


contact

ERICSSON  PUBLICATION FOR EMPLOYEES WORLDWIDE

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Ragnar Arvidsson.

Photo: ROLAND HOLMBERG

Technology and music

Ragnar Arvidsson works with microwaves at the office and sound waves at home. The difference between his two interests is marginal. The physical phenomenon that creates the euphonic sounds of a recorder is not altogether different from the pulsation of a microwave. Ragnar Arvidsson has played the flute since he was a teenager, and he made his first flute in 1983. Today, a special flute bears his name. Mr. Arvidsson has worked for Ericsson since 1955.

Pages 10-11

Sponsorship requires strategy

A clearly defined strategy and fundamental philosophy has been established by Ericsson in Guildford concerning the general public's impression of corporate sponsorship activities.

"Sponsorship and support of various functions must not become a form of heart-wrenching charity. Ericsson should look to its commercial interests in all endeavors. And there's no reason to be ashamed of this approach," says Christopher Moseley of Ericsson in the UK, the man behind the company's new sponsorship strategy.

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Leader in integration

Ericsson has conducted business operations in the Republic of Ireland since 1957. Today, Ericsson Business Communications is a systems integration leader in the Emerald Isle, accounting for 40 percent of all integrated networks for telephony and data in the Irish market. Ericsson has five companies in Ireland.

Pages 12-13

Girls, you don't have to shout

GSM telephones have always been adapted to the fundamental tone qualities of male voices. But changes are now being made.

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 **TEXAS
INSTRUMENTS**

A huge panoply of sheet glass is the main architectural feature of the new headquarters building for Business Unit, Transport and Cable Networks, one of Infocom System four business units. Situated in a semi-rural corner of West Sussex, near the town of Horsham in the UK, but yet only minutes away from Britain's second busiest airport, Gatwick, the headquarters building's expanse of glass lends the imposing offices the air of a futuristic greenhouse, or perhaps a NASA bio-dome.

A spirit of entrepreneurship

That's not an inappropriate description," laughs Rory Buckley, head of the business unit. "After all, we intend to be growing a lot of business out of this particular building."

Rory's approval of the greenhouse metaphor extends to his thinking about the attitudes and practices he plans to see 'growing' out of Horsham. "It was my view when I was appointed head of Transport and Cable Networks that the organisation needed re-charging; moving headquarters location from Sweden to Horsham was a way of laying the foundations for a successful new start. However, the new team is operating in a field which is totally unlike what we have experienced with AXE. We have to operate in a radically different manner and I am therefore building a team based on entrepreneurial spirit, not traditional mindsets. I want people to question everything they do instead of just walking the same old Ericsson treadmills of supplying without 100% certainty of demand."

Airing some fundamental thoughts

One of the key challenges for Transport and Cable Networks is to create a highly expandable multi-media communications platform to meet an infinitely more demanding and sophisticated market in the next century. For Rory, this challenge means airing some fundamental thoughts on the scale of the burgeoning telecoms market and on how the business unit can anticipate requirements and exceed expectations.

"The global telecoms network has become the largest man-made machine of all time and we at Ericsson have a not inconsiderable share of the global telecoms business. The key challenge for this business unit is to lead Ericsson into the newer areas of telecoms business such as data conveyance which is growing rapidly with the Internet accelerating the trend by 400% growth per annum."

While the market for transport and cable networks is growing all the time, Rory points out that competition in this field is keener than ever and prices have been subject to pressure in recent years. Transport and Cable Networks ability to develop new products and supply them rapidly and cost-effectively are key factors to positioning Ericsson as a successful supplier of transport and cable network solutions.

Rory regards better communications with Ericsson's local subsidiaries as one of his most important assignments in the near future since he considers that this type of co-operation to be a salient feature of the business units future success. For example, a special department was recently established with a mandate to inform other Ericsson network-building units that they have much to win by exploiting the transport network



Since the beginning of the year, Rory Buckley has been in charge of Transport and Cable Networks in Horsham, Great Britain.

Photo: LENA WIDEGREN



Illustration: EBBA STRID

solutions achieved by the Infocom Systems business area. The ultimate aim of forging better partnerships with local companies is so we can jointly arrive at a better understanding of the markets.

"Personally, I will be doing a lot of travelling to establish personal contacts at some of our subsidiary companies. In addition, people from our unit will be working with these companies on short-term contracts in order to establish a natural form of co-operation which will facilitate co-ordination with local subsidiaries."

Transport and Cable Networks plans to strengthen its presence in markets where it already had a firm foothold, for example in the UK, China and Latin America, while making parallel investments in new potential markets, such as Thailand and Indonesia. Eastern Europe is another market where the business unit can see opportunities.

"Ericsson also has a good chance of being successful in mature markets such as the US and Western Europe. China, too, is promising in terms of deploying optical networking (DWDM, Dense Wavelength Division Multiplexing) technology," says Rory.

With 24-years' experience within Ericsson, Rory has amassed a bank of knowledge which will support him and his colleagues in the tough challenges ahead. He describes himself as creative, with a very direct personality. He also makes no apologies for being a "very demanding manager".

"Ericsson's presence in the SDH products market will increase from four per cent to 10 to 12 per cent within the next five years. I don't make this prediction lightly. I know what my team can produce and I am certain what positive things will grow out of Horsham," says Rory.

CHRIS MOSELEY AND LENA WIDEGREN

Read more about Horsham on page 6

Break-out profile

Ericsson has developed a range of technologies and systems, which allow telecom operators to build transport and access networks ready for the broadband revolution.

The Ericsson Transport Network Architecture (ETNA) includes all the transport network technologies: SDH (Synchronous Digital Hierarchy), PDH (Plesiosynchronous Digital Hierarchy) and DWDM (Dense Wavelength Division Multiplexing).

SDH is a transmission technology for transport networks which has been designed to increase network flexibility, make networks easier to control and monitor, and improve the operational reliability of the networks.

Wavelength division multiplexing plays a vital role in extending the life of optical fibre systems. It uses different wavelength of light to transport multiple independent optical signals, for instance a mixture of PDH and SDH bit-streams, on a single optical fibre.

In the cable networks area, Ericsson is targeting a group consisting of telecom operators interested in building up broadband access, and cable-TV operators planning to use their networks for telecom traffic.

The product portfolio includes RVS that provides the HFC infrastructure while ANx offers the different broadband services using RVS as the supporting framework.

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Industrial news

Success for Philips GSM model in Holland

Genie, Philips latest GSM model, is enjoying major success in the Netherlands. Genie is the world's lightest telephone and can be used for 360 hours before needing to be recharged. The model had been on the market for less than two weeks when Philips claimed that "thousands" of phones had been sold in the Netherlands. Dealers, the Bel Company, estimates that Genie ranks among the five most-sold telephones.

Germany's fourth digital network

German operator Viag Interkom has entered into a contract with Siemens, Nokia, Daimler-Benz and Northern Telecom regarding delivery of a fixed and mobile infrastructure. This deal, which is in preparation for construction of Germany's fourth digital mobile telephone network, is worth USD 532 million.

Just say the name in the new telephone service

PTT Telecom and Libertel are planning to start a new telephone service in the Netherlands this autumn. The new service requires only that the name of the party being sought is spoken into a mobile telephone and the operators' computers will handle the rest. Each subscriber will have the opportunity to feed-in up to 40 of their most-frequently called telephone numbers. According to Ericsson, it is possible to install a similar system in a fixed telephone network. PTT Telecom says that such a system will become available in the future. The Netherlands will be the first European country to offer this type of service.

Four giants in agreement

In a joint press statement, Alcatel, Ericsson, Nokia and Siemens say that they intend to work for a standardized wireless multimedia technology for high-speed transmissions based on GSM.

The four companies are in agreement that they should act as the driving force behind the development of a third-generation mobile telephone system in Europe based on an improved GSM network. The network has been designated Universal Mobile Telecommunications Systems (UMTS).

Nokia's CDMA telephone

Nokia introduced its first digital CDMA telephone, the Nokia 2180, in August. This model is part of the Nokia 2100 series and offers a call time of up to 210 minutes.

Lucent's new exchange system

Lucent Technologies recently announced the installation of the 100-millionth line for its digital advanced telecom services exchange. This means that 100 million telephone, fax or computer lines are now in service throughout the world via Lucent's SESS-2000 system. The line in question was installed recently in Qingdao in China, for Qingdao Post & Telecommunications Bureau, an operator handling a total of slightly more than 35,000 lines.

Extensive development of Gripen

At the end of June, Sweden's Defense Materiel Administration (DMA) and Industrigruppen JAS (the JAS industrial group) signed an agreement for the delivery of 64 new Gripen Series 3 aircraft. The agreement means continued production and development of the aircraft's radar, computers and display systems for Ericsson Microwave and its subsidiary, Ericsson Saab Avionics.

The Gripen Series 3 is scheduled for delivery between 2003 and 2007. Ericsson Microwave and the Aircraft Radar division, where the aircraft's radar and computers will be designed, will commence work directly following the summer.

A substantial amount of development and new design work must be undertaken, mainly because many of the components used in the first and second series have disappeared from the market, but also as a result of the Series 3 needing to be further developed and improved.

New computer

The computers for the Series 3 will be completely redesigned. The new computer, the Modular Airborne Computer System, or MACS, will be based on a PowerPC processor, which will give it ten times the performance of the aircraft's former generation of computer. Among other advantages, this means that the aircraft's landing functions can be built in to the systems computer instead of being located separately, as in earlier versions.

This improvement makes the aircraft less expensive and it can also be incorpo-

rated in those Series 2 aircraft which have not yet been delivered.

In future, it should be possible for the new Gripen to be used for international assignments. The further development of the radar system is to be prepared to meet the international Identification of Friend or Foe (IFF) standard, which will enable the new aircraft to participate in operations arranged by international defense organizations.

Displays in color

Ericsson Saab Avionics develops and produces the Gripen's cockpit displays, among other items. In Series 1 and 2, monochrome displays were used, but in Series 3, the equipment will enable colored displays to be used.

"Color displays provide opportunities for color coding the cockpit information," explains Kjell Ingvarsson, responsible for coordinating the Gripen project within Ericsson Saab Avionics in Kista. As a result, the pilot's work environment will be significantly improved.

The new technological solutions in the Series 3 aircraft are scheduled to have been verified and approved by the DMA by year-end 2001. The companies in Industrigruppen JAS have also reached agreement that the export version of the Gripen should be ready for delivery as of that date.

"The DMA's Series 3 order is extremely important in terms of possible export business," says Lars Karlén, President of the Aircraft Radar division at Ericsson Microwave. "Foreign purchasers will note that Swedish customers are satisfied and this will assure potential export customers that production of the Gripen will continue through to the year 2007."

NICLAS HENNINGSSON



At the end of June, Sweden's Defense Materiel Ad-

hello there!

What's it like having every day off?



Ulla Carlberger, pensioner as of July 1. For twenty years Ms. Carlberger has been involved in preparatory courses for Ericsson employees on international assignments. The job has made her one of the company's most seasoned travelers.

"My job has been so much fun!" says Ms. Carlberger, who joined the company in conjunction with the mammoth AXE order for Saudi Arabia that came in 1977. Suddenly, two to three hundred contracted employees had to be dispatched to Saudi in short order, and Ms. Carlberger was engaged to take charge of training the employees to prepare them for living in the new country.

From that point on, things just kept rolling. Over the years, the need for courses and information from the department for international assignments grew as Ericsson's order bookings increased.

"Today, we have some 3,000 Ericsson employees on international assignments, in 83 countries. That's just counting those who are away more than a year," says Ms. Carlberger. "On the average, the department runs two to three courses a month."

Providing background information

Pensions, taxes and salaries – "the heavy stuff," as Ms. Carlberger calls it – are not her province. Her subjects have to do with providing background information about the country's culture, as well as school and family questions.

"If the employees' life in the new country is going to work, it is essential that the accompanying spouse and children adjust well. My goal with the courses has been to inspire and at the same time prepare them mentally for the new situation. In some countries, employees can experience severe culture shock and there's no avoiding the fact that you spend a certain period adapting to the new circumstances."

Ms. Carlberger's job has led her to visit all of Ericsson's major market regions, often several times. She has started up five Ericsson schools in different parts of the world. The last one before retirement was the school at Crawley in the UK – for the children of the Ericsson employees who transferred from Stockholm to Horsham this past spring.

"During my twenty years in the firm I have made the acquaintance of all kinds of people and cultures. Some families I've run into several times in several countries – because, if you've worked on international assignment once, you usually end up doing it several times," she explains.

Her favorite country is Saudi Arabia, and she's revisited the country many times.

"There's no doubt I will miss my work at Ericsson, which has been enormously stimulating. However, the fact is, I'm ready for a slower pace now. Being together with my husband and grandchildren and putting in the garden. I'm really looking forward to waking up to the meowing of our 19-year-old cat, 'Oskar Vilhelm the Phantom,' instead of the alarm clock."

LENA WIDEGREN

Thriftest travelers at Ericsson Components

Ericsson employees in the Stockholm region travel for more than SEK 500 million annually. Efforts to hold down costs include regular evaluations of the travel costs of the various Ericsson companies. The evaluations show, again and again, that the employees of Ericsson Components are best at traveling inexpensively.

About a quarter of Ericsson's employees are stationed in the Stockholm region. Every year these people buy tickets for SEK 500 million – a figure that would be much greater if it were not for the cost-effectiveness that has been achieved, through, for example, advantageous contracts with a number of travel companies.

During the past few years, travel studies have been carried out regularly in Stockholm.

Why?

The travel supplier's performance and the savings reported by the various Ericsson companies has been evaluated and the savings reported by the various Ericsson companies have also been evaluated. Study after study yields the same result: Ericsson Components employees are the best when it comes to traveling cheaply.



Ericsson employees in the Stockholm region travel for more than SEK 500 million annually.

Photo: NILS SUNDSTRÖM

Lars Rydberg is personnel manager at Ericsson Components. He's pleased about the company's record of cost-effective travel, but he cannot explain why it is.

"I really don't know why our travel costs are so low. We haven't had any conscious focus on cutting costs. As an educated guess, maybe it has to do with our operations."

Mr. Rydberg believes that Ericsson

Components' role as subcontractor has created an awareness among the employees of the importance of keeping costs down. A subcontractor must continually review its own costs, he points out. Ericsson Components' operations have created a corporate culture in which it is normal to look for the cheapest way of doing things.

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development of Gripen

ministration (DMA) and Industrigruppen JAS signed an agreement for the delivery of 64 new Gripen Series 3 aircraft.

New version of Ericsson inside

The top page of the Company's intranet – "Inside Ericsson" – has been redone. The new version was launched early in the summer with the intention being that the new "Inside" would be a functional, useful working tool and continually updated.

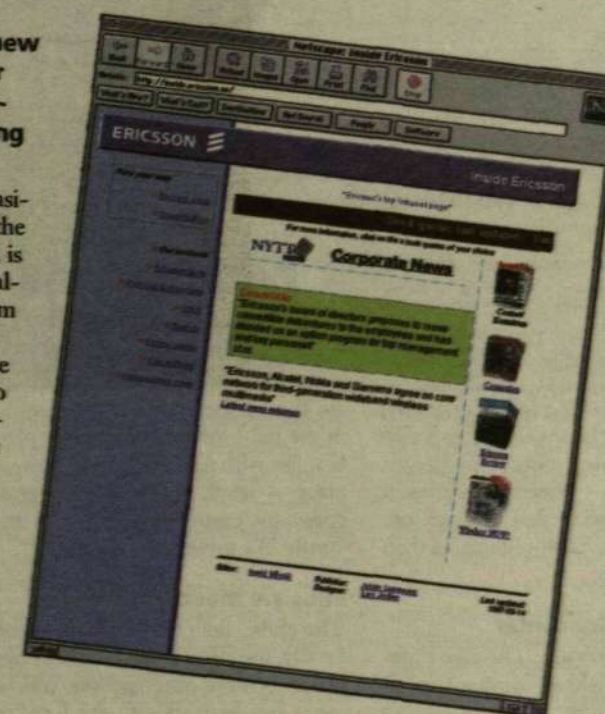
The previous edition of "Ericsson Inside" was basically merely a list of links to useful addresses on the company's intranet. The new "Inside", however, is intended to be a living product, which is continually updated. Among other things there is news from internal and external news agencies.

"The idea is to make Inside a page people come back to regularly," explains Johan Ljungqvist, who is in charge of the Company's internal information. "We want the page to be a useful tool for the Company's employees."

Steering the information flow

The users of the new Inside have the opportunity of steering the information flow on the page by preparing a personal profile that is linked to their user ID. The first time they log in, they can indicate the kind of news and information they're interested in, and the system then presents a selection in accordance with the profile. News items are retrieved from news sources such as "Corporate News" and from the Internet home pages of the Swedish dailies Aftonbladet and Dagens Nyheter. For some time now Contact and other company publications have also been mounted on "Inside."

"Working on the new edition of "Inside" has been a way for us at the parent company to catch up to the intranet development carried out by the various busi-



The idea is to make "Inside" a page people come back to regularly.

ness areas," Mr. Ljungqvist explains. "Everything we've done so far is no more than a first step. The next phase of the work will be getting employees to be better at spreading information via the network."

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Common everyday routines at home suddenly become more problematical in a foreign country. Just consider a seemingly simple task like ordering a new telephone number, or subscribing to a newspaper, or garbage collection services. It also takes time to get to know new people. Despite all this, the Mårdh family decided to leave the security of life in Sweden when Johan was offered a new job in Horsham, England.

A new home in Horsham

T

he positive and exciting sides of working abroad outweigh the problems, but it is difficult to develop an entirely new social life in new surroundings," says

Johan Mårdh. As manager of a unit in Horsham responsible for system infrastructures (solutions for such technical areas as electrical environments, heating and cooling techniques that affect all products), Johan Mårdh works with all SDH products. His own work environment, with office landscape features, creates close working relations with his colleagues and facilitates the type of work they perform.

Easy to establish contacts

"Decision-making procedures are shorter and it's easy to establish informal relations with my fellow workers. There is a more relaxed atmosphere at the office, compared with many other places," Mr. Mårdh continues. "Of course, your own personality is an important factor in working with a large number of people almost all the time. Some people want office doors they can close, and this work environment would probably not suit their personalities. But it's also something you can get used to eventually."

Nearly 70 percent of Johan Mårdh's fellow employees in the Broadlands are Swedes. Management expects the percentage to remain unchanged for at least a few more years, while local employees become more familiar with the operations and business starts to pick up. As a result, more than 100 persons have bid a temporary farewell to Sweden and started a new life in England. Some have chosen to commute on a weekly basis between the two countries for the time being, but most of them have moved to England and established residency.

A big step

A big step for some, especially those with families and small children. Johan and Lena Mårdh, with their two children, Marcus and Johanna, rent a house in central Horsham.

"For the children's sake, we chose an area within walking distance to the school bus that transports them to the Swedish School in Crawley, which was established by Ericsson and school authorities in Sweden. Many other Swedes have done



Mårdhs' estate. Lena and Johan, with children Marcus and Johanna, did not have to spend much time looking for a new home in Horsham. The Ericsson office, Broadlands, is only a few kilometers away and the children have only a short walk to the bus that takes them to the Swedish school in Crawley.

Photo: LENA WIDEGREN

the same thing, choosing to live centrally, while others have chosen something closer to nature, leasing houses in neighboring villages. Several Ericsson employees have also settled in Brighton, which is more of a metropolitan area than little Horsham.

Flourishing service center

But Horsham is growing. The city is described as a flourishing service center, largely because of Sun Alliance, one of the largest insurance companies in Europe, which has its head office in Horsham. Sun Alliance employs 4,000 of the city's 42,000 inhabitants. And now Ericsson has found its way to the thriving township.

"We immediately liked the peace and quiet that characterizes Horsham, although there could be more recreational activities for young people," says Lena Mårdh. "I don't think there's even a mo-

vie theater here, and many people meet in the pubs for lack of a better place. For families with small children, however, the place is ideal. There are several sport clubs, for example, which suits an active family like mine."

Pubs are meeting places

The clubs, the children's school and, naturally, the pubs offer excellent opportunities to meet other people and become more familiarized with the local culture. Lena Mårdh was granted a leave of absence from her job and plans to attend university or college courses, another source of new friendships and social contact.

"Of course, I miss my friends in Stockholm, but they can always come and visit us here in England. We also see a lot of other Ericsson employees, exchanging various experiences and information," she continues.

Marcus and Johanna do not like having to wear school uniforms and are struggling to stay in touch with their friends in Sweden by writing letters. They certainly don't want to be forgotten by their old pals while they're away from home. And there probably won't be too many trips back and forth to Sweden.

"No, we've accepted the fact that we're going to be away for a while, we might even be here over Christmas. We've decided to make the best of the situation and adapt to our new surroundings."

LENA WIDEGREN

Read more about Horsham on page 3

Ericsson to open factory in Brazil

Brazil is a future major market for digital mobile telephony. Ericsson plans to start local production of D-AMPS 884 radio base stations in Brazil in early 1998. This will provide several competitive advantages.

Mobile telephony in Brazil is now in the process of modernization and privatization. Telebras, the Brazilian government telecom company, is digitizing its mobile networks on the analog AMPS system's A-band, and the country's B-band is being opened up to private operators.

International consortiums are tendering bids totaling billions to win the highly desirable licenses – and they are expected to choose telecom equipment made in Brazil. New import laws, in fact, provide local production companies with substantial tax relief and customs duty exemptions. The legislation was enacted by the Brazilian government to offset the nation's trade deficit.

Competitive conditions

"If we want to remain successful in Brazil and compete in this huge market, it is imperative that we establish local production operations. With the country's new legislation, scheduled

to take effect this autumn, continued imports of telecom equipment would create a very sharp increase in costs and, eventually, we would have been priced out of the market," explains Johan Jemdahl, project manager of Ericsson's new program of focus on Brazil started by the Business Unit Cellular Systems American standards.

Full capacity

The new production operations will be situated as part of Ericsson's existing plant in Sao José dos Campos, about 100 kilometers from Sao Paulo, where the Company now manufactures mobile telephones and switches. Most of the Brazilian market's volume for 884 radio base stations will be produced in the new plant.

"At full capacity, the new plant will account for about 20 percent of the business unit's total production of 884 radio base stations, with local production focused mainly on CRI and TCB racks and constituent components. Roughly 70 people will be involved. Ericsson plans to subcontract circuit board production and concentrate almost exclusively on assembly operations at the new plant. Negotiations concerning circuit board subcontracting have already been started with

an international manufacturer," says Mr. Jemdahl, who says deliveries from the new plant will start during the first quarter of 1998.

More subscribers

Ericsson is Brazil's largest supplier of mobile systems. The country has 2.9 million mobile subscribers, all of whom are connected to the AMPS analog mobile system.

"Privatization of the B-band will create tremendous growth in the country's mobile telephone market. By year-end 1998, Brazil's telecommunications authority estimates there will be 8.2 million mobile telephone subscribers," says Kenneth Carlsson, area manager of the Brazilian market for the American standards business unit.

Purchase bids for licenses on the B-band encompass 10 areas, and all new licenses are expected to be issued by the end of December. Bids for one of the three largest areas were finalized recently, and the license was awarded to a consortium that includes Telia Overseas, a subsidiary of the Swedish telecom company Telia. The winning license bid totaled SEK 9.8 billion. The system supplier for the area has not yet been chosen. Vicunha Telecomunicacoes, a



Ericsson will start local production of D-AMPS 884 radio base stations in Brazil in early 1998. The plant will be situated in Sao José dos Campos, about 100 kilometers from Sao Paulo.

Photo: LARS ÅSTRÖM

consortium licensed to operate in the Brazilian state of Bahia, however, has already chosen

Ericsson's D-AMPS IS136 system.

NILS SUNDSTRÖM

Sponsoring requires a professed strategy

Ericsson's sponsoring activities in Guildford, the UK have been put into a single context and are now governed by a defined strategy. As an international company, Ericsson should act locally as a good corporate citizen. This is the concept behind the new strategy and sponsoring program introduced in June. It encompasses everything from ice rink advertisements to summer-holiday activities for young people.

"Sponsoring should not be heart-warming charity which gives the donor a clear conscience and a good night's sleep. Ericsson must have a commercial interest in everything we do. This is not something we need to be ashamed of," says Chris Moseley, who has developed the strategy specifying how Ericsson in Guildford should use its sponsorship budget.

There are currently more than 1,000 people employed at Ericsson in Guildford, which is southwest of London. This makes Ericsson the second largest employer in the area, after the university.

"Eight years ago, there were only 50 employees here at Ericsson. We have grown rapidly and have now reached a size that requires us to consider how we want to interact with the local community and its perception of us, and the

type of image we have," says Chris Moseley.

In Guildford, Ericsson is still supporting a variety of activities through sponsoring, but there is a collective strategy behind this support. Sponsorship includes cooperation with the Spectrum Leisure Complex, a large local sports and leisure center, in which Ericsson supports various youth program projects.

Treasure hunt

"We have supported a treasure hunt for children during the summer holiday. The children use IT equipment such as computers, modems, and mobile telephones to obtain clues via the Internet that ultimately lead them to the treasure. This is a good example of how Ericsson can create interest in and knowledge about the company and our products, while at the same time providing a meaningful leisure activity for the children in Guildford," says Chris Moseley.

There are also activities for older youngsters. "One example," Chris Moseley continues, "is the popular ice disco evenings arranged by Spectrum. Ericsson has donated funds so that well-known DJs can be brought in. Ericsson commercials are shown along with music videos on large screens around the rink. The discotheque evenings are very well attended and give us an opportunity

to gain exposure with potential customers."

A slightly more unusual form of sponsoring and community involvement is cooperation with the local YMCA. Ericsson provides telephone training for unemployed young people who are learning how to apply for jobs. "It simply entails learning how to present oneself on the telephone and make a good first impression."

There is a difference between charity, sponsoring and "corporate citizenship." Charity gives nothing in return, whereas sponsoring is a clear-cut business agreement between two parties, of which both benefit. Ericsson's corporate citizenship activities are of a relatively long-term nature, where Ericsson becomes involved in the local community, including a commitment on the part of its employees as well. This is more than a question of financial support.

The initiatives in Guildford entail both sponsoring and the idea that Ericsson should be a good corporate citizen. The distinction is not always clear, but in both cases, the strategy is important.

Sponsoring as advertising

Sponsoring is now a very well-established form of advertising and it is no longer sufficient to simply throw money into projects that sound nice.

"We receive hundreds of calls asking



In addition to advertising at the ice rink, Ericsson in Guildford sponsors a local figure-skating hopeful, Natasha Snedden, seen here with David Colbeck, Managing Director of the Cellular Systems and Mobile Phones Division in the UK.

us to sponsor all kinds of things. That made me aware of the need to develop a strategy for our sponsorship activities," says Chris Moseley.

PATRIK LINDÉN

Footnote: You can find Ericsson's company-wide sponsoring policy at the intranet address: <http://www.lme.ericsson.se/LMER/corp-dir/policy.htm>

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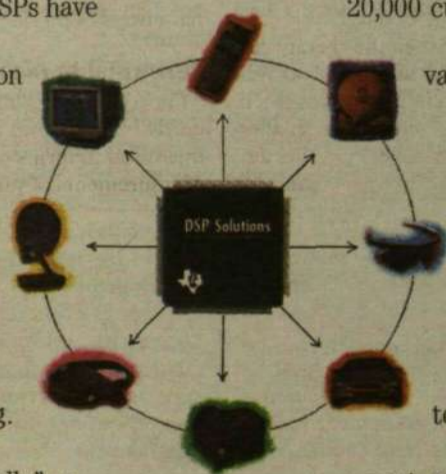
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 **TEXAS
INSTRUMENTS**

Women no longer have to raise their voices



BARD

In a few months, Swedish men and women will be able to buy politically correct mobile telephones, totally devoid of sexual discrimination. Until now, almost all mobile telephones have been adapted primarily to men's voices. The average male voice has a fundamental tone in the frequency range of 100-120 hertz, or cycles per second, compared with a corresponding tone in the range of 200-250 hertz for the average female voice.

One part of the GSM coder only reaches up to 200 hertz. Experience has shown that females can speak and be heard on mobile telephones without any major problems. Even the lighter tones of children's voices are usually transmitted, but men's voices are heard best.

How did this happen? Are female voices more difficult to code? Or is this another case of traditional norms, whereby men set the standards and technology is adapted to their needs?

The answer to both hypothetical questions is yes.

Higher and lighter

"Women's higher and lighter voices have higher fundamental tone frequencies that, in turn, require more finely distributed signals than the rougher, darker tones of male voices. It's easier to customize a voice code for male voice tones," explains Hans Harrysson, manager of the Audio and Visual Technology Research unit within the Mobile Systems business area and a member of the small

elite Swedish group of about 25 persons working with speech coding. The unit works as part of the business area's core unit for research, accepting assignments for all business units, and is based on three subdivisions: speech coding, echo cancellation and image coding.

The difference between the average female and male voices is about one octave, due to physical differences in their speech organs. Female vocal cords are smaller and their speaking-tube is shorter. Children, naturally, have the shortest speaking-tubes, and their voices require frequencies up to 500 hertz.

Cheaper

"When the first GSM coder was developed in the mid-1980s, silicon technologies were not as sophisticated as today's, and it was essential that batteries lasted as long as possible. Mobile telephones used large amounts of power in those days. It's much cheaper today. The original objective, accordingly, was to combine acceptable voice quality and limited complexity with low power consumption and low prices," Mr. Harrysson continues.

Systems used in the mid-1980s were developed primarily for businessmen who spent large amounts of time in their cars, persons whose need was covered by vehicle-mounted terminals. Mobile telephones for the yuppie generation were in their infancy, and today's mobile telephones, designed for the pockets and pocketbooks of all categories of men and women, were still very much a product of the future.

The original intentions were not based on catering to the needs on men only, not when the entire stage was developed, al-

though that's exactly what happened. Test results provided acceptable performance levels for both men and women in the test group, but transmissions of women's voices maintained lower sound quality levels and, in fact, men were the dominant users of mobile telephones.

Performance measurements

"The differences in performance standards for male and female voices can be measured in terms of entire populations. Measurements of various individual voices, however, often show greater differences between two male voices, compared with one male and one female voice," Hans Harrysson says.

All of this will soon be history, however. The new EFR standard will create sexual quality in mobile telephony, improving the sound quality of all types of voices, although the lighter tones of children's voices still remain outside the frequency. EFR (Enhanced Full Rate Speech Codec) not only creates sexual equality in terms of voice levels, the new standard will also improve sound quality in general, improving transmissions of all voices, even under noisy background conditions.

New speech coders

The new GSM-EFR coder is already being used in the U.S. No operators in Europe have implemented the new coders yet, but it's only a matter of time.

"The coder will be available in shops and stores before the end of this year," Mr. Harrysson predicts.

In order to gain access to the new sound quality, consumers will have to buy new telephones equipped with double speech coders to accommodate both sys-

tems. Although the new coders require more memory, their space requirements will not be any greater.

"The systems will almost certainly be operated in parallel for the next several years. The old telephones will continue to function normally."

Research cooperation

Mobile telephony is dependent on speech coding; speech coding, in turn, is dependent on speech code research. Ericsson's R&D speech coding personnel also cooperate closely with the Royal Institute of Technology in Stockholm and Chalmers in Gothenburg.

"In the long-term perspective, our research work encompasses perception research, a concept that presents our greatest difficulties today. There are no methods available to measure how sounds are interpreted by the olfactory organ - our sense of hearing. We are never able to determine in advance if a certain type of voice will function satisfactorily or poorly, how it will sound to our ears," continues Hans Harrysson.

Voice favorites

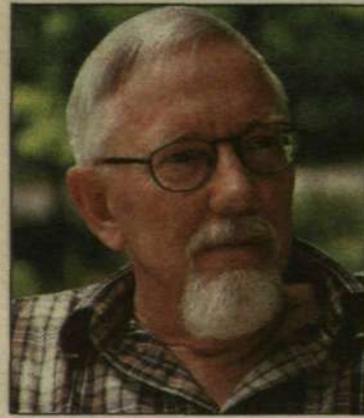
A person who has worked as intensively as Hans Harrysson in studying the human voice must have certain "pet voices," special favorites developed through the years.

"Well, let's see. I like listening to voices that sound pleasant, are easy to understand and well-articulated. Margareta Jalkéus of The Real Group is one of my favorite popular artists. Jussi Björling, of course, had a very unusual, almost unique, voice and Gösta Winberg also sounds good," according to Mr. Harrysson.

AGNETA LINDBLOM HULTHÉN

Telephone coders are now being adapted to serve the qualities of female voices. Past frequencies were adapted primarily to accommodate male voices.

Illustration: MAGNUS BARD



Music and technology have run a parallel course throughout his life. There is little to choose between these two major interests. The physical phenomenon that creates such a beautiful sound in a wooden flute is not entirely unlike the modulation of pulsed microwaves. After years of making recorders, Ragnar Arvidsson has now created a new instrument, a flute with its own distinctive sound, which bears his own name.

Ragnar blends technology with music

Throughout history, musical instruments have borne the name of the master craftsmen who have created them. Examples of woodwind instruments include the Denner and the Stanesby. Naturally enough, Ragnar's own new flute is called the Arvidsson.

"I started playing the flute when I entered my teens. I was given one by my father, a little gadget made of plastic. The next step was a recorder and eventually a clarinet," relates Ragnar.

And eventually, he also joined Ericsson.

"Where I worked for ages," he says.

More precisely, from July 1, 1955.

After a year in Stockholm, Ragnar moved to Gothenburg where he took of absence to continue his education at Chalmers Institute of Technology. During his time there, he played the clarinet in the Akademiska Kapellet, a sym-

phony orchestra comprising amateur musicians from within the university world.

"We gave many performances and had to borrow musicians from other symphony orchestras when vacancies occurred, or when we needed reinforcements in certain sections. The special strains of the Akademiska Kapellet have been heard in connection with the conferring of countless doctor's degrees," remembers Ragnar proudly.

In Stockholm, he had started to work with time-multiplex telephony. During his initial time in Mölndal, he worked on the development of transistors, at that time an innovation, and later with automatic test equipment for Viggen aircraft. In this latter area, he was able to put his knowledge from the radar school in Kviaberg to good use.

He also participated in the development of the first computer system for Skandinaviska Enskilda Banken (S-E-Banken) in the 1960s and his career continued with control systems for the paper industry, also a pioneering operation at the time.

"The outcome of the projects we accepted were impossible to predict, but we were successful both commercially and technically," related Ragnar.

His subsequent work included the encryption of voice communication:

"We developed communications systems for Sweden's National Police Board. In fact, we scored a first again in this field. Much of the technology developed then can be found in today's mobile telephony.

Discovered older music

During these years, his main instrument was the clarinet, but in the mid-1960s, the recorder came back to mind and began to take up more of his time.

"My interest was aroused and grew as I discovered the music of older composers. I became very influenced by Frans Brüggen and began to wonder how such music sounded when played on the instruments of that era. This led me to experiment with various different playing styles," says Ragnar.

"Paradoxically, the baroque music played 300-400 years ago has developed incredibly in recent years. My personal preference is for the works from the period 1600-1760, the '70s and renaissance music," he continues.

At the end of the 1970s, Ragnar Arvidsson formed the Kungsstens' ensemble, comprising a baroque oboe, a recorder, cello, cembalo, or harpsichord, violin and singers. During the next 15 years, the ensemble gave concert performances in churches and other venues.

A flute out of bamboo

He worked as a design engineer up until 1969, when he was promoted to group manager. In the mid-1970s, he resumed his links with radar operations, becoming a section manager in 1977, a deputy departmental manager in the mid-1980s and Technology Specialist in radar signal processing as of 1988.

"I have enjoyed myself immensely during all these years, tackling new problems, opening up new paths, and taking pleasure from the opportunities to make new discoveries. Management has also been an enjoyable experience, but exhausting. The same issues keep recurring. It easily become routine. I never tired of working with people, particularly on the personnel recruitment front, but I did miss the technical side," notes Ragnar.

Although the seed had been planted for many years, he first started making flutes in a more organized manner at the beginning of the 1980s:

"I made a transverse flute out of bamboo when I was just a lad, so the germ of an idea has always been there. My brother Mats is a leading organ builder. The interest in arts and crafts must run in the family.

"I discovered that hand-crafted instruments existed and immediately became interested. When I had a problem with a recorder I was playing, I began to fool around with it myself. I realized that it would be possible to repair or produce these instruments myself and decided to have a go."

Although Ragnar Arvidsson counts on each flute taking about 30 working

A high threshold had to be crossed, the tools were expensive, if in fact they could be bought at all, and Ragnar had to teach himself such new crafts as turning and forging from scratch. In the end, he was forced to produce many of the tools needed, himself.

Flutes are constructed out of fine woods. Today, Ragnar uses only boxwood, which he obtains from a supplier in Hamburg, Germany. And even then, he doesn't use any old boxwood raw material. The wood has to cut from a tree that is at least a couple of hundred years old.

High-precision

Flute making is a high-precision occupation, especially when a 2.5 octave tone scale has to correspond minutely to some 30 different tones.

"I have proceeded by trial and error, learning from my mistakes. I completed my first playable flute in autumn 1983.

Although Ragnar Arvidsson counts on each flute taking about 30 working hours to produce, it takes a lot longer to complete the final product. The wood has to be immersed in paraffin and is then



soaked for some time in linseed oil. Since wood is a living material, the various component parts need to rest between each process. Furthermore, different tools are needed to produce each new type of flute, so Ragnar must first plan them and then manufacture them.

"The distance from the labium, or lip, of the flute to the upper edge of the wind channel requires an accuracy of a couple of hundredths of a millimeter. To maintain such precision, a very special machine is needed," says Ragnar.

The Arvidsson flute was presented at the Royal Swedish Academy of Music last autumn. Flutist Kerstin Frödin played her examination piece on the new instrument. During August this year, the Arvidsson flute could be heard at several concerts and musical events. At the beginning of September it will make its international debut at the Baroque Musical Week in Utrecht, in the Netherlands. Ragnar Arvidsson has pioneered new trails in the fields of music and technology.

AGNETA LINDBLOM HULTHÉN

The unique flute which Ragnar Arvidsson has designed has qualities that are linked to renaissance and baroque woodwind instruments. It has a range similar to a baroque flute, but with the darker, stronger tone of a renaissance flute.

The Arvidsson flute was presented at the Royal Swedish Academy of Music last autumn. Flutist Kerstin Frödin played her examination piece on the new instrument. During August this year, the Arvidsson flute could be heard at several concerts and musical events. At the beginning of September it will make its international debut at the Baroque Musical Week in Utrecht, in the Netherlands. Ragnar Arvidsson has pioneered new trails in the fields of music and technology.

AGNETA LINDBLOM HULTHÉN

Footnote: Frans Brüggen, born in the mid-1930s, is a Dutch conductor, music teacher and recorder player. He specializes in advising how music was played in the 17th and 18th centuries. In his capacity as a musician, producer and, today, particularly as a conductor, Brüggen works as an advisor in the area of flute production.



The distance from the labium, or lip, of the flute to the upper edge of the wind channel requires an accuracy of a couple of hundredths of a millimeter. To maintain such precision, a very special machine is needed.

diary

With Sweden's King and Queen in Japan



Lillian Andersdotter Larsson works with Configuration Management in the MDE Division of Base Stations at Ericsson Microwave in Mölndal. Lillian and Anna-Karin Petersén, a colleague from Mölndal, were in Japan recently to teach Ericsson's document standards and communications flow to employees of the Japanese subsidiary.

Wednesday
13
August

Wednesday Arrived at the office at 9:00 a.m. Anna-Karin and I are visiting Nippon Ericsson KK in Tokyo.

We're here to teach the employees of Ericsson's subsidiary in Japan about how we operate and show them various opportunities we use to communicate with each other. There was some major concern over how we would be accepted, if the students would listen to what we said and learn what we tried to teach them, but all our fears were gone after only a few minutes at the office. Everybody we met was extremely polite and friendly.

We had to laugh about what I did on the first day. I curtsy when I'm introduced to people (I don't think anybody in Japan had ever seen a human being curtsy) and, later, I stopped every car on a very crowded street when I pushed a button to accommodate vision-impaired pedestrians. A light went on and the machine played a melody.

Yukiko and Reiko joined us for a dinner of Japanese delicacies.

Thursday The course started today. Everything seemed to work fine, but the conference room is small and got quite warm. Three of our 11 students are inquisitive and interrupted us several times. Good! More questions were asked after the break. And we were worried that we might not be asked any questions!

Lunch. We sat on the floor for the first time, no problem with the short skirt I was wearing. We ate yakitori, a grilled chicken dish that was delicious.

Friday We conducted a workshop for the first time. The results were better than expected. Many of the partici-

pants make it difficult for us to cover the amount of material we had planned to review. It's also difficult to help them all at once, but most of them are very happy to receive information that was only available in fax messages from Mölndal before our visit.

Lunch with Reiko. We had tankatu, deep-fried meat served with rice, another very popular Japanese dish.

The days go by very quickly. We didn't leave the office until 8:00 PM and stopped at the Hard Rock Cafe on the way home.

Monday Today was the second day of theoretical instruction. We had 16 students again. We had a slightly larger conference room, and it wasn't as warm as last week. Other types of questions make it difficult for us to cover the entire agenda, but after a full day in the classroom we all went out to dinner.

At home in Sweden, we eat one dish but here they order several different entrees and everybody has a little from each one. It's really very nice!

Tuesday Workshop for the second time. We started a little later than planned so we could watch the visit by Sweden's King and Queen to Ericsson in Japan. Many of the Japanese employees were delighted to see our royal couple.

We experienced some problems logging on to GASK (a corporate computer system), but everything else functioned very smoothly again today.

By a stroke of good fortune, we placed our terminals during the previous workshop in a large room. Good thing, because next month it will serve as the workplace for 40 persons.

Ericsson is one of the leading systems integrators on the Emerald Isle. In the large and medium-size customer segment, Ericsson Business Communications has a market share of 40 percent in integrated telephony and data networks.

Ericsson – the leader in Ireland

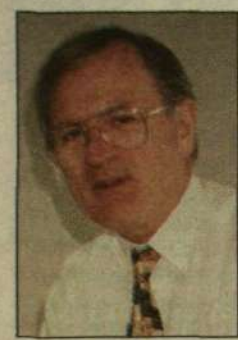
Ericsson Business Communications, located in the southern Dublin suburb of Clonskeagh, is the smallest of five Ericsson companies in Ireland with 66 employees. The company has ten people working with sales and roughly as many in administrative and finance functions. The rest are technical specialists and systems integrators, about ten of whom have a background in the computer industry. Their unique know-how is perhaps Ericsson Business Communications' most important asset, according to the company's manager, John Kennedy.

"One of the most important factors underlying our success is that we have a relatively high level of competence in the computer field. It's essential that Ericsson's representatives speak the right "language" when meeting customers, and in this case, IT is as important a medium as voice."

Business sense a must

John Kennedy himself claims that he is not an expert in any particular area. He is essentially a salesman and enjoys that particular aspect of the job.

"A leader needs to be a businessman. We do what we do in order to gain market share, generate business and create added value for Ericsson's shareholders.



John Kennedy, manager at Ericsson Business Communications in Ireland.

As a manager, you can't forget that. Regardless of whether your field is engineering, finance or sales from the beginning, you need to have a good head for business," he asserts.

Ericsson Business Communications in Ireland was established in

Facts about Ireland

Form of government: republic
Area: 70,283 km²
Capital: Dublin (Pop. of "Greater Dublin," 1.1 million in 1994)
Highest mountain: Carratuohill (1,040 m)
Longest river: Shannon (370 km)
Population: 3.6 million (1996 estimate)
Pop. density: 51/km²
Natural pop. growth: 0.5% (1994)
Reading and writing ability: 99%
Ethnic groups: almost entirely Irish; British minority
Languages: English and Gaelic
Religion: 92% Roman Catholic; 2.9% Protestant, of which 2.3% Anglican; 5.1% other
GDP/person: USD 14,592 (1994)
GDP by industry: agriculture 8%; industry 37%; service and misc. 55% (1994)
Natural resources: zinc, lead, peat, natural gas
Main export products: chemical products, computer equipment, machinery, live animals, agricultural products
Currency: 1 Irish pound (IRL) = 100 pence = SEK 11.5 (Jan. 1997)
Membership in international organizations: European Council, EU, UN, IMF, OECD, OSSE, WTO

■ **Source:** "Countries in pocket format", No. 410, on the theme of Ireland. Published Spring 1997.

the early 1980s, when Ericsson forged into the world of PCs and computers. Even though this move was not right for the company at the time, its legacy lives on in the form of the key competence found in the company today.

During the latter part of the 1980s, there was heavy concentration on sales of MD 110, while datacom operations were put on the back burner. However, the da-

ta switch, Eripax, quickly became a best-seller. In the early 1990s, integrated solutions for voice and data were offered, containing building blocks such as MD110 and Eripax, as well as diverse products from suppliers like NET and Cisco.

Major IT expansion

The avid interest in IT among the Irish goes hand-in-hand with IT companies' desire to establish operations in the country. Microsoft, Intel, Hewlett-Packard, Dell, Gateway and many others have already found their way to Ireland.

"They have driven the IT revolution," says John Kennedy. "Customers' need for new technology propels our business. Banks, insurance companies, government agencies and other medium-sized to large organizations want integrated solutions and expect us to be able to deliver them."

The many customers includes the Irish Post and its subsidiary, service provider Post GEM; Electricity Supply Board; a national transportation company for both bus and railway; and banks and insurance companies, such as Hibernian Insurance and Irish Life – the latter of

which has one of the largest Call Centers with a CTI function delivered by Ericsson. Ericsson Business Communications also handles major global customers with operations in Ireland, such as Procter & Gamble, Rank Xerox and DHL.

Value-added services

There is a historical reason for Ericsson's focusing heavily and successfully in the niche for large corporate customers, while down-playing the multitudes of smaller corporate customers. John Kennedy explains that the Irish private telecom market was deregulated as early as 1955 – possibly a world record.

"Players from all over the world – Japan, the Far East and Europe – have been battling for customers for a long time. The price pressure is enormous and it's difficult for a supplier such as Ericsson to obtain any margins through pure volume sales. Our strength lies instead in value-added services and integrated solutions."

All ammunition is needed to maintain market position. For a long time, Ericsson was the only company venturing into the computer industry from a traditional telecom perspective. However, other

well-known competitors, such as Northern Telecom, Siemens and Alcatel are starting to follow suit. In the Call Center area, companies such as Lucent, Rockwell and Aspect have also joined in the game.

An objective that is being realized is developing the customer base with mobility as an added solution. John Kennedy relates that the demand for DECT solutions is now beginning to gain a foothold after a slow start.

"Executive briefings" invaluable

"Our problem now is that our market is too small. There are about 400 larger organizations, of which 80 or so are very large. Each year, we select at least one customer that we know is planning new investments, and concentrate on active marketing efforts."

According to John, this approach is successful. When the potential customer meets Ericsson face to face and is presented with Ericsson's services, it usually leads to further contacts and often to a deal.

In this context, John praises the customer seminars, or Executive Briefings, regularly held by Ericsson in Sweden. Ericsson Business Communications usually

invites its best customers and important potential ones.

"These trips are among our best selling points and a vital link in our selling process. There have been cases in which we were third in the bid for a new contract before one of these Executive Briefings, and then sailed up into first place after the customer's visit to Sweden. By meeting Ericsson on its home turf, the customer can form a picture of our total capacity we possess as a global company. The customer usually leaves Sweden with a good feeling about Ericsson."

John Kennedy is a man who obviously enjoys his job. Working in the telecom and computer industry was not a clear choice for him from the beginning, but now he wouldn't consider making a change.

"The industry is changing all the time. You face new challenges every day," he says. "In this business, things happen quickly and it's a question of taking advantage of emerging possibilities."

This is precisely what Ericsson Business Communications has done successfully and they are continuing their pursuit of excellence.

KARI MALMSTRÖM



Photo: PRESENS BILD

First transaction in 1957

Ericsson first started doing business in Ireland in 1957, with the sale of a PBX in the city of Limerick. In 1964, the first office was opened. Today, there are five Ericsson companies with a total of 1,200 employees in the country.

LM Ericsson Ireland has about 30 years under its hat. The delivery of public telecom equipment and systems to the operator Telecom Eireann has been, and still is, the company's main job, but as the market has transformed, Ericsson has also broadened its field of business.

Seven global support centers

The company has operations even outside Ireland and is one of Ericsson's seven global support centers for mobile systems, in addition to having global responsibility for certain application

systems for AXE. Ericsson Systems Enterprise has two branches of operation. The company develops software, such as for network control in AXE. It also runs one of Ericsson's global training centers.

Joint venture company

Broadcom is a joint venture company, owned by Ericsson and Telecom Eireann with 44 percent each. The remaining 12 percent is owned by Trinity College in Dublin. The company works with development issues, mainly from a European perspective. Broadcom receives assignments from Ericsson Telecom Eireann and the European cooperation organization, Eusescom, which is owned by the European former PTT's.

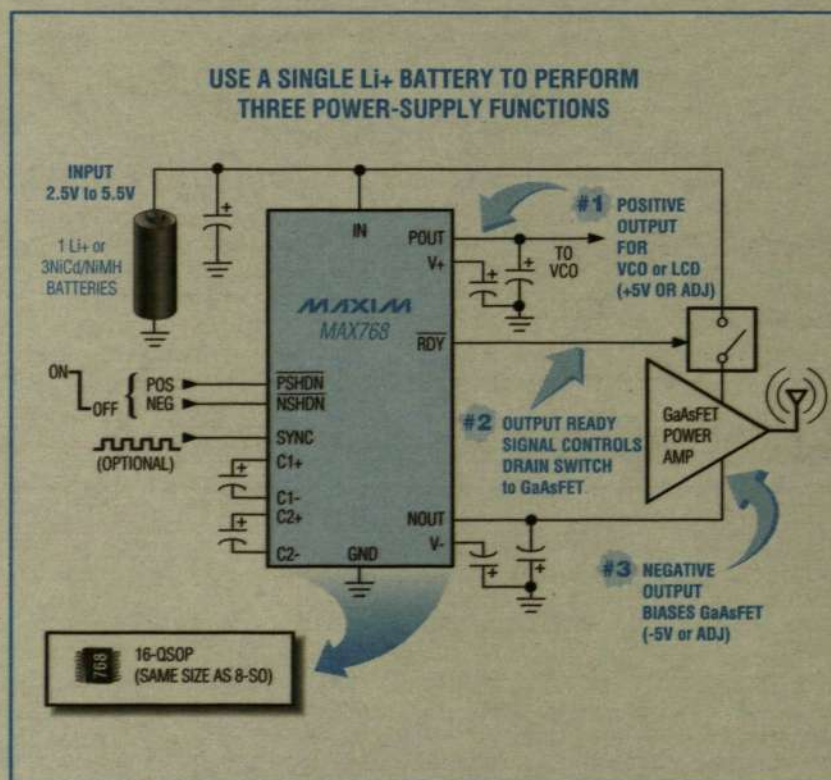
Ericsson Treasury Ltd. manages finance and insurance issues, while delivering services to Ericsson companies around the world.

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- ◆ **2mV_{p-p} Output Ripple**
- ◆ **Synchronizable Switching Frequency**
- ◆ **0.1 μ A Independent Shutdown Controls**
- ◆ **Adjustable Output Voltages**



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CD-ROM courses for new employees

Mobile Systems business area is concentrating on training programs using interactive media for its

Kista newly employed technicians. Ten fundamental courses ranging from such subjects as mobile telephone systems to patents have been gathered in one CD-ROM box.

The project is called TIME (Technicians' Introduction Multimedia Experience) and contains a total of 13 CDs with different levels of technical and general skills levels. Practice routines and advanced graphics make self-study exercises easier. Several learning programs are also offered, including a simulation program about work at Ericsson, from product concept to full-scale production. The students make all the decisions themselves, supervising work conducted by the development, purchasing, production and marketing departments.

Savings

The business area's investment in CD-ROM training was brought about by the strong expansion of Mobile Systems, which has rendered instructional capacity and traditional classroom teaching programs inadequate. Video conferences and intranet training courses have already been started. With the CD-ROM box, the business area now has another means of offering the same training programs to new employees - at times adapted to their individual needs.



Basic courses on CD-ROM. Kerstin Hårdelin of the Mobile Systems business area in Kista is project manager of the new CD-ROM box for newly employed technicians. Photo: NILS SUNDSTRÖM

"The new program will save substantial amounts of money spent in the past on travel, classroom space and teachers," says Kerstin Hårdelin, project manager of Technical Competence Development in Kista.

Five weeks

The ideal training program spans a period of about five weeks, with students attending classes three-four hours every day. Persons who buy the box can also be entered in study groups and, via computer, discuss and solve assignments with other new employees and Ericsson personnel who wish to update their skills and know-how.

Some courses also serve the needs of technicians in other business areas and customer training programs.

NILS SUNDSTRÖM

Following courses included in the box

- Mobile Telecommunications overview
- Basic Telecommunication
- Fundamental AXE Functions and Cellular Applications
- Mobile Radio Communication Fundamentals
- Customer, Markets, Products and Services
- Patent
- Technical Administration
- Props
- BR Culture and Goals
- From Idea to Business

■ More detailed information about the TIME box is available on the intranet at: <http://www.eratz.ericsson.se/time>



"Our customers want to use conventional PCs in operational support systems for their mobile telephone systems," says Henrik Hoel of Ericsson Software.

Rapid development for operational support

In just five months, Ericsson Software in Karlskrona developed a new operational support system for mobile telephone networks. Customers are now free to choose which type of terminal they want to operate.

"The new system is based on Java and CORBA," says Henrik Hoel of Ericsson Software.

"Using the very latest techniques available for programming and modes of operations, we have laid the foundation for a new technique for operating and maintaining mobile telephone networks. We use modem client-server architecture with so-called Three Layer Tier in all four of our new products," he continues.

Radio planners and operational staffs of telecom operators will now be able to monitor and supervise their networks using any type of terminal, instead of more expensive and sophisticated work stations.

Ericsson Software's cooperation with customers, which goes far beyond traditional forms of cooperation, was a major factor

in bringing the project to fruition.

"We have worked in teams with special assignments for every group. The actual development work was conducted in closer cooperation with the customer than customary R&D efforts. We tried to work more closely with the customer, developing the software together," Mr. Hoel explains.

The system was developed in just five months. It's based on modern techniques whereby clients write in Java and communications take place through CORBA architecture.

Ericsson's company in Japan ordered the first new support system from Ericsson Software. Among its many other advantages, the new system can be operated via the Internet.

"We use the Java software package, a product that's independent of hardware and can be used, accordingly, in most computer environments. The first editions are already being used in limited operations, having met highly favorable reactions from Ericsson Software customers."

SUSANNA ENGSTRÖM

Ericsson paid for new computer hall

■ The College of Karlstad recently inaugurated its "Ericsson Lab," a specially designed computer hall for communications and real time systems. Ericsson Infotech AB in Karlstad funded all equipment procurements for the new computer lab. The company has also volunteered the services of its personnel for guidance and other forms of assistance.

The communications facility is part of a cooperation project between Ericsson and the College of Karlstad. The project was initiated in the autumn of 1996.

"We would like to expand and develop our cooperation with private industry," declared Christina Ullenius, President of the College, during the inauguration ceremony.

SVEN CARLSSON

Ulf rides motorcycle from China

Ulf Hammarberg works at Ericsson Infotech in Karlstad. Motorcycles are a big part of his life. His bike is a long-distance model. After a few run-arounds **Sweden** with Swedish motor vehicle authorities, Ulf has finally been granted approval to drive his Chinese motorcycle with sidecar on the highways and byways of Sweden.

Ulf bought the bike when he worked under contract assignment in China for a few years. It offered the most efficient mode of transportation in Beijing's crowded streets. The motorcycle was made in a factory "acquired" from Germany by the Russians during World War II. Production was later transferred to China.

Production of the original model, a 1939 BMW, has continued ever since and the bikes are a common feature in Chinese traffic. As a result, Ulf Hammarberg's "hog" did not measure up to the standards of Swedish traffic safety regulations.



Ulf has finally been granted approval to drive his Chinese motorcycle with sidecar on the highways and byways of Sweden.

With a little imagination and some technical innovations, Ulf was able to get his motorcycle approved, however, by the tax authorities and the department of motor vehicles.

Ericsson featured on stamp

The postal authority of Colombia has issued a new stamp to mark the **Colombia** 100th anniversary of Ericsson's presence in the South American nation.

The actual anniversary was celebrated in 1996. Ericsson was granted permission in November 1996 to produce the postage stamp, which was issued on May 22 this year and used to mail 1,500 specially composed first-day letters. Now one of Colombia's most common postage stamps, 500,000 copies of Ericsson's commemorative stamp have been printed.



In 1896, Ericsson sold 50 telephones in Colombia. It delivered the first automatic exchange to a Colombian customer in 1932. By 1948, 143,000 automatic lines had been installed in Bogota, the capital of Colombia. Local production operations were established in 1969,

and the AXE was introduced in Colombia in 1978, followed by the MD110 in 1985. The first order for mobile telephones was booked in 1994.

By the end of last year, Ericsson had installed more than

2,000,000 telephone lines in Colombia, including 1,200,000 AXE lines.

THORD ANDERSSON



Ericsson championships in rifle shooting

The sport club of Ericsson's factory in Visby organized this year's rifle shooting championship on August 2 at the Snögrinde Range in Klinte, 30 kilometers south of Visby. More than 60 sharpshooters from eight different Ericsson units shot it out in Klinte for championship honors.

Daniel Pettersson from Borås was the winner with 321 points, followed by Tomas Bengtsson of Mölndal with 319 points and Stig Andersson of Karlskrona in third place with 318.

In the team competition, the HF riflemen from the Main Factory at Telefonplan were the winners with a record score of 674 points. The team from Visby was unable to defend its champi-

onship title from 1995, but finished second with 658 points. The winning five-person team from the Main Factory comprised Lennart Gustafsson, Jessica Anundson, Patrik Kallerman, Lennart Schönqvist and Cornel Frånberg.

In 1998, the Ericsson shooting championships will celebrate its 50 anniversary, and the club championship will be organized by the Main Factory club in Stockholm.

TEXT AND PHOTO: BERTIL OLSSON

The four sharpshooters in Ericsson's Club Championship were (l-r) Stig Andersson of Karlskrona, third; Tomas Bengtsson of Mölndal, second, Daniel Pettersson, the winner and club champion from Borås and Magnus Jansen of Lund, fourth.



Worthless to steal mobile telephones

Two armed and masked men recently burglarized Ericsson's repair shop in Kumla. They forced an employee to let them into the shop, tied the man up and stole as many mobile telephones as they could carry. All for naught. Since March of this year, stolen mobile telephones can no longer be used, having been rendered useless without proper codes. Most "bad guys" know about the change in mobile telephones, but the Kumla goons obviously didn't have a clue.

Re-opening in Kumla

The printed board production plant of Ericsson Radio Systems in Kumla will be officially re-opened on September 4.

In conjunction with the ceremony, all employees of the plant and their families will be invited to attend a circus performance in Kumla.

The rebuilding plan has proceeded according to plan for the past 18 months, providing

additional production space, a new purification plant, new storage facilities and a new office building. Total investments of approximately SEK 100 M were financed by the Municipality of Kumla's real estate company.

The printed board plant manufactures and markets circuitboards for Ericsson's assembly plants and subcontractors, primarily for end-products highlighted by mobile telephones and radiobase stations.

RUT HERMANSSON

Debut for president chat

Bright yellow headline sheets at all Ericsson Data offices in Sweden announced the recent debut of "The Göran Wågström Chat" show.

"The chat show is a very good supplement to the traditional tour I will make as Ericsson Data's new president," Göran Wågström said. "It's important that every individual in the organization gets a chance to ask his/her questions."

To increase the dialogue and general communications between Ericsson Data's president and the company's employees, a new program was launched on June 23 called Ericsson Data's "President Chat," a web site on the internal network that affords Ericsson Data employees in all parts of the world to put on-line questions in English to their new president, Göran Wågström. The one-hour chats will be scheduled at reg-

ular intervals to be announced.

Never before has a new president of an Ericsson company communicated with employees like this, and the premiere was a big success. The questions, more than 20 of them, focused on strategies, objectives and ESOE (Ericsson Standard Office Environment).

Easier

"Some people have a hard time speaking before a large audience," says Göran Wågström. "It's much easier for them to sit at their terminals and ask questions. Also, our companies in other countries are now able to monitor the questions and answers on the intranet."

It's important for Ericsson Data to use new technologies, since one of the company's major objectives is to increase its virtual operations on a more global scale.

CHRISTIAN WIGARDT



Ernesto Zedillo, President of Mexico, cut the symbolic ribbon to inaugurate the new Ericsson Software Development Center in Saltillo, a city situated about 300 km south of Mexico's border with the U.S. A new department was established recently to increase the center's resources. Ericsson has about 300 employees in Saltillo; technical engineers with special training in communication systems and electronics account for about 95 percent of all employees.

Larger premises in Mexico

Ernesto Zedillo, President of Mexico, recently inaugurated the new premises of Ericsson Software Development Center in Saltillo, situated in the Mexican state of Coahuila. Karin Enbohm Palmquist, Sweden's Ambassador to Mexico, also attended the inauguration ceremony, in addition to representatives of various Mexican telephone operators.

The activities were transferred in 1991 to Saltillo, a city whose comprehensive infrastructure and geographical location - 330 kilometers from the U.S. border in Texas - offers excellent competitive advantages for development center activities.

Operations at the Saltillo facility are focused on design, production, testing and commercialization of software for function blocks in digital exchanges for public telecommunications networks, both fixed and wireless.

The center is an increasingly significant source of foreign currency revenues in Mexico, and its services are exported to Sweden, Canada and the U.S.

Strong ties

In view of the comprehensive technical skills demanded of its employees, the development center in Saltillo has established strong ties with colleges and universities in Saltillo, Coahuila and Monterrey in Nueva León.

Of the 300 persons now work-

ing in the center, 85 percent are professionals recruited locally, 45 percent of whom are women.

"Ericsson has made important contributions to the region by creating job opportunities, technological development and modernizing telecommunications while also stimulating exports from Mexico," declared President Zedillo during his speech at the inauguration ceremony.

Know-how

Mr. Zedillo also emphasized the importance of Ericsson's presence in Mexico, not only as a manufacturer, but also in terms of imparting its know-how, skills and technologies. "We are very proud to have Ericsson in Mexico, and we hope the company stays for at least 100 more years," he concluded.



Children's Choir from China at Stockholm Water Festival



The beautiful voices of China's National Symphony Orchestra Children's Choir. Ericsson sponsored the Children's Choir's visit to Sweden as part of a cultural exchange program during the Stockholm's Water Festival.

Photo: KURT JOHANSSON

The Children's Choir of China's National Symphony Orchestra **stockholm** was one of the most prominent musical features at this year's Stockholm Water Festival.

Ericsson sponsored the choir's visit to Sweden, which included performances at Skansen and the Water Festival's National

Scene in front of Stockholm Opera House.

Beautiful voices

With a musical range that extended from the Swedish "Värmlandsvisan" to traditional songs of China, the children's choir won rave reviews for their beautiful voices from audiences at all their performances.

Comprising 35 children un-

der the direction of Yang Hongnian, China's National Symphony Orchestra Children's Choir is considered one of the best in the world, conducting several international tours in the U.S., and once performed for then President Ronald Reagan. During the visit to Sweden, the choir also appeared on TV4's "News Morning" television program.

Dancing feet win world championship

There are many good dancers who work for Ericsson, including a World Champion named Kenneth Norbelie. During this year's Stockholm Water Festival, he and his wife Helena **stockholm** danced their way to a world title in Lindy hop, a variation of a dance better known as jitterbug. Lindy hop originated in the clubs of Harlem, as people danced to the big band sounds of Benny Goodman, Duke Ellington and other legendary musicians in the early 1930s. Today, Sweden is one of the world's most prominent countries in the highly improvisational dance variation.

The local club in Stockholm has 600 members - including 150 Ericsson employees. Ericsson was also a major sponsor of the world championship competition at the sold-out Hall of Mirrors during this year's Water Festival.

Kenneth Norbelie works at the Kista Training Center of Ericsson Radio Systems. He and his wife have previously won both bronze and silver medals in Lindy hop world championship



Music that swings. Kenneth Norbelie, an Ericsson employee, and his wife Helena won the World Championship in Lindy hop during the Stockholm Water Festival.

Photo: CALLE TÖRNSTRÖM

dancing. Congratulations on this year's Gold Medal, Kenneth!

How long have you been dancing competitively?

"Since 1988. We wanted to try something more than just jitterbug, and this is what you could call the original thing, the real deal. It's a very free dance,

and we try to draw inspiration from various sources, movies and other dances."

How much do you practice?

"My wife and I practice about 15-20 hours a week. We also perform often with a show group. It's like working a part-time job."

NILS SUNDSTRÖM



The certification is handed over by Gunder Walldén, representative of the American company Compass, to Johan Tingsborg, Ericsson Components, and Kjell Bohlin.

Photo: ANDERS ANJOU

Components meet all demands

On June 5, Ericsson Components was certified by **kista** the American software company Compass.

Ericsson Components was evaluated by Compass and passed all quality demands for production, according to the so-called passport regulations. The certification means production can be transferred easily from the Submy factory in Kista, the company's most sophisticated microelectronics production plant, to external plants in all parts of the world.

Foundries

CMOS, Complementary Metal Oxide Semi-conductor, is the generally dominant technique used to produce digital integrated circuits.

A small portion of CMOS production today is handled by external plants, called foundries. Based on the strategy formulat-

ed by Ericsson Components for its future operations, RF circuits, or radio frequency circuit boards for microwave products, will be produced in Kista. All production of CMOS units will be subcontracted to foundries. Compass and several foundries in all parts of the world have developed a well-defined technology that allows companies like Ericsson to purchase production capacity from sources outside their own organizations.

Increase flexibility

"Certification by Compass will increase our flexibility and enable us to take maximum advantage of our capacity," explains Johan Tingsborg, manager of the microelectronics division's ASIC and ASSP business activities. Based on this certification, we can now transfer production between our own plants and allow them, in turn, to subcontract certain capacities to foundries."

SANDRA WIDH

Summary by Customer Delivery Center

All employees of the Customer Delivery Center were called on Friday, June 26 to a summary of **stockholm** operations in fiscal year 1996/97. About 200 persons who normally work in Midsommarkransen, Huddinge and Nynäshamn gathered together at Ericsson's Head Office in Midsommarkransen.

Jan Melin, department manager, presented a summary of financial results and reviewed future objectives and pursuits. "We accomplished what we set out to accomplish, and we

did it very well. The Customer Delivery Centre has complete supplier responsibility for all hardware orders. We are also responsible for installations of AXE stations at customer sites involving global operators," Mr. Melin said.

Impressive figures

"Delivery precision improved sharply in 1996/97, capital employed in packaged goods in storage was cut in half, lead times for standard products were reduced from ten weeks to three and production volumes increased by 30-40 percent. These are very impressive figures, a very strong performance under tough conditions!"

ANNA NORBERG



Swedish-American telecom network

TelecomCity, a network in the Karlskrona region of Sweden that includes Ericsson Software Technology, has signed a cooperation agreement with Telecom

USA Corridor, a corresponding network in Texas, which also includes Ericsson in the U.S. Both networks are looking to expand cooperation between U.S. and European commercial operations, research and training.

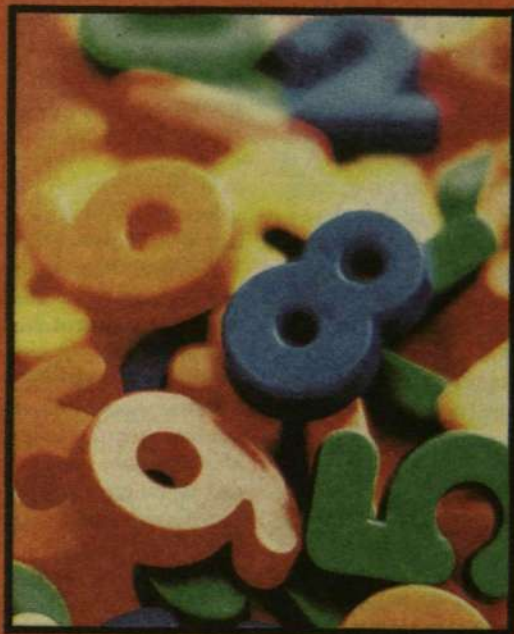
Bo Hedfors, president of Ericsson USA, has been instrumental in the expansion of cooperation between the two networks.

"Although the size and range of their operations is different, they work with the same concept and have several areas of common grounds that could be enhanced by increased cooperation, research for example, and analyses of future issues.

Ericsson is well-established on both sides of the Atlantic. TelecomCity studies common growth issues of more than 10 highly expansive telecom companies. Ericsson Software Technology is a major force in the organization, along with Flextronics International, Ericsson Business Networks, Sun and Europolitan.

In Texas, Ericsson is one of the leading players in Telecom Corridor, which encompasses 500 high-tech and telecom companies with more than 70,000 employees.

Can you see the possibilities?



Universal Personal Telecommunication

— PART OF ERICSSON'S RANGE OF INTELLIGENT NETWORK SERVICES

ERICSSON

Send a postcard!

Can you imagine making money from a closed workshop or the Eurovision Song Contest? That **the world** will be one of the themes of a global advertising campaign by Ericsson Network Intelligence this autumn.

The campaign focuses on such telecommunications services as telephone voting and Universal Access Number, a service that connects callers to the nearest open workshop or travel agency, for example. The ads will be featured in about 10 of the largest trade publications in Europe, Asia and South America.

"The campaign is focused primarily on the decision-makers of global telecom operators. It will feature eight Ericsson services for network intelligence (IN services)," explains Marie Håkansson, market communications manager of the intelligent network unit.

Ericsson departments or business units can make their own marketing contribution by sending customers the postcards now available on the Net at the following web site address: <http://www.ni.ericsson.se/bros3.htm>.

One pack of 200 postcards (eight different themes) costs SEK 100.

LENA WIDEGREN

Sponsorship agreement with golf star

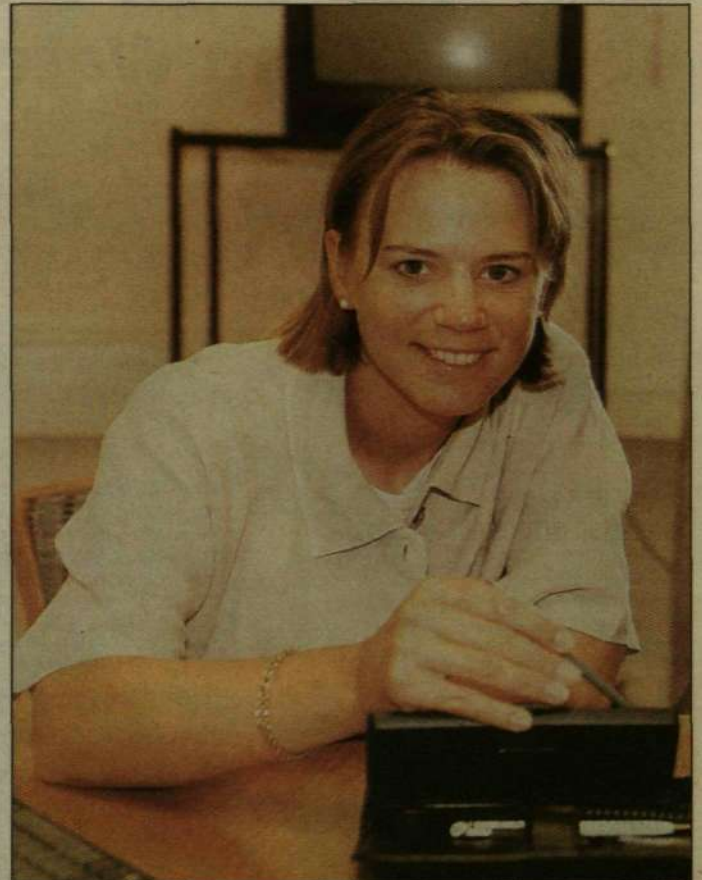
Ericsson has signed a **sweden** three-year sponsorship agreement with Swedish golf star Annika Sörenstam.

"I choose my cooperation partners carefully, and I've been looking for a technology company to work with," says Annika.

"We are proud to sponsor one of our country's most well-known and respected sports stars," says Jan Ahrenbring, Marketing Manager of Ericsson's Mobile Telephones and Terminals business area.

Annika Sörenstam is a member of the Ladies Professional Golf Association (LPGA) and the most successful female golfer in the world for the past three years. She has a highly prestigious and comprehensive list of tournament victories, including consecutive U.S. Open titles in 1995 and 1996, four wins this year alone, nine second and third place finishes. She also tops this year's U.S. LPGA money list with more than USD 800,000. The world's No. 1 lady golfer was in Sweden for a week in August to play in the Compaq Open, a new tournament on the American Express Tour.

The Compaq Open attracted some of the best female golfers in the world today. During her



"I choose my cooperation partners carefully, and I've been looking for a technology company to work with," says Annika Sörenstam.

Photo: KNUST KOIVISTO

week-long visit to the Stockholm area, Ericsson and Annika Sörenstam also seized the opportunity to reach their spon-

sorship agreement. Annika also won the tournament by six strokes.

SANDRA WIDH

Ericsson Microwave invests in women

"Qup" is a Swedish acronym for "women in development programs. It **möjndal** is the name for part of Ericsson Microwave Systems' focus on women.

The aim is to stimulate and strengthen the position of female employees, to increase their interest in teamwork, leadership and development of themselves and others.

Jan-Åke Kark, President of Ericsson Microwave Systems, explains:

"By tradition, our company has been a man's workplace, dominated by men's opinions and men's values. We have to break the trend and

introduce a better mix of cultural outlooks. We have to recruit and train more female management personnel and specialists to meet our objectives. More highly qualified women in management positions within Ericsson Microwave Systems will become a high-priority objective."

In the first phase of its development program for women, Microwave Systems received 95 applications from women seeking 20 job vacancies. The jobs were allocated with careful consideration for several criteria.

For the time being, one program has been finished and a second has been started.



Qup participants receive practical training in leadership and cooperation.

Photo: ANNA REHNBERG/KAMERAREPORTAGE

vacancies

AT ERICSSON

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

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

Contact no. 12 1997

Updated August 25

Ericsson Radio System AB, Kista

MANAGER OF CMS 8800 INTEGRATION CENTRE

● The centre is being established to enable successful integration of products to our systems due to the increasing complexity of the Networks which use CMS8800.

We are therefore, currently seeking a manager for our new CMS 8800 Integration Centre which will be based in North America.

The position will be responsible for between 10 to 20 persons and as part of the Management team be responsible for: budget, resources plan and staffing, salary, competencies, quality and processes. This position will report to a management team in ERA/AM/O.

From the business side interaction towards internal and external customers as well: Sales, Marketing, forecasting, product portfolio preparation and market analyse. There will be some international travel. The successful candidate should have: Documented Management experience in either Product Development, Design or Support Business areas. It should be for at least 5 years and 3 in a senior management position.

The individual should have proven record of initiating change and improvements. A willingness to contribute, to the design of the integration centre and the implementation of innovative organizational solutions in this new business environment.

Requirements for the position: At least ten years working experience in the Telecom industry. At least half of the time should be in the Cellular area. Excellent management / leadership skills. Communications skills both written and oral. Professional in English speaking and writing. Good negotiation skills. A university degree or equivalent work experience.

Contact: James R Kirst +46 8 4048325 Memoid ERA.ERAJAKI Application: Ericsson Radio Systems AB, AH/H Marianne Molin, 164 80 Stockholm

Ericsson Hellas Telecommunications Equipment S.A.(ETG)

SYSTEM EXPERT, GSM MSC/BSC

The System Support Team in Greece is taking on new challenges to provide even better service to our customers.

● We are looking for System expert(s) with at least 4 years AXE experience and 2 years of GSM experience. Having worked with the latest phases in CME 20 is considered a benefit.

The System Expert will perform advanced trouble shooting on AXE-system level as well as on GSM applications.

We are looking for system expert(s) with expertise in either the BSC/BTS area or swithing system area.

We are offering long term position(s) if you have good knowledge of GSM systems together with a long experience of AXE.

We live by the Mediterranean Sea with only five minute drive to work.

Contact: Dag Svesse, GSM Operations Manager, Memo ETG.ETGDAG Phone: +30 93 415 505 Application: Anneli Johansson GSM Field Support Manager, Memo ETG.ETGAJOH Phone: +30 93 415 503

Ericsson Telecommunications Romania S.R.L (ETR)

1 BSS SUPPORT ENGINEER

1 OSS SUPPORT ENGINEER

● We are looking for Support Engineers to our Field Support Center for a long term contract(1 year)in Romania. The Field Support Center was established in May 1997.

You have a good knowledge of support activities, providing emergency and day to day

support to the customers, by answering their queries, providing solutions and visiting sites.

You will play an active role in providing support and advice to the local engineers and build up the local competence.

You have 3-5 years of AXE experience, good knowledge of GSM system and trouble shooting skills.

Contact: Walid Alsheikh, Phone +40-1-336 5705, memoid ETR.ETRWAA Application: Walid Alsheikh, memoid or fax: +40-1-336 5708

Compania Ericson S.A.C.I., Argentina, CEA, Buenos Aires

MANAGER CUSTOMER SERVICES - MOBILE NETWORKS

Ericsson has been in Argentina for 75 years. Our Local company has experienced a rapid growth during recent years and have now 350 employees. We are active in the areas of Mobile Networks, Public Networks and Private Networks.

● As a Manager for Customer Services - Mobile Network you are responsible for: Field Support Center for MSC, Radio and Unix. Systems engineering (cell- & RF planning). Training.

You will be reporting to the Vice President Mobile Networks and also part of the management team.

The organization is very young and is growing rapidly, this year there is a need to duplicate to 35 persons. This means your main task will be to lead and develop qualified young engineers. Therefore you need to have a keen and honest interest in guiding and developing competence in young people. Proven record of good ability to lead teams and good social skill are essential.

You need a stable technical platform by several years experience from technical work, development and/or support. Good systems knowledge and ability to create confidence in our customers is also of great importance. You have good ability to adapt to different cultures and work environments.

Contact: Hugo Løjdquist, phone +54 1 319-5664, email: hugo.lojdquist@cea.ericsson.se, memoid: cea.ceahugo Application: Ericsson Radio Systems AB, AH/H Britt Bosrup, 164 80 STOCKHOLM

Ericsson Toshiba Telecommunication Systems K.K., Japan

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

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

FIELD SUPPORT OFFICE MANAGER (FSO) AXE 10

● We are now looking for a Field Support Office Manager that can meet our present challenges in Japan.

This area handles the support services for PDC-CMS 30 customers across different regions with a subscriber base of nearly two million.

The Field Support Manager position requires a long and varied background from AXE testing, O&M or Field Support. The job responsibilities are diverse and involve frequent communi-

cations with the on-site customer management team.

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

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

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

Contact: Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

FIELD SUPPORT OFFICE MANAGER (FSO)

UNIX BASED PRODUCTS

MXE/SMAS/OSS PACKET DATA etc

● We are now looking for a Field Support Office Manager that can meet our present challenges in Japan.

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TEST ENGINEER CMS 30

● You will work with installation testing, AS Rollouts and other software implementations within CMS 30 networks including IN.

We require previous experience from the telecommunication industry and working experience within Ericsson.

Starting date: 1997-11-01

Contact: Per Jansson, phone +81 45 475 0084, memoid NRJ.ERJEJA or Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

MSC/HLR SUPPORT ENGINEERS

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

You should have good AXE knowledge and at least 4 years field support experience in the

MSC/HLR areas. Experienced in CMS30 is an advantage. We work as a team. As part of our support team, you will be working together to solve problems on-site/off-site. Trouble shooting skills is mandatory. Good team spirit and customer focus are demanded.

Starting date: 1997-11-01

Contact: Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

APZ/IOG SUPPORT ENGINEERS

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

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

Starting date: 1997-11-01

Contact: Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

IN EXPERT

● The responsibilities include on-site troubleshooting, problem analysis, technical support of IN System Integration Testing on customer sites, technical consultation and communication with customers.

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

Starting date: 1997-11-01

Contact: Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

SMAS EXPERT

● The responsibilities include on-site troubleshooting, problem analysis, technical support of IN System Integration Testing on customer sites, technical consultation and communication with customers. The work also includes installation and testing of SMAS SW and customer training.

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

Starting date: 1997-11-01

Contact: Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

IN IMPLEMENTATION AND TROUBLE SHOOTING

● You will work with integration, testing, software rollout and/or trouble shooting during the introduction of IN in Japan. This introduction will take place in the April-October timeframe. Both short and long term applications are welcome.

Starting date: As soon as possible

Contact: Ulf Sundberg, phone +81 45 475 0077, memoid: NRJ.ERJUFSG, Anders Birkedal, phone +81 52 586 1676, memoid: NRJ.ERJBIRK or Erik Gustafsson, phone +81 45 475 7849, memoid NRJ.ERJEGUN Application: Ericsson Toshiba Telecommunication Systems K.K., Erik Gustafsson, Shin-Yokohama Office, Shin-Yokohama Hayama Dai-4Building, 2-1, Shin-Yokohama 1-chome, Kohoku-ku, Yokohama 222, JAPAN

Beijing Ericsson Mobile Communications Ltd., China

SENIOR RADIO NETWORK ENGINEER

● We are looking for an experienced radio network engineer, who is interested in building up and transfer his/her knowledge in the radio network area.

Your main tasks will be to start up the cellplanning activities such as, assist in tender

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

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

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

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

Ericsson Ltd, UK

IMPLEMENTATION AREA MANAGER

● **Role Summary:** To provide Southern Area Management support to the Engineering/Commissioning teams in the South.

The Area Manager co-ordinates the activities of 4/5 teams of Engineers with responsibility for installing, testing and commissioning a range of Ericsson products on a project basis.

Key Responsibilities: Business: To lead teams to ensure profitability is achieved through efficiency, effective problem resolution and adherence to timescales. To plan and manage the annual budgetary process, control costs and achieve identified targets. To identify, through Customer Satisfaction Surveys, areas of prod-

uct/service improvements and feedback appropriately. Identify opportunities for selling extensions.

Customer Relations: Monitor customer satisfaction throughout each project and ensure that the customer is satisfied with the final outcome. Liaise with the Managed Services team to co-ordinate customer interface.

Operational: Act as an expert advisor to the teams in complex issues and provide advice on further appropriate sources of information. Prioritise activities in conjunction with the Team, taking into account actual orders and future requirements. Support other implementation teams as required and maintain on-going communication with them.

People Management: Monitor and manage the quality of service delivery for the team as a whole. Motivate and guide the teams in its activities and identify and address any operational or personal issues.

Education & Qualifications: A recognised telecomms apprenticeship. Five years experience in the telecomms industry. Proven team leadership skills.

Contact: Mary-Anne Morgan-DeGray, HR Advisor, ET/LZ UK, 01444 256261, memo etl.etlmem

Ericsson Enterprise Networks, Cypress, California, USA

SOFTWARE ENGINEERS

● **JOB DESCRIPTION:** Several vacancies exist in the areas of Computer Telephony Integration (CTI) in the company. The jobs involve software design, development and testing on Computer Telephony Systems that involve both Call Control and Media processing. Almost all the design is carried out on the Windows NT platform. The architecture in use is a Client Server configuration with design on both the Server and the client machines. Both Windows NT and Windows 95 are used for development. The switching platform is the MD110.

The candidates are expected to prepare detail system specifications for the CTI products, implement the design, test the product and eventually deliver and sustain the product.

Candidates with an indepth knowledge of System testing on telephony systems will also be considered for the role of system test engineers on the projects.

JOB REQUIREMENTS: In depth knowledge of both the Telephony and the PC platform is absolutely necessary. Developers will be required to have knowledge in programming skills in C++ as well as Object oriented design experience. Persons with high levels of knowledge in System testing computer telephony systems will be given special considerations. A university degree in Computer science or related subjects is also essential.

Contact: Naval Sodha (EUS.EUSBKNS) Application/Resumes or CV: Personnel Manager at Ericsson Enterprise Networks, 5757 Plaza Drive, Cypress, CA, 90630

Ericsson Radio Systems AB, Puerto Rico

ACCOUNT MANAGER - PUERTO RICO

● We are looking for an Account Manager to our biggest customer in the Caribbean region.

The Account Manager will be responsible for marketing and sales, with a focus on profitability, business development and customer satisfaction.

QUALIFICATIONS: Hold an M.Sc degree or equivalent and have a professional experience of international marketing and sales within the telecommunications fields. Knowledge of the Ericsson portfolio is required, and focus on the CMS 8800 products is a merit.

Fluency in English and Spanish is essential. This position requires that you are solution-oriented, have commercial awareness and the ability to develop and maintain excellent client relationships. Patience, professionalism, perseverance and a good sense of humor are other factors that we appreciate in this young company.

Depending on your background a short period at the RMOA headquarters in Stockholm may be required before the assignment in San Juan, Puerto Rico.

Contact: Peter Lindberg (EUS.ERAPLIG) or Peder Asplund (EUS.ERAPAD), 011-787-758-

1770. Application: Ericsson Radio Systems, Puerto Rico Branch, Attn.: Ms. Carmen Nadal - Human Resources Dept. - IBM Bldg. #654, Suite 1910, MuOoz Rivera Ave., San Juan, P.R. 00918

Ericsson Inc. Ericsson Cellular Phones - EUS/C

BASE STATION DEVELOPMENT USA

Cellular Systems - American Standards is one of the fastest growing business units within Ericsson Radio Systems. We are expanding rapidly in all over the world, and many challenges and opportunities are waiting for us.

● The R&D office at RTP, in USA, is now looking for people who will work with design for RMOA's Wireless office systems. This will include development of base stations for indoor office usage, these will be based on current Terminal technology.

We are now looking for designers with experience in Digital Signal Processing and also people with experience from application development in base stations.

We are looking for YOU that: hold a M.Sc., have experience of radio network design including Signal Processing, good knowledge in English, both written and spoken, you also have power of initiative, high motivation and a good ability to cooperate.

The contract period will be two year.

Contact: Urban Fagerstedt, phone +46 8 757 0548, memoid ERANUF Application: Ericsson Radio Systems AB, AH/H -sa Andersson, 164 80 STOCKHOLM

Ericsson Radio Systems AB, Kista

RADIO NETWORK DESIGN MANAGER, CHILE GSM1900

● We need an experienced Radio Network Designer to our project in Chile, where we will implement and launch a GSM 1900 system during 1997/98 for our customer Entel.

You will have the following responsibilities/tasks: plan and execute all necessary Radio Network Design activities. predict

Product Information Handling

Team 'Product Information Handling' - PIH - is expanding in management and implementation of methods, rules, systems and tools for Product Information. The objectives are to implement the Corporate goals for year 2000 and significantly improve support to our customers - primarily Ericsson processes and users.

Team 'Product Information Handling' is within the area of Product Information, responsible for Corporate rules and recommendations, Product Management and ownership for Corporate Systems and Tools, training and User Support.

PIH is looking for new employees to the following areas:

Information Handling - Rules and Recommendations

Your area of expertise will be Rules and Recommendations for classification, identification, layout and handling of Product Information. You will be working in teams together with representatives from processes and key users. The results should support an efficient handling of Product Information, meeting the common needs from Processes and Users and Corporate requirements.

You should have several years of experience with Ericsson Product Documentation - how it is developed and used. Also, experience from Web and Intranet Applications is appreciated, since you will be working with how to utilize the latest technologies.

Product Management for Systems and Tools

As Product Manager for Product Catalogues (e.g. PRIM), Archives (e.g. GASK, PDL) and Clients (e.g. Windows, Unix, Web), you will be responsible for long and short term planning, budget/financing, product positioning and phasing in/phasing out, product ownership and coordination with Users and other Ericsson Units in this area.

You should have good knowledge about Product Provisioning, Production, Order Administration and Logistics within Ericsson as well as experience from our Product Information Systems of today.

Implementation Support - Product Handling Specialist/Project Manager

As a Product Handling Specialist/Project Manager you will be responsible for and working with Customer Projects - the Customer normally being an Ericsson Unit - in improving Product Handling and handling of Product Information. You should analyze the Customer situation, develop improvement proposals and together with the Customer establish and execute Implementation Projects. In addition to this, you will be working with Product Handling Area improvements and support the Team in these matters.

You should have several years of experience from working with Product Handling Issues and Product

Information Systems and Tools. You should also have been working as a Project Manager and be focused on resolving issues and supporting our Customers. A lot of travel is part of your job.

Marketing

Your area of work will be to market and communicate products and services within the area of PIH - Systems, Tools, User Support, Training, etc. You will coordinate development, publication and distribution of material, arrange seminars and handle Customer/User contacts.

You should have experience from marketing and communication and preferably also from the area of Product Information.

Training

Training is an important part of efforts to improve Product Information Handling and to fast end an efficient implementation of new Systems and Tools. As an Instructor you will conduct Customer Training - the Customer normally being an Ericsson Unit. You will also be developing and improving courses and course material. Your customers are spread around the world so travel is a must.

You should have experience from training and being an Instructor and have a general knowledge about Product Handling and Product Information.

Common requirements

Team PIH has a central role within Ericsson and Customers/Users all over the world. To be successful in your work, you should be able to understand the Customer's/User's situation, requirements and needs and be focused on presenting and implementing solutions. We believe you should be a person


- with good social and communication skills
- used to "work on your own"
- that easily establishes and works in Networks
- that is "Customer Oriented"
- with "service orientation"
- with good skills in English, preferably also other languages

For more information, please contact

Roger Larsson, tel. +46 8 719 8726, memo LME.LMEROLA, Christer Karlsson, tel. +46 8 719 4549, memo LME.LMEPHCK or regarding 'Information Handling - Rules and Recommendations' Mats Svennbeck, tel. +46 8 719 0786 - Memo LME.LMEMASV.

Please submit your application to Kerstin Åhlberg, Personnel, HF/LME/P.

Team PIH is part of LME/IR, Corporate Core Unit Information Management/Information Technology.

ERICSSON 

Ericsson Expertise Ireland LTD (Dublin) - EEI/R

EEI/R is a fast growing CMM level 3 company. Currently we are seeking staff to fill a number of vacancies in our CME20, CMS30, CMS88 design/verification/maintenance departments.

AXE SW JOINT, FUNCTION & SYSTEM TESTERS (CME20, CMS40, CMS30, CMS88)

● We require staff (long term or local contract) to fill the vacancies in the area of system test, joint test, function test and maintenance of the above systems.

Job description: The ideal candidate will be an open minded, highly motivated individual with AXE (SW/HW) verification or installation test experience for at least 3 years. This expertise would preferably be from a mobile (BR) background, but non mobile background is indeed very welcome as well.

As a tester he/she will be part of a function design/ test team in an early stage of a design project, to prepare function TS/TIs. These TS/TIs will be executed by him/her later in the project during the joint test and/or function test phases.

In maintenance he/she will be part of a expert team analysing and solving Trouble Reports received on the above systems. Besides producing and testing quality AC/SPACs he/she will also perform R.C.A, desk checks, test CNIs and participate in FOAs

AXE SW DESIGNERS (RP2, PLEX, C) (CME20, CMS40, CMS30, CMS88)

● We require staff (long term or local contract) to fill the vacancies in the area of CP(apt), RP, RPD & RPG design for the above systems.

Job description: The ideal candidate will be an open minded, highly motivated individual who prefers to work in a team. He/she has at least 3 years experience in SW design. This expertise would preferably be from a mobile (BR) background, but non mobile background is indeed very welcome as well. As a designer he/she will be part of a design team being responsible for delivering a quality SW product on time to function test and/ or joint test.

AXE SYSTEM EXPERTS (CME20, CMS40, CMS30, CMS88)

● We require staff (long term or local contract) in our system departments to participate actively in PRE and POST TG2 activities of future products in the above systems

Job description: He/she has a very good overall system view (of at least one of the above systems) has a good knowledge of CP, RP and/ or IOG shall have a proven record of system requirement analysis, preferable mobile, but other systems strongly considered would be expected to consider future system / feature improvements as part of the job. has written RS and IPs Will be able to support design, function test and product maintenance at request Can work alone with little supervision if necessary

For Further information please contact: Leo Theunissen, memoid EEI.EEILT Email: eeilt@eei.ericsson.se Anne Marie O'Sullivan, memoid : EEI.EEIAOS. **Please send your application to:** Anne Marie O'Sullivan, memoid : EEI.EEIAOS Email: eeiaos@eei.ericsson.se

TRANSCODER AREA DEVELOPMENT SPECIALIST

● We require transcoder specialist (long term or local contract) in our system department who will be technical responsible for driving a centralised transcoder solution for CME20, CMS88 and CMS30 systems.

The person appointed will be expected to make a direct contribution to the development and successful operation of the convergence to a single solution of transcoders across the CME20, CMS88 and CMS30 product lines.

Job description:

As a specialist you will be able to demonstrate detailed transcoder area knowledge including RP design in addition to developing and maintaining contacts with transcoder development groups in Sweden, Finland and Germany.

You will be required to provide detailed system knowledge of AXE as well as good understanding of CME20, CMS88 and/ or CMS30 implementations.

Minimum of 6/7 years relevant experience, where at least 2/3 has been working for Ericsson, preferable the transcoder area

You will be responsible for building up the expertise and to transfer knowledge within the department. You must therefore be able to dis-

play excellent communication skills, be innovative and have a strong results orientation

For Further information please contact: Owen O'Donnell, memoid EEI.EEIOD Email: eeiod@eei.ericsson.se Anne Marie O'Sullivan, memoid : EEI.EEIAOS Email: eeiaos@eei.ericsson.se **Please send your application to:** Anne Marie O'Sullivan, memoid : EEI.EEIAOS Email: eeiaos@eei.ericsson.se

Ericsson Inc, US**CMS40 STANDARDIZATION ENGINEER**

● We are currently seeking motivated engineers to create the standards for our GSM based PCS1900 system. You will be responsible to represent Ericsson at the various standards bodies, using your expertise to shape the future of wireless communications.

The successful applicant will possess a BS/MS in CS/EE with 5+ years of telecommunications experience. Excellent written & verbal communication skills are required, along with a willingness to travel. GSM/Mobile experience is a plus.

CMS40 SYSTEMS ENGINEER

● This position is responsible for systems management tasks in the digital switching systems and applications area.

Qualified candidates will perform systems investigations, requirements analysis, network architecture and technical coordination for our CMS40 & CME20 system. BS/MS in CS/EE with 6+ years telecommunications experience is required. Excellent written and verbal communication skills are required. Datacom and/or mobile experience is a plus.

Contact: David Boltz (EUS.EUSDLO (972) 583-5927) or Patrik Ringqvist (EUS.EUSPLR (972) 583-7015).

INTELLIGENCE NETWORKING (IN) SERVICE DESIGNER

● We are seeking experienced engineers to design services using the IN 2.2 platform for GSM and PCS 1900 mobile networks. You will be responsible for design and implementation of IN services as part of a design team as well as participation in pre and feasibility studies. We are responsible for the RMOG Personal Services within DSA applications. We have just completed the Personal Number (PN) service and have started design on the Personal Assistant (PA) service.

Qualified applicants possess a BS/MS in CS/EE with 3-5 years of telecommunications experience, good knowledge of the IN 2.2 (CS1/CS1+) platform and SMAS. Excellent written & verbal communication skills are also required. GSM/Mobile experience and call processing knowledge are a plus.

Contact: Bo Sundstedt (EUS.EUSBOSU (972) 583-7030) or Patrik Ringqvist (EUS.EUSPLR (972) 583-7015).

Ericsson Telecomunicacoes S.A. Brazil - EDB**Brazil - Exciting new opportunities in the fastest growing Latin American market.**

Ericsson Brazil, EDB, is rapidly expanding its Cellular operations as a result of its leading position in the explosive Brazilian telecommunications market. With more than 22 customers in the D-AMPS/AMPS A-band alone, and new opportunities evolving from the upcoming B-band license process, EDB requires the support of motivated telecommunications professionals. EDB's headquarters is based in Sao Paulo and there are regional sales and support offices across the country.

The general requirement for all positions is fluency in English. Fluency in Portuguese and Spanish is preferred. Both short- and long term contracts will be offered. Take the opportunity to apply for the open positions in the following areas:

TECHNICAL SALES SUPPORT & PRODUCT MANAGEMENT**PRODUCT MANAGERS FOR OSS (CMOS) AND WIN**

● As Product Manager you are expected to perform activities related to the products i.e., execute actions required to make the product available to the rest of the organization, prepare product market plans, hold presentations both internally and for customers, handle market requirements, answer SOCs and develop strategic partnership with our customers.

You should have a B.Sc. or M.Sc. in Electrical Engineering with a major in Telecommunica-

tions and have at least 3 years experience in a similar position. You must be willing to work in a team, be creative and be able to take initiative and risks. You must withstand pressure and have the ability to work under demanding conditions.

EDB/ROM - CUSTOMER SUPPORT**SYSTEM SUPPORT ENGINEER**

● As a system support engineer you will provide emergency support (on call), operational support, trouble shooting and software implementation. You should be Electrical or Telecommunication engineer with 5 years experience in AXE. Strong knowledge in CMS88, PLEX, ASA, RBS, IOG11. You should be able to transfer knowledge to local organization (FSC), deal with customers, work and solve complex software problems. It's important that you are proactive and take initiative without supervision.

SYSTEM ENGINEER (MSC) FOR NETWORK OPERATION & MAINTENANCE

● As a systems support engineer you operate and maintain MSC's, keep track and execute schedule routines. Other tasks are customer care support, network surveillance, dispatch and co-ordination. You should have a technical education in telecommunication, information technology, electronics or equivalent, 2 to 3 years experience with IT or telecommunication, documented experience in radio communication, experience within maintenance of telecommunication or computer system, good knowledge of general telecommunication and mobile telephone systems especially within installation and NO&M. Experience within Network Operation & Maintenance may replace the formal education requirement.

SYSTEM ENGINEER (RBS) FOR NETWORK OPERATION & MAINTENANCE

● You will work with Operation and Maintenance (preventive and corrective) of RBS, keep track and execute scheduled routines. You should have a technical education in telecommunication information technology, electronics or equivalent, 2 to 3 years experience with IT or telecommunication. Documented experience in Radio communication. Experience within maintenance of telecommunication or computer system. Good knowledge of general telecommunication and Mobile telephone systems especially within installation and NO&M. Experience within Network Operation & Maintenance may replace the formal education requirement.

SYSTEM SUPPORT ENGINEER FOR CUSTOMER SUPPORT & IMPLEMENTATION (CMOS/OSS/SMAS)

● As a system support engineer you will develop procedures in field support, investigate and solve complex problems both hardware and software. Provide expert technical support to Ericsson's customers and transfer knowledge within the OSS Field Support Center. You should have a degree in Electrical Engineering/Telecommunication or equivalent. A minimum of 5 years working in telecommunications/computer industry. Minimum 3 years experience working with Ericsson. Customer Support for CMOS/TMOS/SMAS. Good knowledge of CMS88, data communication protocols and some knowledge in cell planning statistics.

EDB/ROP**RF ENGINEERING & RF OPTIMIZING, RF ENGINEERS, RADIO NETWORK PLANNING**

● You will work with radio network planning of Ericsson's CMS88 system, both 800 and 1900 MHz bands. This will include traffic and coverage dimensioning, frequency planning, coverage and interference predicting with Ericsson Engineering Tools. The radio network planning will be addressing both new systems and expansions in existing systems, as well as digital migration planning.

RADIO NETWORK OPTIMIZATION

● You will work with radio network optimization of Ericsson's CMS88 system, both 800 and 1900 MHz bands. This will include analysis of the system's performance through switch statistical data, analysis of the cell plan, drive testing, data post-processing and analysis, search of non-optimized parts, suggestions of improvements and implementation.

We see the unit as a whole and expect to work as a team of dedicated but flexible resources, that will enhance and promote communication and exchanges between the groups. You are therefore specialized in one of the fields mentioned, but see the opportunity to broaden your knowledge and experience.

For both of the positions mentioned above we require at least 3 years experience, in either Cellplanning or Tuning/Optimizing of Cellular systems (preferably D-AMPS/AMPS). You have a B.Sc. or M.Sc. in Electrical Engineering, Telecommunications or equivalent. A broad international experience is an asset.

EDB/RI**IMPLEMENTATION SYSTEM; SWITCH TEST ENGINEERS**

● A switch test engineer provides high-quality testing of AXE switch equipment to include integrating mobile cell sites to the switch background performing data transcription implementation. You should have two years experience of testing AXE hardware/software, ability to travel extensively and have knowledge of D-AMPS/IS 136 technology.

SWITCH/RBS INSTALLATION ENGINEER

● As a switch/RBS installation engineer you make plans, implement and supervise the installation of the switch (AXE) and RBS equipment in customer facilities. You must be able to work with quality standards and provide quality control check and progress reports. You must be able to read and understand Ericsson AXE documentation. You should have two years of experience in telecommunication and installation of the AXE and have the ability to travel extensively. A valid Driver's license required.

RBS TEST ENGINEER

● You shall be able to test and commission radio base stations. This includes performing system/acceptance testing of digital interfaces, microwave and auxiliary systems. You shall also be able to use TEMS for coverage and hand off verification. You should have one year of experience in RBS 884 testing, an ability to travel, valid driver's license and knowledge of D-AMPS/IS 136 Technology.

TRANSMISSION ENGINEER

● As a transmission engineer you plan, implement and supervise the installation and test of all types of transmission equipment, e.g. Mini-link, HDSL, cross-connection SDH and etc. You shall also be able to test the Access Network. You should have 3 years experience in transmission equipment and an ability to travel.

DT ENGINEER

● Provide engineering with support of the switch integration and create I-Modules. You should have 3 years experience in DT environment for D-AMPS/AMPS system. Knowledge of DT tool such as PC-Comreg, C3fast, Compose and DTSS. A valid drivers license required.

RBS SITE ENGINEER

● As RBS site engineer you shall be able to perform site investigation, quantify and allocate the indoor and outdoor equipment, interconnection and produce RBS installation manual (C-Module). You should have 3 years experience in D-AMPS/AMPS RBS and/or transmission equipment such as SDH, HDSL, DXC, Mini-Link, etc. Knowledge of Word, Excel and ability to travel. Drivers license mandatory.

SWITCH ENGINEERS (MSC)

● As a switch engineer you do the planning and implementation of switch installation projects, mechanical installation of switching, transmission, power, necessary cable ways, cable manufacturing and produce MSC installation manual (C-Module). You should have 3 years experience in MSC site engineering concerning D-AMPS/AMPS systems. Knowledge of Word, Excel and Please. Driver's license required.

Contact persons EDB, Brazil: phone +55 11 681-2000 Operations, Eduardo Baptista; - Engineering, Gerson Freitas; - Customer Support, Alexandre Setteval; Implementation System, Luis Bernardo; Technical Sales Support, Renato Fantoni; Human Resources EDB, Jacira Rita F. Gomes. Contact persons ERA/A, Stockholm: phone +46 8 7570000 ERA/AH Marianne Molin or Göte Hedblom Application: The mailbox at EDB, Brazil: BRA.EDBEXPA or Ericsson Radio Systems AB KI/ERA/AHS Kerstin Malmgren 164 80 STOCKHOLM

contact

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

New strategy to support dealers

Ericsson's service to retail stores is to be increased through more visible dealer marketing efforts. Why? Because dealers who like Ericsson sell Ericsson telephones.

dealers should feel motivated to talk about Ericsson's products, recommend them, and ensure that customers are informed about their best qualities," says Per Söderström, project manager at Ericsson Mobile Communications, for this particular strategy, which is known as "channel marketing."

More visible position

It all started with the need to establish more visible in-store display sites for accessories. Such products have the ability to stimulate impulse purchases, thereby generating potential extra sales. By displaying these products more prominently, consumers are better able to make their own selections.

"A major portion of the purchasing decision is made in the actual store, so we have to be visible if we are to sell more," says Per Söderström.

Channel marketing is a two-fold operation. The first part comprises all the activities undertaken by a supplier to influence store owners, representatives of store chains, and/or wholesalers. Activities can include product



Per Söderström is project manager for the channel marketing strategy adopted by the Mobile Phones and Terminals business area.



Ericsson's dealer strategy, known as "channel marketing," is based primarily on how Ericsson should use its sales channels most efficiently.

training, various sales campaigns, or cooperative advertising programs.

The second part focuses on the in-store activities directed at the consumer, or end-user. These can include materials for sales display stands, posters, folders, and other promotional materials.

Efficient service

For Ericsson, the consumer market is still a relatively new area. Consequently, competition will become trickier when companies like Sony, Philips and others, who already serve this market and have well-established channels for their consumer products, decide to focus more on mobile telephony.

"We come from another direction. We have the advantage of already being specialists in the telephony area, but we also need to be highly efficient when serving our dealers," says Per Söderström.

Three steering committees, with representatives from Europe, America and Asia, have jointly formulated the new strategy, which takes the form of a marketing "tool box," comprising some 30 different tools. Various tools are used, depending on how mature a

particular market may be. The key is to find the most flexible solutions possible for the 75 different markets.

Remain sensitive

In Latin America the strategy is to employ personnel with experience from more fast-moving consumer product areas. This market works a lot with so-called "trade promotions," aimed at attracting consumers to visit dealers - occasionally in combination with another main supplier, such as Ray-Ban.

The important thing is to remain sensitive to dealer requirements. Each year, surveys are made to measure stores' perceptions of Ericsson and how successful the supplier has been in its supportive marketing activities.

Joint sector marketing activities will also be used to an increasing degree. Instead of Ericsson's sales personnel traveling around individually, with an outstretched order book, sales programs with the different chains involved will become more common.

It is also important to be selective in the choice of channel. To select those dealers who are truly capable of supporting the Ericsson brand.

GISELE ZEIME

end line

A piece of the cake

There is probably nobody who will deny the importance of job motivation and commitment in today's workplace. And I'm sure many of you, dear readers, like me, are able to find motivation and strength from pleasant and enjoyable job assignments. Job satisfaction goes a long way, at least when you're making some progress in solving the problems involved in most jobs.

Another important factor in motivation and commitment is the success of your employer and the excellent reputation Ericsson enjoys in today's society. The sense of pride that comes with working for Ericsson, here in Sweden at least, is a constant source of encouragement. It's gratifying, of course, to read the newspapers when Ericsson's financial report is released and analyzed by market experts. And to watch with pride as the value of Ericsson shares continue to rise on the stock market.

There is always a lot of talk about the importance of personnel and their contributions to the company when the Annual Report is released and in conjunction with the Annual General Meeting. Too much talk, according to many, in relation to more tangible expressions of management's gratitude. The recent announcement of convertibles, accordingly, was welcome news. Virtually all employees of Ericsson will be offered an opportunity to make some extra money for the fine contributions everybody says we make. The only employees excluded from the offer are those who, unfortunately, live in countries where such offers conflict with local legislation. Ericsson cannot do anything about that, but it's still unfortunate for those of you affected by local restrictions.

When I started working for the company, a little more than two years had passed since Ericsson's previous convertible issue was offered to employees. That year, 1990, was a record year for Ericsson, and the value of its shares soared. My fellow employees were delighted to see the value of their convertibles rise in parallel with Ericsson's shares. They had been shocked by a very unpleasant surprise the first days after the subscription period closed in the autumn of 1987. The ink was barely dry on subscription forms when "Black Monday" sent stock markets reeling all over the world. Many people thought they made a very bad investment. Eventually, however, time healed the initial wounds. Ericsson proved to be a good investment and, a few years later, many employees were able to realize some of their future dreams on the strength of financial gains from the convertibles.

With the convertibles, Ericsson has taken another step in motivating its employees. More could be done, however, in the form of investments in personal skills development. We hear a lot of talk on the subject, but sometimes it's a long stretch between words and deeds, in my opinion.



LARS-GÖRAN HEDÉN