

contact

Stockholm Oct. 30
Ericsson
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Photo: Mats Hallberg

Spotlight on Ericsson

Ericsson is visible. To prove this, Ericsson asked four photographers to give their own visual interpretation of Ericsson in Sweden. Their pictures of our company are quite different from the ones we are used to seeing.

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Increase levels off

Ericsson's interim report for the third quarter showed a 17-percent increase in earnings and an 11-percent increase in sales. When the stock market closed on the day of the report's presentation, Ericsson's share price had decreased by SEK 1.50. China strengthened its position as the company's largest single market.

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NEWS

Anders Igel bids farewell

It recently became known that Anders Igel would be leaving Ericsson. In this issue of Contact, he explains why and what he would like to do.

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Master of patents aims for Edison

Paul Dent at Ericsson in the U.S. holds the most patents in the world within telecommunications. At a pace of 12 to 20 patent applications per year, he hopes to surpass Thomas Alva Edison.

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Manual on manuals

The requirements users place on manuals for Ericsson phones are both stringent and varied. Meet the people who write the manuals.

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LCA for mobile systems

One year's usage of a mobile phone affects the environment less than driving a car 100 kilometers. This is according to a Life Cycle Assessment for an entire mobile system which Ericsson has performed jointly with Telia.

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Telecom time will be for sale when network capacity becomes a trading commodity with its own spot market.

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The first intercom was introduced as early as 1942.

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Successes in China boost Asia figures

CEO Sven-Christer Nilsson presented Ericsson's nine-month interim report on Thursday, October 22. China secured its position as the single largest market. As a result, Asia as a whole posted favorable invoicing for the nine-month period.

Ericsson reported increased net sales and a continuing favorable income trend during the first nine months of 1998. The financial crisis in certain markets and the related general economic uncertainty is becoming increasingly manifest, which emphasizes the need for reinforced rationalization efforts. Market successes for Mobile Systems continue.

Consolidated net sales rose 11 percent compared with the corresponding period last year, and amounted to SEK 125,396 m.

Income before taxes, amounting to SEK 12,097 m, was up 17 percent compared with the corresponding period a year earlier. Ericsson's profitability was strengthened through improved margins as a result of continued successes within mobile systems. Income included foreign exchange earnings of SEK 400 million. Income per share amounted to SEK 4.25 (3.60).

Strengthened position

China, as the largest single Ericsson market, grew even more dominant, followed by the United States, the United Kingdom, Brazil and Italy. Sales in Asia rose 9 percent. Excluding China, sales in Asia declined 29 percent, however. Sales in Latin America rose 29 percent and Europe (excluding Sweden) grew 15 percent. Sales in North America declined 7 percent.

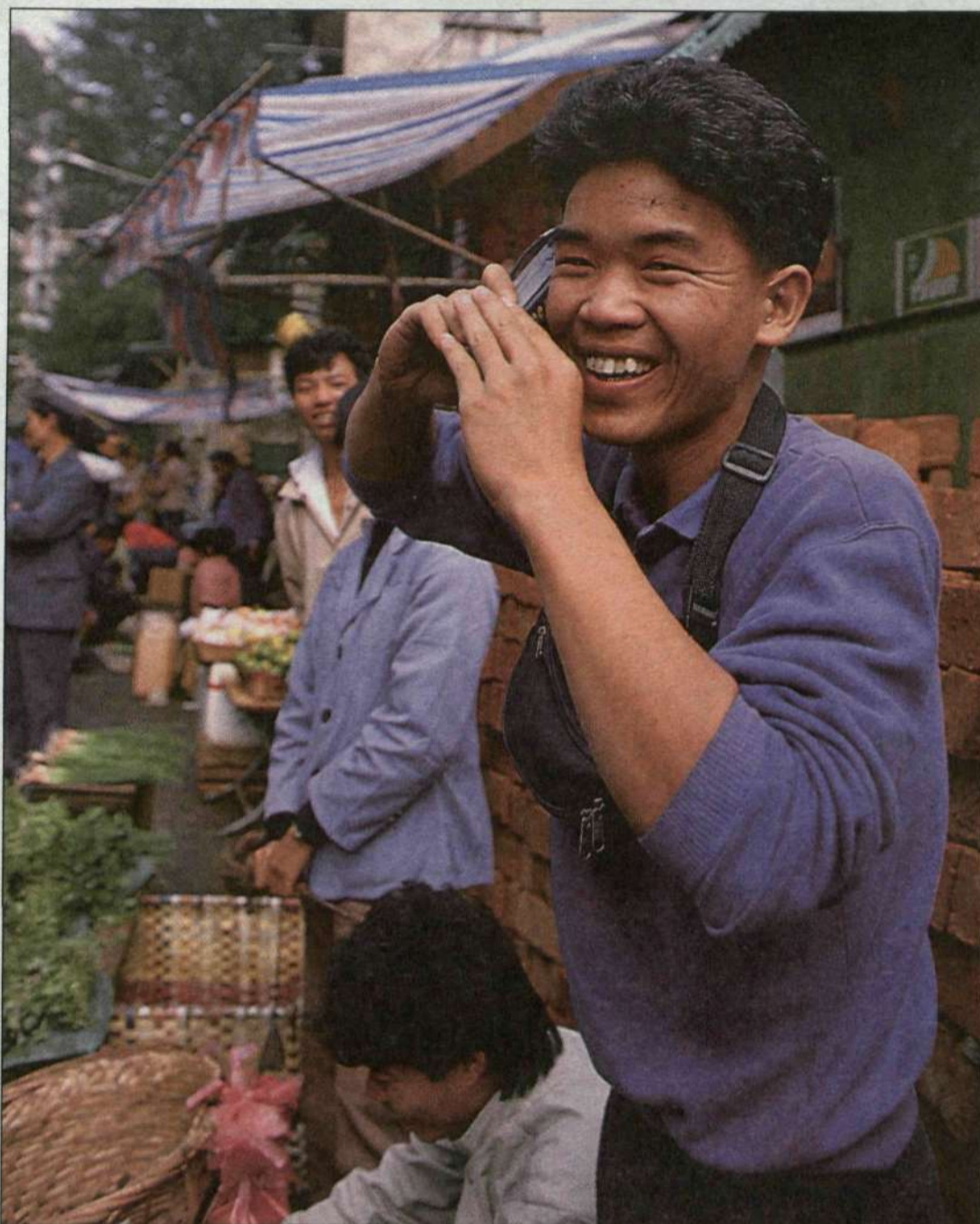
Selling expenses rose during the year, mainly due to business process reengineering and marketing programs in the Mobile Phones and Terminals business area. As a percentage of sales, however, selling expenses dropped from 13.8 percent during the first quarter to 13.2 percent for the first nine months of the year. The trend is expected to continue during the fourth quarter.

Excluding the acquisition of the bulk of Ericsson minority holdings in its Brazilian subsidiary, the third-quarter cash flow was positive. Positive cash flow for the full year is expected, excluding the investments in American and Brazilian subsidiaries' minority holdings, as well as the acquisition of the U.S.-based computer firm, Advanced Computer Communications Inc. (ACC).

The equity ratio was 38.6 percent (38.4 percent).

The number of employees at the end of the period was 104,001, an increase of 3,227 since December 1997 (of which 1,419 due to the consolidation of MET in France).

Consolidated investments in property, plant and equipment were SEK 5,048 m (4,559). During the period, Ericsson made a bid for



The nine-month report showed that China secured its position as the company's largest market.

Foto: Lars Åström

the outstanding shares in its listed Brazilian subsidiary, Ericsson S.A., bringing Ericsson's participation to 97.5 percent. The agreed acquisition of ACC will be implemented during the fourth quarter.

Business areas

Mobile Systems continued to show strong growth, with sales increasing by 19 percent. Important contracts were signed in Argentina, Brazil, Italy, Mexico and Spain, and several new solutions to wireless Internet and data communications were introduced during the period. The number of mobile subscriptions to digital networks is growing rapidly.

Several network operators introduced advantageous rates to encourage usage, resulting in a rise in minutes usage on mobile networks. Strong global support for a third-generation standard for mobile telephony, based on WCDMA technology, marks a major success for Ericsson. The business area is reporting very strong operating income.

Net sales of Infocom Systems increased by 2 percent. However, weak development in certain Asian and Latin American markets, as

well as for the Italian network construction company, Cosir, contributed to weakening the rate of sales increase. The divestment of Cosir has not been made due to weakening market conditions. Previously reported delivery problems for the new AXE switching systems were essentially remedied, but nonetheless affected sales for the business area during the third quarter.

Earnings of the business area are still unsatisfactory. The lower growth rate in sales, combined with adjustments for reduced demand at Cosir and delays in the restructuring program in the Public Networks business unit, mean that the objective of achieving acceptable earnings will not be reached until next year.

Mobile Phones and Terminals showed an increase of 11 percent in sales and a strong operating income. The business area shows continued strong volume growth, with an increase of more than 50 percent. Total Ericsson market share was well defended. Nevertheless, price pressure continued and is expected to result in a 25-30 percent price reduction in Ericsson's

RESULT

- Net sales: SEK 125,396 M + 11 percent
- Income before taxes: SEK 12,097 M, + 17 percent
- Income per share: SEK 4,25, + 18

product portfolio on an annual basis. Customer interest in prepaid services caused a rise in demand for entry-level mobile phones. Price competition in this segment is particularly severe, which influenced sales during the period. This trend was particularly evident in Europe. The U.S. market developed positively. Ericsson launched a number of new models during the period.

Other operations (including energy systems, components, cable and defense electronics) reported an overall sales increase of 12 percent for the period under review.

Sven-Christer Nilsson

The entire nine-month interim report, with the CEO's comments and tables is available on the intranet.

© <http://inside.ericsson.se>

Over 200 companies support Bluetooth cooperation

Over 200 companies have joined in the cooperative technical project known as Bluetooth (Blåtand) since it was announced in May of this year.

Bluetooth is the name of a new wireless communications standard that can connect various applications using radio technology. Examples include connections between computers and printers or between digital cameras and computers. It is an open standard that is possible to use with most equipment which currently uses cable connections. Of course, the technology is suitable for mobile telephones and other handheld communications devices as well.

The partners have formed an association known as the Bluetooth Special Interest Group, and now have over 200 members. These include many notable companies such as Compaq, 3Com, Dell, Lucent, Motorola, NTT DoCoMo, and Hewlett Packard. The Bluetooth founders are also an impressive lot. In addition to Ericsson, they include IBM, Intel, Nokia and Toshiba.

The first release of Bluetooth will be coming out in the second quarter of 1999. The first products to utilize the technology are expected to come out at the end of next year.

Patrik Lindén

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<http://bluetooth.com>



The new technology, which can create a wireless office, has taken its name from the Danish king Harald Bluetooth. In the same way that he unified Scandinavia, several large manufacturers have now joined forces to create a common standard.

IN BRIEF

Large order from Brazil

► Ericsson has landed yet another large mobile system order from Brazil.

The operator Telet S.A. has placed an order for D-AMPS equipment worth SEK 1,090 million.

This most recent Brazilian order will provide a mobile telephone system to the Rio Grande do Sul province, where Telet has plans to begin operating in the town of Porto Alegre in January of next year. Telet is being backed by Bell Canada and American Citibank, among others.

With this order, Ericsson has received 50 percent of the orders from Brazilian B-band operators. Eight out of nine operators in this frequency range have chosen TDMA technology.

Huge expansion in China

► A GSM expansion order worth USD 138 million was recently signed with the Chinese operator Chongqing Telecommunications Administration (CQTA). The city of Chongqing in southwestern China is of great importance to the region's economic development.

Once the expansion is completed next year, the operator will have 1.6 million subscribers.

The first contract with CQTA was signed in 1995.

Ericsson has over 3,500 employees in China, situated in 23 different locations.

Improved coordination in Rational partnership

Plans are now being formulated to improve Ericsson's cooperation with Rational, the American software development company.

Many local contacts have been established between the two companies, but overall coordination of the partnership has been lacking. Plans are now afoot to improve the situation.

Ericsson entered the program of cooperation with Rational to strengthen its utilization of modern commercial access methods and software development tools.

A group of eight persons represents Ericsson in its partnership with Rational. The group includes Christina Lilienberg and Sören Ohlsson.

"We keep track of which cooperation projects are now in progress in various parts of the world. The information helps us provide information to Ericsson companies that may be working on similar projects," explains Christina Lilienberg.

"We serve as mentors in various development projects, contributing the collective ex-

perience we have amassed," says Sören Ohlsson. "We also help Rational to focus in the right areas."

A large number of contacts have been established between Ericsson and Rational at the local level. A new home page has also been established to gather and disseminate information and experience.

The web site will serve as a support function for all persons working with Rational's methods and tools.

The group is called Program Management Office Rational. It is located at Ericsson Utvecklings AB, but its expertise is available to all Ericsson units.

Patrik Lindén

<http://domino.ericsson.se/rational>

<http://www.rational.com>

http://www3.ericsson.nl/SE/kon-con/kont12_98/k12_25.html

Daily Contact updated on the Web

Contact has raised its ambitions for Web publishing. The Contact Web site is now updated daily with new items. These can either be company news updates or previews of upcoming articles in the printed version.

Despite the fact that Contact has an unusually short press schedule, much can happen in two weeks. So, look for us daily on the Web. The service is already up and running and, in time, it will be developed even further. As before, past issues of the printed newspaper can

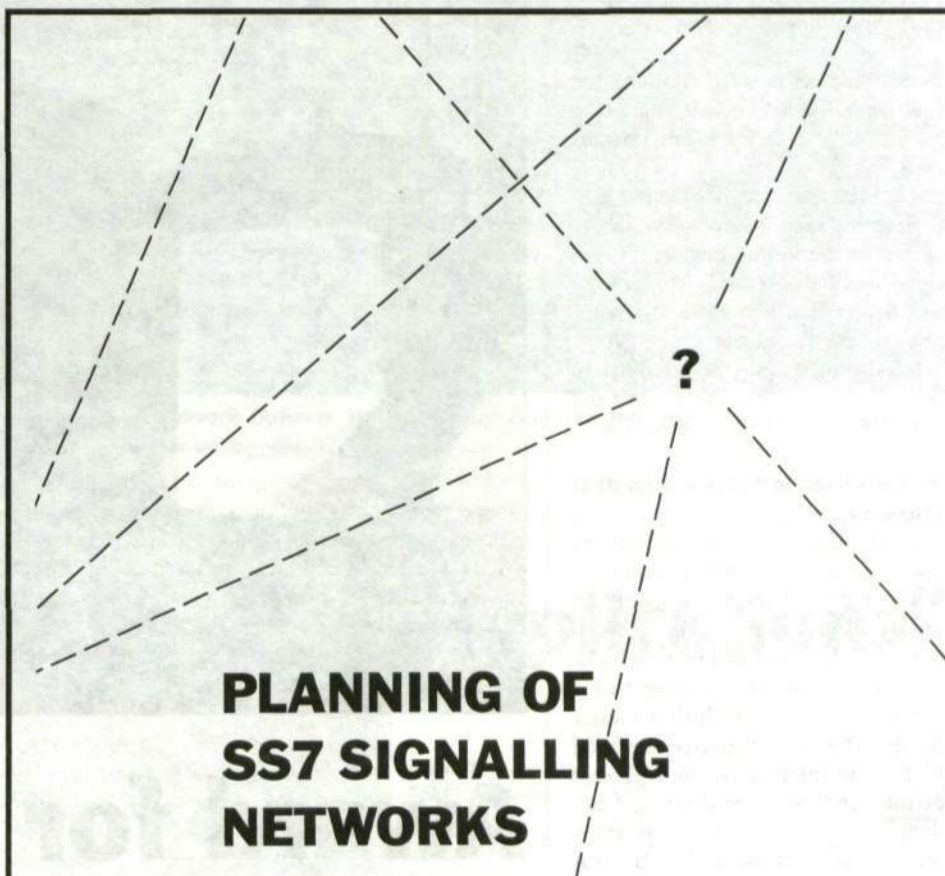
be found at the Web site. These will soon become searchable in order to make it easier to find past articles.

You can find Swedish and English versions of Contact via Inside Ericsson.

<http://inside.ericsson.se>

For those of you who do not have access to the intranet the address is:

http://www3.ericsson.se/SE/kon_con/contact/news/read.taf



PLANNING OF SS7 SIGNALLING NETWORKS

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For more information, please call +46 8 719 9222 or visit www.mv.etx.ericsson.se

Internal Training Marievik

More about trunk signalling at PU Network Signalling:
<http://webse1.lmf.ericsson.se/Department/TT/puns/>

ERICSSON

HELLO THERE



Torgny Hellström

Last Saturday, the much-discussed new law on personal information took effect. The law has been criticized as having unacceptable consequences for Internet communications.

► Torgny Hellström, as corporate lawyer for the company, can you tell us if Ericsson will have to close its chat pages now that the new law on personal information has come into force?

No, we won't close any web pages before we know what the law actually prescribes. You have to have a reasonable interpretation of a law.

It could hardly be the intention to turn half of Sweden's population into criminals just because they write personal names on the Web. It is also important to be aware that the law is based on an EU directive that was issued in 1995, when the Internet was not used as much as it is now.

► So, the media's interpretation, that it is criminal to have people's names on the web without their consent, is incorrect?

I'm not claiming that. But the law contains several vague points and we'll have to wait for clearer information. It is uncertain whether it is prohibited for Ericsson to publish names on the Web without the person's consent.

It is also unclear whether the Web is to be considered a journalistic product and not within the jurisdiction of the law.

► Are you saying the law will not affect Ericsson at all?

No – of course we will be affected. The law on personal information is not only about the publication of names on the Web, but also about all the registers. Both databases and manual registers. The law says that we must have a person's consent to enter their name in a register. This means a greater obligation to provide information to registered persons and better monitoring functions – which in turn means an enormous amount of work. The law was passed very quickly, and transitional rules are therefore in effect. We have been given several years in which to carry out the changes to existing registers. On the other hand, we must now begin to follow the new law with respect to new registers.

► What advice would you have for Ericsson employees who are in the habit of chatting on the Internet?

Personally, I won't change my behavior. But of course, it's a decision that employees must make for themselves. If you are worried, perhaps you should refrain from writing other people's names on the Web unless you have their consent.

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Prestigious new contract with Telia

The recently formed Ericsson company in Sweden has signed a two-year contract with network operator Telia to deliver the ANx-DSL transport network.

The product opens possibilities for home offices and telecommuters. It provides rapid Internet access, since its modem speed is 25 to 100 times greater than that of analog modems.

Large data files, which can take several minutes to download with a standard modem, can be fetched by ANx-DSL in a matter of seconds.

"The Swedish market, Telia included, is strategically important for Ericsson. Telia has decided to supply its customers with broadband capacity, and Ericsson is looking forward to providing comprehensive communications improvements in Sweden," says Bo Wall of

Ericsson Sverige.

ANx-DSL uses ADSL technology to increase the bandwidth of the existing copper network.

This means that, for example, users who are connected to their company's network can download large data files more quickly and easily. Further advantages include simplified digital video.

Copper into gold

A few years ago, copper-based networks were dismissed by experts and other "know-it-alls". The copper networks were considered obstacles to broadband communications over the telephone networks. They were also an impediment to

the effective promotion of interactive services – such as pay-per-view, home shopping and telecommuting – to households. However, in a very short time, today's technicians and experts seem to have succeeded with what always stymied the alchemists of old – changing copper into gold. ADSL (Asymmetrical Digital Subscriber Line) technology has now made it possible to provide broadband services via the copper-based access network.

Ericsson's ANx-DSL is installed centrally in the customer's system. A distributor and a device known as a DSLAM separate voice and data signals to and from the subscriber and concentrate data traffic to a dedicated data network. The system is flexible, cost-effective and easy to install. In October, Telia contracted Ericsson to be its ADSL supplier. The contract includes installations up to and including the year 2000.



Bo Wall

"This contract will enable us to quickly launch broadband services for telecommuting, LAN-to-LAN communications and high-speed Internet to Swedish companies, households and the public sector," says Gunnar Almgren, program manager for Broad Network Services, a unit of Telia Network Services.

Telia's high demands

At the beginning of the first decade of the new millennium, Sweden will have the highest broadband penetration in Europe.

"It is highly prestigious to have been selected as a supplier to Telia. Telia has an excellent reputation, and industry colleagues know they place high demands on their suppliers," says Niclas From, sales manager for Telia Network Services within Ericsson Sverige.

Joséphine Edwall-Björklund



INVENTOR OF THE YEAR

The Inventor of the Year prize is awarded annually to not more than three people, and all Ericsson employees who work, and have applied for patents, in the area of mobile communications are eligible to be nominated as candidates.

Karim Jamal (left) and Erik Dahlman (right) have been named Inventors of the Year in Mobile Systems. They received the distinction primarily for their work in WCDMA technology. They are seen here with CEO Sven-Christer Nilsson, who presented the awards.

Award for WCDMA patent

For the fourth year in a row, Ericsson Radio Systems has presented its Inventor of the Year awards.

The awards went to two researchers – Erik Dahlman and Karim Jamal, who secured several important patents within the area of WCDMA (Wideband Code Division Multiple Access), the future mobile-telephony standard.

Substantial contributions

"WCDMA concerns the radio interface for the next generation in mobile telephony and the award-winners have made substantial contributions to the area, both with

their own patents and through their work on standardization of the new technology," explains Göran Nordlund, who is responsible for intellectual property rights within the Mobile Systems business area.

During 1997 and the early part of 1998, Erik Dahlman obtained – independently and in cooperation with other researchers – eight patents within the area. These patents cover several important aspects of the system – for example, synchronization, power and variable transmission speed.

He has also played a key role in Ericsson's standardization work. Erik Dahlman obtained his first

patent in 1991 and has established a reputation as a diligent inventor.

Karim Jamal is rewarded primarily for his work with inventions and patents to consolidate the WCDMA solution that Ericsson has offered to the Japanese standardization authority, ARIB. In this area, Karim has obtained patents of his own and inspired his own colleagues – an equally important point in the selection of Inventor of the Year.

Active in patent work

Karim is extremely active in all aspects of patent work – including evaluation of non-Ericsson patents. Earlier, he made an important con-

tribution to the development of the D-AMPS standard.

"Our focus this year on WCDMA was no coincidence. The technology is vitally important, and it is essential for us to have strong patents to protect our freedom of action," says Göran Nordlund.

"We are currently working to ensure that the licensing regulations to be developed for the standard are sound."

The awards were presented by CEO Sven-Christer Nilsson in conjunction with the Ericsson Radio Systems board meeting on October 19.

Lars Cederquist
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Tough delivery demands for Portugal's new GSM network

The Portuguese mobile telephone operator, Optimus, placed strict requirements on their 900/1800 GSM system equipment order.

The entire network had to be based on the new AXE hardware, otherwise there would be no deal.

Recently, the system was put into commercial operation according to plan.

Mikael Steijer, Account Manager for Optimus, thinks the tough customer requirements were good.

"That put pressure on the entire organization and especially the plant in Östersund," he says.

It was back in February that Optimus signed a contract with Ericsson. Just seven months later, they were able to put their GSM network into commercial operation. At that time, there were already 80,000 subscribers on a waiting list, and by the end of the year, Optimus expects to have 300,000 subscribers to its network.

Competition among the three operators in Portugal is fierce, and

when Optimus started up its network, the other two networks, TMN and Telecel, lowered their call charges.

Owns shopping centers

The largest owner of Optimus is the Sonae holding company, a name well known to the Portuguese for its shopping centers. Wood pulp and media operations are also included among Sonae's holdings. Optimus draws on France Telecom, which owns 20 percent of the operator, for its technical expertise. The remainder of the company is owned by various Portuguese interests.

"France Telecom was responsible for construction of the network, and they were the ones who imposed the strict requirements to use the new hardware for exchanges," says Nuno Melo, Customer Service Manager at Ericsson Telecomunicações Lda. "The equipment also went through testing in Paris before receiving an official recommendation for commercial application."

Advantages of single center

France Telecom proposed two operational centers for the system, while Nuno Melo recommended a single center, the plan that was adopted. There are several advantages to this, including lower costs and the concentration of various competencies at one site, allowing for faster upgrades of exchanges.

"We have already received supplementary orders, despite the fact that the system does not yet cover Madeira and the Azores. Therefore, it is very important that we can meet Optimus' needs for new hardware so that they can handle the expansion," concludes Mikael Steijer.

Hasse Johansson



Portugal now has a third GSM network, Optimus. The system was delivered and put into operation in just seven months. It is based entirely on the new AXE hardware.

Photo: Lars Åström



"Imagination is the only limit for applications"

Until now, Ericsson's recipe for success has been to make it possible for people to communicate with each other. Now it is time for machines to be able to talk with each other as well. The new GM12 module, unveiled this past summer, was designed to do just that.

A GM12 is, essentially, a GSM telephone but without all of those features that we normally associate with a telephone. It has been adapted in order to let machines utilize GSM technology.

Machine-to-machine GSM applications could include, for example, products such as vending machines, ATMs and photocopiers, which would be able to report servicing or refilling needs. Other household applications include car, burglar and fire alarms.

The auto industry is expected to become one of the largest markets

for GM12 type modules. They are expected to play an especially important role in the area of automobile security features.

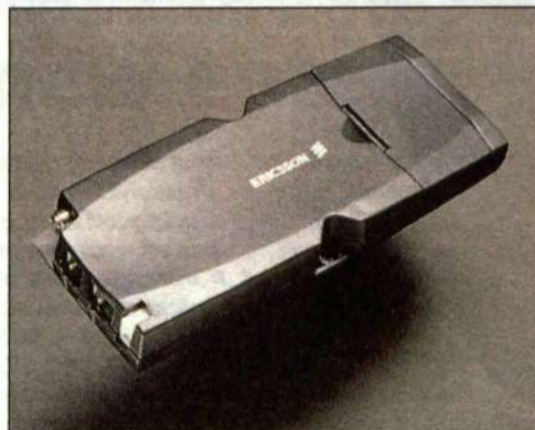
Good for safety

It will be possible, for example, to pinpoint where a vehicle is located in the event of an accident, using the transmitter in the car. Another function could be to send traffic information to a car.

"Looking to the future, we also believe that it will eventually be possible to use multimedia applications or view video films in cars," says Henry Kings, manager of Card Phones at Ericsson Mobile Telephones and Terminals.

"It is of strategic importance for Ericsson to establish itself in the vehicle segment since we believe it will involve a considerable amount of volume within the near future," says Henry Kings.

Stefan Franzén, product manager



Ericsson's GM12 enables machines to utilize GSM technology. For example, a vending machine or a photocopier can send an SMS message that it needs filling or servicing.

The success of the GM12 depends on how operators react. In order that these functions will not be too expensive to use, a different kind of subscription procedure will be needed than the one currently in use.

Seeking new applications

Several thousand orders have already been received from companies, including some in the auto industry, to test and find applications for new products.

"We are expecting an even larger number of orders as Christmas approaches," says Henry Kings.

"Over the long term, there will be a very large market for the modules. The potential for voice applications is limited to the number of people on the planet. Imagination is the only limit for potential machine-to-machine applications," says Henry Kings.

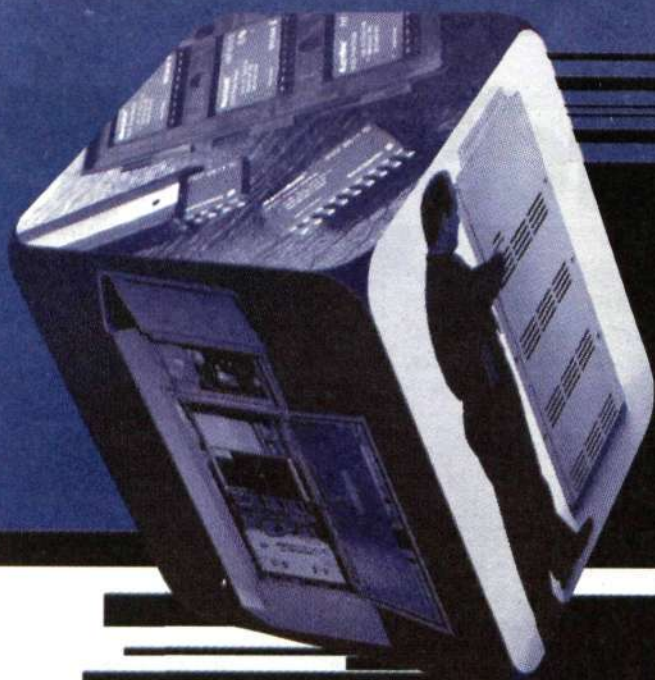
Gisela Zeime

for modules and GM12, also believes that there will be large sales volumes. Several key players are talking about a market that is just as large as the one for mobile telephones.

The rapid spread of GSM in combination with decreasing prices for modules, benefiting from the high volume of mobile telephone sales, is making an increasing number of ap-

plications commercially interesting.

"Established companies are beginning to understand the opportunities. Exciting new companies are being formed with completely new products and new ways of thinking, exemplified by the trend among operators toward offering new services and tariff systems," says Stefan Franzén.



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ERICSSON 

Time to move on for Igel

At the end of September it became known that Anders Igel will leave the company. The decision was announced the day before the announcement of the company's general reorganization and many were surprised. However, the background to the decision is not particularly complicated.

Anders Igel has dedicated most of his professional career to Ericsson. Now he wants to do other things. He came to this realization last winter.

"Twenty years with Ericsson have given me a great deal of professional and personal experience. Now it's time to move on. I still have a lot of energy and I believe it is healthy to change direction and get a new perspective on life."

For all intents and purposes, Anders had already made his decision to leave Ericsson last spring, but he wanted to let the matter ripen during the summer.

Right time to leave

"I know myself, so I know I would invest a lot of energy into a new Ericsson assignment – so much I wouldn't get around leaving the company. Since I do not want to remain with Ericsson until retirement, now – with the appointment of the new CEO and establishment of a new organization – is the right time to leave."

Just what types of assignment Anders Igel is interested in, is a subject he would rather not discuss in detail, except that he is interested in changing industries and that he plans to remain in Sweden.

"My years at Ericsson have taught me how to lead a large organization in an international environment and given me considerable insight into the workings of the IT industry. That is knowledge I can use in several different contexts."

Until the end of March, Anders Igel will provide assistance to Sven-Christer Nilsson during the transition to Ericsson's new corporate structure.

"Ericsson is heading for a very exciting future. The Internet will precipitate a colossal paradigm shift within the industry, and Ericsson is now better prepared than many of its competitors to meet this challenge."

Anders Igel has played a major role in the structural change that Ericsson has undergone during the past few years, including outsourcing and relocation of operations to foreign countries. In the eyes of many people at Ericsson, his job as Executive Vice President of the former Infocom Systems business area was one of the most difficult assignments in the company. When he assumed the post of Executive Vice President in 1995, there was a pent-up need for a change in the operational structure.

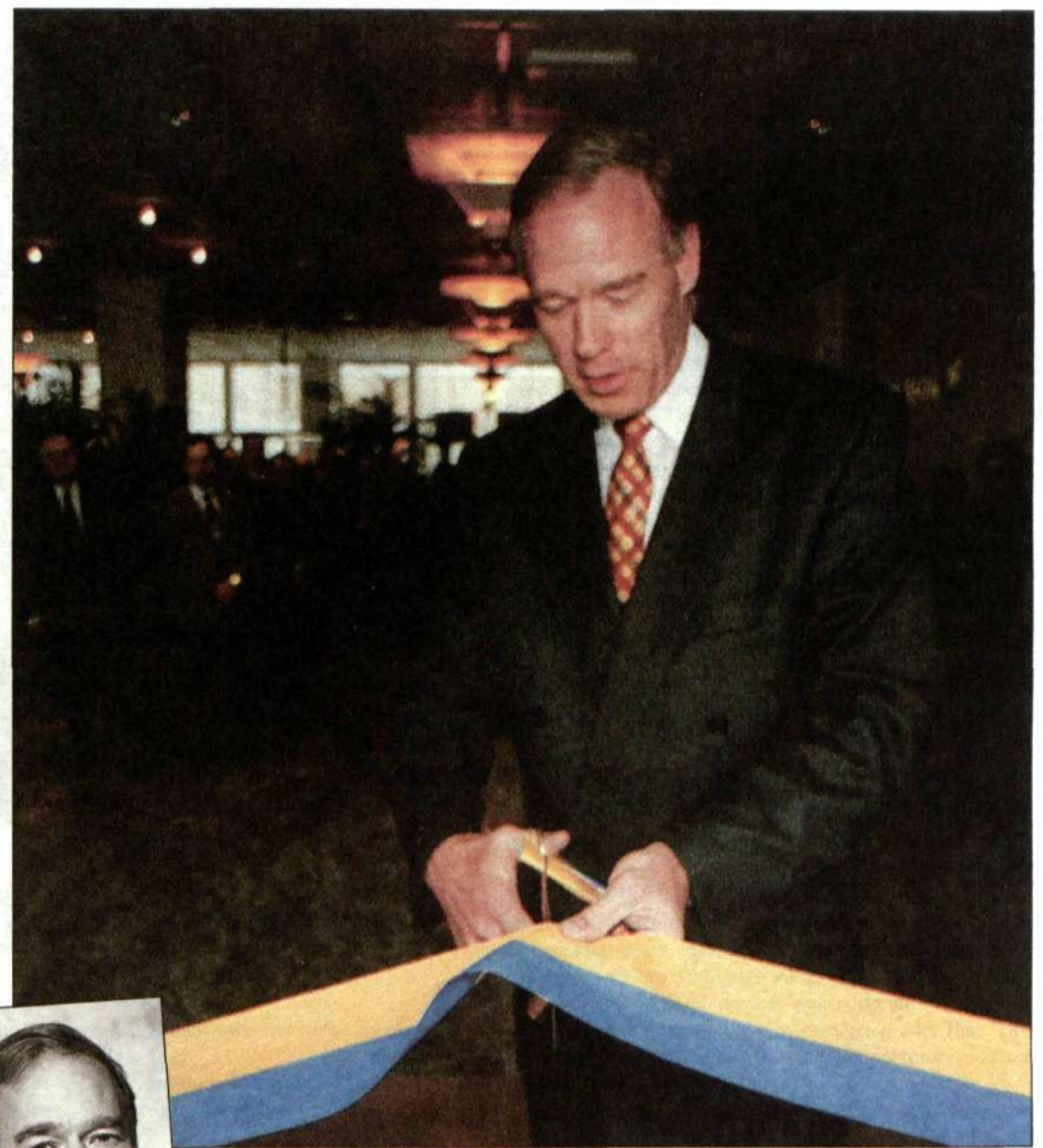
"The assignment was tough. There wasn't always time for gradual changes. I am proud of what we accomplished, and that it was done in an open and honest manner. Management and staff diligently implemented decisions as swiftly as was possible. Decisions were met with understanding throughout the Infocom organization."

Public Networks in particular has undergone extensive restructuring. Unfortunately, Anders Igel will not be around to see the completion of that process.

"We have accomplished an enormous amount in Public Networks but if we had failed, the result would have been catastrophic. It feels good to have passed the torch to such a capable person as Einar Lindqvist. It is also good to know that the other business units are on the right track. Enterprise Networks is earning more than previously, Transport Networks has finally achieved zero earnings and Datacom Networks and IP Services have made their first important acquisitions."

No second thoughts

Anders Igel's ambition and strong actions have given him a reputation



Anders Igel joined Ericsson 20 years ago as a designer. Now he is leaving Ericsson, and his last assignment will be to assist Sven-Christer Nilsson in implementing changes in the company.

as a tough, sharp leader.

"I do try to listen to what my staff has to say, but once I've made up my mind, I don't waive. In this respect, I am probably different from many other corporate leaders."

"It is not possible to proceed slowly if you want to achieve results."

Sometimes you have to carry out difficult measures even if they are painful. Sure I think some decisions are tough to make – especially when I know many of my old colleagues will be affected."

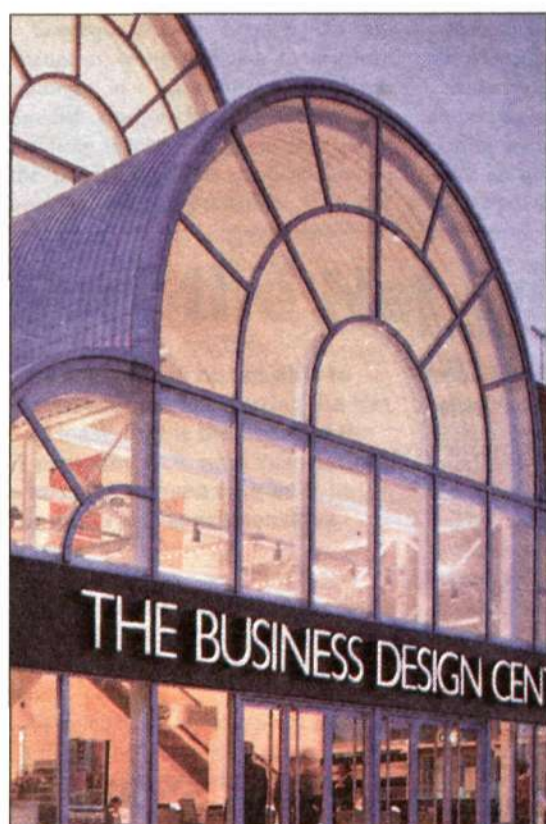
The decision to leave Ericsson was preceded by a long period of deliberation.

"I feel great attachment to the

company and believe it has a positive future. Still, I have chosen to launch out into uncharted waters. It's refreshing. At Ericsson, I learned to tack a zigzag course and not simply sail before the wind, and I am grateful for that."

Lena Widegren

lene.widegren@etx.ericsson.se



Global launch in London for new enterprise solutions

The Business Design Centre in London will be the center of Ericsson's new telecom world on November 2.

Over 700 customers from far and wide will then attend the global launch of the new enterprise solutions from the Enterprise Networks business unit. CEO Sven-Christer Nilsson will host the event, which also includes a press conference aimed at the major dailies and the business press.

"This is the first time that Enterprise Networks will conduct a global launch of new

Here at the Business Design Centre in London, new solutions from Enterprise Networks will be launched on November 2.

products and services," says Lars Svensson, acting president of Enterprise Networks.

"Being able to reach the whole world as simultaneously as possible is increasingly important, especially considering our many global customers."

Launch continues

Following the London event on November 2, the launch will continue in Singapore November 8, hosted by the executive vice president of the Asia and Oceania market area, Kurt Hellström. A third presentation is then scheduled for November 23 in New York, under the auspices of the Executive Vice President of the North America market area, Bo Dimert.

After the three big launch presentations, similar events on a somewhat smaller scale will be carried out immediately at local companies and market units worldwide. By

the beginning of 1999, all markets will have implemented the launch.

Exhibition-building

In London, a complete exhibition is being built, to showcase the entire range of Ericsson products and solutions. Over and above Ericsson's own exhibits, some 20 Ericsson partners will mount supplementary presentations.

Computer-aided telephony, mobility in all its forms and Call Center solutions are among the areas to be focused on. Underpinning a company's communications, naturally, is Ericsson's PBX, the MD110, which is now ready for IP telephony and can be integrated with wireless telephony to accommodate up to 20,000 users.

Thord Andersson

thord.andersson@ebc.ericsson.se

110011001001000100010110001000011

[Tarzan! Tarzan! For goodness sake switch on your mobile!!]



Aah-ae-ae-aah Aah-ae-ae-aah-ae-aah

[Sorry dear.]

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Photo: FLT/Pica

Time soon for sale

So far, it is not possible to buy time on the regular spot market. But it soon will be – in a word, “teletime.”

There is no doubt that eventually bandwidth – that is, space on telecom and data communications cables, will come to fulfill all the criteria that can be demanded of a raw material.

Sporadic trading between telecom operators already occurs. Three embryonic teletime exchanges have been established and many key concepts have already been standardized – for example, transmission speed per unit of time. Eventually, even companies outside the telecom industry will need to access increasing amounts of space – say, for trans-Atlantic transmission – without having to install the cables themselves.

Consequently, in London, an exchange is being planned, to organize trading in bandwidth derivatives. Swedish stock-exchange company OM has been involved in discussions about the possibility of its participation – however, for the present at least, the

company has decided to remain independent of the exchange.

Currently, it appears that trading in the commodity that could revolutionize telecom networks’ surplus-capacity management will instead be handled by the American Enron power giant, in cooperation with the small London-based Band-X company. Band-X already operates a rudimentary exchange for telecom time, where hundreds of telecom companies offer or bid for space on telecom networks, mostly on intercontinental lines.

With an options exchange handling standardized teletime contracts in London, large international telecom companies no longer need to dimension their networks to cope with periods of maximum use, but can instead purchase extra time at marginal cost from competitors who may have a surplus just then – which should increase the efficiency of the telecom market.

A derivative market should also boost the emergence of competitors for companies such as the Swedish Net-net, since an options bourse makes it simpler to sell telecom services to end-users

that lack their own networks, theoretically at least.

For another few years yet, the demand for bandwidth at a fixed price for delivery six months later for example – is expected to remain somewhat limited.

The reasons are several. First of all, the Internet market, in particular, is growing rapidly and therefore has a constant requirement for fresh capacity and continued expansion.

Moreover, teletime prices are falling, which means that up to now, it has been advantageous for prospective teletime purchasers to wait until the last minute.

According to an industry assessment, a basket of market prices between the U.S. and Europe declined more than 10 percent during the period from June to September. From the U.S. to Asia, the drop was 20 percent.

© <http://www.afv.se>

Note: This article has been previously published in the Swedish business magazine *Affärsvärlden*, No. 42, 1998.

Surf the Net with your microwave

Very soon, it will be possible to prepare food while surfing the Net – at least, that is the belief of the IT company NCR, now introducing a microwave oven with built-in computer and touch-sensitive screen

Using commands via the screen, users can surf the Internet, pay bills, order groceries and, naturally, heat and prepare food.

To date, the microwave is not available on the market. NCR believes it will probably be a few years before the oven is ready – it must first be tested and devel-

oped before any widespread launch is attempted. Moreover, close cooperation with, for example, banks and food stores is necessary to ensure the full functioning of the microwave.

The combination of ordinary microwave oven, computer, touch-sensitive screen, voice recognition, barcode reader, etc., was developed by NCR’s UK development center.

The reason for NCR’s selection of the microwave as carrier of IT services is that the kitchen is the focal point of the family.

“This is naturally a project for the future, but it is an extremely interesting

one. We have created a new product that is adapted to the kitchen, where family members often gather,” says Göran Lindqvist of NCR Sweden.

Apart from ordinary Internet services, such as bank services and Internet commerce, with its built-in barcode reader this micro can also help to create a shopping list.

When the shopping list is complete, it can be sent to the store. The micro also has a built-in little “intelligent agent” that learns the user’s routines.

Mia Widell Örnung
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COLUMN

Sirpa H. Ikola
ebin@lme.ericsson.se



The telecom sale of Asia

The late 1980s and early 1990s portrayed the emerging “tiger” economies of Asia with demystifying growth. The growth seemed endless. But as the mid-90s approached, economists started to question how long this growth could be sustained, with the sharp increase in debt needed to fuel the growth.

The floating of Thai baht in 1997 caused a domino effect on other tiger economies and thus frightened the foreign investors. However, with major Asian currencies devalued between 20 and 80 percent, foreign telecom operators viewed the opportunity as the “Great Asian Sale.” They took an advantage of the devalued currencies, as well as the shrinking market capitalization of the Asian companies.

For many Asian telecom companies, the rapid expansion and rollout of network infrastructure has been realized through loans in U.S. dollars.

As their own currencies suddenly lost most of their value, these loans rapidly became a nightmare. It is clear that in order to survive, these companies will need a fresh injection of liquid funds.

Privatization and liberalization continues to move forward in South-East Asia. However, the ongoing currency crisis and political turmoil is expected to complicate some initiatives.

Deregulation speeded up

In need of foreign investment and transfer of know-how, Malaysia has taken steps to speed up telecom deregulation. It has relaxed its cap on foreign stakes in telecom companies, now allowing up to 61 percent ownership for the first five years with a gradual decrease in ownership after that. The incentive for the foreign investors is the opportunity to take a controlling stake in operations.

Malaysia, however, is alone in its approach. Only the Philippines come close with a complex structure of share swaps through local companies to prevent investors from gaining overall controlling interests. This is the case with First Pacific and Metro Pacific in SMART Communications.

Elsewhere in Asia, the foreign limit on ownership remains the same. It will be interesting to see whether the continent’s troubled economies will further relax their regulations to foreign companies.

The original intention of allowing foreign companies a stake in local telecom companies was mainly to ensure technical expertise in running telecom operations. Reality has proven otherwise. Major telecom companies are not interested in small stakes in telecom operations since it doesn’t give them any real decision-making power. Foreign telcos’ aims are often to streamline operations and to make the business profitable in the shortest possible time. A dilemma arises when both parties want to “run the show”. Oftentimes, this causes the potential partners to go separate ways due to lack of cooperation.

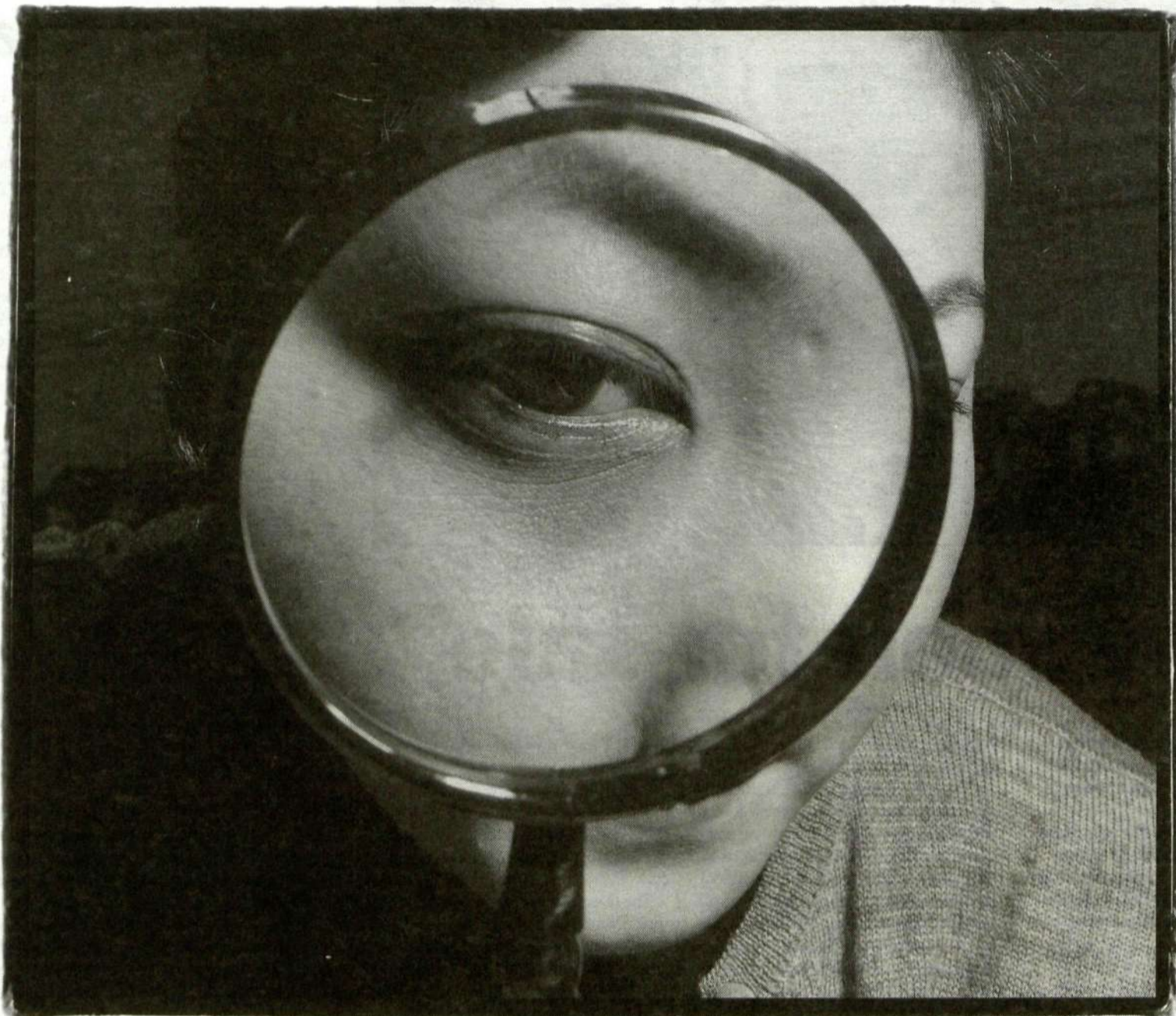
Days numbered as principal owner

So who does benefit at the end of the day? With the Malaysian model, the major foreign telcos can expand their operations rapidly into Asian markets by shopping for major shareholdings. But the catch lies in the fact that they have a limited time in the role of the major shareholder. This is further compounded by the fact that the foreign investors will also have to assume an equal percentage of the company’s debts.

BT is viewed as the forerunner in the shopping spree. The latest news is that Binariang, the Malaysian network operator, will issue 50 million new shares to BT, diluting the stake held by tycoon T. Ananda Krishnan, Binariang’s biggest shareholder and a close associate of Prime Minister Mahathir Mohamad. Mr. Ananda’s shares will be reduced to 49.1 percent from 76 percent. BT has thus taken the time to understand the target company and the market better, and has therefore every opportunity to turn the deal into a win-win situation.

Sirpa H. Ikola works at Ericsson Business Intelligence and has special responsibility for Asia. The Ericsson Business Intelligence Network, EBIN, is responsible for portions of the company’s monitoring of the business environment.

It's my future.



London. The first three days of December, 1998. At two separate events Ericsson Project Management Institute (EPMI) will look into Ericsson's future and explain how more efficient project management will increase Ericsson's business.

EPMI will present its work on the new, web-based version of PROPS, Ericsson's project management model, to around 100 PROPS consultants at a special preview in London on 1 December. And on the following two days, the future of projects will be debated at EPMI's second Project Networking conference.

EPMI's mission – better business.

EPMI's mission is to enhance Ericsson's business and competitive advantage through successful project management and management of projects.

We provide a total concept for project work. Our program features competence development and a wide range of consulting services that can be applied to a single project or to a total project portfolio. So far, about 17,000 Ericsson employees have received training from EPMI.

The meeting place for the future.

As part of its mission to promote excellence in project management and management of projects, EPMI is introducing

Project Networking, a meeting place for everyone in Ericsson who works in or with projects. Membership includes subscription to the exclusive Project Networking electronic magazine (direct to your computer), prior invitation to four international conferences per year and personal access to the Project Networking web site (projectnet.ericsson.se).

The new, web-based PROPS

The new version of PROPS – previewed by EPMI at the London conference – has its focus on business, people and structure. The aim is to provide the platform for projects that takes Ericsson into the year 2000 and further. This is just one of the ways EPMI is working for Ericsson's future.

Ericsson Project Management Institute

Ericsson Infotech AB

E-mail: epmi@ein.ericsson.se

Our office in Karlstad

Box 1038, SE-651 15 Karlstad, Sweden

Telephone +46 54 29 40 00

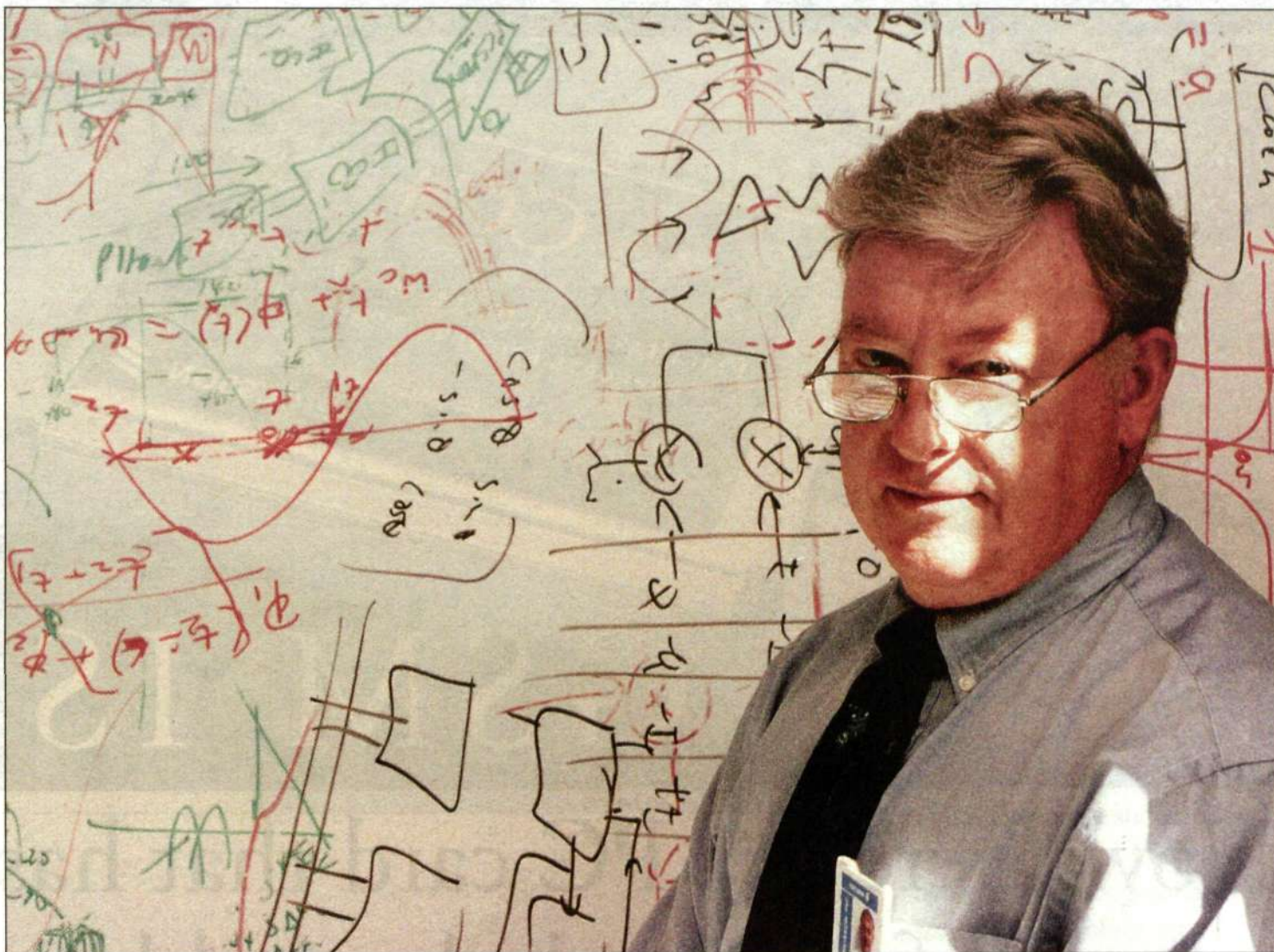
Our office in Stockholm

Box 1153, SE-164 26 Kista, Sweden

Telephone +46 8 719 00 00

At a rate of 12 to 20 patents annually, Paul Dent has set a record for most patents in the telecom industry: 123 and counting! He recently surpassed the record held by one of his leading rivals at Motorola.

Paul is now taking aim at the all-time world record for patents, a record held for years by none other than Thomas Alva Edison.



Paul Dent has more registered patents than any other Ericsson employee. He maintains that all persons working full-time in research and development should be able to register at least one patent every year.

Photo: Patrik Lindén

Paul Dent - the patent king

Paul Dent has been the Ericsson leader in registered patents for a long time. He was named Innovator of the Year in 1995 by Lars Ramqvist, former President and CEO of Ericsson.

In addition to registering patents for Ericsson products, Paul Dent's job also includes efforts to help other Ericsson employees realize the importance of proprietary rights and patent protection. His work is characterized by the good example he sets.

Swedes are too timid

"Every person who works full-time with development should be able to register at least one patent a year," he says.

Paul Dent believes Swedes in particular and Europeans in general are too timid when it comes to patents. The situation is altogether different in the U.S. IBM, for example, reports net patent revenues of USD 1 billion annually. Ericsson, in turn, is still trying to make ends meet. Patents are important even when they do

not play a central role in current research and development programs.

Their greater value may be realized at some point in the future. They can also be sold or traded. Ericsson often negotiates patent rights with other companies.

"If we did not secure patent protection for our products, anybody and everybody would be free to dismantle our telephones and submit patent applications. I think it's a good sign that Ericsson is beginning to take a more aggressive approach to patent issues," he continues.

Paul Dent joined Ericsson in 1987 after working several years with Marconi, a former part owner of Svenska Radioaktiebolaget (SRA), which later became Ericsson Radio Systems. He established his first contacts with Ericsson through SRA.

Recruited by Nils Rydbeck, Paul Dent started working for Ericsson in Lund, concentrating on development of first-generation digital mobile telephones, GSM.

"Ericsson was primarily an analog radio

company in those days, with virtually no patents in digital radio technology. It was my job to turn things around," he explains.

In 1990, when Ericsson established operations in Research Triangle Park in the U.S., Paul Dent moved to the new facility in North Carolina. He secured most of his patents while working in Research Triangle Park, also the source of most Ericsson patents.

Doesn't have to be unique

"Many people believe you have to create something that is truly unique to qualify for a patent application. This is simply not true. In most cases, we are dealing with solutions to known problems, but usually in a new and better way."

Paul Dent also believes far too few people actually know how to file a patent application. Furthermore, many project managers are reluctant to "sacrifice" the time needed for development personnel to file patent applications. It's too bad, he says, since there is so much to be gained.

"Some background research work is required," he explains. "Persons seeking patents must learn what is already known about the subject in question, and seek patents when they actually develop something new or better. The entire process is much easier today, since American patent authorities made their database accessible via the Internet. It's an invaluable source of information," says Paul Dent.

Ericsson has about 2,000 patents divided among some 1,000 inventors. The numbers should be much higher.

"We have clearly defined goals today for patent activities at all Ericsson research and development units. Progress is monitored continuously. We are moving in the right direction, but major changes and improvements are not made overnight."

Patrik Lindén

patrik.linden@lme.ericsson.se

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Several patents are results of dreams

Patents are seldom the result of flashes of genius that revolutionize technology. They usually emerge from determined, hard work to meet a variety of urgent requirements. It has happened, however, that Paul Dent has awakened from dreams that provided new ideas for patents.

Find solutions in the shower

"I always keep a pen and paper next to my bed. On more than one occasion, when a problem has churned and turned in my head for a long time, I have dreamed of the solution in my sleep. It has actually happened two or three times. I have also thought of solutions to other problems while I was taking a shower," says Paul Dent.

He has several patents related to CDMA technology (Code Division Multiple Access).

Among Paul's many patents, is protection for what he calls interference subtraction, a method used to decode radio signals for CDMA technology. CDMA has overlapping signals coded in different ways to facilitate simultaneous transmission (the TDMA technology used for GSM, for example, is based on time slots).

The origins of CDMA can be traced to former military applications. It was essential for



Paul Dent

defense authorities to prevent a single individual from decoding all signals at the same time.

If the enemy was able to break the code, it could still not gain access to all the information. For civilian applications, the key element lies elsewhere.

"I recognized the key and developed a method to simultaneously decode all signals. You take the strongest signal first and subtract its effect. Then move to the next strongest signal, and so on," he explains.

"This is a good example of how patents often involve improved and simpler methods. The technology was functional before my discovery, but now it can be applied more effectively to release capacity." To encourage and support new ideas, Paul and his staff let their thoughts

fly freely in brainstorming sessions focused on certain visions.

Brainstorming sessions

Themes vary from subjects such as "What will the home telephone look like 10 years from now?" to "How can we reduce the number of components in a mobile telephone by 50 percent?"

Brainstorming sessions have led to several new patents.

"You have to recognize and separate what is realistically possible, and then start working seriously with viable concepts," according to Paul Dent.

Patrik Lindén



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Photo: Mats Hallgren

In these times of structural change and new business philosophies, some of the tried and tested truisms of yesteryear still stand tall. Ericsson, for example, is a Swedish company. And it will remain a Swedish company, despite the declining significance of Sweden's domestic market in our overall business operations.

With more than 40 percent of all Ericsson employees and 60 percent of R&D resources concentrated in Sweden, the country will retain its position as the focal point, even now as Ericsson enters a new world of telecommunications.

In view of recent announcements and pending structural change, Contact asked four photographers to focus their cameras on Ericsson, Sweden and the business in which we all work - telecommunications. The results of their photographic review are an exciting montage of images and pictures, many of the type that we otherwise seldom publish in Contact.

With that, we present Borås, Gävle, Lund and Stockholm.

4p Photographers look at Ericsson

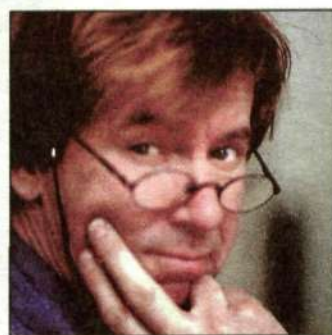
KARIN ALFREDSSON

Age: 32.
Education: Brief, mostly self-taught.
Previous employment: Dagens Nyheter, Göteborgs-Posten, Nöjesguiden and other publications.
Now: Freelance.
About photography: "I like taking pictures that reflect contact and movement."



MATS HALLGREN

Age: 52.
Education: Art history, Christer Strömholm School of Photography, the Swedish University College of Fine Arts.
Previous employment: Assistant to advertising photographers.
Now: Freelance.
About photography: "I like pictures with purity, a sense of discrimination."



ANNA WIDOFF

Age: 35.
Education: Art history, film and photography at University of Lund.
Previous employment: Worked for Dagens Nyheter from 1988 to 1994.
Now: Freelance since 1994. Works mostly with magazines and advertising.
Takes pictures to: "Feel good and be happy."



FRIDA HEDBERG

Age: 21.
Education: Photography vocational school in Luleå, 1993-1995.
Previous employment: Borås Tidning, Aftonbladet, Expressen.
Now: Freelance.
Takes pictures because: "It's fun and educational."



North of Dalälven

Norrland, or northern Sweden, begins in Gävle and stretches north from the Dalälven River to beyond the Arctic Circle. The city is only 150 kilometers north of Stockholm, but there is an exotic aura over this southernmost Norrland metropolis. Ericsson is one of the city's largest employers. The company is a key element in the future plans of many young residents of Gävle. Despite its ranking as one of Ericsson's most efficient production plants, the mood on the factory floor is often calm and relaxed.

Photo: Karin Alfredsson



GÄVLE

Ericsson Radio Systems in Gävle manufactures radio base stations for GSM and the Japanese PDC standard. Radio base stations for WCDMA are also produced here. The factory employs about 2,000 persons.

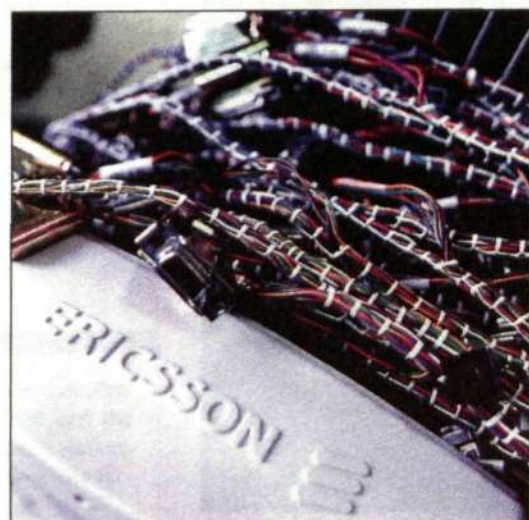




From Stockholm to Borås

A big city portrays many aspects of life in black and white. The rapid pulse rate of many people is offset by the slower lifestyles of others. Life moves at a slower pace in Borås, the provincial capital of Västergötland, except at Ericsson Microwave Systems, where microwave links are produced at a furious rate. For many of the younger generation in Borås, the Ericsson factory has become an exciting replacement for the city's traditional textile industry. "A thread is a thread," some might say, but the livelihood of many Borås residents is now based on the world's need for wireless communications.

Photo: Anna Widoff



BORAS
Ericsson Microwave Systems manufactures microwave links, Mini-Link, at its factory in Borås.
After several years of strong expansion, the factory now has about 1,300 employees.

Sweden's Silicon Valley

Ericsson in Kista has grown at breakneck speed during recent years. The company's well-known logo is seen virtually everywhere in this northern suburb of Stockholm. Kista has one of the highest mobile telephone density ratings in the world, and a very large number of base stations serving different networks. Inside the walls of Ericsson's office buildings, engineers are gazing more intently and more often on the Internet. Mobile net surfing is one of the company's forthcoming major challenges.

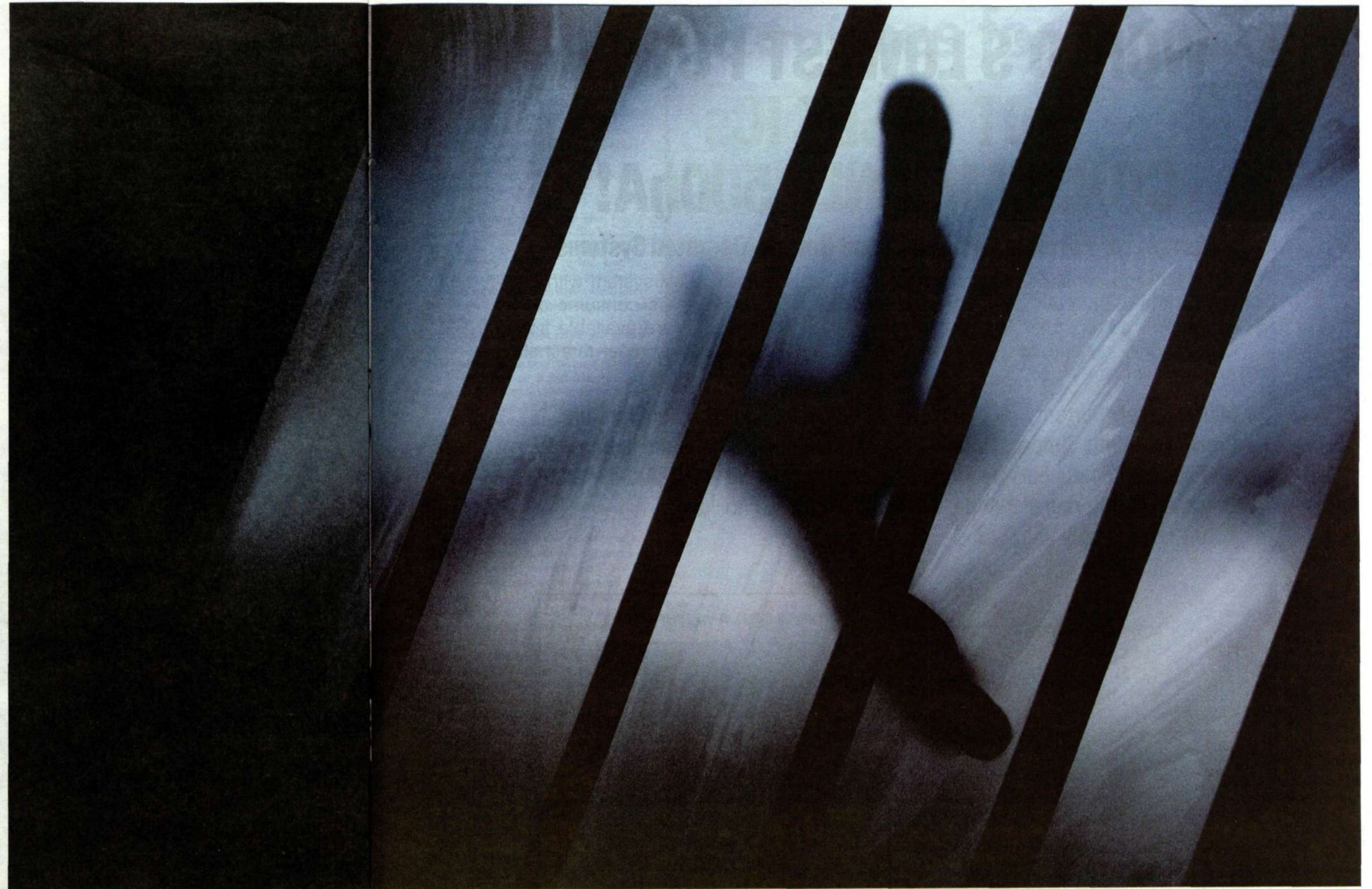
Photo: Mats Hallgren



KISTA
Ericsson dominates Sweden's Silicon Valley as the leader among many other Swedish and foreign IT companies. Ericsson has more than 10,000 employees in this suburb north of Stockholm, working for such companies as Ericsson Radio Systems, Ericsson Mobile Communications, Ericsson Components and Ericsson Microwave Systems.

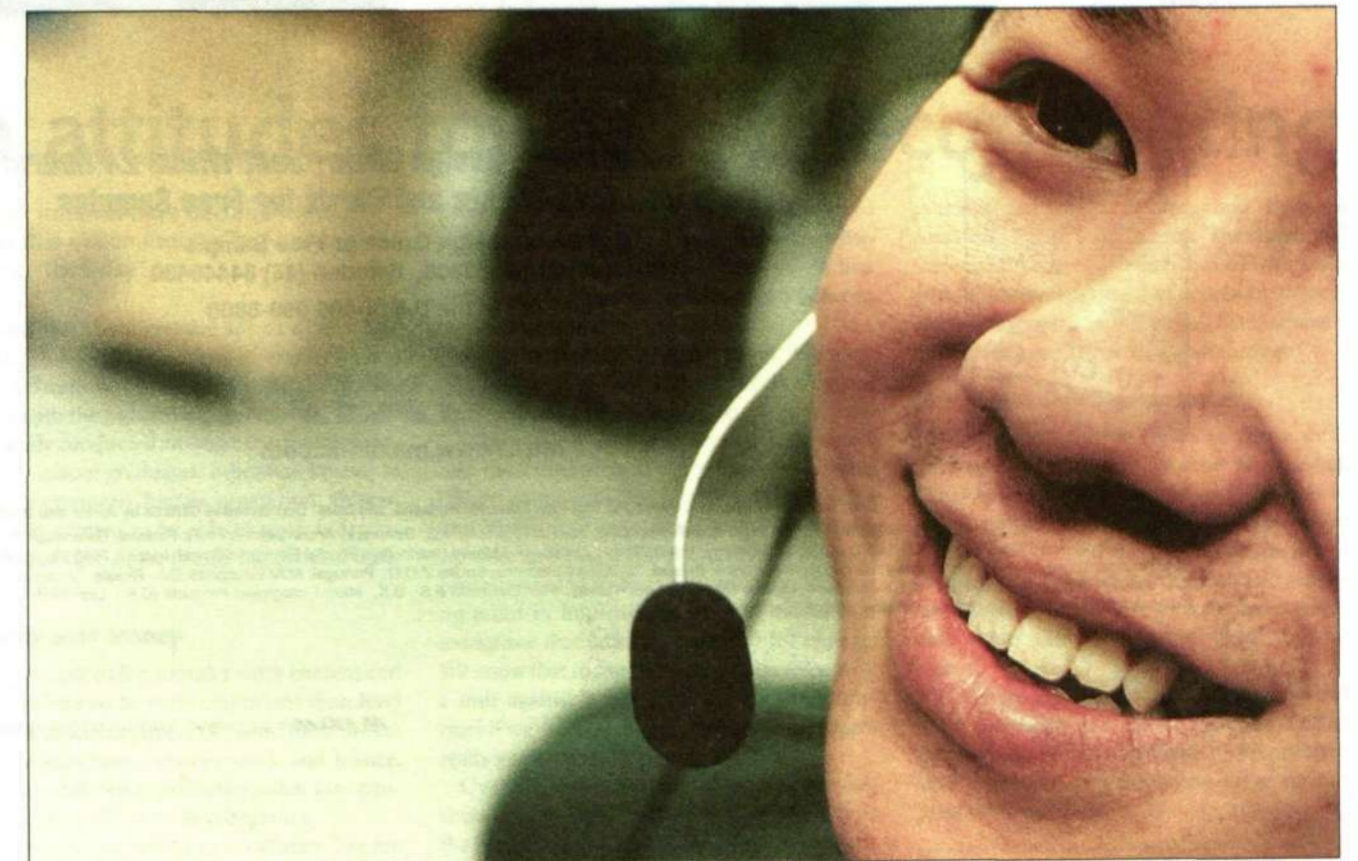
LUND

Ericsson Mobile Communications has its Swedish development headquarters atop the highest elevated area in Lund. Approximately 2,000 employees work in various development jobs focused on GSM telephones and other products.

**A blend of young and old**

Well-known for its medieval cathedral and other landmarks, Lund is one of the oldest cities in Sweden. Today, the city offers a blend of young and old. Lund has become a high-tech stronghold in southern Sweden, spearheaded by leading technology companies such as Ericsson, Tetra Laval and Gambro. Many young engineers are turning to Ericsson for career opportunities. As in many other cities throughout Sweden, today's status symbols are not the most important things in life.

Photo: Frida Hedberg



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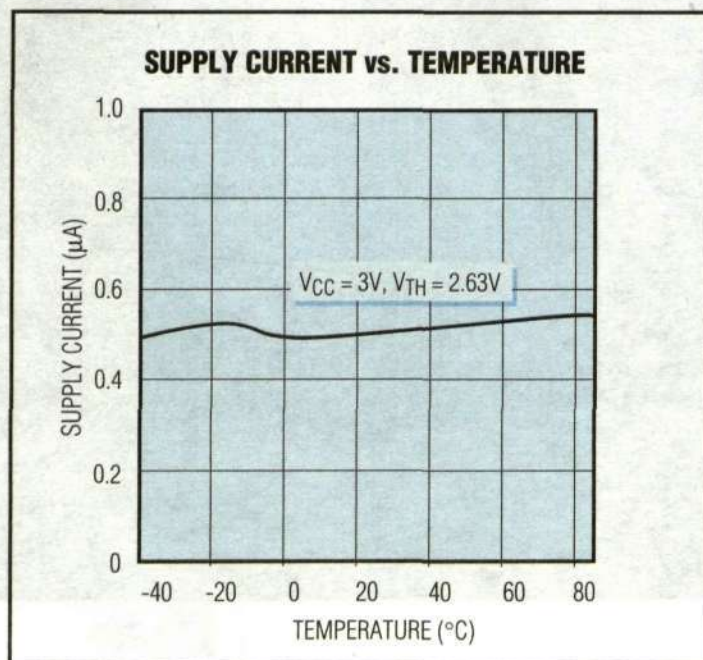
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New work routines for a new era

"One month before we introduced flexible work routines, 95 percent were against it. A half year later, 95 percent felt that the changes were good," explains Britt Ocklind, who had a hand in implementing flexible work routines at Ericsson Business Networks in Nacka Strand two years ago.

We sit, conversing in one of the "quiet rooms" separated from the rest of the office by sound-proof glass. Some distance away, a row of mobile drawer units stand parked. They belong to the employees who are either away on business, are working from home, are in meetings for the rest of the day or who are out on sick leave.

The other drawer units stand next to their "owners," employees who have chosen a spot to sit where they can be of the most value that day – either working as part of a team with their colleagues, sitting alone in a quiet corner, or perhaps, in the middle of the room where they can be easily found by others who need to consult them.

Positive side effects

"When we initiated discussions about new work routines, our intent was to create the best possible conditions in order to work more efficiently," says Britt Ocklind.

"We did not set out to save money by reducing office space, rather, that was a positive side effect of the project," she explains.

"Flexible work routines" is an overall concept that has come to include both telecommuting and the flexible office. This is no coincidence. One is usually a precondition for the other.

"It makes no difference which end you start with," says Britt Ocklind. "If you introduce telecommuting first, you will free up office space; if you introduce a flexible office, then you create the need for privacy and the peace of working from home."

One month prior to the start of changes at the 300-person Business Networks unit in Nacka Strand, the University of Linköping conducted a survey among the employees. Ninety-five percent of employees expressed a belief that the changes would generate worse working conditions on almost all points.

Changed attitudes

"But after only three months, there were positive reactions," relates Britt Ocklind. "We were hearing comments such as: 'I have made more workplace friendships; it is easier to ask questions and get quick answers; I can see the over-



Britt Ocklind enjoys working from home. When her children were smaller, she worked from home more often. Today, she is home one day a week at most.

Photo: Elisabeth Ohlsson

all picture better.' A new survey, conducted six months after the changes, showed that the positives outweighed the negatives on every point except one. That was the ability to concentrate."

"That is why it is so important to also offer the opportunity of having a quiet and peaceful place to retreat to. Tasks such as preparing a presentation, summarizing a report and so

forth, are ones that both myself and many others prefer to do at home," says Britt Ocklind.

She herself is a living proof of how one can get the best from both work and private life by organizing work in a flexible manner.

"When I had my second child, I chose to work during a large portion of my maternity

leave. I was able to do that partially because much of my work at that time was compatible with working from home."

Today, Britt is often needed in the office by other employees. "Nowadays, I only work from home one day a week at most."

Margareta Jonilson

More positive attitudes towards telecommuting

Attitudes towards telecommuting and flexible work routines have become much more positive in the past ten years. Today, it is not that uncommon to find a note on an office door saying: "Working at home Wednesday-Thursday."

Both Vivianne Wennersten and Bo Widén, of Ericsson Radio Systems in Kista, have personal experience in this area.

Vivianne and Bo have been "missionaries" and internal consultants for flexible work routines with Ericsson over the past eight years. During that time, much has happened.

When Bo Widén and Vivianne Wennersten began their work in 1990, a number of factors were hastening the development of more flexible work routines.

New technologies were revolutionizing information flows, environmental factors were receiving greater attention than before, it was becoming increasingly important to shorten the time to market and the customer, and there were ever-increasing demands for flexibility in production and skill development among employees.

Today, one could also add the demand from

"below" for more creative forms of employment. This new generation of workers has a very different viewpoint on quality of life compared with the industrial generation.

A study conducted among 2,000 Swedish secondary school graduates, otherwise known as the first computer-literate generation, showed that they wanted to be able to work independently and participate in anti-hierarchical business cultures.

Quality over money

Young people today consider work content and relationships to be more important than level of pay and leisure time. For them, there are no sharp distinctions between work and leisure, and they seek out organizations that are reminiscent of small, intimate companies.

"In reality," according to Bo Widén, "we are seeing a return to the way things used to be.

Even when I was a child, most people worked at home on the farm and went to market when they needed to meet their customers. At that time, there were no clear distinctions between work and leisure."

At the beginning of their project, Vivianne and Bo met with uncertainty and skepticism, both from the employees and from the unions.

"Any kind of change generates uncertainty, and these measures could sometimes involve rather comprehensive changes in routines," says Vivianne Wennersten. "In the beginning, we were also much less responsive as to when protests needed to be taken seriously. There is no point in implementing a new model in a workplace that lacks a propensity for change. We know that today. Sometimes we even advise a unit against implementing new work routines if we detect that nobody but the managers really wants them."

Over the years, Bo and Vivianne have become increasingly convinced that diversity is the key factor. Letting people work in the manner that best suits them often reduces the op-

portunity to easily measure and have an overview of their work efforts. The traditional "foreman" has lost his role as the one who walks around and makes sure that people are present and working hard all the time. That has been a difficult cultural barrier to break through.

Managers realize advantages

"But it has become easier to convince mid-level managers," notes Vivianne Wennersten. "They have discovered what a good idea it is to be forced to formulate clear goals for every project and employee. In addition, many of them are parents of small children and see the advantages of being able to sometimes eliminate travel time and spend more time at home."

There are many different cultures that need to be dealt with in a global company such as Ericsson. Bo Widén and Vivianne Wennersten have worked on over thirty projects in various parts of the world.

Margareta Jonilson

Masters of Distribution



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Manuals must suit all users

Engineers avoid using instruction manuals as long as possible. They want to figure things out themselves, without instructions. Other customers are more demanding. They want to know not only how, but also why to use the various functions.

Writing instruction manuals for mobile telephones is not easy. The same manual needs to address all sorts of customers. Telephone manuals for GSM and other European standards are written at Ericsson Communications in Lund. Customers use telephones in many different ways, and how they go about using information in the manual varies greatly.

"The difficulty lies in identifying a target group," says Ivan Matanovic, editor in the user documentation department. Capturing the entire spectrum of customers is the greatest challenge for those of us working with mobile telephone manuals."

Recently, Ericsson conducted a study on how various customer groups use manuals, and what the perfect manual should look like.

"This research will form the basis for future manuals," says Ivan Matanovic.

The study was conducted in six countries: Sweden, the U.K., the U.S., Italy, Malaysia and Hong Kong. In every country, test subjects were chosen so that all customer categories were represented. The study tested the ability of groups to solve a number of tasks with the assistance of four different kinds of manuals.

Some of the results of the study surprised Ivan Matanovic and his colleagues.

Frustrating results

"It was sometimes frustrating to see what a difficult time the test subjects had in solving certain tasks. In addition, we quickly realized that some of the solutions we had put a great deal of energy and resources into, solutions that we ourselves experienced as intelligent and pedagogical, did not work at all in reality."

One example was a round flow chart that was developed to illustrate how to navigate between the various mobile telephone menus. The test subjects simply did not like the flow chart, according to Matanovic.

"Our wonderful ellipse fell flat on its face."

It was difficult to make generalizations about how customers wanted the manuals to look. Different kinds of users had different requirements.

"A desire for more graphics and color in the diagrams and text were really the only thing that united all of the customer groups."

Using the study as a starting point, the tech-

nical writers in Lund have developed an entirely new concept for the next generation of manuals. The next telephone model, which will be launched sometime in spring, will have a manual that is different, in several respects, from earlier versions.

Color biggest change

The most important change is color. Using color, different kinds of information found in the manual can be separated in a clear way. Technically advanced users, who only need certain essential instructions can, for example, focus on text written in a particular color and ignore the rest.

The next generation of manuals will also utilize more symbols and their layout is less cluttered and more appealing.

"We have developed a fresh and exciting concept for our manuals," according to Ivan Matanovic. "Already we have received many positive reactions, but the real test will come when the new models are launched."

Niclas Henningsson

The manual is used in many ways by different people. Technically inclined individuals wish to learn on their own, without instructions. Others want to know not only how, but also why to use various functions.

Illustration: Kerold Klang



Customer's eyes in development process

The technical writers in Lund have an important task. Their work is not just about writing instructions for completed mobile telephones. They also have a mandate to influence the final design of those telephones.

"We are the eyes of the customer in the development of new products," according to editor Ivan Matanovic.

Eight technical writers work at Mobile Communications in Lund, and are responsible for user documentation for Ericsson's GSM and other European standard mobile telephones.

Printed information remains the most important source, but the importance of new channels of information are increasing.

Ivan Matanovic, editor in the user documentation department at Ericsson Communications in Lund.

Photo: Sofia Sabel

Instruction manuals can already be found on the Internet, and the most recent model, the 888, was shipped with a CD-ROM manual. The technical writer's work begins when the technical specifications for a new product are ready.

Based on the descriptions found in the specifications, instructions as to how the various telephone functions work, are written.

"We study the specifications carefully and emphasize the most important things for users," explains Ivan Matanovic, editor in the user documentation department.

The technical writers do not merely write instructions, however. They also contribute to the design of the final product, explains Matanovic.

"We are the customer's eyes in the developmental stages. We have discussions with those responsible for user interface specifications. In that way, we help ensure the user-friendliness of the finished product."

The manuals play an important role in building up Ericsson's image as well.

In addition to providing instructions for telephone users, the manuals are important marketing tools. By highlighting certain functions, they help to market the technology which defines the telephones in the marketplace.

"We also fulfill the important task of describing the usefulness of the various functions," explains Ivan Matanovic. "Customers do not only want to know how to use the various functions. They also want to know why."

Niclas Henningsson



Next stop Asia

Kurt Hellström's heart beats a little faster when he hears words like Asia, customer contacts and business opportunities. Therefore, it feels completely natural for him to become Executive Vice President, Asia and Oceania Market Region, after eight years as Executive Vice President, Mobile Systems and President of Ericsson Radio Systems.

When I interviewed Kurt Hellström back in May 1990, the then newly appointed president of Radio Communications had just started work in his new position and moving boxes still filled his office. Now, as we meet again for an interview about his new job, the moving boxes have yet to arrive.

When will you be moving and where will you move to?

"I am in the process of turning things over to Mats Dahlin and everything should be completed by the first of January. A decision has not yet been made as to where the office for the Asian region will be located, but it will most likely be in either Hong Kong or Singapore."

You have a great deal of experience with Asian markets. When did you make your first business trip to the region?

"Twenty years ago, in 1978, when I visited Hong Kong as part of my old job at Standard Radio. I began working at Ericsson Radio Systems in May 1984, as a market manager for mobile telephony in Asia. The early stages of that job primarily consisted of finding customers. At that time, in 1984, Malaysia was the only country in which we had a system."

Do you enjoy having contact with customers?

"Yes, I do. Several of our larger customers, such as Vodafone in the UK and McCaw in the U.S., were acquired during that initial period, and it has been enjoyable to maintain cus-

tomers contacts over the years. I remember a 'dressing-down' we received from Vodafone which was very informative.

"As president, the entire world has been my workplace. In the future, my focus will be on Asia, which will be very enjoyable. Over half of the world's population lives in this region, and there is a great need for telecommunications. Although need does not translate directly into markets, telecommunications will remain an area of priority over the long term. It is important that we continue to be well-represented in Asia, in order to be able to follow developments at close range.

"So far this year, despite the economic crisis in Asia, the region has exceeded our expectations. There have been sharp downturns in Indonesia, Malaysia and Thailand, but they have been more than offset by the business we are doing in China, Hong Kong and even Japan."

What sort of things did you experience as Executive Vice President of Mobile Systems?

"It has been a fantastic time with the advances and growth we have experienced. I have been surrounded by competent employees, many of whom have now moved on. I view this as a clear acknowledgment of what we did here. We have been, and remain, skilled at entering many new markets, both by taking advantage of circumstances and by being aggressive when that is required. We have been



Kurt Hellström has become Executive Vice President, Asia and Oceania Market Region after eight years as Executive Vice President, Mobile Systems and President of Ericsson Radio Systems.

fortunate in acquiring competency from defense communications, land-based mobile radio and telecommunications. Without our skilled technicians, we would not be where we are today. It has been fun to see peripheral operations grow, including places such as our software company at Mjärdevi, Ericsson Radio Access and our plants. I recall how a Japanese customer, on a first visit to the Gävle plant, found quite a few things to criticize. Following that, improvements were made and the result was a truly top-notch plant."

"That culture, the spirit which exists within Mobile Systems, has been and continues to be important. Speed, creativity and customer focus are not new concepts to us."

Wasn't the situation at the beginning of the 1990s rather grave?

"Yes, in 1991 we were operating at a loss. We

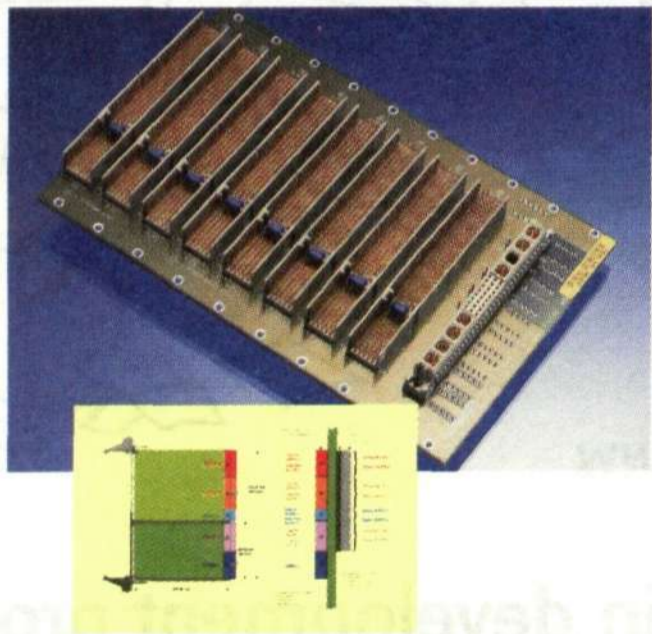
had incurred large developmental costs in taking the step into digital mobile telephony. We were working on two parallel tracks, development of GSM and D-AMPS, and the market had not yet taken off. Once it did, our position strengthened. Now we are on the way towards third-generation telephony and our ambition is to retain our strong market position."

Do you have any good advice for Mats Dahlin, as he takes over as Executive Vice President of the Network Operators business segment?

"I have worked together with Mats for many years and I know that he will handle the job just fine. I do have one piece of advice: Retain the Mobile Systems spirit."

Gunilla Tamm

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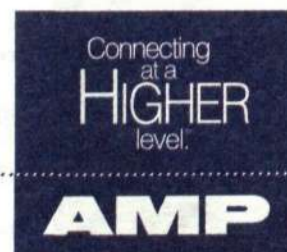
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Manufacturing biggest threat to environment

A year's worth of mobile telephone usage generates less impact on the environment than driving 100 kilometers in a car. That was one result of a study conducted by Telia and Ericsson on Stockholm's GSM network. Measurable effects were expressed in terms of how much they contributed to the greenhouse effect, based on the amount of carbon dioxide emitted. The study utilized the Life Cycle Assessments (LCA) methodology.

The scientifically accepted method of measuring environmental impact is known as Life Cycle Assessments (LCA). This methodology views a product from an overall perspective, calculating the environmental impact of various phases in the history of the product, including the mining of raw materials, its usage and final disposal of the product. Environmental impact is then measured in terms of the greenhouse effect, ozone depletion, eutrophication, acidification and so forth. The greenhouse effect is measured in terms of carbon dioxide emissions.

A green alternative

Previously, most assessments have been conducted on individual products such as printed board assemblies, integrated circuits or mobile telephones. It has been difficult to glean information about suppliers' manufacturing processes and the amount of energy utilized. But in order to be able to show that information technology is truly a green alternative, data pertaining to the environmental impact of an entire system was required.

Consequently, last autumn Telia and Ericsson decided to conduct an LCA study of the entire Stockholm GSM network. This involved the inspection and measurement of the manufacturing processes of all the various components of the network, including its operation and maintenance. Ericsson Radio Systems provided much of the background material, while the actual study was written by Flemming Hedén at Telia.

"This wasn't a precise study, overseen by an independent authority, but it did generate a number of interesting results," says Lena Melin, environmental manager at Ericsson's GSM unit.

It showed, for example, that manufacturing is the biggest source of emissions – especially those components which are manufactured in countries where fossil fuels are frequently used in energy production. Studies show that energy generated by oil-fired driven power plants produces greater levels of carbon dioxide emissions than does the same amount of energy produced by hydroelectric power plants.

Interestingly, integrated circuits, which comprise 1.5 percent of a telephone's weight, utilize 90 percent of the energy that goes into manufacturing. The short life span of mobile telephones also contributes to relatively high figures. It is not surprising that operating the system and the telephones accounts for a significant portion of the total environmental impact. But it is, perhaps, surprising that Telia's service trips top that chart. It should also be mentioned that mobile telephone battery rechargers draw unnecessary amounts of energy when in standby mode.

A number of suggestions

The study resulted in a number of suggestions for environmental measures that would reduce the impact of future systems. These suggestions include ideas such as unplugging mobile telephone battery chargers when not in use,



Ericsson and Telia conducted a Life Cycle Assessments of an entire mobile telephone system. Not unexpectedly, it showed that manufacturing generates the biggest environmental impact. One of the goals now is to reduce energy consumption in base stations.

Photo: Gerhard Jörén

advice that should be rendered obsolete in the future with chargers that shut off automatically.

The most important suggestion, however, is for operators to place more stringent requirements on their suppliers, especially in terms of designing more energy-efficient base stations. This could also reduce the need for cooling sys-

tems possibly using freon as a refrigerant.

A third suggestion is to create a market for used mobile telephones. Many people replace their telephones because they are outdated, not because they are broken.

Lars Cederquist

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Base stations should be designed to be recycled

Designers should know how to design recyclable base stations and know how various parts can be reused before they start their designs. That is the goal of a joint research project being conducted by Ericsson and the Institute of Technology at Linköping.

Four doctoral candidates – Jörgen Nilsson, Glenn Johansson, Maria Hüge Brodin and Joakim Skottheim – are now studying key areas, including product development, design, logistics and economics.

"The number of electronic scrap worldwide is increasing. Keeping pace with this trend, in an increasing number of countries, are new laws regarding manufacturer responsibility," says Lena Melin, environmental manager at the European mobile standards business unit. She is coordinating the project, which is being financed by Ericsson's mobile telephony business units.

"It is starting to become more profitable to recycle materials recovered from scrap than to procure new raw materials. Therefore, it is important that we are out in the forefront, acquiring good methods for dealing with recycling management."

The introduction of environmental thinking early on in development projects is important, as is the creation of environmentally compatible design methods. It is also important to have a system in place that can collect used equip-



Illustration:
Syster Diesel

ment, deal with recyclables, and dispose of the rest. Perhaps most importantly, this processing system should be based on financially sound economic calculations.

Four-year collaboration

The cooperative agreement recently signed between Ericsson and the Institute of Technology extends four years. In mid-June, the doctoral

candidates presented their project proposals, all of which had to be relevant both from a scientific and industrial standpoint.

"We at Ericsson are responsible for the applications," says Lena Melin, who adds that one goal is for Jörgen Nilsson and Glenn Johansson to participate in a recently started project to design an indoor base station. Doing so will fulfill current environmental requirements

and allow it to be environmentally certified and labelled.

This would be type III labelling which is not just a simple swan or flower symbol, but rather an objective symbol backed up by scientifically substantiated Life Cycle Assessments, based on data pertaining to resource utilization, energy consumption and emissions. These norms have been developed in collaboration with industry colleagues.

Market studies

The doctoral candidates will also study Ericsson's various markets. They have already completed a study in the Netherlands, where they visited customers, universities and recycling companies. Other markets to be studied include Japan, the U.S. and a few other European countries.

As with all research, the time frame extends five to ten years into the future. In other words, the goal is not to help Ericsson develop a recycling system today. Rather, it is to analyze how the concept of recycling can be naturally implemented in Ericsson's work, over the long term, increasing the company's competitiveness. The project is intended to provide designers and decision-makers who have to write requirement specifications, with the knowledge they need about recycling, so that they can make sound decisions. It is about changing attitudes.

Lars Cederquist

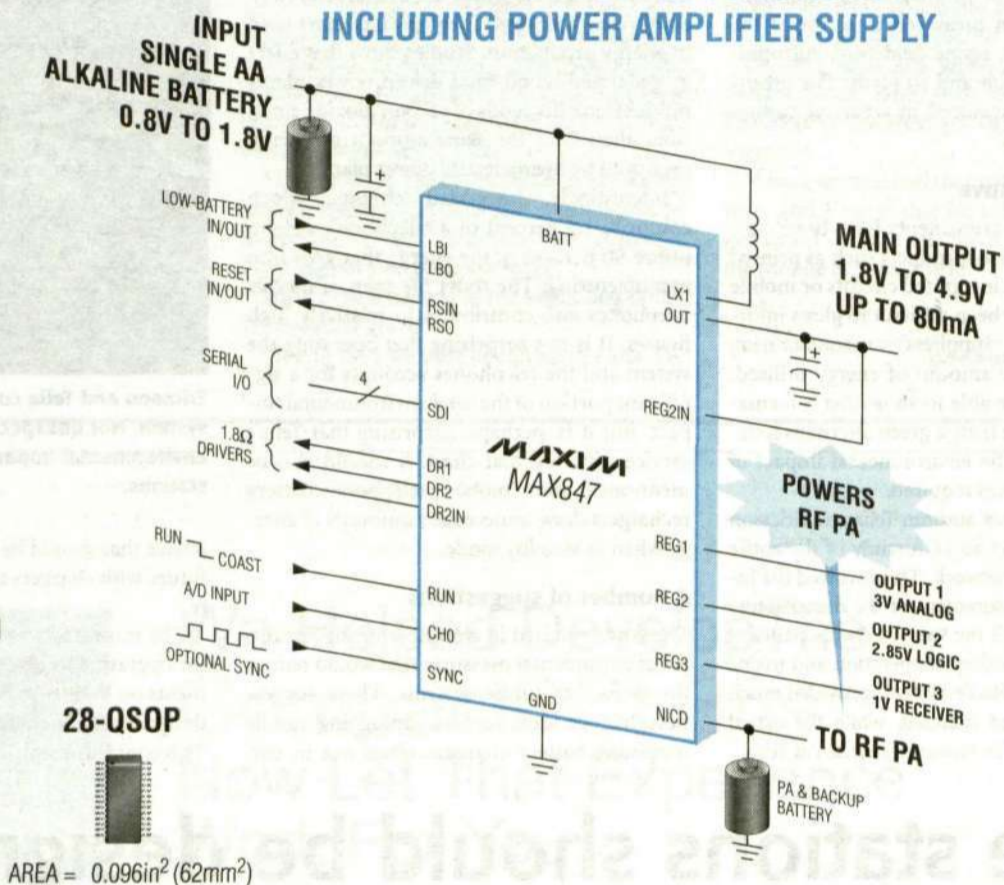
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Ericsson Radio Systems AB, Kista

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The unit is called Service Quality and is responsible for ensuring that Ericsson's GSM BSS system is superior to any competitor GSM BSS regarding service quality and characteristics. The responsibility is focused on quality and characteristics perceived by the subscriber. The unit acts as a competence centre and co-ordination point regarding issues raised within the defined area of responsibility. This also includes trouble shooting.

Other work tasks are technical mobile station related issues as well as having an active role within BSS Maintenance, including running a BSS Help Desk.

The job is very outward and international, which implies that an important part is to establish and maintain contacts, both internally within Ericsson, and with our customers world wide. Good knowledge in English, both verbally and in writing, is necessary.

We think you have a couple of years experience from GSM, preferably from an operative aspect. We also think that you are interested in leadership and like to work together with and manage other people, and of course that you like challenges and to take on responsibilities.

Contact: Mattias Karlberg, phone +46 8 404 4789 mattias.karlberg@era.ericsson.se Application: Ericsson Radio Systems AB KI/ERA/LV/HS Kerstin Almblad 164 80 Stockholm kerstin.almblad@era.ericsson.se

Ericsson Radio Systems AB, Kista

MANAGER, ADVERTISING AND SALES PROMOTION

The wireless communications field is one of the most dynamic and expansive industries of this century. Today, Ericsson's D-AMPS/AMPS products and services support 50% of the world's wireless subscribers. New and dynamic applications such as PCS, Wireless Office, Fixed Wireless, and Wireless IP (via CDPD) are forging new frontiers within the D-AMPS/AMPS wireless world.

With its strong entrepreneurial spirit, the Cellular Systems - American Standards (RMOA) business unit has established itself as a leader within the Ericsson group to meet the challenges of today and tomorrow in this dynamic wireless communications market.

● Will you develop the strategic advertising and sales promotion efforts and campaigns for Cellular Systems & American Standards (RMOA).

As manager of a team of three communications specialists you will provide support and leadership to a graphics co-ordinator, web content editor and project manager.

We are part of a dynamic department in an exciting business unit and an explosive industry and as such have a high profile role in a fast moving and creative environment. As manager of Advertising and Sales Promotion you will manage the project flow, execution, development, and budgeting of RMOA's advertising and sales promotion and support activities world-wide. You must be able to work effectively in a cross cultural environment as co-operation and collaboration with diverse local companies is an important aspect of the position.

Ideally you have experience within Ericsson and an MIM/MBA or equivalent. Knowledge of D-AMPS products/services and customers and/or the wireless industry is a plus. You are energetic and willing to take the initiative to further the positioning of D-AMPS both on the global market and internally. In addition to being a team player, you must be able to work independently, you are detail-oriented and have some experience with advertising/sales promotion and possess a creative "eye". Willingness and ability to travel is important. Professional fluency in business English is essential. Fluency in Spanish or Portuguese is a plus.

Contact: AM/IC Donya Ekstrand, ERA.ERADONY, Phone: +46 8 404 4848 AH/H Annelie Gustafsson, ERAEGU Phone: +46 8 404 71 82 Application: AH/H Annelie Gustafsson, Ericsson Radio Systems AB 164 80 STOCKHOLM

Ericsson Radio Systems AB, Kista

MANAGER FOR NETWORK BUILD MANAGEMENT

RMOG provides mobile networks all over the world based upon the GSM, NMT and TACS standards. A new Service Area Unit responsible for Network Build Management is under establishment.

The unit will take the consolidated responsibility for Site Acquisition, Civil Work and related Project Management Services including co-ordination between and support to Business Management or (M)LC for tender as well as supply efforts.

● The manager must be an experienced, result-oriented leader with a social flexibility and sensibility to customers and employees. The right person for this position has experience of Marketing & Sales, Subcontracting and Risk Management preferably from the Building Trade.

Contact: Bert Nordberg, General Manager, Customer Services, tel+46 8 585 325 25 Lena Axhamre-Hellberg, Human Resources, tel +46 8404 54 21 Application: Ericsson Radio Systems AB KI/ERA/LY/HS Viveka Viklund 164 80 STOCKHOLM viveka.viklund@era.ericsson.se

Nippon Ericsson K.K., Japan

ITAC MANAGER

● We now have a vacant position for an experienced ITAC Manager at our office in Shin-Yokohama.

We expect you to have: A Bachelor degree in Engineering or Computer Science or the equivalent. 5 years relevant job experience. Supervisory experience in technical group (more than 5 persons) Good knowledge of Ericsson processes and procedures, in particular solid, documented, experience from Customer Support and HW Implementation. A good network within Ericsson. You should be analytic, creative, flexible, a good listener and prepared to implement a quality system within the ITAC organization at NRJ.

We also see that you have previous experience in the field of quality assurance or similar work.

You have to be fluent in spoken as well as in written English. 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.

Contact: Per Jansson, +81 45 475 0084. Application: Thomas Åhberg NRJ/HP Office + 81 45 475 0400 Fax + 81 45 475 6231 Memoid: NRJ.NRJTHOM E-mail: thomas.ahberg@ericsson.co.jp

Ericsson Australia, Broadmeadows, Melbourne

SYSTEM ENGINEERS FOR PACKET SWITCHING IN GSM MOBILE

● Job Description: Ericsson is introducing General Packet Radio Services (GPRS) into its AXE-GSM system and Ericsson Australia has a role to deliver this functionality across the Asia Pacific region. This is an exciting new area of mobile applications and working in this area will give exposure to leading edge technology.

The opportunity now exists to join this area and be part of the GPRS team from start up. We are immediately looking for two senior verification engineers with excellent knowledge of datacom systems.

You will receive specialised training in GPRS and then will be expected to develop hands on competence during an assignment of up to one year in Aachen Germany, working in the development project. On return to Australia, you will be involved hands on in supply activities and deployment to customers in Asia Pacific. Extensive travel for short periods will be involved.

Requirements and Main technical competence for the job are: Experience in Unix S5R4, e.g. Solaris 2.6. Datacom knowledge: Ethernet, FrameRelay, TCP/IP, UDP, OSPF. Knowledge of routing, addressing, subnets etc.

Network performance, throughput and characteristics. OTP, SNMP, CORBA, IIO.P. Erlang, C in UNIX environment, testing (and debugging) experience. Experience with verification activities and trouble shooting. Experience with Ericsson AXE GSM mobile systems is an advantage.

You will also be expected to have excellent communication skills, be a team player, be able to work under pressure and be able to spread competence to other staff.

Application latest 981106: Susan Zeimbekis (EPASUZ)

Ericsson Eurolab Deutschland GmbH is looking for:

The system group within X/P CSS-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 these products, PC-1/ATP 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 quick studies. PRIM & CNI handling. Writing of technical reports.

As a suitable candidate you are an Ericsson employee with at least three years of experience in the area of switching systems. Ideally, you should be familiar with 1/APT mobile applications. Good knowledge of mobile telephony system 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 be able to cope with a high work pressure.

Ericsson Eurolab Deutschland GmbH is looking for:

If you enjoy demanding work and can respond well to significant challenges and responsibilities, why not become a member of our team? We have the responsibility for the Software development for the mobile switching system within the GSM-standard. We are looking for

SOFTWARE DESIGN ENGINEERS

● We are working with the GSM-system in the area of the MSS, dealing with the design, development and test of telecom software or design complete telecom systems. Programming experience e. g. (C++, C), background in telecommunications preferred with a working knowledge of structural design methods is required for this position. Relevant Ericsson experience is a plus.

If you are interested in joining a young and international team and you have good communication as well as good interpersonal skills please send us your resume via mail or memo to:

Contact: Human Resources EED/H/R Simon Seebass Dial: +49 2407 575 163 Memo: EED.EEDSIMS Systems Group EED/X/PG Gina Roge Dial: +49 2407 575 254 Memo: EED.EEDGINA EED/X/P Dave Hendersson Dial: +49 2407 575 630 Memo: EED.EEDDHE

Ericsson Communications Canada, Mississauga, Ontario, Customer Service Organization

OSS TECHNICAL ASSISTANT SPECIALIST

● Job Requirement: University degree in engineering, engineering technology or science or equivalent work experience. Exposure to Unix and peripheral products. Several years related experience in telecommunications. Working knowledge and understanding of cellular systems. Two years experience with Ericsson or equivalent cellular experience. Trained in CMS 40 or CME 20 OSS operations and maintenance. Basic ISO training on 9002 standard. Excellent communication skills both written and oral. These skills can be acquired through a combination of specialized training and/or on the job experience.

Job Description: Providing technical sales support and application testing as part of the Application Support function. Responsible for developing personal and group objectives. Communicating with customers on an ongoing basis. Preparing the procedures and verification of functionality of functions/corrections regardless of complexity, preparing quarterly or monthly plans, audits and verifying data. Assisting customers and field personnel in technical and operative questions. Assisting in emergency situations to resolve equipment and/or procedure errors. Plans, controls and directs CN-A, AC-A, EC-A, SC-A or MR implementation

Contact: Human Resources Ericsson Communications Canada 5255 Satellite Drive Mississauga, Ontario Canada L4W 5E3 Fax (905) 629-6701

Guangdong Ericsson Telecommunication Engineering Co.Ltd., China -

TAKE THE CHALLENGES IN CHINA

Latest news: China becomes Ericsson's largest market in the world!

Guangdong Ericsson Telecom Engineering Co. Ltd (GUC) is a joint venture company based in Guangzhou and offers its professional service to Region South, the most dynamic part of our business in China. Why not take the challenge to grow with us? Now at GUC we have the following openings for you:

a part of the job. You are customer and team oriented with proven capabilities to transfer knowledge to local staff.

Good knowledge of spoken and written English is essential.

The contract duration is 1-2 years.

SWITCHING SUPPORT ENGINEER

The FSC for fixed and mobile customers in Belgium has a vacancy for an AXE Support Engineer.

Main responsibilities: Trouble-shooting activity on/off site. HW/SW upgrades. Participate in the on-call 24 hours schedule to handle emergency situations. Test/Demo/Implementation of new features and services. Trouble reports handling. Transfer of knowledge to local staff. Other tasks connected to support and supply.

Competence requirements: A solid AXE/Unix knowledge and experience with a minimum of three years of working, preferably in Customer Support but applicants with testing/verification experience will also be considered. Knowledge of APZ/IOG. Ability to handle urgent SW problems (trouble shooting). Familiarity with MHS.

Knowledge and experience of IN is an advantage.

You need to be flexible and able to work under pressure applied by very demanding customers. Travelling is a part of the job. You are customer and team oriented with proven capabilities to transfer knowledge to local staff.

Good knowledge of spoken and written English is essential.

The contract duration is 1-2 years.

Application: Gilbert Huysentruyt, Memoid EBRGIH Ericsson SA/NV Raketstraat 40 B-1130 Brussels Belgium

Ericsson Telecommunications Romania S.R.L
- ETR

SENIOR TECHNICAL MANAGER TO ROMANIA

Ericsson Telecommunications Romania (ETR) has today 220 employees and working with all of the Ericsson products. In 1994 a representation office was opened in Bucharest and in 1997 ETR signed the contract with Mobifon dominated by Airtouch and TIW. Our customer had a flying start which surpassed all expectations. The tempo is high and the customer is in a tough competitive situation.

● We are now looking for a Senior Technical Manager to our Core Three Team for Mobifon. Your responsibility will be to advise and support the customer when it comes to its continued expansion plans.

You will ensure that our offers are the best solutions for the customer. In addition, you are supposed to continue to build up the technical function such introducing routines, processes, transfer of competence to the local staff, and training them in order to take over the responsibility.

We are looking for somebody with a solid technical education and with experience from mobile telephony. You should have good knowledge of all GSM products and services. You can work independently, you take initiative and you communicate well with others. You are used to working at a high speed and you make your decisions quickly. You must have a commercial understanding and you must be a good representative of the company. Good spoken and written English is mandatory.

Contact: Moncef Mettiji Key Account Manager +40 92 250 000 or Pauli Liimatainen Resource Manager +40 92 357 015. Application: Mr Liimatainen, ETR.ETRPALI

Ericsson GmbH, Germany

In the CME20 SS Product Line Configuration Management Section (EED/X/SO) has the central Test Configuration Management Responsibility for development projects from TG1 to GA of CME20 SS releases. We are now looking for candidates to fill the position of:

TCM PROJECT MANAGER CME20 SS R8 INDUS

● Your main tasks are planning and coordinating all TCM activities for the industrialization project. These activities include Data Transcript, Dump Assembly and Test Network Configuration, AS Specification, Program Production, Parameter Administration, MHO Administration, and Library Specification and Production. You will work closely with the CSS and AMC design and function test project leaders as well as the overall CME20 SS project manager.

You ... have AXE competence as designer, tester, or in TCM, have previous line or project management experience (desirable), have strong organization, planning, coordination, and communication skills.

Contact: Simon Seebass Human Resources EED.EEDSIMS +49 2407 575 163 or Dan Grinstead EED/X/SOC EED.EEDCGR +49 2407 575 341

Ericsson Eurolab's "Product Line Configuration Management Section (EED/X/SO)" has the central Test Configuration Management (TCM) responsibility for CSS and AMC development projects from TG1 to GA or CME20 SS releases, and support for design maintenance and PLM activities after GA. We are now looking for candidates to fill the position of:

GROUP MANAGER - STE SUPPORT GROUP

● The Simulated Test Environment (STE) Support group provides STE coordination and test support with emphasis on STE to CSS and AMC function test projects and design maintenance activities. The group's tasks are primarily technical coordination, testing support, and methods and tools strategies. Your key responsibilities will be to plan and coordinate the activities of the group, ensuring: tool vendors meet our requirements, support is provided for all applications and project phases, and follow-up of all tasks and commitments.

You have AXE design and/or testing experience, a good understanding of STE tools and methods, and strong organization, planning, coordination, and communication skills.

For more information about the STE Support Group and this position see the group's home page at: <http://www.eed.ericsson.se/services/eed-x-s/o/soz/Welcome.html>. If you're the right person for this challenge,

Contact: Human Resources Simon Seebass Phone: +49-2407-575-163 Memo: EED.EEDSIMS E-Mail: eed-sims@eed.ericsson.se or Section Manager Dan Grinstead Phone: +49-2407-575-341 Memo: EED.EEDCGR E-mail: eedcgr@eed.ericsson.se

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 de-

velopment 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 to perform System Integration Test of AMC products. This includes activities like Load test, Stability test, Robustness test and Accuracy test. Main areas are today IN, Datacom and ISDN.

You will work with the definition and execution of SIT as well as trouble shooting on the faults found.

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: EED/H/R, Simon Seebass, Memo-Id:EED.EEDSIMS,Dial: +49 2407 575 163 or EED/U/TVC Mats Erlandsson, Memo-Id.:EED.EEDMERL, Dial: +49 2407 575 635 For more information see: <http://www.eed.ericsson.se/international/amc>.

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FROM THE PAST



Imagination is the only limitation. Telephone poles can be used for a wide variety of purposes, as shown in this 1923 photograph from Valencia, Spain.

Phone fashion for the midriff. Mobile telephones have assumed many different forms over the years. This combination of wired and mobile telephone is an Italian design from the 1930s. The photo was discovered in Ericsson's photo archive in the Stockholm Business Historical Society's collection.



Ericsson's first intercom

"Rarely have any of the modern office appliances lived up to their names in the way that L.M. Ericsson's new intercom does."

Thus began an advertisement for this entirely new phenomenon in 1942. What was it for? It was for a telephone via which information could be given and received at the touch of a button. It even had a loudspeaker function.

Hands-free

"Thanks to the combined microphone and loudspeaker, your hands are free to sort through or look at papers," the ad continues.

Everything was built into the apparatus, which used no more electricity than a 40-watt bulb when in use. When it was not being used, the power consumption was halved, thus increasing its lifecycle.

Made of wood

Great effort was put into the design. The beautifully rounded shapes are a close reminder of an American car from that era.



Ericsson's first intercom from 1942, with soft, rounded design typical of the period.

The intercoms were made of wood and available in a variety of colors.

In one office, there was one or several master sets and a number of auxiliary sets. Up to 20 auxiliary sets could be called up from a master set.

The customers of the day liked to visit

Ericsson's famous exhibition at Södra Kungstornet in Stockholm, where the innovations were on display. It was also possible to call up "Ellem Kungstornet" to receive more information.

Thord Andersson

thord.andersson@ebc.ericsson.se

UPCOMING

Tuesday, Nov. 17– Saturday, Nov 21: Vietnam Telecom '98.

Wednesday, Nov 11: Follow-up on how far the new organization has progressed. Everything that is ready by this date will be functioning according to the new organization as of year-end.

UPDATES

Friday, Oct. 23: Nokia presented an outstanding nine-month interim report. Mobile phone sales have nearly doubled compared with the same period last year. Profits increased by more than 90 percent.

Monday, Oct. 26: Ericsson Research, a new corporate unit responsible for all research activities within Ericsson, was established.

NEW ASSIGNMENTS

Roberto Rosales has been appointed President of the newly established subsidiary, Ericsson del Paraguay S.A.

Conni Simonsen has been appointed the new President of Ericsson in Denmark, LM Ericsson A/S.

Conni Simonsen is currently Vice President of Systems Development at Ericsson in Denmark and was previously President of Ericsson Lietuva, Ericsson's subsidiary in Lithuania.

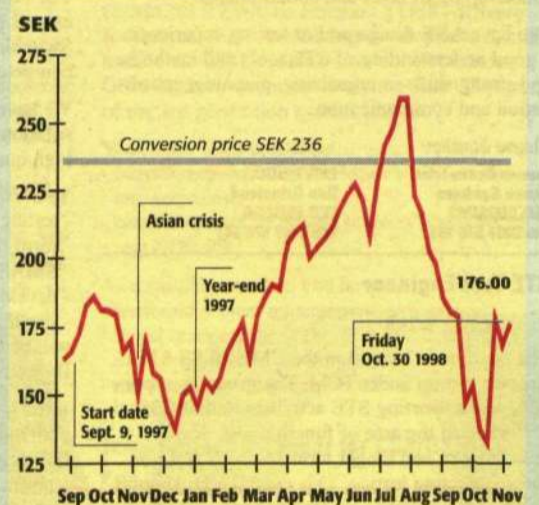


Conni Simonsen

Starting on November 1, Per-Arne Sandström assumed the position of Executive Vice President and General Manager of the Mobile Telephone Systems – GSM, NMT, TACS business unit.

He succeeds Mats Dahlin, who has been appointed Executive Vice President and General Manager of the Network Operators business segment.

THE ERICSSON B SHARE



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

