Services

### Japan an important market

For the Mobile Telephony Systems PDC business unit, the reorganization proposal means that developmental work will be coordinated together with the IMT 2000 project unit. "Over the long term, it is proposed that market responsibility for the PDC system be shifted closer to the customer, in other words, to our local company in Japan," says the new business unit manager Ingemar Blomqvist.

He emphasizes that Japan is currently Ericsson's fourth largest market and that PDC is the world's second largest digital system. "That means that we need to focus on being successful in Japan even in the future. This reorganization is a good opportunity for that."

**Ericsson's investment in the mobile telephony system of the future is the focus of a reorganization. Mats Köhlmark, who has had a hand in developing both the GSM and PDC systems, will become the new general manager for the IMT 2000 project unit. Ingemar Blomqvist, formerly head of Ericsson Radio Messaging, was appointed to become general manager of the Mobile Telephony Systems PDC business unit.** Photo: NILS SUNDSTRÖM

**NILS SUNDSTRÖM**

More information is available on the Web: http://www-rmoj.ericsson.se

# The art of operating a network

**A new training program for the operation of mobile telephone networks, entitled NMC operation, recently had its debut. The course deals primarily with the practical aspects of operating a mobile telephone network.**

"Increasing operators' skills by teaching them to operate their networks positively affects both their own and Ericsson's competitiveness," says Richard Batistier, who manages Network Management training at the Customer Training Center in Kista.

The training center in Kista has maintained its own GSM network for the past several years, and using that technology, it is now possible to hold the NMC operation course.

"We have a newly renovated training facility that looks like a Network Management Center (NMC) at a mobile telephone operator, although on a smaller scale," explains Richard. "We have room for 12 students and courses will be held regularly." He adds that the training is generally applicable for all mobile telephone standards, and even though it is a GSM system that is being used, users of AMPS/D-AMPS and PDC systems are welcome.

### Learning the work-routines

During the course, focus is more on the work processes that are used in an operations center and less on network elements. Course participants are given the tasks of managing a network, taking care of alarms and solving problems. They also receive work orders to install more cells into the network, for example. Through hands-on exercises, participants learn the work routines found at an operations center.

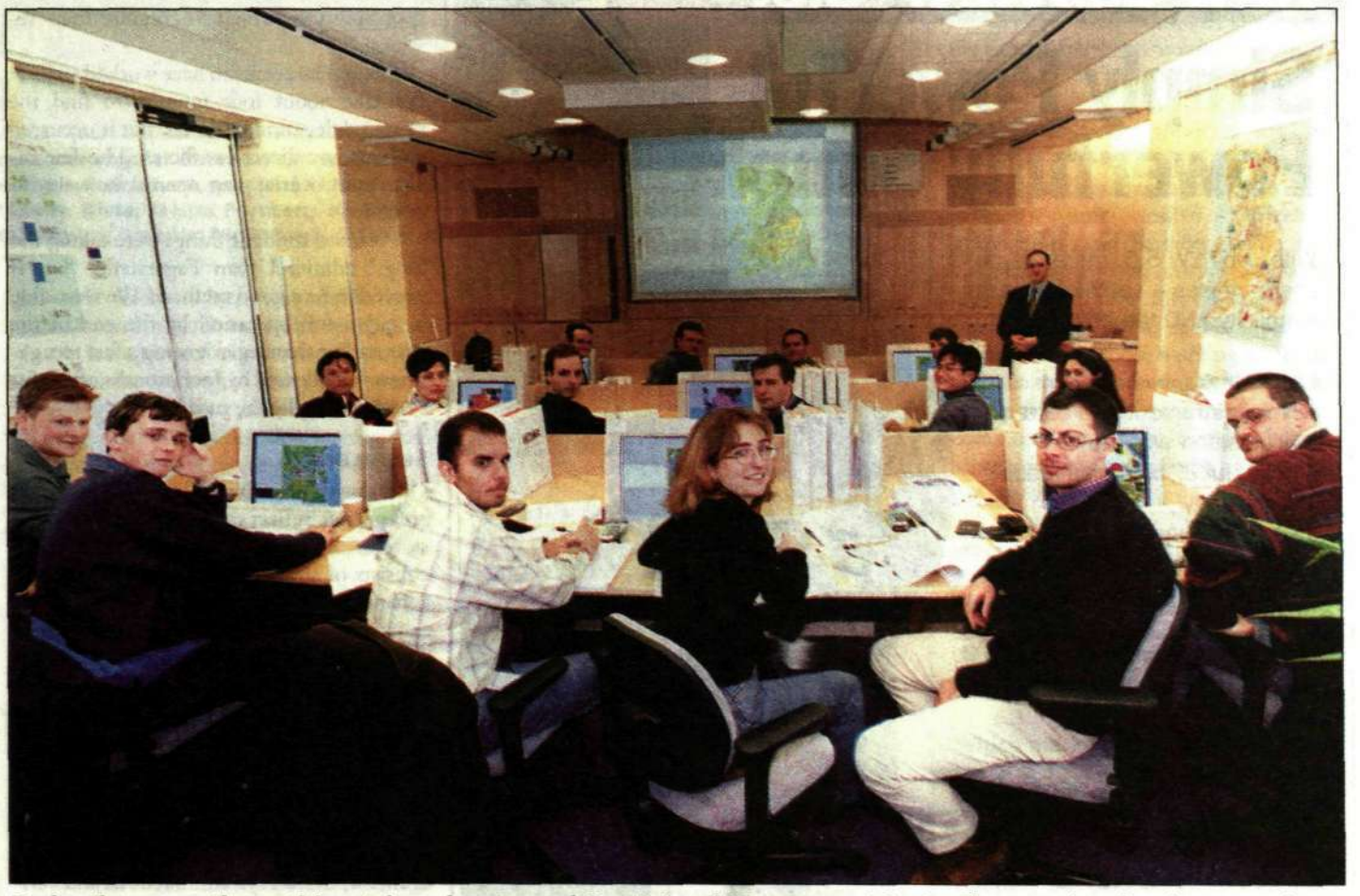
Today there is a group of 10 people working as course leaders. That number will increase to 15 by year-end.

"There is a requirement that all persons teaching the course must have themselves worked with an operator; experience is important", emphasizes Richard.

This new process-oriented training is not just being held at training facilities in Kista, but is also with customers in the field, i.e. the operators. This has already been the case for Entel, a GSM operator in Chile. This summer, all three of Portugal's GSM operators will take courses regarding respective networks.

It has become increasingly important to sell Ericsson Radio Systems' services in terms of mobile telephone systems. Operators need help using and developing their networks in order to acquire more subscribers and become more competitive. Part of this is simply competence development within the field of network operation.

"For Ericsson Radio Systems to be able to fully invest in this area, training of both our personnel and our customers is required. We have now started that new training," concludes Richard.



**During the course, the participants learn how to work in a Network Management Center. They are given hands-on experience in monitoring the network, handling alarms and adding cells to the network.** Photo: ANDERS ANJOU

**GUNILLA TAMM**

"We created completely new roles for our subsidiaries last year," says Urban Fagerstedt, who is responsible for development of radio products for the D-AMPS and PDC mobile systems. Results have exceeded expectations. Instead of being at the tail-end of things, they are now controlling operations and working independently.

# A boost for the development companies

development of new base stations and other radio products for D-AMPS and the Japanese PDC standard is conducted jointly with the Radio Network Products (RNP) business unit. Approximately 1,000 people are employed in research and development. Several subsidiaries are involved, located in Sweden, the U.S., Canada and Ireland.

The continually growing organization, the increased demands for fast development and launch of products, and the general trend towards more diversified and segmented handling of products in the telecom world, forced a comprehensive reorganization in 1997. The role of the various development companies would be radically changed.

### Lots of preparation

"We chose a model where things are done right the first time," says Urban Fagerstedt. "That meant that we let the processes develop, that we let all of the subsidiaries discuss among themselves which areas they wanted to specialize in. The idea was to give each unit a clearly defined area of responsibility in which to conduct their research."

The model seems to have worked well. It did take about four months to find the proper delegation of duties, but it occurred without any direct conflicts. The few instances of overlapping operations were internally.

"At first I thought things were taking too long," admits Urban Fagerstedt, "but it proved to be a good method. We were able to begin full operation by the end of the year, rather than experiencing a fast reorganization, followed by four months of confusion as is usually the case."

### Seven areas

Operations were divided into seven product areas which reflect the design of the mobile system. A system with radio base stations consists of software interfacing the switch, software for the base station, transmitter/receiver units, antenna products, all equipment at the site, and control systems for transmission.

In addition to these product areas – which are run by design units within different local companies, with the company having main responsibility for its own areas – there are central functions that are managed in Kista. These include project management, overall system functions and verification of systems.

In order to be able to coordinate project work in this new, more open organization, stricter requirements have been placed that require regular management group meetings, teleconferencing, work sessions, cross-communications and follow-up.

### Belong together

"The various system components go together, but at the same time they are shielded rather well from each other," says Thomas Eriksson, a systems development manager in Kista. "We want to distribute responsibility, but it can't be too far afield. If a system component malfunctions, then the whole system is affected."

Product development, in principle, consists of three phases. First comes research and development of technology, systems and standards, then the actual product development, and finally the user phase. The main focus of the central operations in Kista is on the first phase, while the focus of the subsidiaries is on product development, in which the large systems projects last more than a year.

"Once systems projects are started, they roll along and can no longer be stopped," says Thomas Eriksson.

What has happened then? That is actually not an easy question to answer. It is not possible to just measure lead times for new products since these are constantly shrinking anyway. In this case, it is more about motivation, about making it easier for the company to acquire the proper expertise, and so on – in other words, the soft parameters which are not easy to measure. In addition, there has not yet been a long enough time to make a fair evaluation. But the new models in which companies are joint owners of the products, have clearly increased participation and motivation.

### Very satisfied

"We are very satisfied with these results," says Brendan McDonagh, manager of the design center in Dublin, Radio Network Applications. The center has main responsibility for the radio network logic product area, essentially, the entire traffic system.

He gives an example of the freer climate by explaining how, in a short time, they have managed to realize their own ideas and test a prototype with a couple of large customers. The item in question was a software solution for the monitoring of a radio network which will be sold to mobile operators. Brendan McDonagh also emphasizes that it is important to get away from projects that are too large. Today, it's a matter of asking oneself what customers will need in a few years and quickly developing products that customers can accept or reject.

Bengt Lemon, who oversees the Transport and Synchronization product area, also views the new organization positively.

"It confirms that RNP leadership has confidence in our competence and that we see great development opportunities in Karlstad. Today we are working for central production management, but over the long term we will work both with product management and market support."

### Full confidence

"I think that RNP exemplifies new thinking where this organization, systems architecture, work methods and customer focus are concerned," says Åke Ögren, who is responsible for the Radio Base Station Controller product area at Erisoft in Luleå.

"But above all, ideas are being logically implemented. These are not just empty words, since we are given full confidence and receive the authority that is required."

Åke Ögren also describes how each area of responsibility cooperates with other design center units in Kista and Dublin, and how each unit has total responsibility for all phases of the project. This includes evaluations of new products and subprojects in the preliminary study phase, which personnel find very inspiring.

LARS CEDERQUIST

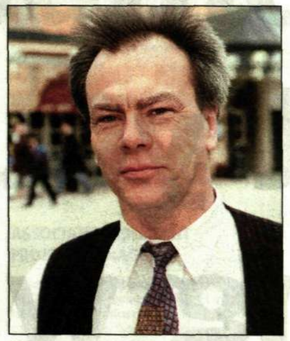







**Increased autonomy at subsidiaries requires more regular communication more frequent meetings. Each month, the management group gathers for an all-day meeting in Sollentuna, north of Kista. From left: Bengt Lemon, Karlstad; Bill Walsh, Dublin; Sven-Erik Jonsson, Karlstad; Peter Csaba, Kista; Krister Forsberg, Kista; Jan Bobult, Radio Systems; Urban Fagerstedt, manager of RNP; Ulf Holmberg, BR technical service; Brendan McDonagh, Dublin; Åke Ögren, Luleå and Ralph Löfdahl, Kista.**
Photo: ANDERS ANJOU

**"This solution is mutually advantageous for all parties, since it gives us responsibility for quality issues, while having the full support of personnel working on long-term projects in Kista," says Brendan McDonagh from Dublin.**



**"Our new organization, which has given our subsidiaries very clear areas of responsibility and greater autonomy, has functioned very well," explains Urban Fagerstedt, manager of the unit that is jointly developing radio base stations for both the American D-AMPS standard and the Japanese PDC standard.**

## how's it going?

### Dominique Jodoin

**New responsible for sales & market operations at the Cellular Systems–American Standards business unit.**

**How's it going?**
Fine, thanks. This job poses many new challenges and I enjoy working close to our customers. One of the main tasks for the marketing department at present is to promote greater efficiency at our MLCs (major local companies) as well as further shortening the TTC flow (time-to-customer).

At the same time, it's important that we increase cooperation between our business units within Mobile Systems and between the different business areas. More and more customers are asking us about total solutions, which apply to both fixed and mobile communications.

**What was your previous job at Ericsson?**
Previously, I was manager of the new product unit called Wireless Applications and Services within the Cellular Systems–American Standards business unit. We functioned like a small business, so to speak. I will be taking some of those working methods with me to the marketing organization. When the results of one's own work become more apparent, it creates both a sense of pride and greater interest in the customer.

I have worked at Ericsson for 12 years. I was raised in Montreal and began my career as a software designer at Ericsson in Canada in 1986. For five and a half years, I was responsible for mobile telephony networks at Ericsson in New Zealand.

**Which markets are most important for the business unit?**
We are focusing on obtaining new business in Brazil and the rest of Latin America, as well as maintaining and developing our position in Asia and the U.S.

**What do you do in your spare time?**
I spend as much time as possible with my family, of course (Swedish wife and four children). I'm taking a course in Swedish and I love hiking and mountaineering. As soon as I find myself near a hill, then I'm off!

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**Contact No. 8 1998** **Updated May 18**

**Infocom Software Solutions, Product Unit Network Element Management (PU-NEM), Software Process Office, Athlone, Co. Westmeath, Ireland.**

## PROCESS MANAGEMENT UNIT LEADER

● Reporting to the Process Office Manager as leader of the Process Management Unit, you will be responsible for implementation and future development of the process management infrastructure within Infocom Software Solutions, PU-NEM. This includes responsibility for the evolution of practices in the areas of organisation process focus and organisation process definition (ref. CMM L3). You will be a driving force for process management activities in the organisation.

As a suitable candidate, you will have a deep understanding of the critical factors which represent essential ingredients for successful implementation of software process improvement in large organisations.

Working as a leader and change agent in the organisation, a structured way of thinking, excellent communication and cooperation skills, and being highly motivated to achieve goals are important personal qualities you possess. Overall you should see this job as a challenge to improving business results through software process improvement.

## SOFTWARE METHODOLOGY ENGINEER

● Reporting to the Process Office Manager as a member of the Software Engineering Methodologies Unit, you will work within a small team to support the design organisation in the development, application and support of new and existing software engineering methodologies.

As a suitable candidate you will have deep knowledge of software engineering methodologies currently in use within Infocom Software Solutions, PU-NEM. Having an understanding of Project and Systems requirements and future challenges, in terms of productivity, quality, lead time reduction and system architectures, you are sufficiently motivated to research, trial and institutionalise new software engineering design techniques.

Working as an explorer and promoter within the organisation, a structured way of thinking, excellent communication, cooperation and change management skills along with being highly motivated to achieve goals are important personal qualities you possess. Overall you should see this job as a challenge to improving business results through efficient and effective software engineering methodologies.

The successful candidate must have an academic degree in Software Engineering or equivalent and have at least two years experience in software design.

## SOFTWARE QUALITY ENGINEER

● Reporting to the Process Office Manager as a member of the Software Quality Management Unit, you will work within a small team to support PU-NEM on quality related issues. You will make a significant contribution to the effective management and future development of our quality system while ensuring that our current operational standards are maintained.

As a suitable candidate you will have knowledge of software quality practices currently in use within Infocom Software Solutions, PU-NEM e.g. ISO9001, CMM L2/3, Project Quality Coordination. Having an understanding of Customer, Project and Systems requirements in relation to Product Quality together with future challenges in terms of productivity, quality and lead time reduction, you are sufficiently motivated to research, trial and institutionalise innovative software quality management solutions.

Working as an explorer and promoter within the organisation, a structured way of thinking, excellent communication, cooperation and change management skills along with being highly motivated to achieve goals are important personal qualities you possess. Overall you should see this job as a challenge to improving business results through efficient and effective management of our quality system.

**Application** latest 980529: via email, referencing "PROCESS MANAGEMENT UNIT LEADER" or "SOFTWARE METHODOLOGY ENGINEER" or "SOFTWARE QUALITY ENGINEER" to EEI/SH Michael McGann, eeimmg@eei.ericsson.se.

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**Ericsson Ltd Guildford**

## SYSTEM EXPERT

*Department : Technical Services, Cellular Networks, Guildford*

● Key responsibilities: The overall purpose of the System Expert is the on-going optimisation of the customer's network. This is done by using technical knowledge and customer consultation to ascertain deficiencies and opportunities, leading any subsequent investigation in-house and on-site, documenting any work undertaken and benefits derived, and feed back proposals to the appropriate Ericsson organisation.

In addition, the System Expert may be involved in maximising software supply efficiency by assisting in the definition of test methodology in agreement with the customer."

Qualifications / Experience : Experience as a Support Engineer or equivalent, preferably in a customer-facing role working within Ericsson. Good knowledge of AXE and GSM and comfortable within a Windows environment. Proactive with a strong sense of responsibility.

This position is based within the Vodafone customer facing unit in Guildford.

**Contact:** recruiting manager, Alan Hudson, Technical Services Manager on +44 1483 305271 or on ETL.ETLAHNX.

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**Ericsson Eurolab Deutschland GmbH ,Aachen**

*The main responsibility is to support EDD/EED in its ongoing process of building up the technical competence of its customer and internal staff.*

*The EED/X/P department is a typical design centre within the GSM development area of the Ericsson family. The GSM development is targeted towards the European and American systems with close coordination to a number of design offices worldwide.*

## TECHNICAL DOCUMENTATION

● Your task is to provide guidance on how to write technical documents. You will advise the designers in the use of language, style, terminology and document structure. You will ensure the correctiveness of our documentation and handle the storage in our data base at the end of our design projects.

We are looking for a English native speaking person and preferably a technical background in GSM. Good general communication skills are required as well as the ability to understand and illustrate complex technical facts in an instructive way. Former experience in the area of technical documentation is definitely of advantage.

As the CSS organization is still changing a lot, there is the freedom to be pioneer for processes and usage of documentation tools. On the other hand, we have well defined projects and clear delivery deadlines for our assignments. To be first on the market with our products is crucial for our future operations. Do you want to join this challenging race? If you have any questions and/or are interested, please get in touch with us.

**Contact:** simon seebass, eed/h/r, +49 2407 575 163, eed.eedsims or frank plettenberg, eed/x/pe, +49 2407 575 253, eed.eedfrp

*The System Test & Support Department EED/X/S within our CSS 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 includeCME20 SS Maintenance and Customer Support, Industrialization of CME20 SS releases, Test Configuration Management and Methods & Tools development. To replace a leaving person we are looking for an experienced*

## AS SPECIFICATION ENGINEER

● The AS Specification Engineer will define, create, maintain and release GASÖs and FT test beds and support main releases with updates to product structures. Furthermore he will be responsible for monitoring the applicable CNIÖs and participating in CNI board meetings on Source System and product Line level. The position will include administration and documentation of PL/GAS permanent parameters per release and also actively contribute to continous improvement of the used processes and methods.

As a suitable candidate you are an Ericsson employee with 1 or 2 years experience in AS Handling.

In this position you will need well proven basic technical understanding capabilities and basic knowledge about computer systems, database applications and standard computer office applications. You will have to be flexible, team oriented and the ability to work under time pressure. The start would be asap.

**Contact:** simon seebass, +49 2407 575 163, eed/h/r, eed.eedsims or dan grinstead, +49 2407 575 341, eed/x/soc, eed.eedcgr

*The new CSS (Circuit Switching Systems) project office at EED is responsible for all TTM (Time To Market) project deliverables from TGO up to and including GA. In addition this department will have the responsibility for overall CSS resource management, CSS project road-map establishment and coordination of all MSC/VLR development operations based at EED, EUS, ERA, LMF and IXG. We are looking for a number of dynamic individuals who could join our team for the following open positions.*

## TOTAL PROJECT MANAGER

● Responsible for development and FOA deliveries of application packages for GSM 900/1800/1900 systems. Tasks include coordination of all project related activities (prestudy, design, indus and FOA) in cooperation with current CSS nodes (MSC/VLR, GDB and SOG/BGW). Harmonization of our associated projects within the PSS, VAS and BSC areas.

## MSC/VLR DESIGN PROJECT MANAGER(s)

● Responsible for the MSC/VLR node level execution project from TG1 (feasibility study) up to MS8 (system release) including coordination with associated projects.

## ASSOCIATED/ASSISTANT PROJECT MANAGER(s)

● Supports the total project manager and MSC/VLR project manager in project management tasks such as coordination and follow up of delegated project interfaces to subprojects and associated projects. This position can be seen as a trainee position for future project managers.

## CN-I PROJECT MANAGER(s)

● Responsible for delivery of all projects within CSS which may fall outside of our schedule MAIN releases. Responsibilities will be similar to the Total Project Manager but on smaller scale.

## GROUP MANAGER (Deputy Dept. Manager)

● Responsible for the projects CORE-team within the department in order to maintain core competencies and ensure continuity throughout different CSS projects. As deputy to the Department Manager, the position will also have the responsibility of Competence Management of the department.

## QUALITY COORDINATOR(s)

● The main task consists of supporting the department in establishing a common quality measurement for the international operations by integrating corporate quality initiatives (e.g. ESSI), DSA quality initiatives and LDCÖs quality activities into one concept and by working out statistical baselines and improvements.

## CONFIGURATION MANAGER

● Responsible for introduction of various aspect of CM concept into the organization and into the projects in addition of being responsible for MSC-CCB and CSS-CCB as a chairperson.

## OVERALL FUNCTION TEST LEADER(s)

● Responsible for the planning and coordination of all function test activities (in simulated environment as well as on target machine) within MSC/VLR projects. This person supports the project manager in reaching MS8 status.

## SUBPROJECT MANAGER FOR WCP INITIATIVES WITHIN CSS

● Responsible for introduction and development of all accepted WCP (World Class Provisioning) initiatives which will be impacting the CSS development projects.

## DEVELOPMENT OPERATIONS MANAGER

● Responsible for operational goal setting, follow up and operational planning with all the LDCs who are involved in our development projects.

## PROJECT ADMINISTRATOR(s)

● Responsible for providing administration type support for X/R department members involved in projects and international development activities. For all above openings, please contact EEDAXJ or EEDSAAB at the first instance.

**Contact:** simon seebass, eed/h/r, +49 2407 575 163, eed.eedsims or abbas sabokbar, eed/x/r, +49 2407 575 135, eed.eedsaab

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**Ericsson Research Canada - Montreal**

## PRODUCT HANDLING SENIOR SPECIALIST

● We are looking for a Senior Specialist in the field of Product Handling. Our group, LMC/XM, has overall responsibility for the Design/Configuration and Management of the CMS8800 level Integrated System, Source System, AM systems, PLGAS and Application Systems.

With your more than 10 years of experience within Ericsson, with emphasis in the field of Product Handling, you will act as a mentor to the group. Your activities will include the driving of investigative projects that will further enhance our existing methods and tools to better meet our customer needs.

Your experience includes, Application System Specification work, Source System Handling, and expertise in the Parameter Handling area. You might come from a System Test background or a TAC organisation with experience from an AS receiver perspective.

If you feel up to meeting the many challenges of this demanding and rewarding position, please give me a call.

**Contact:** LMC/XMC Jean-Marc Dagenais, memoid:LMC.LMCJMDA, phone:+514 738 8300 (ext 2692).

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**Ericsson A/S, Norway**

*Avdeling Network Management Systems utvikler avanserte software systemer for kontroll og overvåkning av Ericssons nett- og tjenesteløsninger. Avdelingen er organisert i selvstendige team med medarbeidere som tar initiativ og ansvar.*

*Vi vet at vår evne til å tilfredstille våre kunders forventninger ligger i våre medarbeideres kompetanse og evne til kreativ problemløsning. Derfor har vi ambisjoner for vår faglige utvikling, noe som stiller store krav til avdelingens og den enkeltes vilje og evne til egenutvikling.*

*Vi søker flere dyktige medarbeidere til utvikling av avanserte software produkter på Windows NT og UNIX plattformer.*

## SENIOR SYSTEM DESIGNER

● Du er en positiv person som tar initiativ og viser kreativitet i å finne de beste løsningene. Du øns-

# *"Ericsson Radio Systems AB is looking for people with qualified competence."*

**You may have seen or maybe met us at the CeBIT exhibition (GSM Pro), we are the team adding PMR to GSM and D-AMPS. We need to strengthen our resources and are therefore looking for new members. Join us from the start!**

***The newly formed product unit "PMR over Cellular" is responsible for Private Mobile Radio (PMR) functions for our mobile telephone systems. We are currently developing and marketing PMR functions for GSM (GSM Pro) and for D-AMPS (ROC-radio).***

### SECRETARY/ADMINISTRATIVE ASSISTANT

We are looking for a qualified secretary/assistant to provide administrative and secretarial support and assistance to the unit manager and the unit.

Your tasks include daily secretarial work such as answering the phone, organize meetings, conferences and seminars, travel arrangements and formulate and write letters, minutes, reports, etc. You will also have the responsibility to initiate and co-ordinate the improvement of the administrative routines within the unit.

We are working in an international environment, it is therefore essential that you have a good knowledge of English, both written and spoken. Besides having a good knowledge of English it is also required that you have experience of the MS Office package.

You must have excellent communication skills be independent and have the ability to work under pressure.

### MANAGER MARKETING & SALES SUPPORT GSM Pro

You will have the responsibility for marketing and sales support for the GSM Pro concept, PMR functions for the mobile telephone system GSM 900/1800, working on a global basis and reporting to the manager for the product unit.

The marketing and sales support unit includes internal and/or external marketing and sales support as well as technical system design support functions. The unit will provide support to the RMOG organization or to the local Ericsson companies and will have profit and loss responsibility for the GSM Pro business activity.

Experience in private mobile radio and/or mobile telephony is required as well as management and leadership experience.

You are a business-oriented person and like to work in an international environment. You have a M.Sc. degree, possibly combined with an MBA. It is essential that you have a good knowledge of English, both written and spoken.

### AREA BUSINESS MANAGER GSM Pro

You will be working with the GSM Pro concept, PMR functions for the mobile telephone system, GSM 900/1800, on a global basis.

You will be responsible for marketing and sales support towards our local Ericsson companies. You will be part of the Core Three Team, where you together with the Technical Manager and the Project Manager will be able to follow a project from start to finish. You will also act as ambassador to the product unit towards the market as well as internally.

Experience of private mobile radio and/or mobile telephony is required as well as excellent interpersonal and communication skills.

You are a business-oriented person and like to work in an international environment. You have a B.Sc. degree or similar. It is essential that you have a good knowledge of English, both written and spoken.

***For this three positions, please contact:***
Johan Bergh, phone +46 8 585 30 747,
memo ERA.ERAJBEH
Liljana Sundberg, Human Resources,
phone +46 8 757 24 59, memo ERA.ERALISU

### AFTER MARKET MANAGER

You will have the responsibility to create and implement the After Market strategy for terminals and infrastructure for PMR over Cellular and existing systems and products. The customer interface will mainly be through Local Companies and Distributors. You will set up the interface between the Local Companies and the Support Organisation and you will be involved in setting up best of practices for the maintenance of infrastructure and terminals. Making and/or supporting the maintenance proposals for new bids to customers will also be an important responsibility.

The ideal candidate has a M.SC. or MBA and at least 5 years of experience from After Market management in Private Mobile Radio/Cellular Systems or similar areas. The candidate should have experience from work in the international field and preferably have good contacts with other business areas'/units' after market organizations. Fluency in English is required. The person we are looking for has a desire and the drive to make After Market a profitable business.

***For this positions, please contact:***
Lars Molin, phone +46 8 404 82 58,
memo ERA.ERALMON
Liljana Sundberg, Human Resources,
phone +46 8 757 24 59, memo ERA.ERALISU

### TECHNICAL MANAGER GSM Pro

As technical manager you will be working with technical marketing of GSM Pro for GSM900/1800 on a global basis.

You will be part of a Core Three Team and work towards our local Ericsson companies and directly with customers. You will also prepare the technical parts of our bids and provide technical expertise during customer negotiations.

Experience of private mobile radio and/or mobile telephony is required as well as excellent interpersonal and communication skills. The position involves international traveling to a large extent.

The ideal candidate should have a M.Sc. degree and be fluent in English.

***For this positions, please contact:***
Anders Gratorp, phone +46 8 757 08 89,
memo ERA.ERAGRAT
Liljana Sundberg, Human Resources,
phone +46 8 757 24 59, memo ERA.ERALISU

### PRODUCT MANAGER – Infrastructure

You will define solutions and work out business cases to influence the development of new PMR functions for GSM and D-AMPS. You will work together with our development units in Sweden and USA and closely co-ordinate marketing efforts with the RMOG Business unit.

Customer presentations and new product introductions play an important role in your work. The job involves travelling within Europe and USA.

The ideal candidate has a M.Sc. or B.Sc. degree and at least 5 years of experience from marketing or product management of telecom, especially in the field of cellular communications and private mobile radio. The candidate should have documented experience from working with global teams and preferably have an established network of contacts within business areas BR and BT. Fluency in English is required. The person we are looking for is innovative, market oriented and has a strong drive to achieve the targets.

***For this positions, please contact:***
Tore Smedman, phone +46 8 404 65 09,
memo ERA.ERASMED
Liljana Sundberg, Human Resources,
phone +46 8 757 24 59, memo ERA.ERALISU

***For further information, please visit our web page:***
www-br.ericsson.se/info/poc

Please send your application to:

Ericsson Radio Systems AB
F/H Mari Skoglöf
164 80 Stockholm

*Ericsson's 100,000 employees are active in more than 130 countries. Their combined expertise in fixed and mobile networks, mobile phones and infocom systems makes Ericsson the world-leading supplier in telecommunications. You can get more information about us on our homepage* **www.ericsson.se/SE/**

**ERICSSON**

ker å jobbe i et teknisk miljø som kan gi deg nye spennende utfordringer og du motiveres av å jobbe med internasjonale samarbeidspartnere. Du har god erfaring innen flere av følgende områder:

Programvareutvikling på Windows NT eller UNIX. Objektorientert analyse, design og programmering (UML/Rational Rose, C++, Java). Komponentteknologi og distribusjonsmekanismer (DCOM, CORBA).

Brukergrensesnitt (X/Motif, Windows, Web, sluttbrukerbehov). Systemintegrasjon og løsningsbygging. Data-, tele- eller mobilnett. Network Management plattformer og applikasjoner (Ericsson TMOS, HP OpenView, etc.). Standarder og protokoller (TMN, SNMP, TCP/IP, HTML).

Du har en høyere teknisk utdannelse og gode engelskkunnskaper.

**Kontakta:** Harald Aass (etohaa@eto.ericsson.se) 66 84 12 85 eller Stefano Donati (etosad@eto.ericsson.se) 66 84 15 49.

## SOFTWARE DESIGNER

● Du er en positiv person som tar initiativ og viser kreativitet i å finne de beste løsningene. Du ønsker å jobbe med design og implementasjon og trives med å arbeide i team. Du har erfaring innen ett eller flere av følgende områder:

Programvareutvikling på Windows NT eller UNIX. Objektorientert analyse, design og programmering (UML/Rational Rose, C++, Java). Komponentteknologi og distribusjonsmekanismer (DCOM, CORBA). Brukergrensesnitt (X/Motif, Windows, Web, sluttbrukerbehov). Databaser, SQL. Du har en høyere teknisk utdannelse og gode engelskkunnskaper.

**Kontakta:** Harald Aass (etohaa@eto.ericsson.se) 66 84 12 85 eller Stefano Donati (etosad@eto.ericsson.se) 66 84 15 49.

## SYSTEM TESTER

● Du er en samarbeidsvillig person som kan inngå som testleder/testkoordinator i våre utviklingsprosjekter. Du ønsker å jobbe med systemtesting, testmetodikk og konfigurering av testsystemer i et teknisk miljø med spennende utfordringer. Du har erfaring innen flere av følgende områder:

Systemtesting på Windows NT eller UNIX. Protokoller og distribusjonsmekanismer (TCP/IP, SNMP, CMIP, X.25). Databaser, SQL. Testmetodikk og testverktøy. Network Management plattformer og applikasjoner (Ericsson TMOS, HP OpenView, etc.). Brukergrensesnitt (X/Motif, Windows, Web, sluttbrukerbehov). Data-, tele- eller mobilnett.

Du har en høyere teknisk utdannelse og gode engelskkunnskaper.

**Kontakta:** Harald Aass (etohaa@eto.ericsson.se) 66 84 12 85 eller Stefano Donati (etosad@eto.ericsson.se) 66 84 15 49. For alle stillingene gjelder: Arbeidssted i Asker,Norge Søknadsfrist 15. juni 1998. Søknad sendes Persoanalavdelingen, Postboks 34, 1361 Billingstad;Norge

## PRODUKT KOORDINATOR

● Du er en strukturert og ansvarsfull person med god sans for systematikk og orden. Du har evne til å sette deg inn i og holde oversikt over store systemer. Du er lærevillig og har gode samarbeidsevner.

Som Produkt koordinator vil du jobbe i tett samarbeid med prosjektlederne og du vil inngå i prosjektenes kjerneteam.

Du vil ha ansvar for konfigurasjons- styring og release av våre produkter, utarbeidelse av planer, rutiner og dokumentasjon. Vi gir deg den opplæringen du har behov for, og utviklings- mulighetene er gode. Du har erfaring innen ett eller flere av følgende områder:

Release- og versjonskontrollsystemer. Bruk av dataverktøy på PC eller UNIX. Teknisk administrasjon og produkthåndtering. Erfaring fra software prosjekter.

Du er ingeniør eller tilsvarende med gode engelskkunnskaper. Relevant erfaring kan kompensere for manglende formell kompetanse.

**Kontakta:** Stefano Donati (etosad@eto.ericsson.se) 66 84 15 49 eller Lars Erik Christensen (etolec@eto.ericsson.se) 66 84 17 10

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**Ericsson Ltd, UK**

## TECHNICAL SALES CONSULTANT

● Have you excellent IT and presentation skills ideally with a knowledge of Call Centre and/or Application design in Customer based Comms solutions.

If you have, we want to hear from you.

Vacancies exist for individuals who are ready to take on the challenge of working with our Sales team to position Business Solutions involving Call Centre Consono MD110, CTI, Personal Applications, Data and Mobility.

We have the best Products, we need the best people. If you like a challenge then I want to hear from you!

The job requires individuals to work within the Sales and Marketing activity positioning the technology within the Customer business requirements. It requires knowledge, flexibility, good interpersonal skills and a general good business understanding. You must be quick to learn, be a self starter and have an ability to work as an individual or as part of the team.

Qualifications/Skills: HND in a technology based subject, ideally Science/Engineering degree. Good comms and IT knowledge. Experience of Call Centre and Applications integration would be of particular advantage.

The position carries a competitive salary and bonus plus a company car. Based at home/office the individual must be prepared to work where and when required. Based out of our Burgess Hill office.

**Contact/Application** latest 980531: Mary-Anne Morgan-DeGray, HR Advisor, Enterprise Networks UK, etl.etlmemn, telephone UK 01444 256261.

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**Ericsson Australia Pty, Ltd.**

## ENGINEERS-NEW TECHNOLOGY DEVELOPMENT

● D/X within EPA D-CSU, is seeking experienced engineers to help with the transition over the next three years from traditional telecoms to infocoms and new technology.

The successful candidates will have formal qualifications in Engineering/Computer Science or equivalent experience and knowledge. We are seeking applications from people who have:

Technical Abilities such as: A thorough AXE background (including knowledge of sub systems ie: Access,TCS,CHS,NOP, TSS, SUS. Experience in system study (pre study), and system analysis (feasibility). Experience/knowledge of programming languages such as C/C++, erlang, pascal, java, assembly languages and HTML. Experience/knowledge in data communications networks ie.ATM, Erthnet, Lan/Wans, IP Networks.
Experience/Knowledge of protocols ie. TCP/IP, DSS1, RSVP.

Additional Competencies such as: Excellent communication skills. Ability to work effectively within a team. Demonstrated ability to establish and keep strong customer relations (internal/external). Good contact networks in global organisation. Leadership Ability. Technical Co-Ordination ability will be looked upon favourably.

**Contact:** Rita Karlis on EPA.EPANRK. Application: Leonie Cordell, EPA/P/ES, or via e- mail EPA.EPALEC.

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**Ericsson Australia Pty, Ltd, Melbourne**

## WANTED NEW TECHNOLOGY ENGINEERS

● Are You A Software Of Hardware Hacker? Can You Program In C, C++ And Java? Do You Know About The TCP/IP Family Of Protocol Stack? Do You Know About Routers, Bridges, Lan Networks And ATM?

If you answered YES to these questions, this is the role for YOU!!!!

WHY? The Fixed Networks Development Unit (D/X), within EPA D-CSU, employs approximately 120 people in a team based organisation. D/X's vision is "We will break new ground to lead the transformation from telephony to infocoms". D/X is working towards the transition from traditional telecoms to infocoms and new technology and to assist in the transition D/X is seeking expressions of interest from engineers who want to work with new technologies.

The answer lies in the fact that the EPA/D/X new technology area has opportunities in developing new state of the art products for the Global organisation within the IP domain.

WHEN? We want expressions of interest in a hurry - "NOW" to be precise!!!

**Contact:** David Dessardo on EPA.EPADDO. Application: Leonie Cordell, EPA/P/ES, or via e-mail EPA.EPALEC.

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**Ericsson Australia Pty, Ltd.**

## BUSINESS OFFICE SPECIALIST – D/X

*D/X is striving for a strong financial performance, with at least 20% efficiency improvements in 1998. Productivity gains and cost reduction are the key areas of focus within the Business Office. Profitability and recognition by our customers as best value for money is our mission, and the Business Office plays a key role in achieving this. D/X is seeking a business focused individual with a background in information systems and/or business, with a proactive and enthusiastic attitude, who enjoys working with and analysing data.*

● The changing nature of our business means that there is a requirement to establish an even stronger business function within the unit, hence the search for an additional person to work with the Management Information Systems (MIS) Manager. The successful candidate will work on assignment handling tasks, business-financial activities, and management information systems, and report to the Unit Operations Manager.

Key Accountabilities: 1. Business - Financial: Producing business, budget and project data reports, and investigating problem areas. Preparation of PCPM and RPTool data. Preparation and maintenance of load forecast data and reports. Maintenance of information systems. Assisting in the deployment of actions for reducing infrastructure and project costs.

2. Assignment Handling: Originating all EPA/D/X assignment specifications. Establishing OHS and project View data for Fasttrack assignments. Providing assistance on OHS, RPTool.

3. MIS Support: Providing "Helpdesk" support to management team and unit on minor PC, Software and Installation related problems.

Key Competencies: Experience in informations systems. Ability to establish and maintain tracking systems. Ability to observe discrepancies, trends and interrelationships in information. Ability to investigate problems by gathering information from various sources. Ability to work cooperatively with others, and to be part of a team. Excellent communication skills. Ability to transfer knowledge to others.

An understanding of the Ericsson budgeting and invoicing process would be advantageous, as would be a tertiary qualification in a business related discipline. Applicants with post graduate studies in business in addition to an engineering or science degree are encouraged to apply.

## PROJECT MANAGEMENT ROLES – D/X

*The Fixed Networks Development Unit (D/X), within EPA D-CSU, is responsible for the planning, development, design, test and delivery of AXE software and system updates for the local market and the standard Ericsson market. The unit employs approximately 120 people in a team based organisation. D/X's vision "We will break new ground to lead the transformation from telephony to infocoms" is leading D/X out of the traditional areas of telecommunications, towards the infocoms and new technology areas that are emerging.*

● It is for this infocom and new technologies areas, that D/X is seeking experienced project managers, or high potential project employees to manage projects which will see through this transition. These project management roles will be required for projects commencing in the next six months, both in the global and standard market area.

These roles require emphasis in technical areas, however a technical or engineering degree is not essential, as the roles do not require a technical expert. The successful candidates will have an excellent understanding of Ericsson business processes and tools, demonstrated management experience, and excellent Ericsson knowledge. Specifically, successful applicants would be responsible for the following key result areas:

Excellent Project Management skills. Excellent presentation skills. Good English verbal and written skills. The ability to work in a team environment. The ability to transfer knowledge. Demonstrated Leadership ability. Knowledge of the AXE System.

Applicants may possess an engineering degree, however extensive experience project management is essential. If you do not meet the criteria above, but feel you possess the potential as a project manager, or have a keen interest in this area, please apply so as to be considered. Preference and assistance will be given to candidates willing to move to Australia and work at EPA on local conditions. Depending on each individual's expertise, we may consider the option of a long term contract.

## PROCESS MANAGEMENT ROLES - D/X

● Ericsson Australia (EPA) is seeking applications from experienced quality specialists (or high potential employees) with a flair for statistical measurement and analysis to work in the Fixed Network Development (ISDN/PSTN) Unit, based in Melbourne. The Fixed Network Unit (D/X) comprising 120 people, is responsible for the development, design and test of AXE software for the local market and standard Ericsson market.

The Engineering Process Group in D/X will soon require an additional person for process management and quality assurance activities. The drive in 1998 is for the process group to play an integral part in cost reduction and efficiency gains.

# *System Designers, Programmers, Integrators/Testers*

## Ericsson Telecom AB, Älvsjö

*ETX/DN/SP develops the Open Telecom Platform (Erlang/OTP). This platform is used as the middle-ware in sixteen product development projects in Ericsson. We are a small team located in Älvsjö, south of Stockholm.*

### SYSTEMS DESIGNERS AND PROGRAMMERS

We expect our designers to be both systems designers and programmers at the same time. We are looking for people with at least some of the following knowledge:

- programming languages such as C, C++, Java and Erlang.
- compiler design, in particular for functional languages.
- operating systems (UNIX, NT, VxWorks, OSE-Delta).
- programming real time systems, concurrency.
- GUI's databases, HTTP servers, SNMP.

You should either have a computer science education or the equivalent knowledge. Applicants will be expected to submit a sample of code they have written for inspection.

### INTEGRATORS/TESTERS

You will be testing and integrating the code produced by the systems designers and programmers. We expect that you have sufficient knowledge of the field mentioned above to be able to do the test and integration work.

***For more information, please contact:***
*Mike Williams, phone +46 8 719 7855, e-mail mike@erix.ericsson.se, or*
*Janine O'Keeffe, phone +46 8 719 7193, e-mail janine@erix.ericsson.se.*

Please send your application with a CV, no later than June 26, to:

Ericsson Telecom AB
ÄT2/ETX/DN/S Tuula Carlsson

126 25 Stockholm

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Specifically, successful applicants would be responsible for the following key result areas:

1. S/W engineering process improvements via ESSI deployment, CMM Level 3,KPA's, Preparation for CMM Level 4, Policy deployment of VFA's, Project assessments 2. Establishing measures, tracking projects, and analysing data 3. Quality Assurance Coordination, quality system audits, project (document reviews, risk analysis, product release), management reviews

The emphasis in these roles is on process management requiring a strong background in mathematics, and statistical analysis. It is not essential to possess an engineering degree, as the team currently has an engineer as support for this role. Other prerequisites include:

Knowledge of and experience in quality measurement, statistics, and analysis. Experience in quality processes and improvements. Excellent presentation skills. Knowledge of the AXE System. Understanding of S/W development processes. Good English verbal and written skills. The ability to work in a team environment. The ability to transfer knowledge. Demonstrated Leadership ability.

Ideally applicants will possess a science degree (with a major or minor in a mathematical discipline) or equivalent experience. Applicants may possess an engineering degree, however extensive experience in statistical analysis is required. If you do not meet the criteria above, but feel you possess the potential (ie. as a graduate) and have a keen interest in this area, please apply so as to be considered. Preference and assistance will be given to candidates willing to move to Australia and work at EPA on local conditions. Depending on each individual's expertise, we may consider the option of a long term contract.

**Contact:** Rita Karlis at EPA.EPANRK. Application latest 980529: Leonie Cordell at EPA.EPALEC or via internal mail.

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

## FIELD SUPPORT ENGINEER

● We have now a vacant position for an experienced Field Support Engineer at our regional office in Tokyo. Tokyo Network Center is the largest regional implementation and support center in Japan.

We expect that you are an engineer with an MBA, or similar experience from the field of telecommunication engineering. You shall have experience and good knowledge of AXE and IOG-11. Experience from mobile systems is to prefer. You shall have solid experience from Field Support work within Ericsson.

You shall have experience from work with TR & TRA handling, EC-A, AC-A & CN-A handling and implementations. You shall also have previous experience from customer interface and presentations for the customer. This position will require some trouble shooting. It will also require emergency handling and on call according to 2:nd liner list. As our central FSC in Shin-Yokohama is dealing with deep technical investigations and preparations, this position in the region are more focusing on implementations and customer interfaces.

You have to be fluent in spoken as well as in written English. Good knowledge of our company and a good network within Ericsson is required.

We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment.

We are ready to offer a 2-year contract to the right person and starting date is in July.

**Application:** Peter Nilsson ERJ/VH Office + 81 45 475 6761 Mobile + 81 80 492 7646 Fax + 81 45 475 0035 Memoid: NRJ.ERJPENS E-mail: nrj.erjpens@memo.ericsson.se or Regional Office manager: Mr Driss Jirari Office + 81 48 422 9123 Memoid: NRJ.ERJJIDR

**Ericsson Australia Pty, Ltd, Melbourne**

## INFOCOM/GSM TEST LEADER

*ASAC (Advanced Services Application Centre) is a fast growing area within Ericsson Australia (EPA), working in the development of Network Intelligence and IT based services and applications.*

*Principal customers are BN's Network Intelligence product area, RMOG, the Asia-Pacific region and the local EPA customer divisions towards Australia's leading Telecoms Operator*

# BUSINESS OPERATIONS UK – CELLULAR DIVISION

*BR OPERATIONS UK now supports the ETL Customer Divisions in the delivery and build of highly competitive networks for our cellular customers. We have a number of vacancies in the following areas:*

## Principal Technical Support Engineer

*(ref. CN351)*

Candidates are sought for this role whose principal responsibility will be providing high level technical expertise on AXE support and managing all technical activities in the section. Investigating and reporting on highly technical issues will also be required. You should have an HNC/degree or equivalent in a telecomms or related subject and ideally six years experience in AXE support.

## Project Manager

*(ref. CS063)*

Three project managers are currently required, one to support ESO and two to manage SAFSC projects. Responsibilities include planning and co-ordinating the department's activities related to the adaptation element of specific assignments; represent the support department to other organisations; formulate project goals and plan the work in consultation with other parties within tight time, budget and quality objectives. AXE SW and non-AXE SW handling experience, proven project management skills and broad business experience are essential. Excellent communication/interpersonal skills and degree level education are required ideally with 5 years experience.

## Senior Product Support Engineer

*(BU030)*

If you can provide a very high level of expertise on AXE support; conduct detailed investigations of highly technical issues; provide technical solutions to problems; work closely with field/customer support centres; prepare and make presentations to review meetings and undertake the role of team/project leader and have an HNC or equivalent in a telecoms or related subject, at least 6 years experience in AXE support, you could be person we are looking for.

## Support Engineer

*(CS024)*

The key responsibility in this role is providing emergency and day to day support to the customer, answering queries, providing solutions and visiting sites. Supporting the networks and products, diagnosing problems, communicating and investigating solutions with the customer is also involved. Experience in managing or maintaining transmission systems, up to two years as a trainee support engineer and preferably a degree or HND in telecomms or equivalent.

## Senior Order Engineer

*(CN337)*

Do you have 3-4 years experience in the telecoms field, 2 years experience within Ericsson, knowledge or PRIM and ONC or equivalent. Do the following responsibilities appeal? Motivating the team to develop and achieve objectives; ensuring correct dimensioning of all hardware installations; assisting in planning resource requirements; keeping abreast of new product developments; assigning work and co-ordinating activities within strict time, quality and budget constraints. If they do, this could be the role for you.

## Data Transcript Engineer

*(CN266)*

There are two areas of responsibility in this role – switching (physical) and cellular (logical) – for the creation and adaptation of loadable dependant files for AXE systems by taking input requirements and translating them into MML data outputs. Knowledge of radio and data exchange principles, UNIX based applications and Ericsson procedures is required. Candidates should be flexible, team orientated and have strong analytical and problem solving skills. Computer literacy and two years of data transcript in an AXE10 environment or proven testing/support/switching experience would be ideal.

## Assistant Order Engineer

*(CN296)*

The Assistant Order Engineer assists the order engineers in processing equipment orders. This is a fairly non-technical role although the CHESS system is used to enter and maintain orders. The job holder will also produce reports, handle paperwork and maintain customer libraries. Basic knowledge of AXE and Chess order entry would be an asset. A good telephone manner, good organisational and communication skills are essential.

## Trainee-Senior Installation Test Engineer

*(CN290)*

Working with other engineers on customer sites, the senior engineer undertakes commissioning of AXE exchanges. Supervisory, maintenance and administrative duties are also involved as is maintenance of a good working relationship with the customer. Testing, locating and recifying hardware and software problems and faults also form part of this role. Experience with AXE and commissioning is essential and HNC/BTEC level education is required. Good communication and interpersonal skills should be demonstrated.

## Installation Engineer

*(CN267)*

The detailed preparation of all documentation required by the manufacturing division, installation and testing departments is the principal responsibility in this role, the main objective being to produce C-module documentation which enables installation staff to construct AXE switches and install Ericsson equipment to customer specification. Working within quality standards and tight timescales is paramount. A 2nd year BTEC in telecomms, PC literacy and a willingness to undertake further training is necessary. Ideally a background in installation or switch engineering would be required.

## ICO/IVA Senior Support Engineer

Two engineers are sought who can supply technical expertise CME20 MCS/VLR/HLR products. Also the requirement is to produce test specifications, instructions and results to obtain customer acceptance; obtain and coordinate verification testing results; support customer integration of 3rd party network elements; foster good relationships with internal and external customers and monitor and maintain quality standards. Candidates must have worked for at least 6 years in AXE support, have HNC level qualifications and good influencing skills. Experience of CME20, CMS40 or related mobile switching systems is essential.

## ICO/IVA Support Supervisor

This position requires provision a very high level of technical expertise on CME 20 MSC/VLR/HLR products to support the use of Ericsson Supplied network elements to be integrated within the ICO satellite project. Other duties consist of: supervising the production of test specs, instructions and results for IVA; co-ordinating verification testing results; supervising investigations of sensitive issues; solving highly technical problems; assisting with technical aspects of tendering and presenting to review meetings. Candidates must have worked for at least 6 years in AXE support, HNC level qualifications and good influencing skills. Experience of CME20, CMS40 or related mobile switching systems is essential.

**If you would like further details on any of the above vacancies or would like to make an application, please contact Monica Winstone, HR Department (ETLMAWE) quoting the job title and reference number.**

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*(Telstra). ASAC is an ideal area for staff skilled in telecommunications to start moving into Information Technologies while still making use of telecom's principles and skills.*

● In order to continue to meet demand, EPA is advertising for a GSM Test Leader or a GSM Support Engineer with a background in IT or to be as part of a team working on an Infocom project for the GSM network.

The major responsibilities of the position include test analysis, test planning, preparation of test specification and test instructions and testing of Infocom and IN services for the GSM network.

Technical requirements of the position include: AXE testing tools and methodology. CME-20. GSM Service & Protocols. Signaling (SS7, ISUP & MAP). GSM Testing. Testing on UNIX and/or Windows NT platforms. Proficiency in C++ and Java. Object Oriented design. Real -time distributed software systems. Internet protocols and applications. Databases.

Additional Competencies include: Excellent English verbal and written skills. Ability to lead and work effectively within a team. Ability to transfer knowledge to less experienced team members.

Experience in following defined software engineering practices. Demonstrated fault finding/trouble shooting skills. Results driven.

Ideally applicants will possess a relevant IT tertiary qualification (Engineering or Computer Science etc.) whilst experience in digital mobile (GSM) applications will be well regarded.

The position will be for a long term contract.

**Application** latest 980527: Leonie Cordell via memoid EPA.EPALEC.

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

## SENIOR SYSTEM INTEGRATION ENGINEERS

● We have a number of positions available for experienced System Integration Engineers to work with CMS30 (PDC standard). Your work location will be at our head-office in Shin-Yokohama.

The candidates shall be experienced in the area of testing and testing methods, have in depth knowledge of software (including PLEX/ASA). The candidate shall also have proven skills in trouble shooting technical faults, be able to prepare implementation instructions as well as supervise the implementation. The candidate shall have a knowledge of key APT/APZ subsystems.

We also expect that the candidate has an overall understanding of the product flow and good Ericsson knowledge and a wide contact net within the company.

The candidates shall be fluent in spoken as well as in written English. Transfer of competence to local staff is one of the most important tasks. Proven skills in this area is required.

Previous experience with customer interface is a benefit. We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment. We are ready to offer a long-term contract to the right person and starting date as well as length of the contract is negotiable.

**Application:** Peter Nilsson, ERJ/VH Office + 81 45 475 6761 Mobile + 81 80 492 7646 Fax + 81 45 475 0035 Memoid: NRJ.ERJPENS E-mail: nrj.erjpens@memo.ericsson.se

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

## PROCESS MANAGER

● We have now a vacant position for an experienced Process Manager at our office in Shin-Yokohama. We expect an engineer with an MBA, or similar experience from the field of communication engineering.

You shall have a solid experience and knowledge within Ericsson process work. You should have achieved results in this area.

You shall have experience from modern quality work. You should be analytic, creative, flexible and a good listener. We also see you have previous experience in the field of quality assurance or similar work. You shall actively contribute and coach the process work in a diversified organization.

You have to be familiar with the process tools used within Ericsson. You will be the Process Manager for the ERJ owned process: Product Maintenance, and will be reporting to the process owner. This means a wide range of contacts both within ERJ as well as within RMOJ in Sweden.

We also see that you have an overall overview/understanding of the different work areas within an Operation unit.

You have to be fluent in spoken as well as in written English. Good knowledge of our company and a good network within Ericsson is required. We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment.

We are ready to offer a 1-year contract to the right person and starting date is negotiable.

**Application:** Peter Nilsson ERJ/VH Office + 81 45 475 6761 Mobile + 81 80 492 7646 Fax + 81 45 475 0035 Memoid: NRJ.ERJPENS E-mail: nrj.erjpens@memo.ericsson.se

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

## QUALITY MANAGER

● We now have a vacant position for an experienced Quality Manager at our office in Shin-Yokohama. We expect an engineer with an MBA, or similar experience from the field of communication engineering. You shall have solid documented experience from Quality work within Ericsson.

You shall have experience from modern quality work. You should be analytic, creative, flexible, a good listener and prepared to implement a quality system within our Support organization at ERJ. We also see that you have previous experience in the field of quality assurance or similar work. Quality audits is part of the work for this position.

You have to be fluent in spoken as well as in written English. Good Ericsson knowledge and a good network within Ericsson is required. We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment.

We are ready to offer a 1-year contract to the right person and starting date is negotiable.

**Application:** Peter Nilsson ERJ/VH Office + 81 45 475 6761 Mobile + 81 80 492 7646 Fax + 81 45 475 0035 Memoid: NRJ.ERJPENS E-mail: nrj.erjpens@memo.ericsson.se

**Ericsson Telecommunications Romania S.R.L - ETR**

## FRONT OFFICE MANAGER

● Ericsson Telecommunication Romania (ETR)is looking for a Front office manager to our Field Support Center (FSC)in Bucharest. Totally ETR has today 210 employees of which 20 persons are working in the Support department. Our main customer is Mobifon (controlled by Airtouch and TIW). Mobifon has today more than 1000 employees and is working in a tough competitive situation.

The Front Office manager is responsible for the Customer Support Request process for the account(s) assigned to him/her in addition to the more demanding SS or BSS Support engineer duties.

Requirements: Minimum 2 years experience of advanced CME 20 SS and/or BSS software troubleshooting; please include in your CV references (in MHS) to some of the corrections you have made. Some kind of management, supervisor or team leading experience is appreciated but for this position it is more important to have the right attitude towards customers and good internal relations. Ericsson experience is a must.

**Contact:** Support manager Martin Nebe phone + 40 1 401 0103 (memo ETR.ETRLMNE) or our Resource Manager Pauli Liimatainen phone +40 1 401 0120 (memo ETR.ETRPALI), fax: 40 1 336 9777, Ulrika Martinius, RMOG Resource Agency (ERAC.ERAMSSS), phone +46 8 404 2565.

**Ericsson GmbH, Fritz-Vomfelde-Str. 14-18, 40547 Düsseldorf**

## MARKETING ASSISTANT/SECRETARY

● The person is responsible to make sure that the marketing and sales unit is organised in an efficient way and that marketing and sales activities are supported in the best possible way.

Task that the person will have: Organising customer events. Handling of communication towards customers. Planning of participation in fairs and conferences. Search for information on the market situation, customers and competitors. Planing and organising customer meetings. Handling of the units operational system. Follow up of the units selling expences. Planning and organising internal meetings. Vacation planning. Handling of external correspondance as well as internal dokmentation. Planning and ordering of travel for the employees. Check of travel reports and claims. Copying, distribution. Telephone service.

The person applying for this job is extrovert, fast, takes inititative and is organised. High English and German skills in both verbal and written form is required.

Ths job is a combination of marketing assistant and secretary. The ambition is to outsource some of the secretarial tasks to make it possible to focus on the assistant tasks.

The Marketing&Sales unit for International Operators is a very young and dynamic team of 11 persons. The customers are new on the German market and have an international background. The key word in this business is speed and relationships both in the Ericsson units as well as on the customer side.

**Contact:** Magnus Rosenblad or Hans-Juergen Vratz.

**Ericsson Austria, Vienna**

## SOLUTIONS MANAGER – AXE SPECIALIST

*UTA is a new operator in Austria. To support the customer we need an AXE specialist for 3-6 months in Vienna starting as soon as possible.*

● The objective is to find solutions for the customer on their special demands, but also to educate the customer on AXE features and benefits. You should have been working with AXE for a couple of years, and be well updated on the features included in TransLocal 2.

Ability to explain the features in a professional way is a necessity.

**Contact:** Jens Algotsson, memo SEA.SEAALG or ECN 843-6478. Personnel department: Karin Huber, e-mail: karin.huber@sea.ericsson.se or ECN 843-4318.

**Telefonaktiebolaget LM Ericsson Technical Office, UAE**

*Here in UAE, Ericsson need people for installation of following GSM sites: HLR 2, GMSC 4, MSC 5 and BSC 6.*

*Start time 28/4. Duration 3-6 months.*

● We need especially supervisors, but also good installers.

The installation is done by installer teams on 5 persons, and we still need one to two teams.

Also one or two test teams is needed. Each team includes 2 testers. They are doing installation test, stand alone test, integration test, and supports the customer during acceptance test.

And finally a engineer for dimensioning etc is urgently needed.

All people on the project can expect to be working overhours.

Most of the work will be in Dubai, and almost all accommodation is done in apartments on good hotels.

**Contact:** memoid XCOM.TKUSOR Soren Norgaard A/Project Manager TKU UAE

**Ericsson Austria**

## SALES AND MARKETING DIRECTOR, MSA

*MSA, Multi Service Access, is a business unit within Ericsson Austria. MSA/Austria is working with a delegated P/L responsibility for Copper Enhancement world wide and as a design centre for Multi Media.*

● We are looking for an international Sales and Marketing Director, with experience in working both with local companies and establishing different Sales Channels as well as with local PTT's and other operators. We are increasing our efforts in South America, Africa, Middle East and former Soviet States as well as in already established markets.

Leading the Marketing and Sales department includes the responsibility for Business Area Management, Central Sales Office and Channel Marketing currently employing around 15 people, located in Vienna, New Zealand and China.

The right candidate would have been working in the international arena with P/L responsibility, preferably with multiple distribution channels in telecommunications for at least 10 years. A MSC or an MBA combined with working knowledge in German is valuable.

**Contact:** Karin Huber, Personnel Department SEA, e-mail:seahuk@sea.ericsson.se, Tel: +43 1 81100 4318 or Mats Halvorsen, Director, MSA/Austria

**Ericsson (China) Company Ltd, Beijing, China**

## SENIOR PRODUCT MANAGER / TECHNICAL SPECIALIST

*Product and Technical Sales, Region North, China is supporting customers in the 14 northern provinces of China with Mobile Network Design. Many of our customers have GSM and TACS networks corresponding to the size of european nationwide networks. Our customers will further expand their networks during 1998, therfore we are looking for an experienced Product Manager /Technical Specialist in the GSM area to further strengthen our MND team.*

● Your responsibilities will include assisting in building up the expertise and transfer knowledge within the department for new local staff, prepare System Design and Technical Proposals, write Statement of Compliance, be responsible for technical negotiations and discussions towards our customers.

You have an engineering degree and five or more year's experience in technical support or product management in the GSM area or equivalent. You have skills in network planning, capacity calculations and dimensioning.

You are highly motivated to create customer satisfaction, outgoing with a genuine interest in coaching others technically.

**Contact:** Urban Andersson, Product & Technical Sales Mgr, ETC.ETCURAN +86 10 6561 9988

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**Nippon Ericsson K.K - Japan**

*Japan is the second largest cellular market after the US. Today Japan has over 30 million subscribers and still groving very fast. Our group of people are responsible for all marketing activities towards Digital Tuka Group, Japan Telecon and Nissan Motors in Japan.*

## MARKETING MANAGER FOR JAPAN

● We are now looking for a Marketing Manager to support our sales of PDC.You will work with many marketing activities such as introduction of new products and features to our three PDC customers as well as the owners Japan Telecom and Nissan Motors. This is a demanding job which requires a large interest in interactions with customers to find out about their present and future plans and requirements.

## MARKETING ENGINEER FOR NEXT GENERATION SYSTEM IN JAPAN

● We are looking for a Marketing Engineer to support our sales of next generation system, IMT 2000. You will work with all commercial and account management functions towards one of our main customers in Japan for the next generation system.

For both positions we assume that you have previous experience of marketing within Ericsson, preferably of GSM. You will be placed at Nippon Ericsson Headquarter in Tokyo.

**Contact:** Sven Eriksson,Manager PDC Marketing, phone +81 3 5216-9100,mobile +81 10 43 99804,memo NRJ.NRJSSER Kerstin Halen, Human Resources,phone +81 3 3221-8246,memo NRJ.NRJKERH.

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**Ericsson Eurolab Deutschland, Aachen**

*The AXE Mobile Network department, within our AMC System House, will reinforce our Test 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 Test unit will have as main responsibilities to perform verification of the AMC product components and have an active role in AMC customer support activities. The unit will furthermore also be responsible for 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, IN and Internet accesses. To strengthen our activities we are looking for*

## SYSTEM TEST 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 emvironment. Performance of the Test 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 are a clear advantage.

**Contact:** Human Resources Simon Seebass, Memo:EED.EEDSIMS, Dial:+49-2407-575-163 AMC Mats Erlandsson, Memo:EED.EEDMERL, Dial:+49-2407-575-635 or http://www.eed.ericsson.se/international/amc

*NEW CSS PROJECT OFFICE at EED*

*The new CSS (Circuit Switching Systems) project office at EED is responsible for all TTM (Time To Market) project deliverables from TG0 upto and including GA. In addition EED/X/R department will have the responsibility for overall CSS resource mangament, CSS Project road-map establishment and cooridnation of all MSC/VLR development operations based at EED, EUS, ERA, LMF and IXG.*

*We are now looking for a number of dynamic individuals who could join our team for the following open positions:*

## TOTAL PROJECT MANAGER(S)

● Responsible for delivery of the GSM application development package for CME20 and CMS40 to our various markets. Tasks include coordination of all project related activities (Prestudy, Design, Indus and FOA) in cooperation with current CSS nodes (MSC/VLR, GDB and SOG/BGW). Harmonisation of our associated projects within the PSS,VAS and BSC areas.

## MSC/VLR DESIGN PROJECT MANAGER(S)

● Responsible for the MSC/VLR node level execution project from TG1 (Feasibility Study) up to MS8 (system release) including coordination with associated projects.

## ASSOCIATED/ASSISTANT PROJECT MANAGER(S)

● Supports the Total Project Manager and MSC/VLR project manager in project management tasks such as coordination and follow up of delegated project interfaces to subprojects and associated projects. This position can be seen as a trainee position for future project managers.

## CN-I PROJECT MANAGER(S)

● Responsible for delivery of all projects within CSS which may fall outside of our scheduled MAIN releases. Responsibilities will be similar to the Total Project manager but on smaller scale.

## GROUP MANAGER (DEPUTY DEPT MANAGER)

● Responsible for the projects CORE-Team within the department in order to maintain core competencies and ensure continuity throughout different CSS projects. As deputy to the dept.manager, the position will also have the responsibility of Competence Management of the Dept.

## QUALITY COORDINATOR(S)

● The main task consists of supporting the department in establishing a common quality measurements for the international operations by integrating corporate quality initiatives (e.g. ESSI), DSA quality initiatives and LDC's quality activities into one concept and by working out statistical baselines and improvements.

## CONFIGURATION MANAGER

● Responsible for introduction of various aspect of CM concept into the organisation and into the projects in addition of being responsible for MSC-CCB and CSS-CCB as a chairperson.

## OVERALL FUNCTION TEST LEADER(S)

● Responsible for the planning and coordination of all function test activities (in simulated environment as well as on target machine) within MSC/VLR projects. This person supports the project manager in reaching MS8 status.

## SUBPROJECT MANAGER FOR WCP INITATIVES WITHIN CSS PROJECTS

● Responsible for introduction and deployment of all accepted WCP (World Class Provisioning) initatives which will be impacting the CSS development projects.

## DEVELOPMENT OPERATIONS MANAGER

● Responsible for operational goal setting, follow up and operational planning with all the LDCs who are involved our development projects.

**Contact:** Human Resources Simon Seebass, Memo:EED.EEDSIMS, Dial:+49-2407-575-163 CSS Project office EED/X/R Abbas Sabokbar, Memo:EED.EEDSAAB, Dial:+49-2407-575-135 Axel Jeske, Memo:EED.EEDAXJ, Dial:+49-2407-575-284

*The system group within X/P PAX design department has the product responsibility for the mobile application 1/APT 210 25 and the subsystem MSS within the CME20 / CME40 switching system. We also run the product committees for theses products, PC-1/APT and MSS, and perform system studies. For further support of our system group we are looking for a*

## SYSTEM DESIGNER

● As a System Designer your main tasks include: Participation in prestudy, feasibility- and quickstudies. PRIM & CNI handling. Writing of technical reports.

As a suitable candidate you are an Ericsson employee with at least three years of design experience in the area of switching systems. Furthermore you should be familiar with 1/APT mobile applications. Good knowledge of mobile telephone systems and in Data communications is a clear advantage.

Being initiative, self-driven and showing good analytic abilities as well as good communication and cooperation skills are important personal qualities.

In addition you should also be able to cope with a high work pressure. If you have questions and/or are interested, please refer to your colleagues

**Contact:** Human Resources Simon Seebass, Memo: EED.EEDSIMS, Dial:+49-2407-575-163 Systems Group EED/X/PEC Frank Plettenberg, Memo: EED.EEDFRP, Dial:+49-2407-253

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**Ericsson Systems Expertise Ltd. Ireland**

## DWID TECHNICAL EDITOR

● A vacancy has arisen for a Docware in Design (DWID) Technical Editor within the Product Unit - Network Element Management (PU-NEM) based in Athlone, Ireland.

Responsibilities: The DWID Technical Editor will be responsible for language quality and style in documentation.

You will act as a language consultant to members of the design project. You will be responsible for bringing structural incorrect documents to the attention of the responsible designer and reporting deficiencies in control documentation to project management.

Ideally the successful applicant must have the following specific skills and experience: Docware style. DWID methods and tools. Ericsson's project management method (PROPS). O&M documentation.

You will have a background in telecommunications or computers and have general knowledge of AXE 10, Design processes and rules. Good communication skills are essential.

If you wish to be considered for the above position, please send an application to EEI/SH Michael McGann via memo EEI.EEIMMG, or email eeimmg@eei.ericsson.se by 17.00 on Tuesday, 02.06.1998.

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

**Contact:** Michael McGann, Personnel & Competence Services Manager, Product Unit NEM

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**Ericsson GmbH, Germany**

## CUSTOMER SERVICES MARKETING & SALES MANAGER

● As Customer Services is taking off within Ericsson GmbH, Germany intends to lead the way. Working with Customer Services Marketing & Sales for Ericsson in Germany will only apply to those who seek a new challenge and who want to take part in changing our business formula. In addition to supporting the Sales process you will give input and actively support the Customer Services Product Management Process. Furthermore you will be working in a stimulating and highly motivated team.

Requirements: We are looking for people with vision, enthusiasm and creativity. You are outgoing, independent with a strong interpersonal and human communication skills enabling to build good relations.

A broad but not deep technical knowledge will be useful as well as a Marketing and/or Sales background.

You should have fluent German and English language skills and be familiar with normal Microsoft Office products.

**Contact/Application:** Bengt Wattenstroem, Tel: + 49 211 534 - 1652 Bettina Karsten, Tel: + 49 211 534 - 14 12 Ericsson GmbH Personalabteilung Fritz-Vomfelde-Straße 14 - 18 40547 Düsseldorf, Germany

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

## OSS PROJECT LEADER

● We have now a vacant position for an experienced OSS Project Leader to work with CMS30 (PDC standard). Your work location will be at our head-office in Shin-Yokohama.

The candidate shall have experience in OSS updates and upgrades implementations, OSS trouble shooting and project management. Previous experience in CMS30 OSS is a plus.

The candidates shall be fluent in spoken as well as in written English. Transfer of competence to local staff is one of the most important tasks. Proven skills in this area is required.

Previous experience with customer interface is a benefit.

This position requires both project management skills as well as basic OSS technical skills. An overall understanding and knowledge of the OSS system is preferred.

We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment.

We are ready to offer a long-term contract to the right person and starting date as well as length of the contract is negotiable.

**Application:** Peter Nilsson ERJ/VH Phone: + 81 45 475 6761 Mobile + 81 80 492 7646 Fax + 81 45 475 0035 Memoid: NRJ.ERJPENS E-mail: nrj.erjpens@memo.ericsson.se

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

## OSS SUPPORT ENGINEER

● We have now a vacant position for an experienced OSS Support Engineer to work with CMS30 (PDC standard). Your work location will be at our head-office in Shin-Yokohama.

The candidates shall have experience in trouble shooting, OSS upgrades and updates, and trouble report handling.

Previous experience in CMS30 OSS is a plus. The candidates will participate in emergency service.

The candidates shall be fluent in spoken as well as in written English. Transfer of competence to local staff is one of the most important tasks. Proven skills in this area is required.

Previous experience with customer interface is a benefit.

We presume that you are open-minded, outgoing and that you can easily adapt to a culturally diverse working environment.

We are ready to offer a long-term contract to the right person and starting date as well as length of the contract is negotiable.

**Application:** Peter Nilsson ERJ/VH Phone + 81 45 475 6761 Mobile + 81 80 492 7646 Fax + 81 45 475 0035 Memoid: NRJ.ERJPENS E-mail: nrj.erjpens@memo.ericsson.se

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**L.M. Ericsson A/S, Copenhagen, Denmark**

## ACCOUNT MANAGER, GSM 1800

● As an Account Manager you will be part of an account team working towards one of the new GSM 1800 operators in Denmark. You will be responsible for marketing and sales activities towards our customer. You have the ability to think and act pro-actively, to identify and secure new business opportunities. You are also able to maintain the existing business with the customer. As a person you are self-driven and open-minded and able to build-up and maintain personal relations. You have a background as either a market minded product manager or a product oriented account manager with a broad knowledge within cellular communication.

**Contact:** Key Account Manager Jørgen Alsing, tel: +45 33 88 38 17, LMD.LMDJA or Vice President - Market Flemming Krighaar, tel: +45 33 88 35 53, LMD.LMDFKR

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**Ericsson TelecommunicationsPte Ltd (ENO), SINGAPORE**

## CME 20 SYSTEM EXPERT, 1-YEAR CONTRACT

● The Field Support Centre in Singapore is looking for an experienced support staff with at least 4 years experience in Ericsson working with CME20 SS and BSS software maintenance and trouble shooting.

The successful candidate will be a highly motivated individual whose main tasks will be to identify, investigate and solve/report software and hardware problems of a complex nature, to explain highly technical issues to different levels of the Customer and local Ericsson organisations, be part of the 24-hour emergency support rota and to assist in building up the expertise and to transfer knowledge within the FSC.

Requirements: Degree in Electronic Engineering/Telecommunications or equivalent SS and BSS System skills in the areas of switching, traffic concepts, telecommunications, C7 signalling (ISUP, MTP, SCCP, TCAP), GSM900/1800 mixed environment, emergency recovery, product knowledge at a function block level and introduction of new products.

Good knowledge of APZ and IOG. Good knowledge in correction handling, system upgrades and system updates. Good knowledge of spoken and written English. Methodical and flexible approach to work, perseverant in tracing and solving faults and an active team member. Knowledge of mobile IN would be an advantage.

**Contact:** ENO/R/OC Simon Murray (ENOSIM) Tel: 96357031 or ENO/R/OTC David Dimalouw (ENOKDD) Tel: 96300499

**Pewira Ericsson Sdn Bhd, Malaysia**

## CME20 BSS SUPPORT ENGINEER

● Experience: At least 4 years in related field. Main job Responsibility: To provide suport for the product according to service agreement with customers in Malysia. To be part of the emergency support personnel on roster basis to support Ericsson products. To train and develop competence of the local support engineers. Able to work outside working hours (late nights when required).

Market scenarios: In Malaysia, we have two CME20 customers. One of the customers operates GSM900 and the other operate PCN1800. The network capacity for both systems are 500K each although the total number of subscribers are in the region of 500K. Both networks are developing very rapidly. Apart from these customers, we have another three GSM operators supplied by other vendors.

The support mission is to provide the best support to our existing customers in realising the best network quality.

**Contact:** MOHD ZAIDI ABDULLAH FSC MANAGER, pem.pemsyd, CME20 SYSTEM SUPPORT MALAYSIA

**Ericsson Telecommunicatie B.V., Netherlands**

## 8 SMAS TECHNICAL SUPPORT SPECIALIST

● Department: Operations & Customer Services / GRC Location: Rijen, The Netherlands

Employment basis: Fulltime

Key responsibilities: customisation, testing and implementation of new products and/or market adaptations introduction of corrections without problems in 99% of the cases. introduction of functional changes without problems in 99% of the cases. solving a trouble report within the agreed contractual time. follow company processes. consultancy tasks towards customers and Ericsson personnel on a specific technical area. escalate to colleagues and management in time when contractual agreements may not be met. coaching of trainees.

Qualifications/experience: thourough knowledge of SMAS, UNIX (Solaris/HP-UX), and SQL (Sybase/Oracle)

Skills/competences: excellent communication and presentation skills, high level of adaptability and discipline, customer focus

**Contact:** Recruiting Manager: Marcel Wils, +31 161 242 291 ETM.ETMWILS, etmwils@ mesmtpse.ericsson.se

**Ericsson Spol S.R.O - ECZ**

## FIELD SUPPORT CENTER MANAGER FOR AMPS/D-AMPS MARKETS

● Due to a successful expansion of AMPS/D-AMPS in Czech Republic market we need to recruit one Field Support Center Manager. The position will be placed in Prague.

The FSC Manager should help us to build up the FSC organisation or improve the existing support organisation.

The FSC Manager should have the following profile: AXE knowledge, minimum 5 years (i.e. from Installation Test). Field Support experience from i.e. AMPS/D-AMPS, TACS, GSM. Process oriented/structured (TR Handling, Modification Handl.) Customer oriented, good communicator. Able to run an office by her/himself. Management experience. Good communication skills in English is required. Czech knowledge is an advantage but not compulsory.

The position is to be filled as soon as possible, duration of the assignment is at least 12 months. Please apply with a short resume of your background and experience.

**Contact:** ERA/AM/OMMC Rolf Johanesson +46 8 4043820 Application: KI/ERA/AH/H Tom Larsson 164 80 STOCKHOLM

**Ericsson Eurolab Deutschland GmbH (Germany)**

## TCS MAINTENANCE ENGINEER

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

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

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

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

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

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

Any test experience in target and/or simulated environment as well as experience in the traffic control area is a clear advantage. The position requires initiative, good communication skills and a good ability to work under pressure.

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

**Ericsson Eurolab Deutschland GmbH**

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

## PROCESS ENGINEER

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

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

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

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

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

**Ericsson Eurolab Deutschland GmbH**

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

## AMC PROJECT ADMINISTRATOR

● The AMC project office has a dynamic group of overall project managers and administrators managing key projects at the core of all mobile applications. These projects encompass subprojects and associated projects in Holland, USA, Ireland, Finland, Sweden, Norway, England, Spain, Italy, Germany and Greece covering a vast range of development areas at the leading edge of technology.

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

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

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

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

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

# contact

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

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 Contact.

If you move, and inform the personnel department of your new address. Contact 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.



**With the he!p of advanced communications technology, Ericsson is contributing to the Volvo team's goal of having faster times in the Swedish Touring Car Championship.**

When the Swedish Touring Car Championship (STCC) started on May 9th, Ericsson was at the starting line. It is hoped that advanced communications equipment will help lead racing champion Janne "Flash" Nilsson across the finish line first.

# Fast finish with GSM

Both the car and the pit crew are already equipped with computers. What is new for this year is that the Volvo team pit crew can receive information from the car, a Volvo S40, during the course of the race via a GSM telephone. A number of sensors on the car monitor the engine, the transmission, the shock absorbers and so forth, generating printouts of graphs showing how the car is operating on the track. The system tells the team where the car is either gaining or loosing time and what sort of mistakes the driver might be making.

"We view this as an outstanding way for Ericsson to strengthen its image as a high-tech telecom company," says Pär Sveen, Senior Vice President of Mobile Telephones and Terminals in Sweden.

Per Sveen also believes that involvement in STCC is a good opportunity for Ericsson to test the limits of technology in this area.

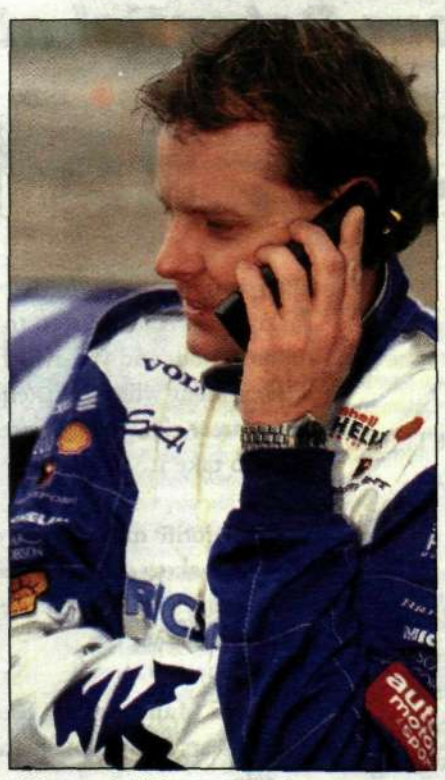
"This is a sport for perfectionists. That is why every kind of technical support that can help gain a few hundredths of a second, is invaluable," says Janne Nilsson, a multiple Swedish champion.

In addition to sponsoring the Volvo team, Ericsson is also sponsor for the entire competition

A total of 28 cars are racing, making STCC one of the world's largest touring car competitions. In recent years, track racing has become a popular spectator sport.

The program "Race" on Swedish Television usually attracts 600,000 to 700,000 viewers. Swedish Television will be broadcasting this year's races as well. Ericsson is sponsoring the broadcasts.

GISELA ZEIME



**"We need all the technical support we can get in order to cross the finish line in first place," says Janne "Flash" Nilsson, driver of the Volvo team's car in the Swedish Touring Car Championship.**

**With the aid of a computer under the hood and one in the pit, the car and the pit crew are able to communicate with each other.**

## end line

### Knowledge banks would save billions

Ericsson's most important resource is the collective expertise found among the company's personnel. You've probably heard that many times before in one form or another. As a corporate editor, I have had the advantage of being able to visit many Ericsson operations around the world, and the significance of that knowledge or expertise has been illustrated to me very clearly. No matter where one goes, you are met by enthusiastic and competent colleagues who eagerly tell about their accomplishments, what sort of problems they have solved, how they have managed a certain market situation, and so forth. On the way home from my most recent trip abroad, I sat going through articles for the next issue of Ericsson Connexion. The theme of the next issue is "Brain Power." The articles discuss the enormous challenges involved in handling, sorting and distributing the knowledge that exists within a company such as Ericsson. Did you know that many successful companies in the U.S. now have a "Chief Knowledge Officer" whose job it is to identify important knowledge that exists within the heads of individual employees in a company, and make it accessible for everyone? Imagine what a challenge that is.

The ability to utilize this wealth of knowledge as efficiently as possible is decisive in determining whether a company will be among the winners in the tough international competition of the future, according to representatives for such companies as AT&T, IBM, Hewlett-Packard and Ernst & Young, interviewed in Connexion. The technology, the tools and the organization required to create and maintain a bank of knowledge are the same as those we are now developing here among the editorial staff for another important information project – something which we call Information Central and which we will detail further once we are a little farther along. In that project, we are creating tools to store information in databases and, most importantly, tools that will allow for new information to be entered without bothersome coding so that it will be available immediately, in real time, across the entire Ericsson intranet. When reading the Connexion articles, and I saw that the most intelligent companies are constructing knowledge banks, it became clear to me that this is the wave of the future. Controlled processes are being established to enter information, keep it updated and active, and make it searchable for everyone within the company who could benefit from the experiences or knowledge of others. The mind reels, at least mine does, at the thought of how many times the wheel is reinvented over and over again within a company. More than likely, billions could be saved by eliminating this constant reinvention. Not to mention the amount of time that could be saved in an age where speed is one of the most highly valued qualities.

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