

# CONTACT

PUBLICATION FOR ERICSSON WORLDWIDE

NO. 5 • JUNE 1995

## Close up on Ingelsta

Ericsson Telecom's Ingelsta plant in Norrköping, Sweden, is operating at full speed. Despite this, time was found to improve the work organization.

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## No industrial espionage

There is a widespread misconception that monitoring the competition or "gathering business intelligence," is synonymous with corporate espionage. In reality, approx. 90 percent of all the essential information about competitors is a matter of public record.

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## All about Telecom 95

There are only four months remaining until Telecom 95, the year's highpoint in the telecom industry. Four years have passed since the previous Telecom show, but since then intensive work has been under way preparing for the 1995 version. Read about the preparations and what awaits the visitors in Geneva.

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## On the right track with PCS

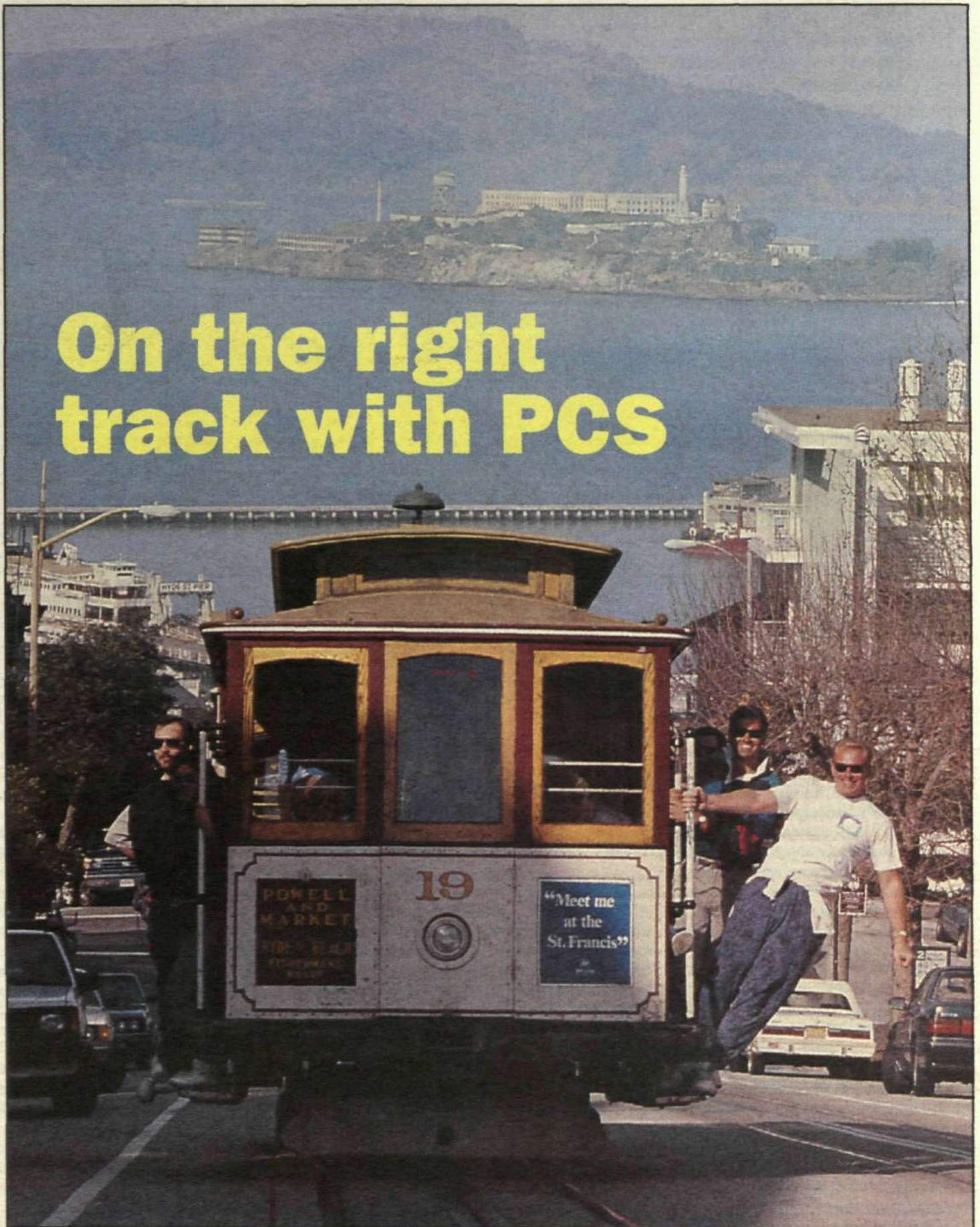


Photo: Pressens Bild

A battle is raging among the large suppliers of mobile telephony equipment in the American market over the new PCS systems, the next generation of mobile telephony. Following billion-dollar investments to acquire PCS licenses, the operators must follow up quickly with rapid in-

vestments in the actual systems. Ericsson won an important engagement in this battle recently when Pacific Bell Mobile Services signed a contract for installation of PCS equipment in San Francisco and other west coast areas. The order is valued at USD 300 million.

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# Value and volume: Both are needed in Ericsson's sales program

**Welcome to Ericsson's world, Bo Dimert! How does it feel to switch from data to telecommunications?**

**"It feels exciting and interesting – and not too entirely different. I have always been interested in the telephone sector. The two fields impact on each other and they intersect in the area of business communications, for which I will be responsible."**

Bo Dimert has a purely commercial background and he considers himself to be primarily a businessman. He thinks that the fact that he, as a non-technical person, will be in charge of the Business Communications Division of Ericsson's Business Networks business area is a good thing as a counterbalance in the period we are now experiencing, when one of the big challenges is to sell more efficiently.

"As the computer industry has done, we in Ericsson have to rationalize product sales quickly. We are, in principle, moving towards two different types of business. Volume sales of products – which in the computer industry are made mainly through indirect channels – is one type. "Value sales" keyed to system integration is the second type of business, the one where you create added value."

#### Shining examples

According to Bo Dimert, there are already some shining examples of efficient indirect selling. Telia is, in fact, Ericsson's representative in the field of business communications in Sweden.

"But we often also have to be able to deal directly with customers," Bo Dimert points out. "Many customers, especially large ones, want to be able to work directly with Ericsson and must be able to do so. This is the area in which there is a demand for our expertise, and where we can be effective by offering added value, in particular where large systems are involved. Ericsson's English company is already working successfully in this way."

#### Fantastic expertise

"Ericsson has fantastic expertise in the communications field. There is a tremendous potential for us to become the leading supplier of communications for multimedia applications, providing everything required for integrated solutions involving voice, data, video and images. Strategic joint ventures with other companies are important in this area."



**Bo Dimert succeeds Lars Boman as Manager of the Business Communications business unit on June 15.**

Bo Dimert joins Ericsson from Digital Equipment AB, where he was president since 1985 and also responsible for Digital's Nordic operations for the past three years.

He graduated from the Stockholm School of Economics in 1966 and has spent the greater part of his professional career in the computer industry. Following a brief period with Electrolux, he joined IBM in its sales department in 1968 and became sales manager within a few years. He served as director of planning in IBM's European head office in Paris from 1973 to 1975. He returned to Sweden as marketing manager in charge of Large Accounts. When he left IBM in 1985 he had advanced to the position of Sales Manager of the Large Accounts Division.

**"There is a tremendous potential for us to become the leading supplier of communications for multimedia applications. Strategic joint ventures with other companies are important in this area."**

"There are close parallels between the telecommunications and computer industries," Bo Dimert says. "Many companies take a unified view of the two sectors and regard them as a single unit. We have to be responsive to customers' demands; they are what will control growth in the market. The trend is toward open systems, which is adding to the competition. Moreover, the relationship between price and performance is increasing, with the result that margins are decreasing."

The Digital Equipment Company that Bo Dimert has just left is in strong shape. Its Nordic operations today have sales of around four billion kronor and employ

2,000 persons. The computer industry has experienced enormous growth that has then leveled off gradually on a high plateau. Nordiska Digital has an efficient and sound cost structure – and a strong position in the market.

#### Female successor

Bo Dimert turned the presidency of his former company over to Lisbeth Gustafsson, who rose from a position as personnel manager to become head of the entire company.

"I was personally able to choose my successor," he notes. "I chose Lisbeth because she is smart. We worked together for eight

years. In Digital, it doesn't make any difference whether you are a man or a woman. Competence is what counts. If a person is capable, he or she will stand out."

Bo Dimert doesn't plan to start any cultural revolution as the head of Business Communications but he thinks that it is important to continuously develop and improve an existing culture. When asked how he likes our new Head Office in Nacka Strand, he replies:

"It's a fantastic location. I can't imagine anything better. But I was somewhat surprised to see the traditional office layout. There are some rather long corridors here!"

Following his introduction – and trips to various Ericsson companies throughout the world – Bo Dimert wants to tackle his new job quickly.

"To be successful, you have to have the support of the organization in moving toward the objectives you set up," he says. "I will work hard to earn that support."

**Thord Andersson**

# CONTACT

**CONTACT is published by:**  
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HF/LME/DI, 126 25 STOCKHOLM

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**Layout:** Paues Media AB, phone +46 8-665 80 72  
**Printing:** Aftonbladet Civil, Gothenburg, 1995

# 'Export industry only rescuer for Sweden'



In his address at the Annual General Meeting, Lars Ramqvist focused on the current political situation in Sweden. "The only way out of the crisis for Sweden is to reindustrialize the country" was his message.

**The only thing that can rescue Sweden from the Government's financial straits is an investment in industry. Ericsson has demonstrated that industry can be expanded. Now there is a need for cooperation between political leaders and industry so that other companies can follow.**

**This was the theme of Lars Ramqvist's political message at Ericsson's Annual General Meeting.**

## Ramqvist's speech at the Annual General Meeting

At the Meeting, Lars Ramqvist, Kurt Hellström, Anders Igel and C W Ros provided an overview of Ericsson's position today. CONTACT'S readers are familiar with most of the information they offered. In his closing, personally colored remarks, Lars Ramqvist addressed the present political situation in Sweden.

### Privilege

"During the year we had the privilege of employing another 5,200 persons in Sweden, giving us a total of 37,500 employees in



More than 720 persons participated in the Annual General Meeting. They heard key addresses by Lars Ramqvist, C W Ros, Anders Igel and Kurt Hellström.

Photo: Peter Nordahl

the country. And of our investments amounting to SEK 5.1 billion, SEK 3.2 billion – or slightly more than 60 percent – involved projects in Sweden.

### Doubled exports

"During 1994 we increased our exports from Sweden to nearly SEK 41.4 billion, equal to nearly 10 percent of the country's total exports of goods. During the past two years Ericsson's exports have increased more than 100 percent and the number of employees has risen by 7,000.

"Ericsson has indeed invested heavily in Sweden during the past five years. In fact, few – if any – other companies invest more than Ericsson in Sweden. I know that you, as shareholders, are proud of what Ericsson has done for Sweden, but the question is whether our political leaders feel the same way. They should, because Sweden's great problems with Government debt can be solved primarily by an investment in industry.

### One out of five jobless

"As we all know, 318,000 men and women are now 'openly' unemployed in Sweden. That amounts to 7.5 percent of the working population. Another 5.3 percent, or 224,000 persons, are

engaged in labor market 'make work' programs. In other words, 540,000 persons – 12.9 percent of the working population – are actually unemployed in our country.

"To this number we have to add the 400,000 early pensioners who were in many cases retired simply due to reasons linked to labor market policy. If we add up all these figures, we see that 22 percent of the working population is not being given an opportunity to contribute to the country's support.

### No new industrial jobs

"It is also important to point out that since 1970 there has been absolutely no net increase in the number of jobs in the private sector. I hardly have to note that, in contrast, the number of jobs in the public sector doubled during the same period.

"It is not surprising that the budget deficit is large. Where is the political responsibility? Where is the personal responsibility? Where is the political crisis-awareness? How did we manage to go so wrong?

### Invest in industry

"We in industry see only one solution: Reindustrialize Sweden. The country has so little industry

today that we cannot even measure up to the OECD definition of an industrial society, which specifies that industry should account for at least 20 percent of the gross national product.

### Doubled effect

"Industry is important. Each new job in industry creates two additional jobs in the private service sector."

"Ericsson has demonstrated that industry can be expanded when it uses large resources of its own, but much more than our efforts is required."

"Industry is prepared, and it can help in a decisive manner, to restore prosperity and growth in Sweden, but we need support from political leaders.

"What is needed is a predictable operating environment that stimulates investments, work and the development of expertise. In a borderless, competitive world, the only things that count are expertise, flexibility and quality. There are no short cuts.

### 'We are the market'

Lars Ramqvist then turned to the recent political attacks on industry and its leaders, including the assertion that large companies share responsibility for uneasiness in the currency market.

"Everyone, even politicians, has to understand that we, ourselves, constitute the market, often in the form of our pension funds. Sweden, which is today one of the world's largest single borrowers and has to borrow several hundred million kronor every day, is dependent on finding lenders.

"This money may come from pension insurance funds in Sweden, from steelworkers' funds in Pittsburgh, or from many lenders. All of them want interest on their savings. As long as Sweden is forced to borrow as much as it now has to, lenders see a risk and demand compensation for it – in the form of higher interest rates.

### Staying in Sweden

"We in industry are appealing for common sense. We have to establish the cooperation between political leaders and industry that the country so badly needs. Because, despite everything, we in industry are determined:

"We are going to stay in Sweden.

"We are going to reindustrialize Sweden.

"And we are going to it for the benefit of the Swedish people!"

**Summary:**  
Lars-Göran Hedin

# Mobilization around AXE and broadband

**A rapid mobilization to become the leader in building the networks of the future is the prescription for success for the Public Telecommunications business area. A strong focus is now being placed on the core areas around AXE - Ericsson's best seller ever. Ericsson will also assume a leading role in development of broadband solutions.**

**Concurrently, efficiency is to be raised in all areas. This is necessary to meet the increasingly tougher market competition. As a result, personnel will be made available to support the Radio Communications business area, which is currently in great need of new employees.**

**"With radical approaches, we will become the best in the world in future network solutions."**

Anders Igel and the executives in the business area's new management team have finalized the new strategy for Public Telecommunications.

"The new division of responsibility and the change in top management which was implemented during the past year were not measures taken for the sake of change. These actions created the conditions for the radical approaches which now will be taken in our operations. We are now reviewing the entire operation - in Sweden and abroad. This will affect Ericsson Telecom in particular!

"The goal is to better capitalize on the profitability potential inherent in our core operations. By investing more in certain products and less in others, we can increase the business area's profitability highly significantly. We will also to a greater extent than before solicit support from other companies to fill-out our product portfolio. We shall be world leaders in offering total network solutions," Anders Igel emphasizes.

## Unique opportunity

Today, Ericsson is the undisputed leader in mobile communications - thanks to the AXE switch. To date, AXE is the world's most sold individual digital switching system. This is why Anders Igel is convinced that Ericsson has a unique opportunity to secure the position as world leader in "traditional" switching technology. The heavy focus on the core areas around AXE is the first foundation for Anders' recipe for success.

"The march toward the information society is already a reality. Ericsson is going to be involved and lead the development. Accordingly, the second foundation in the strategy is a mobilization around the broadband area. In this area, we are fo-

cus on products with which we have an opportunity of becoming world leading. At the same time, we are increasing cooperation with other companies."

"The third foundation in the strategy is enhancing the efficiency of the business area's entire operations. An important element in this area is that certain activities will be discontinued or cut-back sharply."

## Building the new

"What a challenge we have ahead of us in the broadband unit," says the unit's manager Björn Hemstad. "Our vision is to be the company that makes it possible for people in the future to work in networks - humanly and technically. Our motto is "Enabling networking for the new generation.

"This gives a feeling for the magnitude of being involved in starting something new," Björn continues.

"We can't do it all alone. We will be increasing cooperation with other companies in this area. One example is SDH, where we will be investing in significantly increasing our market share together with partners.

"In addition, we will focus on the relevant areas within the broadband system, access and network management. We have all the prerequisites of becoming a major player in information technology by investing correctly and by developing systems short-term and over the long-term. In the short-term, we must sharply reduce our costs to be able to develop our operations toward our aggressive goals."

## Increased productivity

"All of us working within Public Telecommunications must be fully aware that Public Telecom has a bright future. We have the world-leading AXE switching system, which it appears could



Global networking is a reality to the young generation of today. With its unique competence within telecommunications, Ericsson will be able to be a key player, when the information society now is being built up.



"The traditional public switching market is increasing by 10 percent a year during the years up to year 2,000. That is enough to be of great interest to Ericsson. By reaching market shares up to 20 percent within the areas we are now concentrating on, it will be possible to double our sales by the end of the century, Anders Igel promises.

never be outdated. In contrast, with new techniques for enhancing the efficiency of the software, we can make AXE even better," Anders Igel contends.

Ingmar Nilsson is manager of the unit responsible for AXE in narrow-band applications.

"When we review our operations in narrow band, it is important that we secure critical AXE projects such as ISDN 12.4 with AM architecture. And we will be accelerating further development of AXE. We will be focusing on these areas even more than before," Ingmar promises.

"But in order for this to be financially feasible, we must capture the opportunities for ra-

tionalization which are available in the process known as the 'Customer Supply Flow.' By this we mean the entire chain from ordering to payment for the already developed products. Shorter lead times are required to reduce capital costs."

"We know how to do it. Now we have to implement these actions throughout the entire business area.

"We have to become as efficient as our colleagues at Radio Communications. There the number of employees in relation to net sales is only half of what it is in our business area."

Anders Igel foresees continued rationalization in production, in line with Ericsson's goal to cut the number of production units by half and focus more on outsourcing.

"Where we cannot achieve economies of scale ourselves, we will let subcontractors do it," says Anders. "The people at radio has been very good at this. We have to learn from them."

"My goal is that the business area and particularly Ericsson Telecom shall achieve World Class Productivity! This is an effort we must make worldwide, and Sweden has to lead the way," emphasizes Rolf Nordström, who is responsible for the business areas production units.

## New opportunities

When the required changes are now successively implemented, the demands for job rotation between the business areas will increase. The Radio Commu-

nications (BR) business area is in dire need of skilled personnel.

"We are now looking at the possibilities of transferring resources to BR and we are discussing with our colleagues at BR what efforts may be required for training, re-education or skills enhancement. The ambition of the business area's management is to provide the opportunity for personnel to rotate between the business areas, in Sweden and abroad."

Kurt Hellström, manager of the Radio Communications business area, welcomes the added resources which may come from Anders Igel's business area.

"Efficiency improvement within Public Telecommunications could come at a better time for us at BR. We have a great need for new personnel. Together with BX, we will have to look at the ways people from their area can be integrated into our operations," he says.

"We shall do everything possible to capitalize on this opportunity to strengthen our mobile efforts with skilled and experienced personnel from other areas of Ericsson, in Sweden and abroad."

Anders Igel emphasizes that the process which the business area is now facing will be carried out in the traditional spirit of cooperation between companies and the organizations representing the employees.

"We have a common interest in this respect. To retain our competent personnel!"

By Lars-Göran Hedin

# Billion order for PCS from Pacific Bell

**Pacific Bell Mobile Services (PBMS) has signed a five-year contract with Ericsson covering delivery of PCS equipment to California and Nevada. Valued at slightly more than SEK 2 billion, this is the first really major order in the PCS area.**

After the winter auctions for PCS licenses, feverish activity is now under way in the U.S. The new operators are moving rapidly ahead and completing negotiations for the technology required to compete for PCS subscribers. Billions of dollars were invested in the licenses, now the task is to generate a return as quickly as possible. This requires decision on what technology to choose and then which supplier or suppliers to contract.

## Enormous market

With its world-leading position in mobile telephony, Ericsson is one of the most important players in the intensive negotiating game currently being played. This is an enormous market that is being divided up and a hand-

ful of suppliers are doing battle to win their share.

The announcement of the contract with Pacific Bell Mobile Services and deliveries worth USD 300 million was an important victory for Ericsson. Previously orders had been won from American Personal Communications, among others, for PCS systems, but this was the first real major contract. PBMS has ordered a so-called PCS 1900 system, which means that one of the largest operators has invested in a GSM-based system. This technology choice is an important signal to the market and then particularly to smaller operators interested in roaming contracts with PBMS. Moreover, the order is one of the largest ever for GSM equipment. It also includes Ericsson's smaller and lighter PCS 1900 telephones.

## Mass market

PCS will offer a number of cordless voice and data services. The goal with PCS is particularly to make cordless telephony accessible to the large consumer groups. Although the system will offer many advanced services and functions, it will be a less expensive alterna-

tive than traditional mobile telephony.

"PCS can fulfill the promise of cordless communications whenever and wherever at a price which the consumer is willing to pay," explains Lyn Daniels, CEO of PBMS.

PBMS has carried out successful field tests with PCS in business and hospital environments and among consumers during the past year. The reception has been overwhelmingly positive.

## Extensive contract

As part of the contract, Ericsson will deliver its PCS 1900 system to cover most of California and Nevada, including such cities as San Francisco, Los Angeles and Las Vegas.

Ericsson will deliver the base system with mobile switches, home location registers, and base-station equipment. The installation is scheduled to be completed in the fourth quarter of 1996.

The contract also includes Ericsson PCS 1900 telephones. Weighing less than 200 grams, they can be easily carried in a pocket or purse. Despite its small size, the telephone contains many advanced functions.



Personal safety is an increasingly common reason why Australians are acquiring mobile telephones.

## Two million mobile subscribers

**Australia is rapidly becoming one of the densest mobile telephone countries in the world. The number of mobile telephone subscribers is approaching 12 percent, corresponding to 2 million subscribers.**

Mobile telephony has been available in Australia for only seven and a half years. Nevertheless, the mobile telephone density in the country now exceeds such countries as Japan, the U.S. and Canada, all of which introduced mobile telephony much earlier. The fact is that growth is so high today that it exceeds all forecasts. Between December 1993 and May 1995, mobile telephony increases by 220 percent.

Ericsson is the predominant supplier on the market, accounting for 100 percent of the analog and 90 percent of the GSM systems to Telecom MobileNet - Telecom Australia's mobile segment - and for 100 percent to Vodafone, the country's third operator.

Australians are known for their rapid assimilation of new technologies. Earlier subscribers were mainly small businessmen who discovered that accessibility via mobile telephone was good for business. Then came the yuppie era.

Today, there is currently a new profile on the market. Many of the new subscribers view the mobile telephone as a way to increase their own safety.

## Ericsson and Ascom in pager cooperation

**A letter of intent has been signed between Ericsson and Swiss Ascom to merge the two companies' on-site paging operations into a single company in which Ascom would hold a 70-percent interest and Ericsson 30 percent.**

The merge is being carried out to meet the new situation in the market for on-site paging, which is influenced heavily by developments in mobile telephony, nationwide paging systems and other cordless technologies.

Despite these developments, there are still important application areas for on-site systems - within industry and in health care for example.

## Market leader

The new company will focus on becoming the market leader in these areas with advanced solutions for message processing.

The company includes Ascom

Tateco AB in Gothenburg. This company will retain its subsidiaries and be integrated with British Ascom Tel-Nova.

The Ericsson units affected are NIRA companies in the Netherlands, Belgium, France and Australia, Ericsson Private Systems GmbH in Germany, and the personal paging units within Ericsson AG in Switzerland and Ericsson A/S in Denmark. Finally it also involves the personal paging units within Ericsson Radio Systems BV in the Netherlands.

## Emmen radio center

R&D activities within Ericsson Radio Systems BV in Emmen, the Netherlands - as well as production there - remain within Ericsson. Emmen will become a production and development unit for Ericsson's radio products. However, during a transition period, certain operations will continue on assignment to the new personal paging company.

## Now AXE scores a breakthrough in Japan

**Ericsson continues to record successes in the Japanese market. Following the successes in digital mobile telephony, the country became Ericsson's tenth largest market in 1994. A breakthrough was also achieved this May with AXE. International Telecom Japan, ITJ, ordered an international AXE station and IN services with related operating support systems.**

The AXE order from ITJ is important strategically for Ericsson. It is the company's first order for fixed-wire public telecommunications in Japan. The contract covers delivery and installation of an international AXE station in Tokyo.

It also includes Intelligent Network (IN) services based on AXE and an SMAS (Service

Management Application System) operating support systems to handle these services. SMAS is part of the TMOS family.

ITJ is one of three operators providing international telecom services in Japan.

The company has sold telecom services since 1989. ITJ's customers will now be able to use a number of advanced IN services through the Ericsson system.

## Large new market

Ericsson's sales in Japan increased substantially during 1994. This was attributable mainly to orders for mobile telephone systems to, for example, Tokyo, Osaka and Nagoya. Ericsson has 300 employees and sales of more than SEK 4 billion in Japan.

The digital mobile success makes the country the fifth largest market for Ericsson, with 5 percent of total sales.

## NMT 450i sells well in the east

Ericsson's NMT 450 analog radio systems are still going strong. Recently, it was announced that the Ericsson received several new contracts for the system from Russia. Combined, the orders were valued at SEK 160 million.

NMT 450i is the designation for the modern variations of Ericsson's faithful servant among mobile telephone systems. The current contracts cover equipment to Moscow, Kaliningrad, Vladivostok, Smolensk and Jekaterinenburg. Installation will be carried out this year.

Previously, Ericsson delivered NMT 450i equipment to Moscow, St. Petersburg and Ufa. The standard is considered to have great potential in Russia. The Russian communications ministry has designated NMT 450i as the federal standard for analog mobile telephone systems. To date, more than 40 licenses have been awarded.



Lars Ramqvist, President and CEO of Ericsson, got together at the G7 Meeting in Brussels with Göran Schlyter, President of Ericsson's Belgian subsidiary, and representatives of consortiums that are competing for Belgium's second GSM license. (L-r): Paul Henri Denuit, of Coditel, Joaquin Carbonell, of the Bell South consortium, Lars Ramqvist and Göran Schlyter.

## Out with the old, in with the new

### Big changes emerging in Belgian Telecom market

**An aura of radical change pervades the telecom market in Belgium. The old government monopoly is on the way out, and new international partners are on the way in. The country's second GSM network will be opened soon. The changes and success in mobile telephony are breathing new life into Ericsson's Belgian company.**

Anyone who has stood in line for three hours outside one of the Belgian telecom monopoly's boutiques just to get a new subscription knows that today's demands for change are well founded.

With the headquarters for the European Union and NATO, and its function as a center for politics and commerce, Brussels has been called the capital of Europe for many years. But the old Belgian telecommunications authority could not satisfy the demands of the world around it.

Due to poor service and high rates, foreign operators – including Telia of Sweden – successfully recruited customers for long-distance services.

"So much has happened in the world, both in terms of technology and economics, that we were

unable to stay abreast of new developments," admits one person in the Belgian communications department.

The first step toward reviving Belgian telecommunications was to privatize the former government authority by forming an independent, state-owned company in 1992. An agreement signed by EU member countries concerning liberalization of voice telephony in 1998, as well as greater competition in the mobile telephone market, increased demands for reform.

#### New network opened

Until 1994, frustrated GSM subscribers were forced to turn off their telephone when they arrived in Belgium. Last year, Belgacom opened its own network. Following strong criticism from the EU commission, Belgium finally started to make plans for a competing operator. The time period for tendering bids expires soon and Ericsson is following the development of new telecom transactions in Belgium with particular interest.

"We have committed ourselves to entering the market as a supplier for the new GSM network and, to a certain extent, the old network," says Göran Schlyter, President of Ericsson's subsidiary in Belgium.

Visitors to Ericsson's head office in Belgium, situated across the street from the NATO building, just outside Brussels, immediately notice the tall radio mast outside. The mast is part of a demo-installation Ericsson has built up to show how the GSM technology actually works. In principle, it enables the company to start from Day 1 or Day 2 if the Group succeeds in winning a contract for the new network.

Telecom Finland is also considered a possible operator for the new network. Regardless of which company is awarded the license, the order for infrastructure will be a key transaction.

#### Radio will grow

In the past, sales of company telephone exchanges have accounted

- Slightly more than 10 million inhabitants
- Land area 30,518 sq. km.
- 4.5 million telephone subscribers
- 75,000 GSM subscribers (Belgacom)
- Majority of population, 60 percent speak Flemish, the remainder French
- Well-developed infrastructure, two major ports, 850 km of motorways
- Some 1,000 foreign manufacturing companies and about 15,000 market and service companies.

for the dominant part of Ericsson's annual sales of about SEK 300 m. However, Göran Schlyter expects the field of radio communications to grow strongly, with a 100-percent increase in sales in 1995.

"Our PABX-es were an important reason why Ericsson set up operations here," says Göran Schlyter. "We now have more than 6,000 customers in Belgium and have reached the position of Number Two in the market." "Belgium is a good test market. There is strong competition here and we get feeling that we are working in a truly international market. We have worked hard to establish Ericsson as a supplier to large multinational companies," Schlyter continues.

#### Radio network for police

One ongoing project that offers considerable promise and hope of the Belgian subsidiary involves the delivery of a nationwide radio network for Belgium's federal police force. Ericsson wants to build up the entire infrastructure based on the Edacs system developed by General Electric, a company with very large installations in the U.S. The value of the order is in the range of SEK 2 bn. Ericsson is cooperating in a joint venture with Siemens in order to gain a better political foothold.

"We are still suffering from some unusual twists in official purchasing practices in the past. We are now trying to enter joint ventures as a partner, thereby proving that former ground rules employed in the past no longer apply – we now intend to buy whatever offers the best value for money," explains Schlyter.

Other areas of Ericsson operations that are doing well commercially include wide area paging (Ermes) and Mobitex, an area for which Ericsson is now fully engaged in the installation of infrastructural elements. Sales of GSM terminals are also profitable, with a 30-percent market share that has been a "shot in the arm" for the company's image.

"Now people can see what we have in our back pocket," Schlyter says in jest.

#### Fragmented picture

During today's turmoil and transformation in the Belgian and other European telecommunications markets, it is important for Ericsson to keep a watchful eye on all the players and competitors. The picture is fragmented, to say the least, and sometimes self-contradictory.

For example, Bessel Kok, former President of Belgacom, is now working as a consultant for Unisource, which is owned partly by Telia.

John Goosens, Belgacom's new President, was employed

Brussels is starting to catch up with the rest of Europe in the field of mobile telephony. Until 1994, there were no GSM networks in Belgium. Belgacom, the state-owned operator, opened its first network last year.

After stinging criticism from the EU Commission, it is now time for other competing GSM networks and for a deregulation of the telecom market.

previously by Alcatel, Belgacom's major supplier. He joined the company at year-end 1994, along with a completely new Board of Directors, to lead the modernization of Belgacom.

#### Adaptation

Greater adaptation to market needs and the formulation of a more clearly defined line for rationalization measures are two of his primary responsibilities. Belgacom reported earnings of slightly more than SEK 2 bn last year, and the company is now being valued in conjunction with the Belgian government's sale of between 25 and 49 percent of Belgacom's shares.

#### Negotiations in progress

According to reports in the Belgian press, negotiations are now underway between the Belgian telecom company and Unisource. British BT as well as French and German operators have also expressed interest, according to reports. The future of Belgacom will be decided as early as this summer.

"We are carefully monitoring developments and have an open dialogue with most operators here in Belgium. We have intensified our efforts with public switching. In addition to Albania and the Czech Republic, Belgium is still an untapped market for the Ericsson Group," says Göran Schlyter.

The Belgian company is also preparing to embark on purchasing in the areas of SDH technology and ATM systems for broad band communications.

#### Foothold needed

Capital credibility is also needed if Ericsson is to make any serious inroads into large telecom transactions in Belgium. The Group has now overcome that obstacle through its strong presence in the corporate market.

But Ericsson also needs a foothold in the market that would be secured through the establishment of production or R&D activities in Belgium. For this reason, Ericsson may be expected to build up resources for eventual R&D or training centers in the area. There are also opportunities for cooperation between the university in Liege and Ericsson's installation in Aachen.

#### Market of the future

Belgium is a complicated society divided among different language groups and regions, united by a federal government. But the country is also emerging as a dynamic market with many different operators and large groups of international customers.

"There are several reasons why it is important for Ericsson to be an active player in Belgium," concludes Göran Schlyter.

By Jacob Schulze

## New generation of antennas emerging at Mölndal plant

**In parallel with the development of mobile telephony, antennas used in the systems are gaining increasing importance.**

**A cooperation project between two Ericsson companies is now working toward the development of competitive and technically sophisticated antennas.**

A new frequency band for Personal Communication Services (PCS) was introduced recently in the U.S. on 1900 MHz. During the period from December 1994-April 1995, partial frequencies were auctioned off for USD 7 bn. In the wake of the newly opened frequency band, new operators are investing big money in licenses and infrastructure, money for which they want a rapid return.

Today's frequency bands, which are utilized to virtual capacity, are in the range of only 800 MHz. With higher frequencies that must be used today, the transmission ranges of existing systems will be reduced. Technically sophisticated antennas are required to maintain coverage ranges in communications between mobile telephones and base stations.

#### New generation

In view of this new demand, a cooperation project was started last autumn between Ericsson Microwave Systems in Mölndal and Ericsson Radio in Kista. The aim of the project, called EWACS/IDA, is to develop a new generation of antennas that will satisfy new demands placed by PCS.

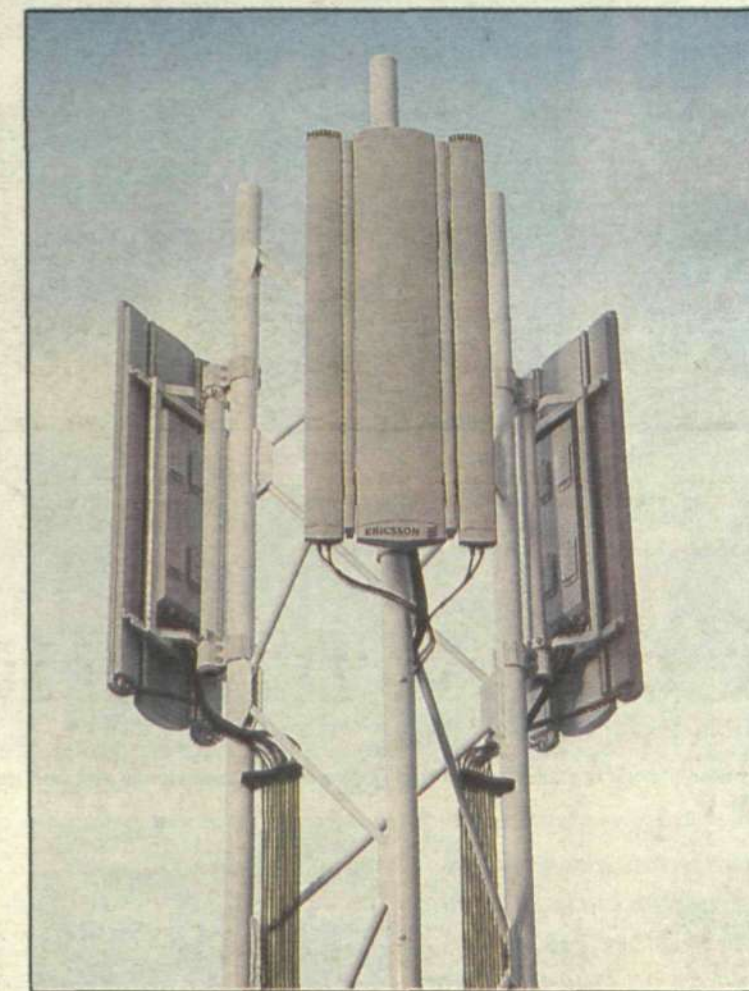
Advanced antennas are now being built to create base stations with large cells that provide good coverage rapidly. The project is taking advantage of Microwave's antenna know-how from the military field, implementing the skills in new applications – combined with mobile telephony skills and know-how from Radio Communications.

"Antennas are becoming an integral part of mobile telephone systems," says Hans Mähler of Ericsson Microwave Systems (EMW) in Mölndal. "That is why we are entering the market."

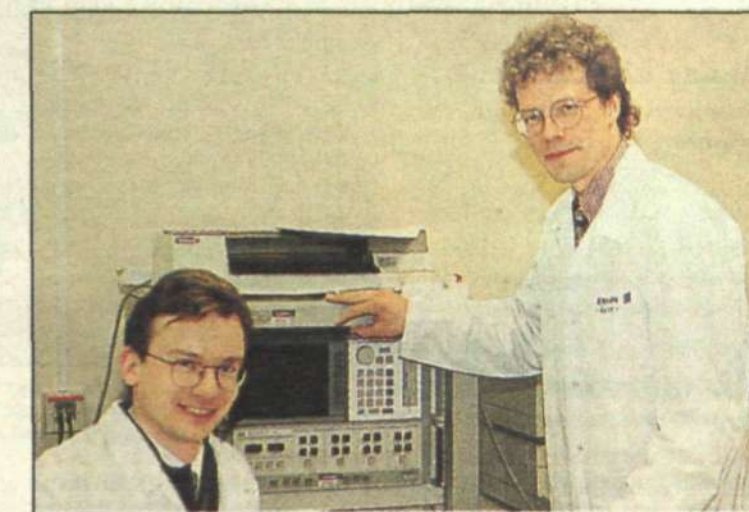
Antennas and accessory equipment now being designed in Mölndal will be manufactured in Borås. A prototype will be ready toward year-end and serial production is expected to begin in 1996.

#### Successor

The EWACS/IDA project was started last autumn and has already



Antennas developed by EWACS/IDA increase the range of base stations.



Hans Mähler (l) of the newly formed Section for antenna products, and Björn Johansson of the antenna department, are working with active antennas at Ericsson Microwave Systems in Mölndal.

been followed up by two closely related projects, one of which is testing new concepts to improve the performance of base stations with more conventional antennas. The other project, a research program being conducted in cooperation with Ericsson Radio's technical unit, is designed to improve system capacity so that several calls can be made simultaneously using so-called adaptive active antenna systems.

#### Pioneers

Development trends have been explosive. Six months ago, Hans Mähler and a few pioneering enthusiasts in the antenna department started working alone on the new generation of antennas. Since April 1, a completely new

unit has been established, the Section of antenna products within the mobile telephone systems sector. Its cornerstones are based on the military defense sector's traditional skills and expertise in antennas and the S-Division's mobile telephony skills and experience in working with outdoor electronics with MiniLink. When the build-up is complete in the near future, the section will have 30 persons working on the development of antennas, including certain parts of the antenna department.

The common objectives of both companies is to establish Microwave Systems as a center for active antennas, including the adaptive active antennas of the future.

# In Ingelsta, the focus is on circuits



At nine o'clock it's time for the first coffee break. Sandwiches and card games are part of the ritual of relaxing.

The sun is already well above the horizon when the number 116 bus swings off Ståthögavägen and into the large parking space in front of the Ingelsta plant in Norrköping. The bus discharges a cluster of Ericsson employees who don't seem to be overly bothered by the early hour. Spring is in the air and even though the morning is still cool there is the promise of a warm day.



Lennart Gustavsson looks for faults in ALEs (analog line interface boards) in ACA 3. All boards are tested during production and those that prove to be faulty are sent to Lennart.

Karolina Lander, who will be 20 this year, has just got a job at Ericsson. Since Tuesday she has been taking part in the two-week course in soldering technique that is mandatory for all new production employees in the Ingelsta plant.

Karolina, who will be working in ACA 3, is now learning how to mount components on a printed circuit and solder them firmly.

"It's all very new and I sometimes wonder how I can learn everything, but this is only my third day...It's easy to get to know people here at the school so, if I don't know what to do, all I have to do is ask."

### Vocational training

Karolina has had two years of the three-year vocational training offered in the local equivalent of a senior high school. And she has worked for ten months at Mattssons Express, which produces batteries for Ericsson's mobile telephones.

"We like our new employees to have had at least two years of high school or a labor market (AMS) course," says Lennart Johnsson, who is manager of the training department at Ingelsta. "It's no longer

enough to have just a grammar school education."

"But it's nice that they accept people who don't have a technical background—and that they take in young people," Karolina says.

### Two types of printed circuits

At Ingelsta, Ericsson produces printed circuits (in ACA 1 and ACA 3) and pattern circuit cards in the Pattern Circuit Card plant. One of the Company's largest warehouses is also located there.

ACA 1 is involved in volume production of printed circuits: large volumes, low prices and conventional technology. China and other Asian countries are large customers.

ACA 3 turns out printed circuits of a slightly more advanced type. They are more compact, enabling telecom operators to offer more services. These circuits, which are more expensive, are sold mainly in Europe.

The core unit of the Ingelsta plant was built in 1967 and the plant has been enlarged by stages since then.

ACA is a very young production unit with a number of young managers. The product unit manager, Klas Arildsson, is also young. He is heavily involved in the Focus project and other efficiency-improvement projects.

"We concentrate a great deal on quality. Since our set-up for the Focus project was approved, we have organized our operations as a product unit, have recruited production managers and have changed premises; and we have started leadership-development programs for managers and courses for employees to ensure that everyone will be able to work well in groups."

### Good premises

The employees appreciate the new premises, especially the new ceiling that helps to substantially reduce the noise level, and

which makes it easier to regulate the temperature.

"It used to be ice-cold in winter and broiling hot in summer," says Tommy Dahm, who handles "field returns" in ACA 1. This means that he investigates printed circuits that have broken down throughout the world.

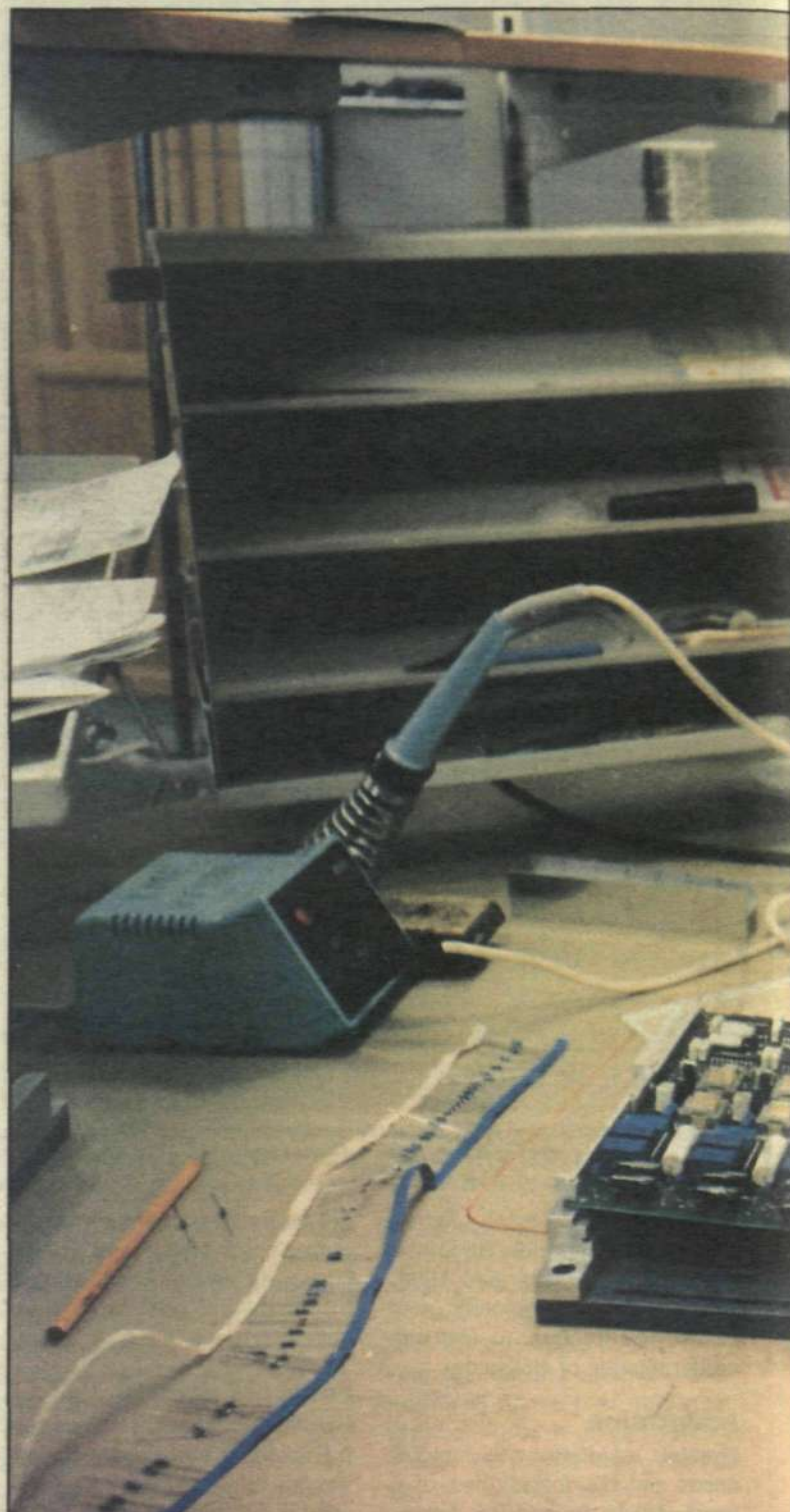
"With the new ceiling, the heat stays down near the floor, and the lighting is also better since it has been possible to install fixtures in the ceiling," Tommy says. "Before, we had a good view of steel pipes nine meters above our heads!"

The new air conditioning system is also appreciated by those who work on the plant floor.

"Yes, that's something that never really worked before," Tommy says. "It was generally some system that released fresh air in a few places, where it stayed. Now we have a system that distributes the air evenly throughout the area."

### Rotation program

Most of the work performed on the factory floor is monotonous and is both psychologically and physically draining. But



Karolina Lander, 19, has just started to work at Ericsson. She will begin to assemble printed circuits in ACA 3 when she has completed a two-



week course in soldering technique. "It's great to have gotten a job here," she says. "Many of my friends are working here and I recognize a lot of faces." Photo: Peter Zatrepaek

ACA 1 has now started a rotation program.

"Everyone has to be familiar with at least three jobs so that they can rotate assignments," says Riita Rautiokoski, who mounts components on circuit cards. "We make up a new schedule every Friday, and it works well."

### Military help

For its leadership and group-development courses, ACA 1 has called on the military for assistance. A 25-year-old lieutenant from the engineering corps in Södertälje has presented courses at Ingelsta that were so effective that he has now been employed full-time to work on the efficiency-improvement program.

The aim of the program is to develop actively involved employees who are able to assume more responsibility and who can feel a greater sense of participation.

"We visited Saab in Trollhättan a month ago," Klas Arildsson says. "There are slightly more than 4,000 persons working there and in the course of a year management had received 24,000 suggestions—six suggestions per employee! That's the

sort of involvement we are seeking. We have an incredible potential in our employees."

Klas views the relative youth of the managers as both a strength and a weakness. The young managers lack experience but they offer a high degree of flexibility as well as new ideas. The high percentage of men in managerial positions is also viewed as a weakness.

"I think the group dynamics will be much better if there is a more even distribution of men and women in all positions. Our objective is to increase the percentage of women managers and women with technical ability, and to have a higher percentage of men on the factory floor."

Sixty percent of the employees on the factory floor at the Ericsson plant in Norrköping today are women.

### Large warehouse

Ingelsta has one of Europe's largest warehouses, containing 12,500 pallet locations and 4,500 products. The warehouse, which serves six units in Continental Europe and six in Sweden, houses goods valued at SEK 500 m. It was built in 1993



Goods worth SEK 500 m. are stored here, in one of Europe's largest warehouses. The crane that stores and retrieves goods maintains a speed of 15 kilometers an hour. But when one watches it in action, it appears to be doing at least 50. Nothing is allowed to be warehoused longer than half a year.



Klas Arildsson, 38, is a dedicated manager who wants all employees to be involved in the process of change.



Tommy Dahm handles "field returns" and acts as a guide for visitors to ACA 1 and ACA 3.

and is controlled completely by computers.

To retrieve a stored item, the operator calls up the code number of the article in the computer. The crane system then rattles into action. It reaches into the stacks, picks up the article and places it on a pallet. The pallet moves out of the stacks and the operator reads off the bar code with a laser pen. The computer records the withdrawal of the article and a slip bearing the order number and article number emerges from the printer.

A similar procedure, in reverse, takes place when something is placed in inventory. The crane picks the article, disappears in the warehouse and deposits it somewhere. No one knows where. In case of a power failure, there is a back-up unit producing electricity.

At four o'clock the day ends for those who stepped off the bus at seven in the morning. The Ingelsta factory spreads out over a broad plain. The wind has risen and the Ericsson flags are flapping. People begin to drift over to the parking area, toward the bus and on their way home.

Isabel Werner

# Charting competitors, bit by bit

Monitoring the business environment is strategically important

**The telecommunications industry is expanding. Competition is stiffening. The pace of the market is accelerating. All these factors are making it increasingly important for Ericsson to monitor its business environment and its competitors in an effective manner.**

Monitoring the competition, which is part of what is known as "gathering business intelligence," involves acquiring the clearest possible picture of competitors' future capabilities as a basis for making correct strategic decisions.

There is a widespread misconception that this is synonymous with corporate espionage. In reality, approximately 90 percent of all the essential information about competitors is a matter of public record and easily accessible. More is generally not needed, only the ability to put all the pieces of the puzzle together.

## Network within Ericsson

A large meeting in Kista recently brought together Ericsson men and women who are involved in monitoring competitors. People from all sectors of Ericsson and from a number of countries met primarily in order to build an internal network and to discuss work methods and tools.

## Same competitors

The plan is to meet regularly to discuss competitors and their products. While the markets may differ, the competitors are generally the same regardless of whether the products or services involved are telephone switches, mobile telephony or networks.

"It is important to have contacts in this business and such meetings provide an excellent way to exchange information and keep each other informed of current developments," says Greger Larsson, the competition monitor in the Radio Communications Business Area and one of the sponsors of the Kista meeting.

## Many sources

Apart from the network within Ericsson, a Swedish organization, BIsnes (Business Intelligence & Security Network Sweden), and a number of international

organizations promote cooperation in this field.

## In our own minds

How is business intelligence gathered, and where does the information come from?

The greater of the useful information is already available within a company, in the minds, records and files of its own employees. They may be design engineers, service personnel or persons who get around a lot within the industry or who meet customers frequently. The job of the "competition monitor" is to locate these people and extract the unique information that they may not even be aware that they possess.

Attendance at conferences and trade shows can be useful. At such events, many companies go out of their way to reveal information that they have earlier done everything possible to hide.

## Searching in databases

Another way to obtain information is to conduct searches in the many databases that are available. The largest database company, Dialog, offers access to more than 600 different databases including such important news sources as Reuters and Financial Times. Other databases contain information ranging from the latest corporate press releases to complete annual reports. It is also possible to subscribe for continuing updates of information keyed to criteria established by the subscriber.

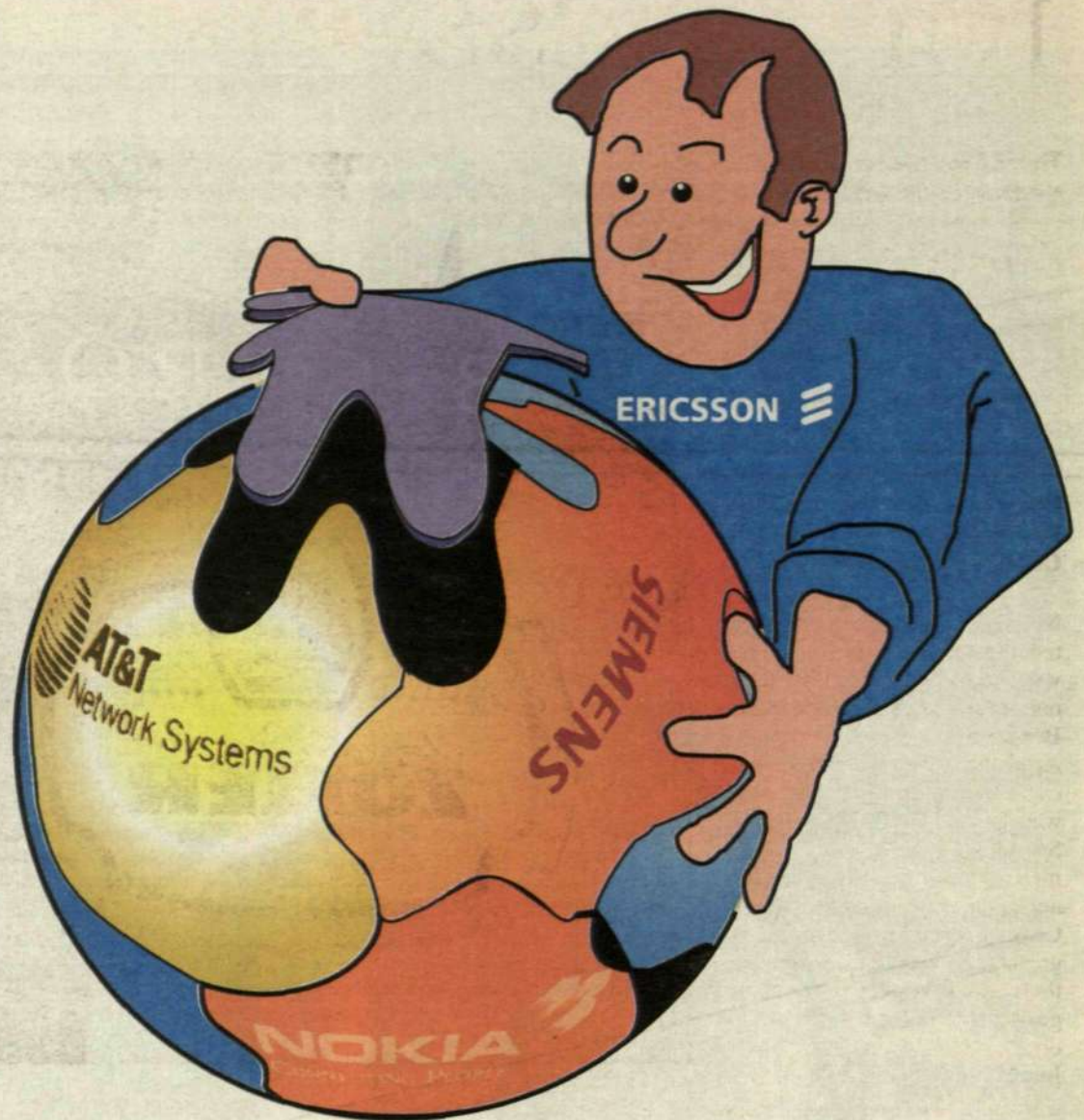
## In the Internet

In addition, a great deal of information can be obtained from special CDs (compact disks) containing reports and statistical data. And if you know where to look for them you can find many company presentations (including sales figures and help-wanted advertisements) in the global Internet that links millions of persons and organizations throughout the world via computer modems. Information on Ericsson is available there, too.

"You may think that everything has to be read, but after you have been working in this field for a while you develop a sense of what is interesting and important," Greger Larsson says.

## Show results

It takes time to gather information, and you also have to allow time to analyze and report find-



Bit by bit, the picture emerges. Monitoring the competition can be likened to putting a puzzle together, with many of the pieces consisting of information already available within Ericsson. But you have to accept the fact that the puzzle will never be fully complete. Illustration: Leif Sundberg



A few of Ericsson's "competitor monitors": Johanna Savefalk, Greger Larsson, Marlon von der Zwean, Göran Fågels-Fick, Alfredo Casuso, Karin Tage, Lars Gandis and Petra von der Veiden. Photo: Björn Seger

ings. The idea is that decision-makers – company executives, product managers, marketing people and others – should be able to use the findings in order to develop strategic plans and forecasts for a number of years in the future.

About once a month Greger Larsson distributes a news bulletin,

"Spotlight," that usually deals largely with competitors. Other units also issue bulletins covering specific products or markets.

## Not an exact science

Monitoring the competition can never be an exact science since there is seldom such a thing as

totally reliable data. And the farther into the future one peers, the cloudier the crystal ball becomes.

But despite the problems, Ericsson (hopefully) has a reasonably good picture of where such competitors as Siemens, Nokia and AT&T are heading.

Lars Eriksson



# ISS '95: success for Ericsson

**The 15th International Switching Symposium (ISS '95) in Berlin was a major telecommunications conference that attracted nearly 4,000 participants. Ericsson was naturally well represented; twelve of its experts presented papers and nearly 160 persons from the Company attended.**

Nearly 4,000 technically-oriented men and women who are involved in telecommunications in one way or another traveled to Berlin during the last week in April. The city, once again the capital of a unified Germany, was the site of "XV International Switching Symposium." Summerlike weather, with a hot sun and temperatures of nearly 30° Centigrade (90° Fahrenheit), greeted the visitors. But most of the conference delegates managed to escape the heat by attending sessions in the city's International Conference Center.

Of the 158 papers presented during the week, 12 submitted by Ericsson had been approved by the selection committee, which traditionally focuses on technical information rather than corporate or product presentations. Since more than 600 papers had been submitted for consideration by the committee, Ericsson's "score" was a good one.

## Focus on broadband

As had been the case in Yokohama in 1992, the focus in Berlin was on broadband.

ISS '95 had been divided into six sections: Personal and Mobile Communications, Multimedia and Video Communications, ATM and Photonic Switching, Intelligent Networks, Network Management, and Software. Ninety-six papers were presented during technical seminars, many of which attracted audiences of around 1,000 persons. Other papers were offered in so-called Poster Sessions, a procedure introduced at the 1990 ISS in Stockholm. These papers are presented in a visual format during morning sessions in small lecture halls, when there are greater opportunities for in-depth technical discussions.

## Good speech training

"These sessions worked very well and it was interesting to obtain new approaches to problems from others who are well-informed on a subject," says Börje Ohlman, one of Ericsson's "presenters."

The speech training that Ericsson's speakers had received



**An event like ISS '95 is to a large extent a social meeting ground for telecommunications experts from all parts of the world. In Berlin this year the German "beer culture" played a major role in these transnational get-togethers.**

yielded very good results. Ericsson's clear, well-organized presentations that stuck to basic themes were distinctly better than most.

Inge Jönsson, an Ericsson Telecom technical expert, is a member of the ISS Committee and chaired one of the seminars. Later, he moved through the Conference Center, expressing his pleasure over Ericsson's performance.

Ericsson's specialists monitored the technical content in papers presented by competitors – and were pleased with what they saw and heard.

"I don't think that we have to be ashamed of our technical expertise; we are at the cutting edge of technical knowledge," says Olle Viktorsson, Systems Manager at Ellemtel, after having evaluated what was presented and discussed during ISS '95.

## Beer flowed

But, despite the technical orientation, it wasn't all technology at ISS '95. There was the matter of promoting the city, and the country as well – tasks that Berliners tackled wholeheartedly. Even before the conference opened, beer flowed freely and food was consumed abundantly at a "get-together" party arranged by the sponsors.

Many delegates considered it worth their while to slip down to the beer halls in the center of the city. Such old Ericsson customers as Tele Danmark, Telecom

Finland and Telia were equally well represented. But most of the beer hall visitors were Ericsson employees.

"It was the first time in a long while that I had sat down to chat with people from Ellemtel" was one comment. "I finally got to meet people from other parts of the company" said another Ericsson ISS representative.

## Operators in minority

As noted, some telecom operators were represented at ISS '95 – but they were clearly in the minority. The fact that the operators did not give ISS '95 a high priority may well be because the conference was oriented toward technology and hardware and did not place much emphasis on what the technology would be used for.

Since its start in 1970 the Symposium has been highly regarded and great technological importance has been attached to it. But the importance of ISS is thought to be diminishing, perhaps because the ISS Committee does not want to give priority to anything other than technical solutions connected with traditional public telecommunications.

Presentations dealing with the merger of data, telecommunications and the entertainment industry were conspicuous by their absence, for example. "ISS '97 in Toronto may be the last one" was heard a number of times during and after the Berlin meeting.

David Almström

# Mobile telephony gains importance

■ *Alcatel Alsthom's* financial report for the year 1994 announced an earnings decline of 49 percent, from FFR 7.06 bn in 1993 to FFR 3.62 bn in 1994. Analysts describe the company's results as a mildly negative surprise, in particular since operating earnings from telecom operations declined by more than 60 percent. Demand for telephone exchanges and network products was down in Europe. In parallel, it would appear that Alcatel seriously missed the boom in mobile telephony.

■ Conversely, *Nortel* reported strong growth during the first quarter of 1995, attributable mainly to increased sales in almost all parts of the world. Net earnings rose to USD 62 m, compared with USD 16 m during the corresponding period a year earlier. Invoicing rose 12 percent to USD 2.25 bn.

Nortel's emphasis has shifted as the company's traditional strength in exchange technology has made more room for greater concentration on mobile telephony products.

■ In its six-month report, *Siemens* reported a 7-percent increase in earnings. Net earnings rose to DMK 939 m during the six-month period ended March 31, 1995, compared with DMK 879 a year earlier. However, Siemens warned that the strong German currency (DMK) may threaten the company's profitability forecast for the full fiscal year. Sales were up 5 percent to DMK 40 bn, while sales of public communications networks were down 19 percent, mainly due to reduced demand in the German market.

■ The federal government in the *Philippines* has granted eight licenses to new companies that will manage international telephone services in the country. Another five licenses were distributed to new mobile telephone operators. There are only 2.1 telephones per 100 inhabitants in the Philippines today. For this reason, PLDT, the country's largest operator, has orders to install an additional one million lines by 1996 and another 1.1 million lines by the year 2001. That is the minimum requirement to reach the official government objective of quadrupling telephone density by the year 2000.

■ *US West* plans to invest USD 100 m of the total investment requirement of USD 1 bn needed to construct a pilot project for India's first private telecom network. The company will cooperate with local partners in planning an integrated, fixed broadband, so-called fixed wireless (radio-based) network



in the Indian state of Tamil Nadu.

Investment requirements during the years immediately ahead total USD 20 bn to reach the Indian government's goal to meet demand for telephones in urban areas, and to install at least one telephone line in every village not connected today. Requirements in the initial stage may reach 10 million lines.

■ *Asia* has passed Europe and North America as the most rapidly expanding market for mobile telephony in the world. Use of mobile telephony is greater in Asia than both Europe and North America, mainly because cellular systems are often used to replace fixed networks. Average user time in Asia is 250-300 minutes per month, compared with an average of 100-200 minutes per month in western Europe and the U.S.

■ According to the terms of an agreement with *Nokia*, *Moscow Digital Telephone Co.* will begin production of Quantum-E and ATSTs-90 telephone exchanges, two variations of Nokia's DX-200 exchange. The exchanges will be assembled using Russian components.

Radio technology offers the most cost-efficient solution to upgrade telephone networks in large parts of central and eastern Europe. In areas with densities of less than 200 subscribers per square kilometer, radio technology is generally the most inexpensive solution.

■ In the beginning of 1995, 909,043 households were connected to broadband networks in *Great Britain*. The number of telephone lines in the networks amounted to 649,350 private telephones and 68,236 commercially owned phones. Growth is continuing and the one-million milestone was probably passed during April 1995. The greatest driving force behind expansion in the U.K. is the fact that cable companies are able to make money from two different operations that can be marketed as a back-up to each other – TV and telephony.

■ *Bellcore* is for sale. Its owners, the seven Bell companies, are expected to find a buyer which, according to the latest inside information, is a large manufacturer of telephone exchanges outside the U.S.



# NEWSFLASH

## THANK YOU!

The most important assignment at Product Information Management, ETX/TX/F, is to make it possible to quickly adapt AXE documentation to meet customer requirements. To achieve this, we must continually review our operations and, for some time now, we have been deeply engaged

in this process. SGML is replacing EDML, the now 20 year-old CSDD has been replaced by PRIM, and DISOSS, after 10 years use, has been replaced by GASK2. Interruptions in our work have been unavoidable but, in the long run, we will all benefit from the rational handling

of product information which these improved systems will ensure. Many thanks to those of you who, despite annoying disturbances, have supported the development work and helped master the problems. We shall do everything in our power to facilitate your work in this important field in the future.

## What's in it for us?

"The basic idea is very simple", says Lars Antman, head of Core Unit Basic Systems, which includes Product Information Management (PIM) operations. "We are going to make sure that when our products meet competition then they will have the best documentation on the market - created with maximum efficiency to ensure minimum costs."



Lars Antman forecasts savings of 250 to 300 MSEK thanks to more efficient documentation.

"To achieve this we are working on a structure based on the CREATION - STORAGE - PRESENTATION concept. Each link in this chain is equally important for the final economical result. We already have the storage capacity and the presentation tools are being refined as new software is developed, leaving only the 'Creation processes' to be phased into the new structure. New designs today are produced in

many parts of the company and this will be the situation in the future too. However, with our information and documentation strategy this will not

create any problems. Local adaptations can be made both quickly and cheaply despite the fact that they are tailor-made to the specific requirements of each customer or country."

Lars-Olof Lindgren is head of the department which is directly involved in the production of the new documentation philosophy.

"We have been working on this for two or three years now and we are, generally speaking, beginning to recover initial costs. But it can, in certain cases, still cost more to convert to new techniques. This is a well known phenomenon, especially in our field of high-technology. In the long run, however, there is no doubt that we are going to save money. Our approach also means that we can shorten lead times," comments Lars-Olof Lindgren.



The first phase of Ericsson's major Japanese contract has now been completed and nearly all documentation is available in Japanese. Phase 2 has now started, which means the creation of Electronic Docware presentations on-line.

## Always one step ahead - with Ericsson Electronic Docware (EDW)

Easy access to structured information is one of the key factors in efficient information handling. In turn, this means that reliance on expensive expertise can be kept to a minimum. Our new concept for information handling in AXE exchanges ensures rational operation and maintenance. In failure situations, for instance, corrective action can be taken without delay, interactively with the exchange.

EDW also offers rapid navigation using "point-and-click" steps, and hyper-linked information elements give the user Task Oriented Instructions. Search functions are other important features that ensure quick, easy and correct updates. Looking into the not-too-distant future EDW features will also include on-line distribution to the customers and translation-on-demand.

### Quick and easy presentation - a strong selling-point

Easy access, on demand, to relevant information is the basic idea behind the Operation and Maintenance manual for AXE. Ericsson leads the field in the development of Electronic Documentation (EDW) for Creation-Storage-Presentation interactively on-line.

EDW is based on the fact that all information is SGML-tagged when it is created. This guarantees that information is "timeless" and can be sorted, reused and presented in an intelligible way.

For the customer factors such as quick seeking, simple layout and good legibility are taken into consideration right from the very start, and such requirements are met by using standard methods. In this way even product information will be a strong argument in sales work.



### MET foresight will cut costs

Matra Ericsson Telecommunications SA, France (MET) has decided to adopt the Docware-in-Design concept for its AXE 10 design projects. "This decision will mean important savings in lead times and subsequently in our total project costs. Our technical writers will be engaged in the design process at an early stage which will facilitate the designers' work. The Docware-in-Design concept will also enable us to use semi-automated translation to French," comments Gilbert Clement, Projects and Docware department manager.

### New SGML Competence Centre

A way to help designers keep track of each other's innovations and design work. A tool which saves us the trouble of re-inventing the wheel. That's SGML in a nutshell.

By giving a piece of information a specific identity, according to a common standard, at the same time as it is created means that all subsequent information handling can be greatly rationalised. At the same time the basic elements are defined for a system which will create instantaneous, tailor-made product information.

In Sättra, Stockholm, a service centre has been established with special skills in the SGML standard itself, and how the standard can be applied in practice. "SGML is not a ready-made solution to all problems, but can, on the other hand, be a great help when it comes to rationalising information handling in a company," says section manager Peter Dybeck. "We can be consulted directly for single, specific questions or engaged as internal consultants for large development projects."



### TaG Tool - now better than ever

TaG Tool R4, the basic programme in SGML, has now been released. It contains a number of improvements, one of the most important being that documents can be formatted much faster.

During the development of R4, the formatting routine was thoroughly tested and improved and was shown to be up to 7(!) times faster than before. The menus have also been restructured to be more consistent in the different TaG Tool working environments.

A new version of EDML/GT-DTD has been installed, and templates and samples have been extensively revised.

## Without PRIM and GASK2 Ericsson would come to a standstill

And that's no exaggeration! All Ericsson companies rely on PRIM and GASK2 for information about the systems, programmes and tools that are needed to make our products work to the market's, or rather the customer's, complete satisfaction. PRIM and GASK2 systems are essential for all Ericsson processes and are used by everyone from designers to customers. PRIM is a catalogue comprising data about all products and documents, and GASK2 is the Ericsson group's most important archive system for information.

PRIM and GASK2 have at present over 15,000 Ericsson users worldwide. GASK2 contains documents with a total volume of over 90 gigabytes.

### Current data

In PRIM you will find the most up-to-date data about our products. Through the PRIM COM system you can easily subscribe, for example, to information about product status changes or revised documents for specific products that you may be interested in. Information can be sent through memo, e-mail or to your own application as a data file.

### Open concept

The systems are based on modern so-called client/server technology. The main reason for this is to distinguish between data, including rules for handling, and presentation. It also makes it possible for the end-user/processes to create presentations and functions for updating information, that are linked to the normal tools used in the process.

Presentation of data from the systems is carried out in the local computer environment, which also reduces costs.

### General assistance

A number of general tools exist for updating and presenting data. One of these is PItool, a UNIX function, that provides user-friendly access to PRIM and GASK2 and other systems. The user does not have to specify from which system the data is being fetched. It is also possible to show graphical presentations, for example of product structures.

### Existing/coming applications

- Breakdown of information-structures.  
- New types of product structures (1317 list as so-called PSD4) via PLGAS tool which uses PRIM's data base as a server.  
- Adaptation to new product areas, new relations such as "based on", "inherited from" and "included in".

### Docware-in-Design (DWID) Strategic choice for AXE design projects

The Docware-in-Design concept aims at providing high-quality electronic docware (EDW) for operation and maintenance of AXE 10 products. During 1994-95, design projects for the following products began to use DWID: FM, BM, APZ, CME-20 (GSM), CMS-40 (PCS), and CMS-30 (mobile telephony system in Japan).

## PICS - your greatest supporters

### Problem-solving on three levels

You can't mistake the enthusiasm at the Product Information Customer Support office, known as PICS.

"We aim to know 'everything' about all the systems for which the department is responsible," says one of the PICS staff. "Maybe we're a bit too ambitious, but let's put it this way - if no enquiry is left unanswered, then the impossible becomes possible."

Our first target is to be able to answer at least 20% of all enquiries immediately. For example, when someone calls who is desperate because an application just won't work. PICS staff can, as a rule, suggest measures to solve the problem immediately. That's service on level 1.

On level 2 they route the problem to an in-house specialist in order to get a direct reply. On level 3 an external expert will be contacted.

"Up to now we've been a bit understaffed and not had time to learn everything we'd like to know, but now we're going to expand," comments Peter Broström, team leader at PICS. "A good command of English is a basic requirement, other languages a merit. Certain fundamental training in PRIM, GASK2, TaG, etc. is offered to start with, in-depth knowledge later on."

"We'd like all staff to use the different systems themselves. It helps us to be more involved and to manage more complicated questions," adds Peter Broström.

What do people ask about? Nearly 50% of all the calls are about PRIM, 25% about GASK2, and 20% about TaG. The remaining calls cover a wide spectrum of related fields. Many questions are dealt with by using both

telephone and memo - but without being able to ask someone, it just wouldn't work.



PICS operators know who knows, if they don't know themselves.

### Contact PICS for more information.

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### NewsFlash 4 times per year

You are now reading the first issue of NewsFlash. We aim to publish four issues, A4-size, per year. Reader's comments and contributions to NewsFlash are welcome.

# Annual Meeting in agreement

**Ericsson's shareholders are satisfied with management and their leadership of the Company, a consensus made clear at the recent Annual General Meeting.**

Ericsson's Annual General Meeting was held at the Älvsjö Fair conference facilities on Wednesday, May 10. The sun was shining over Stockholm, as it usually does, although temperatures were far from balmy.

The atmosphere at the meeting was one of peace and contentment. The year under review – 1994 – was an extremely good year for Ericsson, and management was applauded for its leadership.

The only critical voice raised at the AGM represented share savers' interests, who wanted a more detailed statement of income. They also criticized the bonus paid to the President and CEO. They did not criticize the size of the bonus, but rather its timing.

"This is not a question of the amount of salary or bonus, but the actual 'timing', that it was announced just when concerns are mounting over impending labor negotiations." What sort of bonuses will be paid this year, was



**The new Executive Management Committee of Ericsson: (l-r) Anders Igel, Vice President; Lars Ramqvist, President and CEO; C W Ros, Executive Vice President and Kurt Hellström, Vice President.**

also part of the question.

Björn Svedberg, Chairman of the Board agreed that high bonus payments have come under heavy fire recently, but felt that it is mostly an issue concerning public reaction, rather than justifiable payments.

"In 1995, the CEO can count on a sharply reduced bonus and, consequently, total salary, since it will not be based on the combined results of the past three years, as was the case in 1994," he explained.

Regarding the income statement, Björn Svedberg referred to conditions in the telecommunication industry. Ericsson is not the only company that withholds information on the results of different product areas. Certain figures are not reported in the annual report purely for competitive reasons.

#### **New at the top**

Important news announced at the meeting included a Board decision, based on a proposal by Lars

Ramqvist, to increase the Group's executive management staff to four persons. Since Jan Stenberg left Ericsson to become President of SAS, executive management has consisted of only Lars Ramqvist and C W Ros.

"We now have a new title in the Group," Björn Svedberg announced. "C W or Carl William Ros has been appointed 'Executive Vice President'." At the same time, Anders Igel and Kurt Hellström have been named Vice Presidents and are now part of executive management, in parallel with their jobs as presidents of business areas.

#### **Reelected**

Ericsson's entire Board of Directors was reelected. The Board members are Peter Wallenberg, Tom Hedelius, Bo Berggren, Claes Dahlbäck, Sverker Martin-Löf, Sven Olvin, Lars Ramqvist, Clas Reuter-skiöld and Sven Ågrup. C W Ros was elected as a deputy member.

Employee representatives elected to the board are Per Lind (Swedish Industrial Salaried Employees' Association), Jan Hedlund (Swedish Metal Workers' Union), and Göran Engström (Swedish Association of Graduate Engineers). Deputies are Christer Binning and Christer

## Large-scale expansion in Japan

Ericsson is the supplier to several digital network operators in Japan. One of the operators is KDP – Kansai Digital Phone Co. – in Osaka. KDP recently awarded Ericsson a network expansion contract valued at SEK 1 bn. The order includes delivery of mobile telephone equipment and radio base stations. The equipment will be delivered and successively placed in operation during 1995 and 1996.

## More AMPS to Brazil

The expansion of Brazil's analog mobile telephone network is continuing. Ericsson has received five expansion orders for mobile telephone equipment adapted to the American AMPS standard used in the South American country. The total value of the orders is about SEK 600 m. Delivery and installation of the equipment will be completed this year.

## Mobitex hails a cab

Comfort Transport Pte Ltd of Singapore is the largest taxi operator in the world. The company recently ordered a Mobitex system from Ericsson. The system will serve as the base for a completely computerized taxi dispatching system.

Mobitex will be used to transmit information concerning collection addresses, acceptance of taxi orders and other information. In the first phase, the network will accommodate 500 taxis. The ultimate objective is to equip Comfort's entire fleet of 9,500 taxis with Mobitex equipment.

## Strong presence in northeast

Southwestern Bell Mobile Systems (SMBS), an American mobile telephone operator, has awarded Ericsson a contract to expand and improve the capacity and service quality of its mobile network in Syracuse, Utica and Watertown, in northern New York state.

The network, which complies with the analog AMPS standard, will now be equipped with AXE exchanges with HLR nodes (Home Location Register) for intelligent networking. In preparation for conversion to digital telephony, the network will also be equipped with Ericsson's new "dual-mode" RBS 884 radio base stations.

# Quarter result 1,2 billion

**The first quarter of 1995 was another successful one for Ericsson. Order bookings continued to increase and so did the group's profitability.**

Ericsson's order bookings for the first three months of 1995 increased 21 percent to SEK 25,921 m. (SEK 21,499 m. in the corresponding period in 1994). Consolidated net sales rose 24 percent to SEK 19,806 m. (15,983). Pre-tax income for the period increased 48 percent to SEK 1,206 m. (813), including SEK -17 m. (9) in net capital gains. After current taxes and deferred taxes, and after full conversion, income per share was SEK 3.82 (2.35).

All business areas contributed to the increase in order bookings as well as net sales. The strongest development is within Radio Communications, which accounts for 60 percent of Ericsson's total order bookings.

The U.S. continued to be the largest single market, with slightly more than 10 percent of net sales, followed by Sweden, China and Great Britain. Japan, Australia, Malaysia and France show a strong rise in net sales.

The number of Ericsson employees has increased by 5,823 during the most recent 12 months and on March 31, 1995 totaled 77,966. During the first three months of the year 1,822 persons were newly employed, of whom 1,000 in Sweden. New recruitment has primarily been within the Radio Communications business area.

#### **OUTLOOK**

The previous outlook remains unchanged. Pre-tax income will continue to develop favorably during 1995, if not at the same percentual rate of growth as during the first quarter.

#### **BUSINESS AREAS**

The **RADIO COMMUNICATIONS** business area accounted for a very sharp rise in order bookings and net sales. The increase for mobile telephones was particularly strong, while the increase for mobile telephone systems continued to be steady. The business area's largest markets are the U.S., China, Australia, Great Britain and Germany. The earnings trend was strong during the first quarter.

The **PUBLIC TELECOMMUNICATIONS** business area implemented an internal reorganization, with concentration to two main areas, the successful AXE area with public switches, and the new broadband area, with transmission systems (SDH) and broadband switches (ATM). The latter are switches designed to handle high transmission speeds for images, audio and data.

The increase in net sales is attributable mainly to China. Order bookings also rose, primarily in Italy, Great Britain and Sweden. The profitability trend was weak during the first quarter.

The **BUSINESS NETWORKS** business area reports a slight increase in order bookings and net sales. Profitability continued to be weak.

Cordless business communications began to gain pace, with a strong increase in orders, while the trend for network operations was somewhat weaker.

The **COMPONENTS** business area reports higher order bookings and net sales. The market is characterized by strong de-

mand for electronic components. The largest market is Sweden, due mainly to internal deliveries to Ericsson companies.

**MICROWAVE SYSTEMS**, formerly named DEFENSE SYSTEMS, reports a very strong increase in net sales and favorable earnings. This is due to continued success of the MiniLink microwave system and deliveries of three JAS aircraft in which the business area is responsible for a substantial portion of the electronic equipment. Order bookings also rose.

#### **FINANCING**

Cash flow developed weakly during the first quarter, due primarily to inventory build-up for future deliveries. The equity ratio was 34.5 percent, compared with year-end 34.4 percent, and 1.7 percentage units higher than on the same date a year earlier.

#### **CAPITAL EXPENDITURES**

Ericsson's investments in property, plant and equipment amounted to SEK 1,277 m. (1,025), of which expenditures in Sweden totaled SEK 621 m. (704).

# Consono 'rescues' Sweden

## Ericsson exchange has key role in rescue service

**In atmosphere of pomp and circumstance, Sweden's Transport and Communications Minister, Ines Uusmann inaugurated the country's new air/sea rescue center at Käringberget in Gothenburg a few weeks ago.**

**The heart of the communication portion of the center is a Consono MD110 Control System (CS) produced by Ericsson in Norway and delivered by Telia. The Consono System is the first to be delivered in Sweden.**

"Thanks to the fantastic cooperation of all who were involved, we got the job done," says Lars Billström, who was responsible for handling the project in Telia's Western Region.

"This project is very effective evidence that Government companies, public agencies and the Defense Forces can coordinate management of their resources in the best interests of the society," says Kenneth Eideberg, Air Traffic Manager for Sweden's Civil Aviation Administration (CAA). Sweden's Defense Forces, Coast Guard, CAA and Shipping and Navigation Administration have joined in locating their operations in the new control center.

**2,700 km of coast line**  
The four authorities are responsible for sea, air and "environmental" rescue services and for border and marine surveillance. Sweden's 2,700-kilometer coast line, the longest exterior boundary in the European Union, imposes exceptionally high demands on surveillance facilities. The coordination of operations in the new center offers a substantial potential for rationalization and improvements in efficiency and is also adapted to international developments.

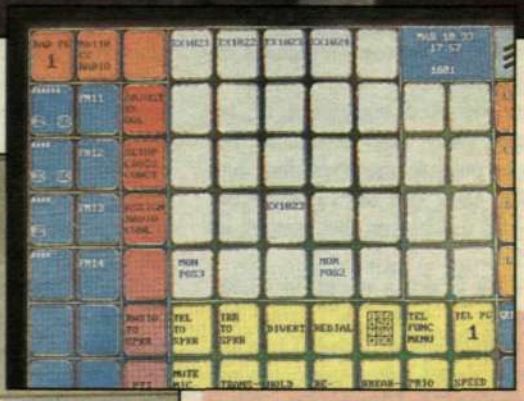
**Fast delivery**  
Telia's order to supply the facility, which was scheduled to be in service before the end of March, was received in the beginning of



The sun was shining and the atmosphere was festive when Transport and Communications Minister Ines Uusmann cut the tape to inaugurate the new Rescue Center.



Börje Jacobsson and Kjell Abramhamsson demonstrate an operator's work station with display screen and touch controls. The Consono MD110 CS exchange assures rapid access to reliable information.



February. The fast on-time delivery was due in part to the strong efforts of Norwegian Ericsson, which has product responsibility for the Consono MD110 CS and which participated in the planning with Telia.  
For Norwegian Ericsson, the contract represents an important breakthrough for the Consono system in the Swedish market. The company now has a prestigious installation in this market.  
The Shipping and Navigation Administration and the Civil Aviation Administration are responsible for air and sea rescue services in Sweden. The Defense Forces, through the West Coast Marine Command, is responsible for military surveillance off the western coast of Sweden. The

Western Region Command of the Coast Guard is responsible for civil defense and sea patrols and "environmental" rescue services off the West Coast and in the Lake Vättern and Lake Vänern areas.  
Since 1991 there have been two sea-rescue centers, one in Stockholm and one in Gothenburg.  
The country's air-rescue services have been handled from a single center at Arlanda Airport. With delivery of the new system, all sea- and air-rescue services have been installed in a single location at Käringberget.  
**Joint housing**  
During a transition period the sea-rescue center in Stockholm will continue to be integrated

with Telia Mobitel's coastal radio station. This period will not extend beyond 1998. By then it is expected that the new international system for receiving distress calls will be in service. With the closing of the Stockholm center all of Sweden's emergency system headquarters will be located at Käringberget.  
"The objective in all rescue work is to provide the best possible help to those in distress at the lowest possible cost to the taxpayers," says Peter Örtendahl, regional head of the Coast Guard. "Through the joint housing of control facilities we can now utilize personnel and investments made by the military and civilian sectors in an efficient manner."  
**Thord Andersson**

**Advanced technology**

Consono MD110 CS gives the control center access to highly advanced technology. Each operator's station in the four agencies is equipped with display screens and touch controls that replace traditional telephones. The operator establishes immediate contact with the party being sought by simply touching a position on the control panel. The exchange also offers a number of combination possibilities.

**Reliability foremost**

Great care has been taken to ensure the reliability of the system. An alarm center of this type can never be allowed to fail. Accordingly, virtually all functions are duplicated. The exchange, for example, is linked to two stations, via a ground connection to the Tranered station and via a microwave link to the Biskopsgården station. If one communications route should be blocked for some reason, the other one is always available. The Consono MD110 CS exchange itself consists of two exchange units which can replace each other.

The Telecom exhibition in Geneva is known as the "Telecom Olympics" or "the greatest show on earth." ITU, the International Telecommunications Union, arranges the gigantic telecom exhibition and technical seminar, the "Forum" every four years. It is time again this autumn. Ericsson has been preparing for four years to ensure an even better participation this year.

# The 'show of shows' will be opening soon

**The stand from the Telecom 91 exhibition had hardly been dismantled and packed, when it was time to start all over again. Planning for this year's Telecom 95 started way back in 1992.**

Overall objectives and strategies were formulated by a reference group consisting of representatives of executive management and the different business areas, with Lars Stålberg from Corporate Markets, as Chairman.

"The first thing we had to do was decide if we were going to take part in the exhibition," says Lars Stålberg. "Although the decision may seem obvious, we felt that it should be analyzed and discussed, even though the outcome was a foregone conclusion."

"Without comparison, this is the most important exhibition in our industry. There are more customers and industry representatives gathered together at the exhibition than any other event or meeting. Telecom 95 provides a unique opportunity to display the best we have and enhance Ericsson's position in the marketplace."

The purpose of the reference group is to lead, to establish the Ericsson image and to formulate the message we want to convey at this gigantic event.

## Cost efficient

We are also maintaining a tight rein on the purse strings. Our objective is to invest in the exhibition wisely and derive maximum return from every dollar we invest.

"We are striving to participate in the exhibition with the objective of keeping costs down without losing impact. It's a difficult equation, especially considering today's currency exchange rates, but I am convinced we shall



Actually, Geneva is much too small a city for such a major event as Telecom 95. Every available hotel room and private guest room has been booked for the event for several years and during the exhibition traffic will be jammed as usual between the city center and the show area close to the international airport. There is a strong lobbying under way to move the event to another location.

succeed," continues Lars Stålberg.

Judging by stand size, it is clear that many Ericsson competitors have invested in much larger space which, however, does not necessarily mean their participation in Telecom 95 will be more successful than Ericsson's.

## Emphasis on unity

"Contrary to our participation in 1991, this year we are emphasizing a collective effort at our Group stand," says Lars Stålberg. Ericsson was represented then by about a dozen national stands in addition to the Group's exhibition stand. The impression we made was slightly uncoordinated, and we have adjusted accordingly this year, although not completely. This year, we will have national stands repre-

sending countries where we are large employers and an important part of local industry."

Concentration on the Group exhibition stand is aligned with the objective of projecting a unified image of Ericsson. The internal organization is a necessary reflection of operating efficiency in a Group as large as Ericsson, but is less interesting to customers who simply want good products.

## Distinctive signals

The Group's collective resources are always available to back up and support every Ericsson representative in the field, thereby enabling them to offer customers optimal solutions for each individual case. It is a matter of merging global planning with local business operations.

The unified visual image is important in this respect. Our logo is a distinctive signal that stands for sensitivity to customer needs and ability to satisfy every customer's wish in a technologically sophisticated and cost efficient manner.

Taking care of customers is also a primary objective at the Ericsson stand at Telecom 95. A large section of the stand will be dedicated to areas for customer contacts and conferences.

## Complete supplier

"Finding the 'right' chemistry between presenting a 'novelty shop' and projecting a coordinated corporate image is a difficult balancing act," Lars Stålberg explains. "We want to highlight our market position and focus on truly important issues. But there are

also strong interests who wish to promote niche products, and we shall also strive toward that end. The challenge is finding the best way to include them as part of the big picture."

Strategists from the business areas have discussed what should be included in the framework of the overall objective. Spearhead products of the future have their given space, as well as the broad range of products and complete solutions. Lars Stålberg is convinced that the Group will find the "right" balance.

"We want to show off the core of Ericsson operations. If we don't succeed with this, it's not because we have chosen the wrong products to exhibit, but rather because we are working with the wrong products!"

by Kari Malmström

## WHAT DOES TELECOM 95 MEAN FOR YOUR BUSINESS AREA?

**Marianne Lofkvist, Ericsson Business Networks. Responsible for the part of Telecom 95 pertaining to integrated solutions for business communications.**

"We have open interfaces. Although we work with business communications for companies and organizations, we have many things in common with the general public's world."

As an example, Marianne Lofkvist cites the new Dect/GSM terminals, which will soon be introduced on the market.

"We manage open interfaces with the AXE world using Centrex and Virtual Public Networks (VPN), among other options.

"The real positive fact about Telecom 95 is that we work across the boundaries of our business areas. We speak very clearly about Ericsson as one industrial unit."

**Torbjörn Nilsson, responsible for Strategic Business Development in the Radio Communications business area.**

"We are focusing on how mobile telephony has progressed from a novelty status symbol to a useful work tool and how it will continue to develop into a telephone for everyday use by nearly everyone. We will focus, therefore, on mobile telephony for the mass market, and we hope to open

discussions with visitors about how operators intend to meet this challenge. We intend to present both solutions and products that can help them.

"However, we shall also place particular emphasis on how commercial customers can expand their product ranges through mobile data communications and messaging."

**Cecilia Schön-Boström, Information Manager for the Public Telecommunications business area:**

"Most of our customers' key personnel will be at Telecom 95, which offers a tremen-

dous opportunity for personal contacts.

"The Public Telecommunications business area wants to show off the entirety of its efforts. We want to be distinct and aggressive in demonstrating the AXE system's leading position in the world market, as well as continuing development of the system. Particular focus will be placed on services we offer for IN and ISDN applications.

"We also intend to utilize Telecom 95 to demonstrate the success we have had recently with the broadband system, and we intend to accentuate our breadth and strength in the access field."

# Entire Ericsson is on display

**"Where is the objective? Have you taken the objective," Project Manager Arne Johnsson asks his colleague as he nervously sifts through a stack of paper on his desk.**

No, don't worry, the objective is not lost. It is in the process of being spread throughout the entire enormous organization set up prior to Telecom 95.

When the exhibition starts, everybody will be in the same boat, rowing in the same direction and, hopefully, in tune with each other. Arne Johnsson describes the ideal picture he wants to project to show working conditions when all preparations are complete.

"This exhibition is one of only a few concrete opportunities the Group has to show itself off as a unified unit to our customers. In most cases, we direct efforts toward individual sections of the overall market," Johnsson says, "but, at Telecom, we reflect a single, unified image of Ericsson to the whole world."

That's why it is so important to get everybody involved pulling in the same direction, with the same knowledge levels and the same attitudes concerning service, combined with complete accord in understanding the objectives of Ericsson's participation in the exhibition.

## Many teams

In principle, preparations have been in progress since the last Telecom exhibition ended three and a half years ago.

A large organization has worked with different parts of the project. A reference group, with representatives from the different business areas and corporate management, has formulated strategic directives and supervised planning and implementation. A project management group, led by Arne Johnsson, makes sure that everything proceeds according to plan, that no work is duplicated and that nothing is forgotten or overlooked.

Job assignments have been distributed among several sub-project ma-



Arne Johnsson is the main person in charge of the Telecom project. He and his fellow employees at Ericsson Events face some busy weeks as time draws closer to the opening of the tra-

nagers who are responsible for different areas. Every sub-project manager is assisted by a network of different work groups.

There is also a "support team" with representatives from the different business areas and Group companies outside Sweden, which make decisions concerning their spheres of operations. Coordinators in every business area disseminate information from the project management level and compile requests and opinions from their respective areas and pass them on to the project management team.

## Latest products

Lars Berning is responsible for the stand.

"Ericsson's exhibition stand should reflect the size and skills of the Group, as well

## Objectives:

- We want to be perceived as a company with greater understanding of customer needs than our competitors.
- We are one company.
- We are the leading supplier in key areas of telecommunications. Our work is characterized by professionalism, respect and perseverance.

as our business objectives. By creating a favorable atmosphere, we will show that we understand customer needs, even when they are here in Geneva," he says.

Some of the products on display will be decided at the last minute. A special group is working on selecting the right balance of products on display.

"The personal touch is also very important, how we receive visitors, and facilities available for talks and conferences. For this reason, 75 percent of the stand is reserved for social activity, while 25 percent is earmarked for actual product and systems exhibitions," says Lars Berning.

The success of teamwork efforts, actually getting everyone to pull in the same direction, will be decided during the exhibition.

Our own assessments, as well as assessments by external companies, will be made, based on visitors and the behavior of our own personnel. These evaluations are geared to gaining knowledge of how to enhance even greater success at the next Telecom exhibition. **LG**

# The meeting point

**"Studies conducted at past Telecom exhibitions have shown that visitors do not come only to see technical innovations. One of the primary purposes of their visits is to meet people," says Agneta Bonde, who is in charge of internal communications and managing visitors at Telecom 95.**

Ericsson is placing special emphasis on the social aspect of participation this year.

"We want to do our utmost to take care of visitors," says Agneta Bonde. "Our marketing organizations have provided advance information on which 'VIP visitors' we may

## Ericsson is focusing heavily on providing service to all visitors

expect - people who wish to meet with representatives of Ericsson's executive management staff, and whom management wants to meet. These are busy people, and it is important to plan their visits as early as possible.

About 40,000 persons are expected to visit the Ericsson stand this year. We estimate an average of about 500 visitors per hour. To make it easier for visitors to meet the "right" Ericsson people, we have set up a "Visitors Service Point" centrally located

on the stand. It will be staffed at all time by six people to answer questions and provide guidance.

The Visitor Service Point will be equipped with a computer that will "know" the whereabouts of different people at different times. The system places great demands on correct and timely information submitted by marketing organizations.

Staff at the Visitors Service Point will also provide general information on Ericsson and our products, offer telephone and fax



The Telecom exhibition keeps gaining height. Similar to many other exhibitors, the Ericsson stand is built in several stories to make maximum use of the limited floor space in the exhibition hall. This is a view of one of the exhibition halls at Telecom '95.

service as well as coat and baggage storage. The computer will also maintain and provide information on work shifts for all personnel working at the Ericsson stand.

## Flexibility

Efforts have been made to book the most important meetings with Group management in advance, but scope has also been reserved for spontaneous personal contacts.

"We have to be flexible. We will have special 'scouts' on the stand who will seek out VIPs with whom Ericsson management would like to meet. These VIPs may be government officials, general directors or representatives of telecommunications companies.

There is ample space available at the stand for meetings and conferences. Seven conference rooms and a cafeteria will accommodate about 50 guests at a time. Ericsson also has access to conference facilities in a centrally located hotel in Geneva.

Daily agendas will be drawn up for all members of Group management.

Particularly stringent demands are being placed on the visitor management system this year. Fewer Ericsson Group companies have their own stands. As a result, they will be more dependent on the main stand and a greater number of people will be in the computer's contact network.

"We will do our best to make sure we satisfy the needs of our customers - and one of

their greatest needs is to meet Ericsson personnel. This is our way of showing that we understand their needs better than our competitors," Agneta Bonde explains.

There are mounting tasks in Agneta's other area of responsibility, internal communications.

"We have started to receive a large number of questions, especially concerning hotel rooms and stand personnel," concludes Agneta Bonde. "Therefore, in addition to a steady stream of information to company, business area and information managers, we have also made other information available on Memo entitled NYTT/NEWS."

"Check there first!"

by Lena Granström



"Working on the stand is tough duty," says Lynne Howell Wiklander, responsible for selection and training of exhibition personnel.



"Despite the hard work, it's rewarding to work with exhibitions," says Mats Wennerberg, who also worked with Telecom 91.

# Demanding but rewarding job on the stand

**"This is by no means a vacation. Working on an exhibition stand demands total commitment," says Mats Wennerberg, who has experience from Telecom 91. But the work is also inspirational and rewarding."**

Lynne Howell Wiklander is responsible for the selection and training of exhibition personnel.

"It is our hope that the staff will not return from Telecom 95 completely exhausted, but rather will return rejuvenated and with a wealth of useful experience."

Selection of suitable persons involves intensive recruitment work. The objective is recruit half from outside Sweden, naturally because such a large part of Ericsson operations is based in other countries. Demands on qualifications are high, and the "right" attitude is extremely important. Persons selected must also have proven ability to work well under pressure, work as part of a team, assume responsibility, be flexible and have good communications skills.

"These people must make a total commitment to represent the entire Ericsson Group throughout Telecom 95, which is a rather large responsibility," Lynne points out.

## Basic training

To prepare personnel to do their best, a special training program has been formulated and will be concluded on-site in Geneva before the opening of Telecom 95. This is the first time Ericsson has expended so much effort on recruiting and training.

About 180 people will work in different capacities on behalf of Ericsson at Telecom 95. Lynne divides them into five different categories:

1. Working directly with products and exhibitions.
2. Providing general information about Ericsson and specific information on different markets.
3. Taking care of VIP visitors and delegations.
4. Handling customer service tasks at the Visitor Service Point.

5. Taking care of other Group personnel and Ericsson employees from all parts of the world.

The training programs are specialized to meet the specific needs of the different categories, but all Ericsson personnel must also learn to work in groups, to present and quickly assess visitors. Who should this visitor talk to, how much time should we devote to this visitor, or, quite simply, should he/she be sent most cordially on his/her merry way?

## Stressful atmosphere

Many decisions have to be made then and there. Working on an exhibition stand is highly demanding.

"There is always a lot of activity and the tempo is often frenetic. You have to be prepared to receive a large number of customers, to answer a wide variety of questions," says Mats Wennerberg, with his experience from Telecom 91. This year, he will be part of a team that will present Intelligent Networks from Ericsson Telecom.

"It is important to build a feeling of team spirit among the people you work with, for example in every presentation area. In this way, we are better able to induce customers to form opinions of our products, hopefully favorable opinions."

Despite the hard work, stress, strain and prolonged stay away from home, Mats Wennerberg thinks it's a highly rewarding experience.

It's well worth all the hard work, it's inspirational, and I value the opportunities to meet so many people from different countries as well the unique opportunity to meet people working in my product area in other markets," Mats says. We meet new people and get to know old friends even better, a positive factor that will help us all in our everyday jobs.

For Lynne Howell Wiklander, participation in Telecom 95 approaches obsession. "It is the absolute ultimate in everything - size, duration, numbers of visitors, numbers of VIP visitors. I have taken part in four Telecom exhibitions, and I remember how I felt when the first was over - I could hardly wait for the next one!"

LG



The reference group for Telecom 95 includes representatives from various Ericsson units, many of whom are included in this gathering held in Stockholm in mid-May. (l to r) Larrs Bernring, Marino Marin, Birgitta Engadt, Lynn Howell Wiklander, Staffan Norlander, Agneta Bonde, Göran Rasmusson, Monica Nyström, Paul Falck, Cecilia Schön-Boström and Arne Jonson. Göran Andersson and Pelle Bengtsson are in the foreground.

## Hard to find a room in Geneva

**"Every hotel room in Geneva and surrounding areas was booked a long time ago," says Monica Nyström, the person in charge of hotels, travel accommodations and similar arrangements for Telecom 95. "Unfortunately, we are unable to help people who have just decided they might like to come to the exhibition. We refer them to their own travel agencies, which may have some rooms left."**

Ericsson has booked rooms in 22 different hotels. Most hotels do not want one company to reserve all their rooms, they want to keep some for regular clients, and that is why accommodations are spread out. Monica Nyström has also reserved 117 beds in apartments for most stand personnel. Two or three people will share each apartment.

In addition to room reservations, Ericsson has also booked space in the Hotel Warwick, in central Geneva, for administrative and service staffs, as well as a banquet hall that can be used for other purposes.

"We will be able to hold conferences and presentations, products can be put on display, food can be served – it's very flexible," explains Monica.

Services to be offered include typing, telefax, overheads, aspirin....

"There really are no limitations, we are going to try to arrange any form of assistance that might possibly be needed," Monica promises.

She and three assistants will be spending most of their time at the Hotel Warwick. The hotel will also serve as headquarters for the Bennet travel agency, with which Ericsson is working closely for last-minute bookings and changes. Bennet will also have personnel at the stand, with access to the booking system, to provide optimal service.

The Hotel Noga Hilton will host the large buffet for approximately 1,000 persons on the evening of October 6. All persons taking part in the buffet dinner must have received invitations ordered by Group companies from Monica Nyström. Replies were sent directly to her and entered in the computer.

### Full restaurants

Geneva is a small city, and its restaurants are usually crowded during normal times. During the

exhibition, diners will have to be prepared to wait for a table. We recommend that large parties book tables and pay in advance.

Leisure activities are also fully booked, such as boat tours on Lake Geneva, wine tasting excursions, golf courses and tennis courts.

"For leisure activities outside the fair grounds, I have also recruited the assistance of on-site representatives who know what sort of recreational facilities are available and what they have to offer. We have informed all interested parties that they should contact them directly for whatever activity they might want to pursue," Monica says.

Ericsson personnel working on the stand will live either in the same hotel or in apartments. The employee hotel will also serve as a meeting place, with ample space to sit and talk, play darts or pin-ball machines. Employees living in apartments will also be able to eat breakfast at the hotel and avail themselves of laundry services.

"It is especially important for staff personnel living in apartments to have a place where they can get together and socialize with each other. The fact is, they will be away from home for quite some time," Monica says.

by Lena Granström

### VIEWS ON TELECOM 95

#### Important market activity

"Telecom 95 is one of our most absolutely focused marketing activities," says Paula Wagstaff, Information Manager at Ericsson Limited in the UK.

"Our customers, for example BT and Vodafone, send representatives from the very highest management echelons, which provides opportunities for many contacts and meetings which would not be possible otherwise," Ms. Wagstaff continues.

The fact that our customers place so much emphasis on Telecom is not surprising. Since Telecom 91, British operators have become much more international in their business activities as a result of deregulation and other factors.

"Telecom 95 has assumed much greater importance for our customers and, therefore, it is imperative that we are also represented," says Paula Wagstaff.

#### A chance to meet new customers

"The exhibition in Geneva is the largest telecommunications event in the world and, when Telecom 99 kicks off, the entire European market will be completely deregulated. It is important for us in Italy to be prepared for the new situation," says Marino Marin, Information Manager of Ericsson in Italy. "The situation is changing from one with few stable and foreseeable custo-

mers to a market characterized by a host of potential new customers with completely different demands."

According Mr. Marin, the shifting market conditions present Ericsson with a new reality, complete with new demands for greater flexibility and sensitivity to market needs, as well as new business philosophies.

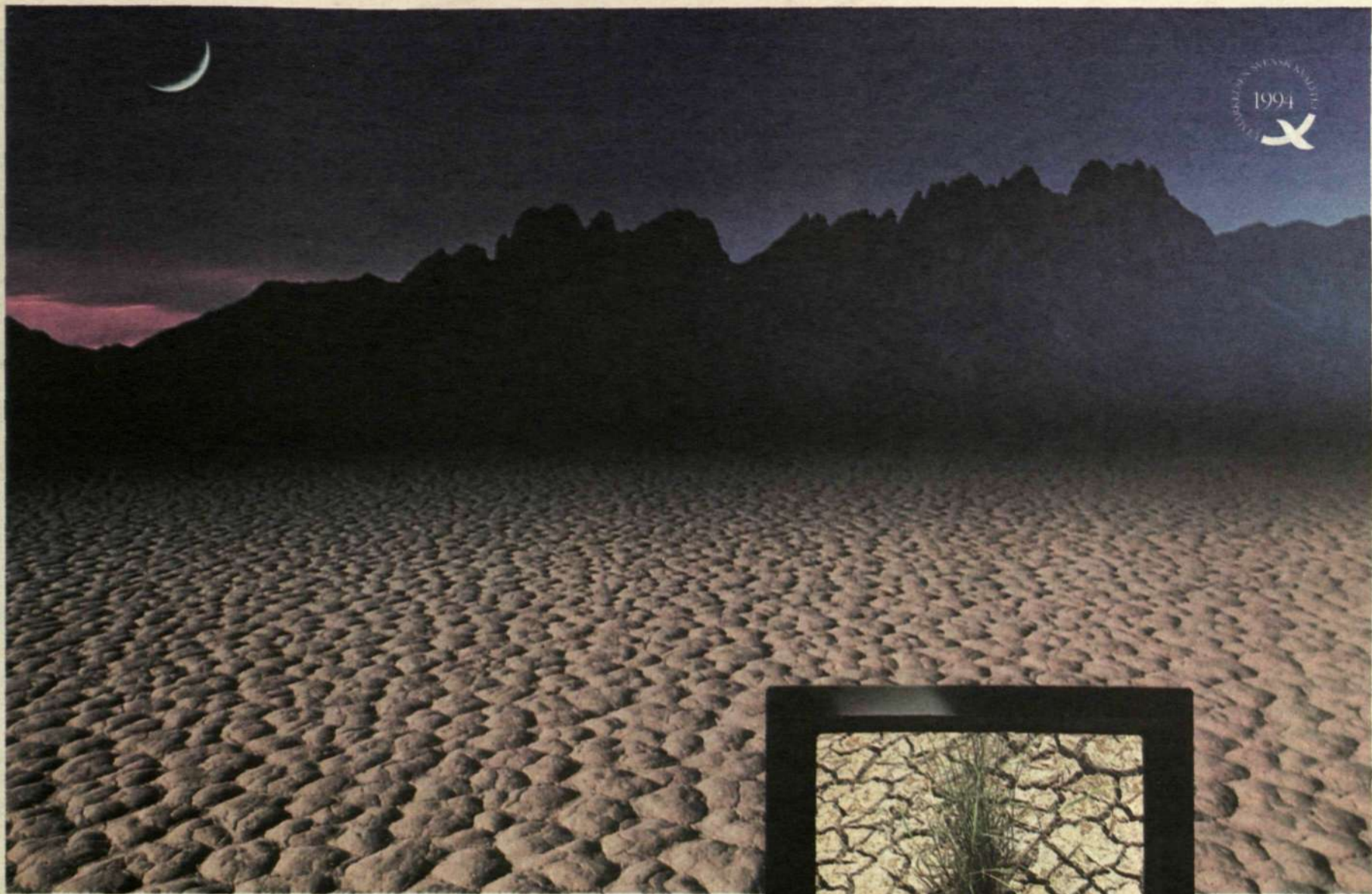
"We will also be presented with new avenues to simply demonstrate our skills and abilities to new customers in different parts of the world, particularly in Latin America and Africa," says Marino Marin.

#### Disaster not to participate

"Lack of participation in Telecom 95 would be catastrophic for us in Norway," says Paul Falck, Manager of Information.

"Ericsson's largest and most important Norwegian customer, Telenor, is concentrating heavily of Telecom 95, and looks to Ericsson as a long-term cooperation partner. Telenor has invited 200 of its most important customers to Telecom 95, and the Norwegian telecommunications authority wants Ericsson to take part in its presentation programs. Ericsson also has a large number of international customers in Norway who will be present in Geneva, however, and the Norwegian company has already started to contact its customers in different parts of the world.

"We see Telecom 95 as the largest telecommunications event in history, and its importance cannot be overestimated," concludes Paul Falck.



## How to make office productivity flourish.



The whole point of using computers and local area networks is to increase productivity—to enable you to do more and better work in less time.

But the result can easily be just the opposite. If you add up all costs for purchasing, installation, training, maintenance and downtime, the tools that were supposed to boost productivity may cost you more than you actually save. It's not unusual for companies to lose a whole month's work per user and year due to service disruptions—and because users keep fiddling with their computers instead of doing productive work.

To attain real gains in productivity, you must support users actively and manage computers and networks in a cost-effective way. That's a service Ericsson Data offers. *Productive Workplace*, our total service concept, includes software, hardware, communications, user support, maintenance, financing, security, training and other complementary services that your organization needs.

We help you set up workplaces that provide optimal function and economy. We make sure that your systems work when you

need them. We upgrade them on an ongoing basis with the latest technology. And since you pay a fixed monthly sum per workstation, you know in advance exactly what your costs will be.

The services are delivered in standardized packages for different types of work, but can be tailored to meet specific needs. There are base packages for regular tasks (e.g. secretarial work) and advanced tasks (e.g. design). Our commitment also includes availability, time to service and upgrading.

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Request a brochure that tells how *Productive Workplace* can boost productivity. Call +46-8-726 29 44, fax +46-8-726 30 87, or use Memo ERI.EDT.YVON or e-mail: [edt.yvon.@ericsson.se](mailto:edt.yvon.@ericsson.se)

LM Ericsson Data AB,  
S-125 82 Stockholm, Sweden.

ERICSSON 



# Double Anniversary In Malaysia

Ericsson celebrates 30 years in Malaysia and 10 years since first mobile telephone system

While approximately 900 employees are celebrating Ericsson's 30th anniversary in Malaysia, the country's first mobile telephone system is marking its 10th anniversary. Most of Ericsson's business areas are represented in Malaysia, but Radio Communications is the dominant area. During the past five years, five major contracts have been won in this field. The most recent order calls for a Personal Communications Network (PCN).



Preparations are underway at the Malaysian factory to take over part of the production of terminals for RAS 1000 (radio in fixed networks).

There are many large Swedish companies in the Malaysian market, including Volvo, SKF, Atlas Copco, ABB and Ika.

"Ericsson is the largest Swedish company in Malaysia. Last year, the Group accounted for more than 50 percent of all Swedish exports to Malaysia," says Olle Ulvenholm, President of Ericsson Telecommunications Sdn. Bhd., who came to Malaysia in April 1994 after serving as Ericsson's manager in Indonesia and an assignment at Ericsson GE in the U.S.

## Two companies

Ericsson is represented in Malaysia by two companies, Ericsson Telecommunications Sdn. Bhd. and Perwira Ericsson Sdn. Bhd. The Ericsson Group owns 70 percent of the Telecommunications company, and the remaining 30 percent is owned by Lembaga Tabung Angkatan Tentera (LTAT). Ericsson owns 40 percent of Perwira Ericsson and LTAT owns the other 60 percent. The two companies were established to comply with Malaysian laws, which assign different status to different corporate structures.

Malaysia is one of several countries in Southeast Asia characterized by very rapid economic growth. Growth in the country's GNP is averaging more than eight percent annually. Malaysia is a politically stable

country. In the recent national election in April, UMNO, the ruling party led by Prime Minister Dr. Mahathir Mohamad, strengthened its political position. There is no unemployment. On the contrary, Malaysia has taken in more than 500,000 foreign workers to offset its own labor shortage. Foreign laborers are mostly from the Philippines, Sri Lanka and Indonesia.

## Like a small Malaysia

"Ericsson may be likened to a small copy of Malaysia," says Olle Ulvenholm.

"The three largest nationalities here are Malays, Chinese and Indians," he explains. "Our own work force represents all three nationalities and, when we hire new people, we have to make sure to maintain a proportional distribution of the different nationalities."

Many employees are Muslims, and there is prayer room in a corridor outside the production premises.

Ericsson has about 900 employees and its premises on Jalan Sepana (across the street from Volvo) in the suburb of Sham Alam are starting to become cramped.

"We need to employ more people, but it's difficult to find personnel. There is a scarcity in the labor market, and there is a particular shortage of technicians with adequate training and experience," says Olle Ulvenholm.

He also points out that he is very pleased with Ericsson's regional training center, situated not far from the head office. The center offers customized technical training programs as well as personal development courses.

In the heart of Kuala Lumpur, Ericsson Business Communications has opened a regional skills center that was officially inaugurated by Malaysia's Telecommunications Minister near the end of March.

## Cable and AXE

The factory in Sham Alam has about 400 employees engaged in the production of cable, mainly for radio base stations. The company is now preparing to take over part of production of terminals for RAS 1000 (radio in fixed networks). The production is being transferred from Ericsson Radio Access in Kista, outside Stockholm.

Ericsson owns 30 percent of Opcom, a new company that will manufacture optical fiber, which will begin commercial production this summer.

The Public Telecommunications business area has conducted operations in Malaysia since 1965. The first AXE switch in the country was placed in operation in 1980. It was also the first AXE switch in Southeast Asia. Several other AXE exchanges have since been installed.



Photos: Gunilla Tham

The highest court in Kuala Lumpur is one of the best known structures in the city.

"We have had our ups and downs during recent years, but 1994 was a good year and the outlook for 1995 is also promising." In the market for switches, Ericsson is one of five suppliers in Malaysia, with a market share of 40 percent.

The Microwave Systems business area also has operations in Malaysia, based on equipment for communications and radar. MiniLink is used in the PCN system, and a recent order booked by Mutiara was the second largest MiniLink order ever received.

## Largest operations

Mobile telephony is the largest single area of operations for Ericsson in Malaysia. Of total sales in 1994, amounting to SEK 2.5 billion, Radio accounted for SEK 1.7 billion.

Ericsson delivered Malaysia's first mobile telephone system, the NMT 450 ATUR, 10 years ago. The system is still in operation and has 95,000 subscribers today. It offers better coverage in rural areas than other systems used today.

Several different systems have been delivered since the first NMT 450 ATUR, as the number of operators has increased through the years. In addition to analog NMT, AMPS and Etacs systems, Ericsson has also delivered GSM and PNT systems. (The Etacs system, called ART



Olle Ulvenholm, President of Ericsson Telecommunications Sdn Bhd., a company characterized by rapid expansion.

900, is the largest, with 550,000 subscribers.) Other systems include the RAS 1000 (radio in fixed networks) and fixed cellular based on D-AMPS. The difference between the latter two systems is that RAS 1000 is linked directly to the fixed telecom network's local exchange, and subscribers have access to the same services available in the fixed network. Fixed cellular is a cellular network, but does not offer mobility.

## Hard competition

Although Ericsson is the dominant supplier of mobile telephone equipment, competition in Malaysia includes such large companies as Motorola, Siemens, Nokia, AT&T and Alcatel, all of which have local operations.

## Why so many?

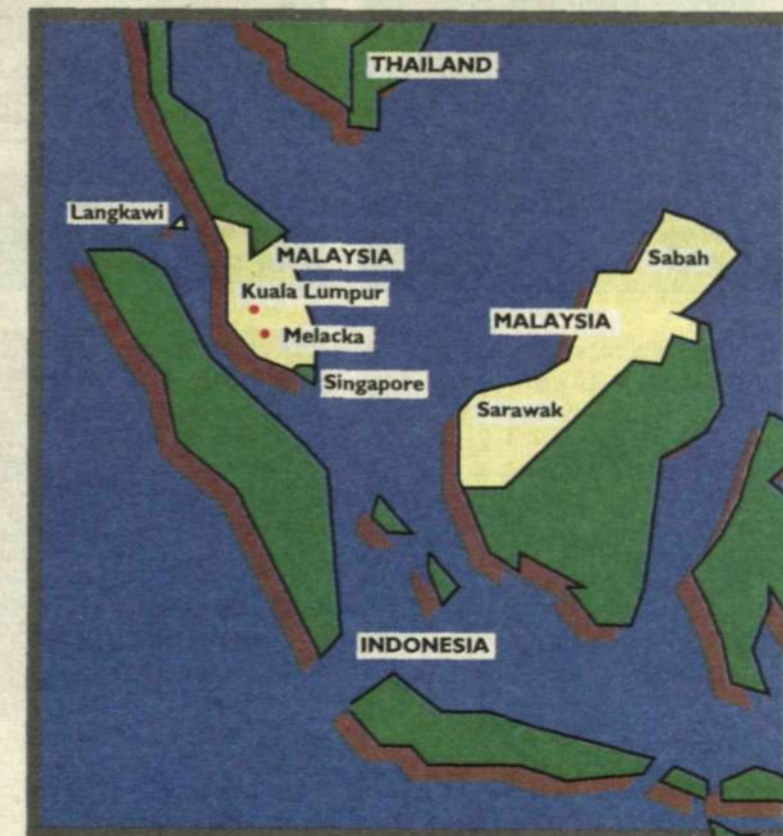
In reply to the question why Malaysia has so many mobile telephone systems, Olle Ulvenholm offers the following.

"As early as six years ago, the Malaysian telecom market was deregulated, and the former monopoly was abolished. Since then, many companies have applied for and been granted licenses to act as operators. Competition between the different operators today is extremely tough. About 15 percent of Malaysia's population have telephones today."

"By the year 2020, about 45 percent of the population will have telephones, and mobile telephony is a quick solution to meet demand. According to present forecasts, there will be three million mobile telephone subscribers in Malaysia five years from now. There will be a tough battle between competing operators, and it remains to be seen if there will be room for all the operators now vying for positions in the Malaysian telecom market. Time will tell."

"Obviously, the operators who can introduce new systems quickly or rapidly expand their existing mobile telephone networks will have the inside track to success. And that is why speed and close cooperation with customers are also extremely important to Ericsson."

by Gunilla Tham



Malaysia consists of an eastern and western section, separated by the South China Sea.

Western Malaysia comprises 11 sultanates on the southern Malay Peninsula, where the capital of Kuala Lumpur is situated. Kuala Lumpur has a population of about 1.5 million. Eastern Malaysia consists of two states, Sabah and Sarawak.

Malaysia's population of about 19 million encompasses several different nationalities, the largest of which are Malaysian, Chinese, Indian and Eurasian. The official language is Malay, bahasa Malaysia, which uses the Latin alphabet. English is the commercial language of the country and is spoken by most inhabitants.

Tin has been mined on the Malay Peninsula for more than 1000 years and Malaysia is still the world's fifth largest producer. The country is also the world's largest producer of palm oil. Natural rubber is another important product.



Jan Signell is in charge of the division that will deliver Asia's first PCN system to Mutiara, a Malaysian operator.

## Huge transaction places new demands

Five operators are competing in Malaysia to become the first company to offer the country's inhabitants a completely digital mobile telephone system. The last company to be granted a license was Mutiara, a newcomer that is striving to become Malaysia's first PCN operator. A very large system is involved, in a class with the Mannesmann system in Germany, and it's going to be installed in record time. The huge transaction valued at SEK 1.3 billion was announced in the beginning of April.

Mutiara is a good example of new operators in the telecom market, companies with no previous experience in telecommunications. Everything has gone extremely fast right from the start. The bid process encompassed one week, evaluation another week and negotiations also proceeded rapidly.

Mutiara is the first of a new breed of telecom operators, all of whom place stringent demands on speed. And as a supplier, that is a factor with which Ericsson will have to live.

"Our customer is not just trying to be the first digital operator on the market. The company also wants a system with broad coverage and high capacity, right from the start. A high-tech profile is important to this customer, who also wants the very latest in terms of sophisticated services in the system." Jan Signell, Manager of the new Personal Communications Division of Ericsson Telecommunications in Malaysia, gave us a brief review of the Mutiara order.

## Doubling the size

The new division has 50 employees today, but its size will be doubled. Until now, Jan Signell has been forced to take expatriates to Malaysia. The strategy, however, is that the foreign workers will have "double agents," that is, local employees who will

eventually take over the jobs. "On the job training" is obviously a focal point in employee recruitment for the new division.

"We are building up the organization so that we have three legs to stand on. The customer is always the center of attention and it is our intention that Mutiara representatives are always in contact with the same people. This applies to technology, the actual project and sales. The customer's demands for rapid answers have placed requirements on us to organize our work in this manner," explains Jan Signell. "We simply do not have time to call on Sweden for help very often."

Like GSM, the PCN is a system with open interfaces. This means the customer can turn to competitors for additional equipment.

"Naturally, this places extra pressure on us," Jan Signell continues. "At the same time, we also know that if we do a good job, this contract could create significant opportunities for Ericsson's PCN system. Here in Southeast Asia, the PCN market is still in its infancy."

## From England

Björn Haglund, who is responsible for implementation and placing the system in operation, came directly from Guildford, England, where he had similar responsibilities for the English PCN network.

"I know the system fairly well, and that's an advantage in such a large project as this, with a schedule so tight it almost takes your breath away," Björn says.

Björn Haglund is impressed by Mutiara, which is propelling the project along by quickly acquiring sites and preparing for the installation of equipment. Every week, the owner himself reviews plans to see how the project is progressing.

"We have good people working on this project, and we are receiving excellent support from Sweden, both in terms of personnel and deliveries from the factory in Gävle. One of the real challenges for me is the large cultural gap. I have never worked in Asia before, and there are huge differences compared with Europe and the U.S.," says Björn Haglund. **GT**

# 'With Ericsson we'll succeed'

**"We were the operator that was awarded a license last, but we intend to be the first to have our PCN system in commercial operation. Being first will open great possibilities, and with Ericsson we shall meet this challenge," contends Chan Hlong Poh, manager of Mutiara Telecom. And there is not the slightest hint of any doubt when he says it.**

The Manager of Mutiara Telecom is confident about the future in Malaysia

Mutiara Telecom got off to a flying start as an operator and continues to work at the same rapid pace. In October, the company had only a few employees.

Today, Mutiara is 300 employees strong and in another three months this figure will have expanded to 500-600. Considering that there is a shortage of labor in Malaysia, particularly in the electronics industry, it is surprising that the company can grow so rapidly. According to Mr. Chan, the company does not actively recruit with advertisements.

"You have to have friends and acquaintances, a large contact network," he explains. He has more than 20 years of service with the Malaysian telephone administration prior to joining Mutiara.

"We employ older personnel with experience and younger inexperienced people who receive on-the-job training," he relates.

### Low profile

So far, Mutiara has maintained a very low profile, and have not advertised about their system, called Digi 1800. This is in contrast to many competitors, most recently Emartel, who are advising people to delay subscribing in order to be able to get Emartel's latest mobile telephone services.

"We intend to start slowly in May and in June and July we'll start heavy TV and print advertising," says Mr. Chan, while explaining that the company does not want to launch the network until there is adequate coverage

for all of Kuala Lumpur and surrounding areas.

"By early 1996, our PCN will cover the entire country. We have begun to acquire sites in the eastern part of the country."

### 500 base stations

"From December 1994 through February 1996 substantially more than 500 base stations will have been installed," Mr. Chan continues. "It is very important for us that everything moves ahead rapidly. We have not time to wait, otherwise our competitors will get ahead of us and competition is very intense. Installing the PCN network in Sarawak and Sabah could be the real challenge. The high mountains make radio coverage difficult and all material has to be airlifted in or



Chan Hlong Poh makes a test call on an Ericsson PCN telephone. Jan Signell looks on.

shipped by boat.

Is Ericsson meeting Mutiara's expectations?

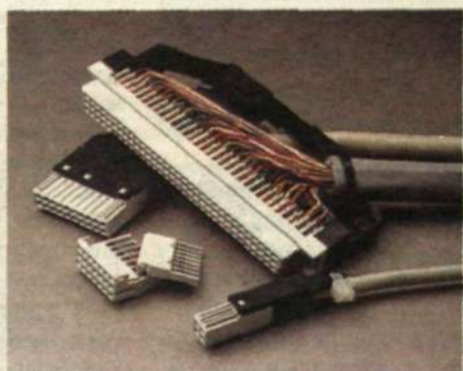
"Yes!" responds Mr. Chan without hesitating. "The quality of the equipment is high and installation work is moving ahead favorably. But the demands on Ericsson will increase rather than decrease. More installers and start-up personnel are needed for the work ahead. It will be a major job to get the personnel required, but I hope that we'll take care of that too."

"In order to succeed with our major task, we need all the support we can get from Ericsson," he adds. "This applies to all areas, Ericsson is not only our supplier, but also our partner, in

whom we trust. Together we can do a great job, from which we can both win a lot. Southeast Asia is a 'hot' area in telecommunications and Mutiara's PCN network in Malaysia will be an important reference for Ericsson. I foresee that Ericsson will have many assignments in this region,"

**Gunilla Tamm**

On May 24 th the Mutiara PCN-system, called DiGi 1800, was inaugurated by Yb Datuk Leo Moggie, minister of Energy, Telecommunications and Post in Malaysia. This means that Mutiara became the first operator in Malaysia to have its PCN-system in commercial operation.



BURNDY IDC CONNECTORS



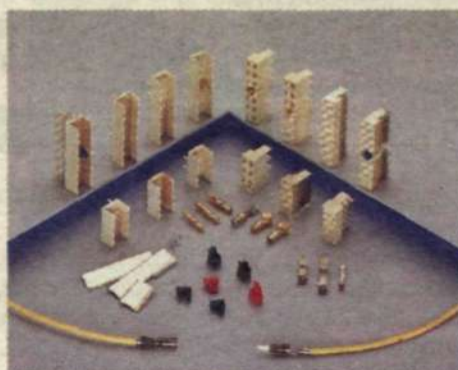
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SOURIAU/BURNDY PRESS-FIT CONNECTORS



MILLIPACS™ 1 (2 mm spacing)



MILLIPACS™ 2 (2 mm spacing)



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# 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, contact Birgitta Michels at Ericsson Events, HF/LME/A. Phone +46 871928 14.**

## MARKETING

**Ericsson Telecom AB, Global Product Line Management, Network Intelligence, TN**

### BUSINESS STRATEGY AND MARKET COMMUNICATION

Ericsson is the leader in IN (Intelligent Networks) for fixed and mobile access networks, and intend to be the leader in the future for allband Network Intelligence. Our goals include 100% yearly sales growth. Do you want to be a key person in forming the Network Intelligence of the future? Do you want to take part in the rapidly growing success today of IN? You will analyse the market and formulate marketing and pricing strategies and marketing messages for existing and near-term products business for profits, and analyse and formulate strategies for investments in the development of the products of the future. You will work with product planning coordination and external and internal sales and purchasing agreements. You will work with IN - Network Intelligence for all types of access and all bandwidths. You will work with Ericsson products as well as sourced products, and products developed in cooperation with other companies, products based on the AXE platforms as well as general purpose computer platforms.

Interested? We are looking for three highly motivated persons, who enjoy a dynamic business environment.

**Contact:** Anders Hultgren, 08-7197090, Memo ETXT.ETX-ANHU or Ewa Brandt, personnel, 08-7198289, ETXT.ETX-WAB.

**Ericsson Telecom AB, CU Basic Systems, TN**

### MARKET COMMUNICATION - AXE-10 PLATFORM

Basic Systems Product Management Unit (ETX/TX/X) is responsible for the product management of the AXE 10 Platform. We have now an open position as Market Communication responsible. As Market Communication responsible you will be responsible for creating communication programs and to support the product managers by designing professional and commercially attractive products related communication material. This material is used by Business Units and MLCs within BX and BR and also in our own customer contacts. The responsibility also includes to actively promote and maintain an Ericsson global AXE 10 Platform Product Management Network.

A basic knowledge of the AXE 10 system but more important a business and customer orientation are of utmost importance.

**Contact:** Agne Jönsson, 08-7195089, Memo ETXT.ETXAJN or Mats Bjerlöf, personnel, 08-7199675, ETXT.ETXBJEL.

**Ericsson Mobile Communications AB, Kista**

### BUSINESS ORIENTED SYSTEM ENGINEER - MIDDLE EAST

Market operations Europe, Middle East and Africa within business unit Private Radio Systems seeks a qualified system engineer, interested in working a period in the Middle East. We market and sell EDACS, the worlds most advanced land mobile radio system. The system is fully digital and can handle voice, encrypted voice and data communications. The main business segments are Public safety, industries and airports. Your field of activity will be broad, comprising all technical aspects of our advanced systems. You will be responsible for the technical parts of our commercial bids. You will be placed in Riyadh or in Kuwait City.

You should have a Masters degree in engineering and have a genuine interest in marketing. Previous experience of complex system engineering is a requirement. You should be fluent in English, both in speech and in writing.

**Contact:** Anders Gratorp, 08-7570889, Memo ECSAGER, Ulf Borison, 08-7571580, ECSUBN eller Eva Jansson, personnel, 08-7571459, ECSEVAJ.

**Ericsson Radio Systems AB, BU Cellula Systems, American Standards, (RMOA), Kista**

### CUSTOMER TECHNOLOGY PARTNERSHIP MANAGER

We offer our customers solutions for the PCS networks in 800 and 1900 Mhz based on the D-AMPS standards. For the unit Customer Technology Partnership within the sales and market organization we need persons that will take responsibility for Technology Partnership with major customers. The responsibility includes technology seminars with the customer, preparation of market message, joint activities with the customer in definition of D-AMPS applications.

Experience of marketing, product management and/or system design is necessary. The work requires international contact and travel.

**Contact:** Janez Skubic, 08-7571750, Memo ERAJASK or Karin Enberg, 08-7541786, ERAKEG. Ericsson Standard Components, Kista

**Ericsson Telecom AB, Market Unit Western Europe and North America, HF**

### CONTRACT AND BID MANAGEMENT

With the ongoing liberalisation and changes in the Telecom Market of today the new and more business-oriented Operator has emerged on the scene. Ericsson has a strong focus on this new and very much growing customer segment. The responsibility for these new customers lies within our Market Unit and we are now looking for you with a broad-commercial and/or technical Ericsson experience to be responsible for activities within contract and Bid Management. You will have a broad contact network both towards the customer and within the Ericsson Organisation.

Excellent knowledge in English and preferably German are essential.

**Contact:** Mikael Bremer, 08-7196887, Memo ETXMIB or Barbro Södergren, personnel, 08-7195775, ETXBASO.

**Ericsson Telecom AB, Kungshuset, Kungens Kurva**

### MANAGER

Contract Implementation Management Europe, Africa and Latin America is a newly formed unit within ETX/OPERATIONS with the responsibility to implement customer projects at lowest cost and lead times. Presently there are 20 persons employed. We expect you to be a person who is business and result oriented with a genuine interest in people and improvement work.

Deep knowledge in Ericsson products and processes is necessary. Overseas experience is valuable. Apart from English we use Spanish, French and German.

**Contact:** Rolf Ekblad, 08-7193142, Memo ETXROLK or Eva Carin Svensson, 08-7191616, ETXT.ETXECVS.

**Ericsson Telecom AB, BU Switching and Network System, TN**

### PRODUCT MARKETING

Are you interested in Product Marketing towards new operators, the type of operators arising due to deregulation, the type of operators focusing less on technology and more on return on investments and quick launching into existing infrastructure? We are currently building up a unit responsible for Product Marketing towards these customers world wide. The products are various releases of the AXE 10 switching platform. Our work consists of three main areas, Product Marketing with focus on product knowledge, taking responsibility for switching parts in tenders, Analysis and coordination of market requirements. We want you to be customer oriented, openminded, willing to learn, good at establishing and maintaining contacts and willing to work in cross organizational teams. A technical experience on system level or product marketing experience is required.

**Contact:** Per-Ivan Selinder, 08-719 8249, Memo ETXT.ETX-PIS or Kerstin Halén, personnel, 08-7192054 ETX.ETXKER.

## PRODUCT MANAGEMENT

**Ericsson Radio Systems AB, Kista**

### STRATEGIC PRODUCT MANAGERS CMS40 - PCS1900-APPLICATION

CMS40 is expected to become one of the main cellular systems in north and possibly south america. The new

Strategic Product Management unit LX/J with RMOG is responsible to convert market demands into product requirements towards R&D units. You will be working with product strategy and product plans. You will have contact with Local Product Managers, design departments and customers in the field. You will be responsible for coordination between different CMS40-nodes, development of old and new applications areas and for coordination of Local and Strategic Product Management Forum. Our Local Product Managers are from US, Canada and Latin America.

You have at least M.Sc. degree or equivalent and a few years experience from Telecom. Knowledge from US market is a plus. You are analytical, open minded, visionary, can work under pressure and are willing to travel. You have good written and oral communication skills especially in English. Your ability to organize (like a projekt manager) is important.

**Contact:** Ali Pourtaheri, 08-7573365, Memo ERAAPI or Erik Thorén, personnel, 08-4044959, ERAERTH.

## PROJECTS

**Ericsson Telecom AB, TN**

### OPERATIONS PROGRAMME MANAGER

Programme management is a part of the new BX Operations organisation (global responsibility for Time-To-Customer TTC). As a Programme manager You are responsible for implementing TTC Improvement Programmes worldwide, ie start up, support and follow up TTC Improvement Programmes carried out by the MLC's.

You would enjoy working with improvement/changes on a high, cross-functional level in an international environment and have experience as a line/project manager.

**Contact:** Jan Lindberg, +46 8 7192415, Memo ETXT.ETXJLL or Eva Carin Svensson, personnel, +46 8 7191616, ETXT.ETXECVS.

**Ericsson Telecom AB, BU Switching and Network Systems, AXE-provisioning, TN**

### SUBPROJECT LEADER - FMP4 ISDN-E TEST LOCAL

The work involves planning and implementing both TSs and TIs for SFT and FT. Together with the sub-project leader and unit managers you are to estimate the resource needs and the time plan for all activities. Information flow is also an important activity, both meetings with managers, team leaders & testers and written reports.

Having knowledge and experience within ISDN/IUS and AM/HLPLEX are merits, but above all you should have the personnel skills to lead this task.

**Contact:** Ann-Caroline Lundberg, 08-7194077, Memo ETXT.ETXACK or Bo Danielsen, personell, 08-7191675, ETXT.ETXBODS.

## TECHNOLOGY

**Ericsson Software Technology AB, Frameworks, Sweden**

### CONSULTANTS FOR QUALITY, PROJECT MANAGEMENT AND TEST

Ericsson Software Technology AB in Sweden is made up of consultants in the field of telecommunication and information technology. The company is divided into the three business areas Design, Business and Networks.

We work primarily with development and handling of complex software systems, methods for design of generic and reusable IT-systems and customer adapted training. Ericsson Software Technology AB has approximately 400 employees. Right now we need to hire a number of new employees. Our headquarter is located in Karlskrona but we also have offices in Ronneby, Hässleholm and a subsidiary in Lund.

Ericsson Software Technology AB is wholly owned by Telefonaktiebolaget LM Ericsson.

Frameworks in Ronneby is a unit within Ericsson Software Technology AB. We work with methods for shortening leadtimes and improving quality in projects developing complex software systems. We work with project management, methodology for software reuse, test and we use e.g. CMM and ISO 9000.

We are around fifteen consultants today and we need to expand. If you are a Master of Engineering or a System Analyst in computer science, have experience from project management, working with quality or test and want to improve the methods used today. Then contact us immediately.

We can offer you an interesting job in a very successful company. We work both in Sweden and abroad and the job will include travelling. Our business changes continuously and therefore you need to be able to cope with changes. Get in touch with us and discuss your future with us!

**Contact:** Magnus Nilsson Soft Center +46 457 775 00 e-mail: Magnus.Nilsson@ryepk.ericsson.se

**Ericsson Telecom AB, TN**

### AXE 10 SW - SUPPORT SYSTEM DEVELOPER, UNIX C, C++

We are a group of 130 support system developers working in small and medium-sized projects to develop new, improved software tools. Our aim is to further improve the design and testing environment in which our AXE 10 designers work. By cooperating with them, we help to increase their effectiveness and shorten lead-time for their processes. We work closely with our customer, an internal company, in an international environment. Our lead-time is short, so we get to see the results of our work quickly. Our design process and our model are very well developed. We aim at reaching CMM-3 by 1997. We also have a fully defined model for occupational competence, offering career opportunities as a software designer. Then too, you will find that we offer a great many opportunities to take on greater responsibility in the future, and to exert more influence over how well tomorrow's AXE functions.

If you are familiar with UNIX, C or C++, and can identify ways of solving our customer's problems, and if you are interested in learning about our customer's operation, then get in touch with us as soon as you can. We have the job for you.

**Contact:** Peter Csaba, 08-71991607, Memo ETXT.ETXPCS or Åsa Andersson, personnel, 08-7195747, ETXT.ETXASAN.

**Ericsson Telecom AB, BU Switching and Network Systems, TN**

### DESIGN UNIT MANAGER

Are you interested in being not just line manager for a unit of 13 designers but also wants to take responsibility on a higher level? We have just the job for you! Apart from being responsible for the unit, which has first priority, we also apply a system with rotation as Design Center manager and "team management". An excellent opportunity to improve your management skills. We are currently involved in developing the new AXE10 concept, the AM technology, and ISDN services.

Experience from line- or project-management or software development is a prerequisite.

**Contact:** Fred Skogli, 08-7191021, Memo ETXT.ETXFRED, Joe Dunne, 08-7193243, ETXT.ETXJODU eller Bo Danielsson, personnel, 08-7191675, ETXT.ETXBODS.

## INTERNATIONAL

**Ericsson Ltd, Hong Kong**

### PROJECT MANAGER

We require a Project Manager to manage a very (aggressive and) ambitious roll out for a new network in Hong Kong, comprising initially of 1 MSC, 1 BSC and 40 RBS 205 base stations. Reporting to the Operations Manager the Project Manager will handle the day to day activities, coordination of staff tools, transportation etc. and be the main interface to the customer. The initial period is 5-6 months starting 2nd half May with a possibility of extensions into the future.

The candidate should have previous experience in managing large projects and ideally should possess knowledge of cellular systems preferably in the CME20 field.

**Contact:** Simon Murray, +852 28807883, Memo EHKSIM or Hans Falk, personnel, 08-7571402, ERAHFA.

**Ericsson Telecom AB, CU Basic Systems, TN**

### MARKET COMMUNICATION - AXE-10 PLATFORM

Basic Systems Product Management Unit (ETX/TX/X) is responsible for the product management of the AXE 10 Platform. We have now an open position as Market Communication responsible. As Market Communication responsible you will be responsible for creating communication programs and to support the product managers by designing professional and commercially attractive products related communication material. This material is used by Business Units and MLCs within BX and BR and also in our own customer contacts. The responsibility also includes to actively promote and maintain an Ericsson global AXE 10 Platform Product Management Network.

A basic knowledge of the AXE 10 system but more important a business and customer orientation are of utmost importance.

Contact: Agne Jönsson, 08-7195089, Memo ETXT.ETXAJN or Mats Bjerlov, personnel, 08-7199675, ETXT.ETXBJEL.

Teleindustria Ericsson S.A., Mexico

## EXPERIENCED TROUBLE SHOOTERS

We are looking for experienced trouble shooters to work in TAC2, the Technical Assistance Center for CMS 8800 (AMPS/D-AMPS) in Latin America. The markets worked with are Argentina, Brazil, Colombia, Cuba, Curacao, Costa Rica, Ecuador, Mexico, Venezuela, Uruguay, El Salvador. TAC2 is located in Mexico City. The type of works done at TAC2 are providing emergency support, TR handling, consultation, ISP, market modifications of software, verification of market specific functions and introduction of new products.

The requirements on candidates are excellent knowledge of solving software errors in AXE, minimum B.Sc., good AXE system knowledge, if possible previous experience of CMS 8800 and good knowledge in Spanish/(Portuguese)/English.

Contact: Claes Nilsson. +52 5 726 2383, Memo EMR.EMRCLAS.

Ericsson Radio Systems AB, Kista

## STRATEGIC PRODUCT MANAGERS CMS40 - PCS1900 - APPLICATION

CMS40 is expected to become one of the main cellular systems in north and possibly south america. The new Strategic Product Management unit LX/J with RMOG is responsible to convert market demands into product requirements towards R&D units. You will be working with product strategy and product plans. You will have contact with Local Product Managers, design departments and customers in the field.

You will be responsible for coordination between different CMS40 - nodes, development of old and new applications areas and for coordination of Local and Strategic Product Management Forum. Our Local Product Managers are from US, Canada and Latin America.

You have at least M.Sc. degree or equivalent and a few years experience from Telecom. Knowledge from US market is a plus.

You are analytical, open minded, visionary, can work under pressure and are willing to travel. You have good written and oral communication skills especially in English. Your ability to organize is important.

Contact: Ali Pourtaheri, 08-7573365, Memo ERAAPI or Erik Thorén, personnel, 08-4044959, ERAERTH.

Ericsson Ltd, Burgess Hill, England

## IMPLEMENTATION ENGINEER

To work primarily on MD110. Responsibilities include order engineering, customer data assistance/collection, equipment room (customer) planning, material specification, customer care throughout implementation, installation, testing, load/commissioning, bring into service etc. The engineers' objective is to ensure products are implemented in a manner and within timescales, that meet the customers' needs and result in their total satisfaction.

Responsibility for a project begins at the point of order and ends at handover to the local Service Operation. You shall communicate with the customer on an on-going basis to keep them informed and ensure they are satisfied with the final outcome and receive notification of implementation requirements from the regional centre and with other local engineers, prioritise activities and plan the workload. Liaise with customers to understand their requirements and plan appropriate methods and timescales for implementation. Identify all installation equipment required and delivery timescale per project and supply the specifications to appropriate personnel for ordering.

Essential is recognised telecoms apprenticeship and five years' experience in the telecoms industry. Desirable is HNC in telecoms, installation or equivalent apprenticeship.

Five years' experience (specifically related to the telecoms industry) in Project engineering, installation and/or service.

Experienced in PABX systems and their market environment. MD110, ACP1000, ERIPAX or IDNX experience would be beneficial.

Contact: Kirstie Free, personnel, Memo ETLKEFE.

Oy L M Ericsson Ab, (LMF) Finland

## BUSINESS MANAGER

On July 1, 1995 a new Marketing Unit will be established at LMF in Finland. The business area of this unit is mobile telephone systems. The unit will work in close cooperation with Ericsson Radio Systems AB (ERA). LMF is a Major Local Company. It develops, markets, installs and repairs telecoms products and systems for public telecoms network, mobile communications and business needs. Net sales in 1995 was 752 million FIM, total number of employees was 843. The position as Business Manager for this new unit is also open for other than LMF employees. The vacancy is fixed for a period of 2 to 4 years. Good overall view of leading a marketing unit, flexibility, result orientation, excellent communication skills and willingness to work comprehensively are necessities for this challenging job.

Contact: Pekka Lappalainen tel +358 0 299 2590 Memo LMF.LMFPAL before June 15, 1995.\*

Ericsson Telephone Corporation India AB, New Delhi

## 1. TECHNICAL DIRECTOR

## 2. GENERAL MANAGER SYSTEM SUPPORT

We have got our first GSM orders in India and are expecting a tremendous growth both on existing systems and in new business opportunities.

1. We are looking for a manager of the technical unit (Mobile Network Design) within our new BR-branch (EF) in India. Your responsibility will be to build up a technical competence center in India covering the Switching network, Access Network and Radio Network area for the GSM system. The organisation will give technical marketing and sales support and technically establish and support the customer projects.

Qualifications: Management experience from System Design or Product Management. Good knowledge of the cellular business. You will be stationed in Delhi and report to the Executive director of EF.

2. We will build up a FSC in Delhi which will be responsible for all customer systems in India. A number of FSO will be built up in different regions in India. The FSO's will report to

and coordinate their activities with the FSC in Delhi. EPK in Karlskrona, Sweden will be the ESO for India.

We are now looking for an experience Manager for the System Support (FSC) activities in India. You will be responsible for building up this organisation with local personnel and expatriates and you will set up all System Support relations between the customers via the FSO's and the FSC to the ESO. You will together with the customer, Product management and the ESO plan the roll-out of all packages in the networks.

Experience from similar work and with cellular business is a great advantage.

Contact: L-E Wihlborg, Memo ERAWGB, Jan Lönnström, 08-7573314, ERAJAL eller Mats Bosrup 08-7575758, ER-AMBOS.

Ericsson Telecom AB, Kungshuset, Kungens Kurva

## MANAGER

Contract Implementation Management Europe, Africa and Latin America is a newly formed unit within ETX/OPERATIONS with the responsibility to implement customer projects at lowest cost and lead times. Presently there are 20 persons employed.

We expect you to be a person who is business and result oriented with a genuine interest in people and improvement work.

Deep knowledge in Ericsson products and processes is necessary. Overseas experience is valuable. Apart from English we use Spanish, French and German.

Contact: Rolf Ekblad, 08-7193142, Memo ETXROLK or Eva Carin Svensson, 08-7191616, ETXT.ETXECV.

Ericsson Radio Systems AB, India

## MARKETING DIRECTOR

In India we have recently received our first orders for GSM systems. Soon another 40 licenses will be granted to joint ventures between Indian and foreign companies. The business is developing fast and the potential is tremendous. Your responsibility will be Secure sales goals, Promote new business ideas and products, employ and train local staff and develop existing customers.

# Business-driven Product Management

My name is Roland Nordgren, and I have just taken over as manager of "GPLM-S", where my assignment will be to ensure that AXE 10 remains a profitable and competitive system well into the next decade. This will require that we continuously reinforce our capacity for making decisions about product management in a businesslike way. It also means that we must lead in the creation and development of products that sharpen our customers' competitive edge and improve their business results.



With this in mind, we have put together an organisation that will lead the development of AXE 10 in four requirements areas: Local Switching; Network Expansion (i.e., customers and markets characterize by rapid growth in terms of line capacity); Local Switching Service Expansion (i.e., serving customers and markets that are rapidly expanding in terms of telecom services); Transit (i.e., serving customers whose main business is to transit long distance traffic); and lastly, New Opportunities (i.e., serving new and innovative customers who probably have product needs that are dramatically different from those of our traditional customers. We wish to do all this without giving up our ambition of keeping AXE 10 together as an efficient, easy-to-handle, high-quality system. Although we bear responsibility for AXE's continued development, we will nevertheless be performing our work in close cooperation with AXE Product Provisioning, and we

will also need to be actively engaged in the marketing units' business efforts with respect to customers.

We have great challenges facing us, but we can also expect to reap great successes. Although the AXE system—the world's most sold public telephony system—has been on the market for some time, we probably have not sold more than half of the total number of AXE lines that we will sell if we play our cards right.

To succeed in this, we need to reinforce our ranks with a number of skilled staff members, particularly in the following areas:

### Business management

This position calls for strategic planning and analysis of the demands our segment places on products, and—proceeding from this information—formulating requirements for product development at the GAS level. The position also involves being responsible for following up profitability in the segment, and proposing measures by which to improve its profitability and competitiveness.

The applicant should have a suitable background in marketing, business analysis, or experience of technical assignments at the system level.

### Product marketing

The assignment here involves taking responsibility for the segment's roll-out plans being communicated to, and accepted by, everyone who takes part in the segment's business operation. This person will support the marketing units with Technical Compliance, product presentations and technical discussions with customers.

The applicant should have experience in technical

marketing or marketing support of our products. However, he or she may also have good technical competence at the product level, and would like to get into marketing and market-related assignments.

### Product area management

The person who takes on this position will bear responsibility for drawing up business plans related to products, for handling requirements, and for standardisation and cooperation with customers within his or her product area. This work will also require some internal "selling" of products, as well as providing support for product marketing.

The applicant should have good technical competence at the product level, and/or been involved in design or system work. He or she might also have participated in technical marketing or marketing support.

### Product line control

The person who fills this position will act as a "gearbox" between the various requirements segments and Product Provisioning. He or she will work to balance the requirements of the segment, rendering them into effective product releases, besides taking full responsibility as the orderer of product development, including follow-up of costs and quality.

Besides having worked on the technical side of system or project management, the applicant should be motivated to take a step closer to marketing.

If you want to be a part of AXE 10's future, get in touch with me or someone else on this list:

Hans-Erik Svensson, tel. 08/719 41 54

Birger Kjellander, tel. 08/719 91 68

Mats Eriksson, tel. 08/719 90 19

Kerstin Halén, personnel, tel. 08/719 20 54

As the organisation in India is in a start phase your entrepreneurial style and driving force will be important to succeed. To be able to meet the Indian challenge your background must include Cellular marketing, Management and Negotiation Skills.

**Contact:** Mats Bosrup, +46 87575758, Memo ERA.ERAM-BOS or Elisabeth Ramel, +46 87641571, ERA.ERAE.LRA.

**Ericsson Telecom AB, Market Unit Europe, Africa and the Americas, Düsseldorf, Germany**

**TECHNICAL COORDINATION RESPONSIBLE FOR MEGANET IN GERMANY**

Meganet is a new operator in Germany, with the aim to establish and operate fixed-wire-based corporate networks in a first stage and later also become a second public operator. Ericsson and IBM are cooperating in a project to supply a first network and we are now looking for a technical coordinator to be based at EDD in Germany. You will be responsible for all technical matters as a speaking partner to Meganet and IBM. A project organization at ETX will give you necessary back-up and support.

We are looking for you who has a broad technical knowledge about the Ericsson product range and experience from customer relations.

**Contact:** Victoria Strand, 08-7194103, Memo ETXT.ETXENV or Barbro Södengren, 08-7195775, ETXBASO.

**Ericsson Mobile Communications AB, Kista**

**BUSINESS ORIENTED SYSTEM ENGINEER - MIDDLE EAST**

Market operations Europe, Middle East and Africa within business unit Private Radio Systems seeks a qualified system engineer, interested in working a period in the Middle East. We market and sell EDACS, the world's most advanced land mobile radio system. The system is fully digital and can handle voice, encrypted voice and data communications. The main business segments are Public safety, industries and airports. Your field of activity will be broad, comprising all technical aspects of our advanced systems. You will be responsible for the technical parts of our commercial bids. You will be placed in Riyadh or in Kuwait City.

You should have a Masters degree in engineering and have a genuine interest in marketing. Previous experience of complex system engineering is a requirement. You should be fluent in English, both in speech and in writing.

**Contact:** Anders Gratorp, 08-7570889, Memo ECSAGER, Ulf Borison, 08-7571580, ECSUBN eller Eva Jansson, personal, 08-7571459, ECSEVAJ.

**Ericsson AS, Norway**

**SENIOR SALES MANAGER**

We have the responsibility for cellular quality information systems. The business opportunities are remarkable and we are looking for the right person to contribute to the expansion. The Senior Sales Manager has the authority and obligation to develop and execute the account plans and programs in co-operation with our local Ericsson company. As a Senior Sales Manager you will get the responsibility for some dedicated markets and develop the business according to the plans.

If you think this sounds interesting, please send us your application as soon as possible and no later than 950601.

**Contact:** Knut Aulund, +47 66842302 or cell. phone +47 90082532. Written appl. marked ETO/CE to Personell dept. Ericsson AS, Olav Brunbongs vei 6, POB 34, N-1361 Billingstad, Norway.

**Ericsson AS, Mobile Systems Development Dept., Arendal, Norway**

**MOBILE DATA COMMUNICATION AND INTELLIGENT NETWORKS (IN)**

The Mobile System department is working with system and software development activities within AXE, and specially in the areas of MTS(NMT), HRS(NMT), IN(SSF in AMC,UPT/Service Creation) and Datacommunication/DTS (CME20,CMS40,CMS30,CMS88). Datacommunication activity includes CP,RPD and DP software in PLEX and C/C++. SSF in AMC are using the AM methodology and we are also working with implementation of the CLEANROOM methodology in all our projects.

At the moment we are extending the development activities and we are looking for experienced people that could be interested in a contract stay or an ordinary employment at ETO. We need people specially in the areas of Mobile Datacommunications (IWU) and Intelligent Networks. You should have experience from AXE development activities and know MEDAX and PLEX/C/C++ design. We also need people with experience from project management or test management of AXE projects.

**Contact:** Björn Tellefsen, Memo ETOBJKT, Per Gunnar Riber, ETOPGR or Geir Bråten, ETOGB.

**Ericsson Ltd, Burgess Hill, UK**

**ACD TECHNICAL DESIGN AND SUPPORT ENGINEER**

ETL are the worldwide support centre for the ACD system and the ACP1000. This product is used at Call Centres all over the world. The vast majority of the systems are in the UK but other countries that have the ACP1000 are Portugal, Germany, Belgium, Sweden, Spain, Columbia, Australia, China, Hong Kong, Phillipines.

To support the ever increasing product base of the ACP1000, we need a telecomms engineer who is able to give technical support and have the ability to perform software design to meet new market requirements. Alternatively a software designer who wishes to move into support could also meet our requirements.

The system software is written in C and 68020 assembler and is developed on SUN UNIX platform. We also support a number of third party products that are developed with C++.

The job requires a person who has the ability to work alone and also in a team. The person must be a logical thinker who can work under pressure. Good communication skills are essential. The job has a 24 hour callout system that works on a rota basis within the group. A passport, UK driving licence and willingness to go anywhere in the world at a moments notice are essential.

**Contact:** Ian Murphy, phone (01444) 256079, memo etl.etliamy or Kirstie Free, Personnel Officer, ETL/B UK, (01444) 256150, memo etl.etlikefe

**Ericsson S.A. - Spain (EME)**

**AXE-10 SW DESIGNERS / TESTERS**

A new product, ILR (Interworking Location Register), is needed to allow for interoperability between different mobile networks (CMS40 and CMS88 for the first version). An organization is being created at EME R&D Center in Madrid, to have the responsibility for the first version of ILR, with new employees staffing most of it.

We are looking for experienced design and testing engineers in order to strengthen our organization. As a candida-

te, you should have 2-5 years experience in AXE-10 design and/or function/system testing, preferably in mobile telephony (CMS88 being a plus).

You should be self-sufficient and supportive, ready to take responsibility to support the new members. With fluent English, you should be ready to accept a 6-month-to-2-year assignment in Madrid, with possible short trips mainly to North America.

**Contact:** Emilio Perez (EMEEPSA), 34-1-339 2921, or Jesus Tomas (EMESOTA), 34-1-339 2896.

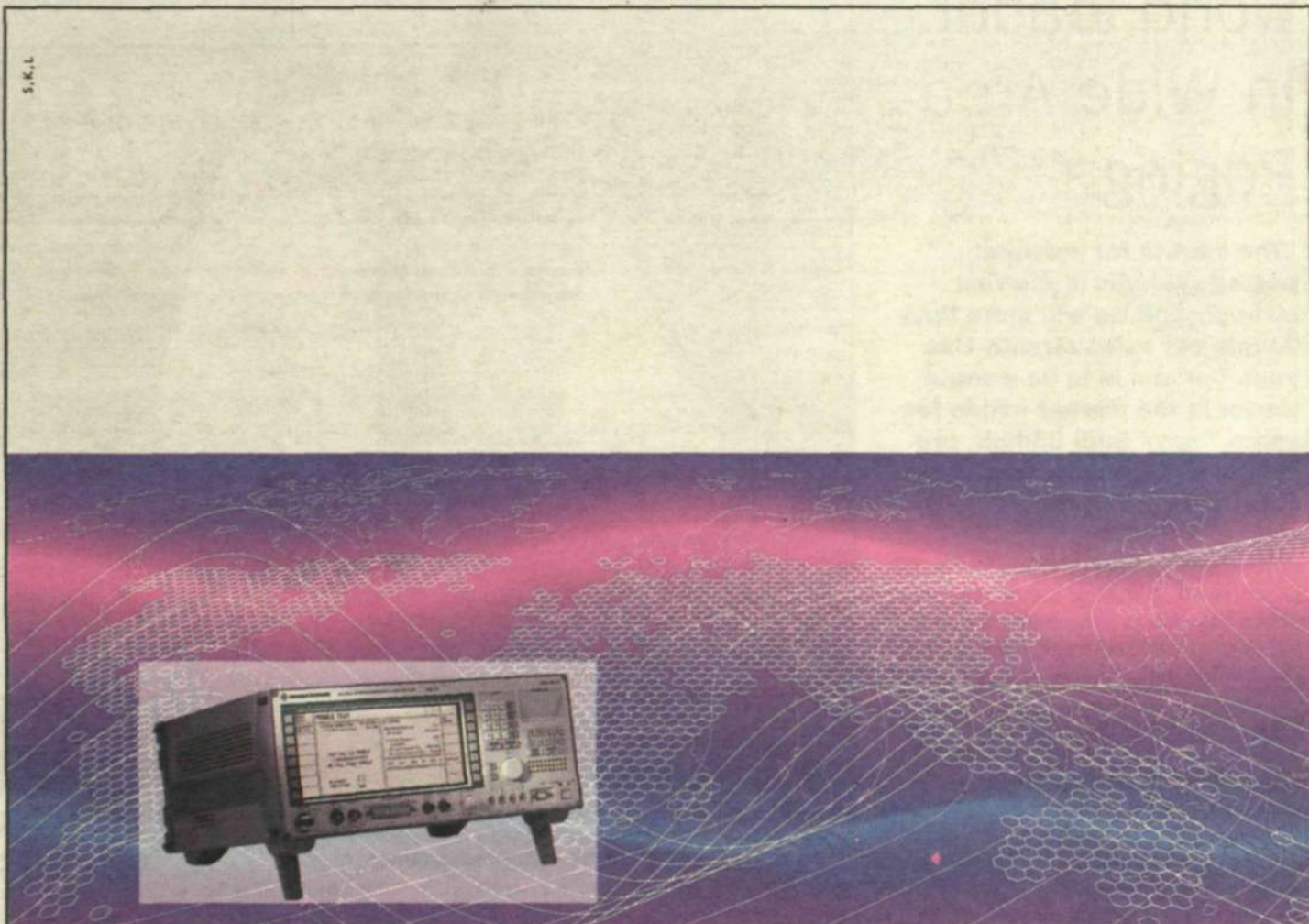
**Ericsson AS, Hisøyfabrikken, Norge**

**TESTINGENIÖR**

med følgende oppgaver: Utvikling av testopplegg for krets-kort og system med RF, produksjons- og testbarhetsgranskning, drift og vedlikehold av produksjons- og testutstyr.

Din bakgrunn er ingeniørhøyskole el. lignende. Praksis/kjennskap til HP VEE er en fordel.

**Kontakt:** Leif Odd Henriksen, +47 37051698, Memo ETO-LOH eller Per Sveum, +47 37051720, ETOPSV.



**First-rate. And first to market.**

CMD 55/57 - first in GSM and PCN/PCS mobile and base station testing

Rohde & Schwarz has a long track record of innovation. And a worldwide reputation for excellence. With our broad expertise as a leading manufacturer of analog and digital telecommunications testers, coverage measurement systems and signal generation and analysis instruments, you would expect first-rate test equipment for development, production, service and type approval of GSM and PCN/PCS. And that's just what you get.

First-rate, and first to market. Like the CMD 55 and CMD 57 - first in the field for GSM and DCS 1800. And now for the US DCS 1900 standard. These are the smallest, lightest testers on the market. And the first. Easy to use and packed with powerful features. Like advanced user

guidance for unparalleled ease of use. Autotest routines that allow complete testing of a radio telephone without operator intervention. And module tests, indispensable for service work. Plus the distinction of being the only tester on the market that can measure power ramps to GSM specs (more than 72 dB dynamic). And finally high-speed remote control for high production throughput. All this backed by the full service and expertise of a market leader.

Interested? Send a brief note to Flygfältsgatan 15, S-12830 Skarpnäck, Sweden or fax us on +46 8 94 19 78 or call us on +46 8 683 67 00. We'll make sure you get the information you need.

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# Toward a promising future

The objective is to be a world leader in Wide Area Paging

"The market for personal paging systems is growing strongly and we will more than double our sales already this year. Our aim is to be a world leader in the market within ten years," says Rudi Omhult, president of Ericsson Radio Messaging AB (ERM).

ERM, which has about 190 employees, is a rather small company today. Its Head Office is in Bromma, outside Stockholm, and development work and production are also carried out in Älvsjö, Sundsvall and Linköping.

Rudi Omhult became president of the then Magnetic company in 1991. He participated in the developments that resulted, just under two years ago, in the formation of Ericsson Radio Messaging in connection with the acquisition of Compondex, an English company, and the integration of the former Teli's paging division.

He thinks that the future of the paging market looks very bright. He says the market for systems is increasing, in part because more operators are investing in new networks and in part because many operators are upgrading their systems to handle high-speed paging – developments that affect exchanges, distribution networks and base stations.

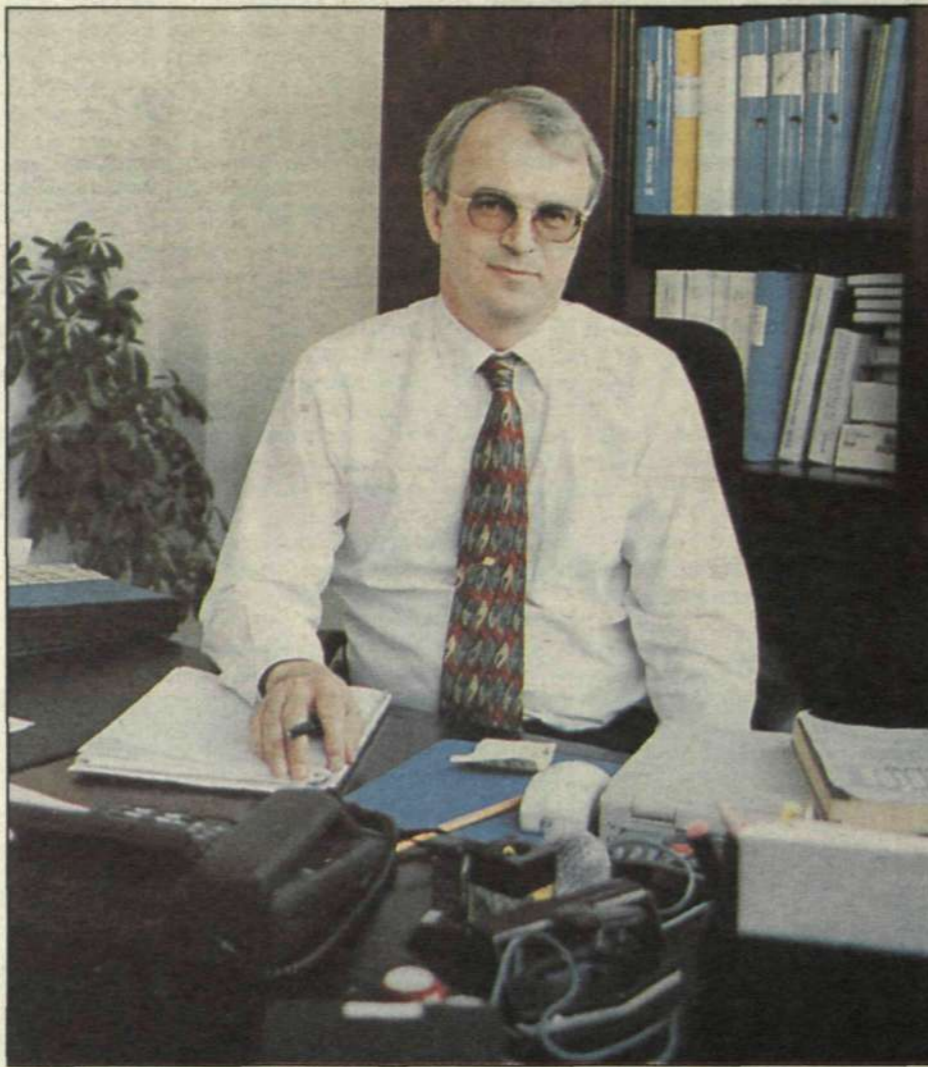
## Paging is "discrete"

There are a number of similarities between mobile telephony and personal paging in terms of hierarchical network structure and the need for nationwide systems.

The advantages of paging include the fact that it is a "discrete" system; a call does not have to be answered immediately. It also uses less energy – the batteries last longer – and is cheaper.

Just as mobile telephony is now developing its pan-European GSM system, paging will have its Ermes (European Radio Messaging System).

"Ermes has gained a strong foothold in Europe, which naturally helps our sales since we can offer these systems," Rudi Omhult explains. "Our sales have also started to take off in Asia, where there is now a battle between Ermes and Flex to



"There is a growing market for nationwide personal paging systems, one in which an increasing number of operators are investing in new networks," says Rudi Omhult, president of Ericsson's company in the Wide Area Paging sector.

become the standard for high-speed systems." Regardless of which system ultimately becomes the standard, Rudi Omhult thinks that Ericsson Radio Messaging can be in the picture.

"The same base station and distribution network is used in all systems. All you need is an encoder for the pertinent standard."

As a result, he is convinced that his company has the strength and ability to increase its present 10-to-13-percent share of the market and become a world leader by the year 2004.

"But we must then be able to offer all system-protocol standards," he emphasizes.

## Large potential

Motorola and Glensyre are today the largest companies in the personal paging field, but there is a substantial potential for growth. With today's approximately 50 million subscribers as a base, Rudi Omhult is counting on growth of about 15 million a year to a total of around 130 million in the year 2000.

When monopolies are broken up in a country, personal paging is often the first sector to be demonopolized. Accordingly, Rudi Omhult believes many new operators will invest initially in this segment.

**Wide Area Paging (WAP)**, which is described in the accompanying article, should not be confused with the local (on-site) paging generally found in offices, hospitals and similar applications. A WAP system, in contrast, is one in which a call is transmitted simultaneously via all base stations in a country or region. WAP systems, like mobile telephone systems, are linked to the fixed-wire telecommunications network.

"It would also be a good idea if the authorities coupled a paging license with a cellular license, and vice versa, as a way of giving an operator the possibility to gain synergistic effects."

## Two-way communication

Rudi Omhult thinks that two-way communication via personal paging systems will be developed in the not-too-distant future. In today's systems, which are inherently highly reliable, a caller cannot tell whether or not the party called has been reached.

"It is important that we conduct an active dialogue with operators with respect to applications that strengthen their competitiveness and increase their revenues," he stresses.

ERM's upgrading of British Telecom's entire paging network in England is one example of an important large project in which the company is currently involved. Utilizing the special expertise available in Compondex, the network is being changed over from land-based to satellite-based personal paging.

Wide Area Paging (WAP, which is described in the accompanying article, should not be confused with the local (on-site) paging generally found in offices, hospitals and similar applications. A WAP system, in contrast, is one in which a call is transmitted simultaneously via all base stations in a country or region. WAP systems, like mobile telephone systems, are linked to the fixed-wire telecommunications network.

Alf Öst



Ericsson and other suppliers are now preparing to introduce the ERMES pan-European personal paging system in Asia, which has traditionally been one of the strongest markets for nationwide paging.

## Battle for customers is under way worldwide

"Demonopolization is benefiting the paging industry to a high degree and is promoting competition, creativity and the development of new concepts in which telecom administrations are becoming merely one of two or three operators in many countries."

So says Peter Holm, marketing manager at Ericsson Radio Messaging AB (ERM). He thinks that most of the new personal paging system operators will be consortia with a purely commercial orientation.

"They have to earn money and will therefore be very careful about how they profile and position their systems."

Telecom administrations have traditionally been the sole providers of personal paging services. But the new operators will invest heavily in marketing, which will have a beneficial effect on market growth. Peter Holm thinks that the penetration of the European market, which currently amounts to less than one percent, will increase to between six and seven percent around the end of the century.

## New services

Parallel with the new operators' investments, there will be new services.

"These will be both individual services and packages of services – for example, news, stock prices, sports results and traffic information – that are already available today. These services can be combined with public network or mobile services," according to Lars Gandils, manager of business development at ERM.

"Competition in the United States has also resulted in the development of specialized services, such as the use of personal pagers by companies to transmit price information to sales personnel."

Peter Holm expects to see substantial new-equipment and replacement sales in Europe during the next few years. And with new operators in the market, there is of course the potential to develop completely new business.

In Sweden, as in Denmark and Holland, among other countries, observers foresee a combination of these opportunities, while new systems are expected to be created in both Germany and France.

"In terms of products, we are dealing with both the upgrading of existing systems and the introduction of high-speed paging," says Lars Gandils. And he notes that ERM has supplied equipment for 13 of the 16 Ermes systems that have been ordered to date.

"We are the prime systems contractor for six systems and are delivering mainly transmitters to the others."

## Active in Europe

"We are currently active in most of the markets in Europe and we have delivered some form of equipment to all the large systems in Europe during the past three years," Peter Holm says.

In many countries where there is a single operator the telecom administration and the buyer are the same party, but Peter Holm points out that there is a large potential for sales since there is room for more operators and for sales of high-speed systems in many markets.

Eastern Europe is also beginning to become attractive.

## Success in North America

ERM has had notable success with sales of radio transmitters in North America, largely due to a new product concept for a compact unit that can be installed easily.

Lars Gandils says that there are half a dozen large operators in the U.S., the largest of them being PageNet which is buying transmitters from ERM. North America is also a leader in setting standards and developing applications for paging.



According to Lars Gandils and Peter Holm at Ericsson Radio Messaging AB, Ericsson has succeeded worldwide with Wide Area Paging.

can be "localized" to a cell. The frequency can then be used for other traffic in other cells.

## Transmitter sales in Asia

"Asia is distinctly a 'systems market' for us, but one in which we also have strong sales of transmitters," Peter Holm says. "We sell transmitters mainly to operators in Hong Kong who use them in their systems being delivered in China."

In addition to Hong Kong, attractive markets in Asia include Malaysia, Taiwan and Thailand.

"Generally speaking, one can say that Asia is facing a choice of systems – Ermes or Flex – for the future. But we are working primarily with a number of suppliers of equipment to market Ermes in Asia," Peter Holm notes.

In May nine members of the Ermes Manufacturers' Marketing Association (EMMA) will arrange a "road show" to promote the Ermes standard in Asia.

"Ermes is an open standard, with open protocols between its component parts," Lars Gandils explains. "These components are available to everyone and can be combined in systems that are not dependent on a single supplier."

"Among other things, they have what they call 'voice mailbox in your pocket,' in which a voice message can be stored digitally in your receiver, enabling you to listen directly – thanks to small memory chips," Lars Gandils declares by way of example.

Normal paging amounts to one-way communication while, with two-way communication, the sender receives confirmation that a message has been received.

"What happens is that the recipient of the message 'punches up' a standard message on his pager and sends it back to the caller."

Two-way paging also increases the capacity of paging systems since a receiver

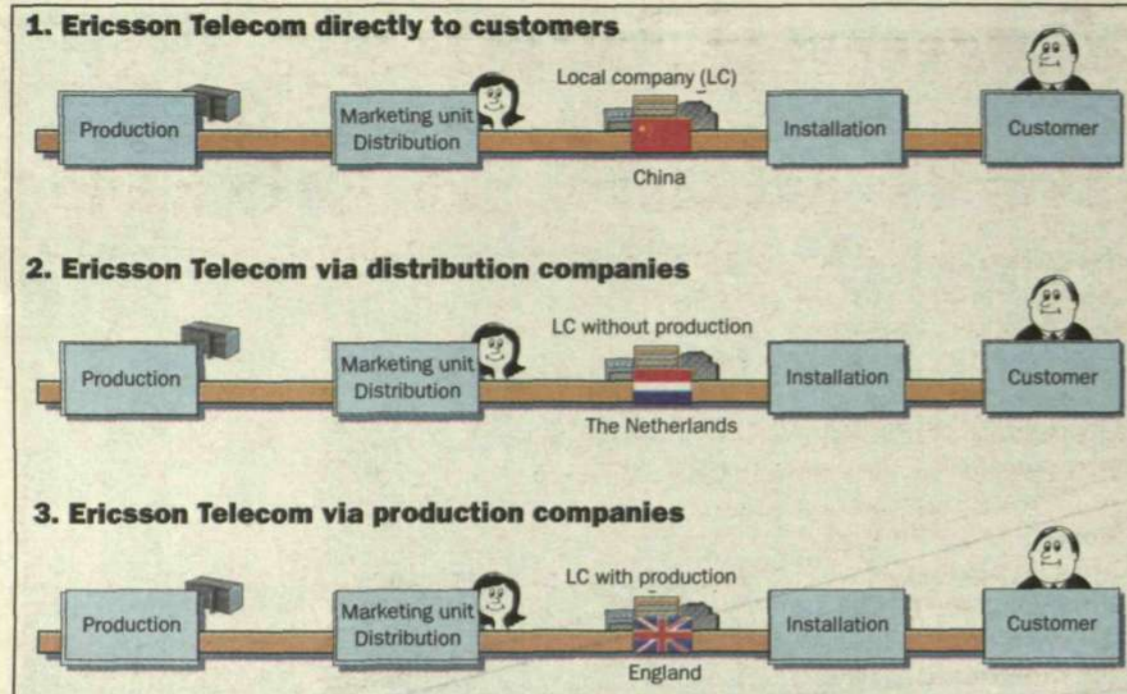


Illustration: Jonas Bergengren

The Public Telecommunications business area "rakes in" money from order flows to secure growth. "We concentrated on monitoring capital employed in three main types of operational flow," says Anders Bremmer. They are 1) from Ericsson Telecom directly to customers, 2) from Ericsson Telecom via a large local company that distributes products to customers and 3) from Ericsson Telecom via a large local company that produces and distributes to customers. "We chose to focus on time, by measuring capital tied up in 'days.' We do not calculate in Swedish kronor, therefore, but rather the number of production days that are tied up in different phases of operational flows," Anders Bremmer explains. The adjustment agents studied three markets, each of which typify a main area of the operational flow. China was used for the first, the Netherlands for the second and England for the third.

# Don't tie up capital on the shelves

## Billions can be saved through lower inventories

Customers pay their invoices when they receive the products they have ordered. As long as ordered goods remain in warehouses, or are stuck in a production process, Ericsson does not get paid. It's very simple, and it's called tied-up capital.

A major objective of the Public Telecommunications business area is to reduce capital tied up in assets and reduce to a maximum of five percent the percentage of trade receivables due for payment. Billions can be saved in meeting this end.

When large sums of money are tied up in products that have not reached their final destination, Ericsson is forced to borrow money for development projects and investments. And loans are expensive nowadays.

Particular focus must be placed on getting products to customers as quickly as possible, so that Ericsson is able to maintain freedom of action with its capital.

"Once we had a clear picture of capital employed in different operational flows (see diagram above), it was a matter of defining and dividing responsibility," says Anders Bremmer, who has worked with the assignment of responsibilities in the business area's controller function.

In simplified terms, this means proper and accurate assignment of responsibilities to different operational functions.

Whatever phase of the product-to-customer chain is responsible for delays must bear the costs of the delay.

"For example, production bears the costs and responsibility for capital until the completion of deliveries to marketing units. At that point, the marketing units assume responsibility for getting the products to customers as quickly as possible.

### The "rake"

The entire division of responsibility is described in a model commonly referred to as "the rake." "The rake shows how much

money is tied up in every operative flow, and it provides a solid foundation for decisions concerning how we should formulate our operations."

The people who work with concrete measures to reduce capital employed in the business area are called adjustment agents.

There are about 10 adjustment agents working on a broad front within Public Telecommunications. Their objective is to reduce lead times, costs and capital tied up in the business area.

"If we can reach real reductions in lead times, we will also achieve a direct increase in capital turnover. The adjustment agents are working intensively to effect concrete improvements," Anders explains.

### Ordering too soon

"In this context, it is also important to instill confidence between the different units (production, marketing and foreign subsidiaries) involved in the operational flow. Today, ordering units tend to factor 'time margins' into the flow because they do not believe they will get their products on ti-



Illustration: Magnus Andersson

The Ericsson Group can save billions in interest expenses by getting products to customers more rapidly. Every day that a packaged crate

remains in the warehouse costs money. Products delivered quickly to customers can be invoiced sooner.

### Important dialogue

"In addition," he continues, "it is important to maintain a dialogue

within the organization whenever capital employed is the issue."

Every week, Anders Bremmer sends memorandums to persons responsible for capital employed within Ericsson Telecom.

He provides them with information concerning the amounts of money tied up in the form of

packaged crates in the central warehouse in Huddinge.

Every quarter, Ericsson Telecom and large local companies in the Group have to justify their capital employed and their current trade receivables due for Karl-Henrik Sundström, Controller for the Public Telecommunications business area. They

are also obliged to present concrete measures implemented to improve operational flows.

And every quarter, The Rake is presented and discussed within the business area in the Group ESCR forum, a platform for the discussion of Ericsson programs designed for systematic capital reductions. Isabel Werner

# Ground broken for new plant in Gävle

On Wednesday, April 26, 1995, ground was broken for Ericsson's new plant in Gävle, Sweden.

Anders Thörn, Local Manager in Gävle, Håkan Vestlund, Chairman of Gävle's Municipal Council, and Per Palmberg, President of Ericsson Fastigheter AB, manned the shovel for the ground breaking ceremony in Gävle.

Ericsson is expanding in Gävle. Floor space the size of half a football field will replace the old premises, which are spread out across the city.

"Now that we are consolidating all operations under one roof, we shall be able to save significant amounts of money," declared Anders Thörn.

"We'll gain greater production flexibility, and materials handling will be simplified," he continued.

Originally, the Municipality of Gävle was going to build the new plant, but the Swedish government enacted new legislation governing direct depreciation of wholly owned real estate just before Christmas. New light was automatically cast on the expansion project in Gävle. The final decision on self-financing was made by Ericsson's Board of Directors in the beginning of March.

"The investment is based on expansion in mobile telephony, an area in which Ericsson has doubled its production in recent years," explains Anders Thörn.

"Today, approximately 1,400 persons are employed in Gävle. However, we are now hiring people at a rate of 20 new employees per month.

By year-end 1995, Ericsson expects to have 1,600 employees in the Gävle plant. We need operators as well as engineers and technicians with different levels of education," he continues.

### Loves her job

Margareta Öhlin is one of Ericsson's newest employees in Gävle. For Ms. Öhlin, the job is an excellent opportunity after two years of maternal leave. "It's great to rejoin the labor force," she says. "And I work with some wonderful people."

"A surprise for me was the exercise break. Twice a day, we get together on some empty floor space and have an aerobic exercise break."

Ericsson's plant in Gävle manufactures digital and analog radio base stations for mobile telephony. The equipment is exported to more than 30 countries every week.

By Lars-Erik Wretblad



The ground breaking ceremony for Ericsson's new plant in Gävle was held on April 26th. Manning the shovel were (l-r) Håkan Vestlund, Chairman of the Municipal Executive Committee, Per Palmberg, President of Ericsson Fastigheter AB and Anders Thörn, Local Manager in Gävle.

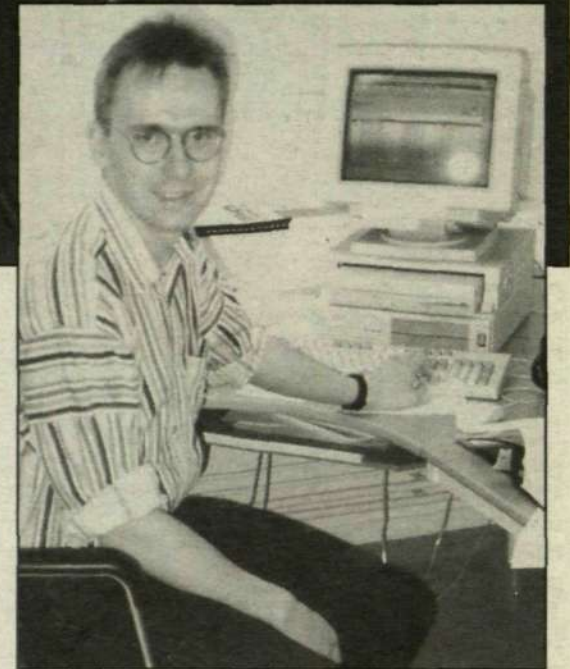


Margareta Öhlin is one of Ericsson's newest employees in Gävle. She took the job after two years maternal leave.

# Between lab and reality



The first "real" call in the new generation of RBS 2000 base stations for GSM networks is being made. From the left, speaking on the telephone, Erland Arvidsson, project manager; then Gunnar Forsell (hidden), Stefan Rannelid, Rik Gould (bending over, monitoring the base station from an Operation & Maintenance terminal), Kennet Öblom (LMF), Keith Greeves (bending over), Peter Falck, Björn Åhman and (back to camera) John Hallonquist. Photo: Leif Allard



"As a result of the cooperation on this project we have gained knowledge of RBS 2000 and have reduced the risk of a problem when we introduce RBS 2000 in our GSM network," says Lars Anderberg at Telia Mobitel. Photo: Erland Arvidsson

## Ericsson and Telia Mobitel in final joint tests of new RBS 2000 base station

**"This is a very good opportunity to conduct tests jointly with a customer, Telia Mobitel, and obtain views on our new base station for GSM networks before it is released on the market," says Erland Arvidsson at Ericsson Radio Systems.**

**"The tests have been conducted in a very realistic environment, using links to the operating network."**

For six weeks in April and May Ericsson Radio Systems and Telia Mobitel have been testing and adjusting the new RBS 2000 radio base stations before they will soon be released on the market.

The tests have taken place in Telia Mobitel's head office in Haninge and have involved indoor traffic on four floors on the building.

Two radio base stations have been linked to the operating GSM network via Telia Mobitel's system-test facility and approximately 150 subscribers in the company's GSM network have been involved in the project. They have used the network in the normal way and have also participated in

"load tests" in which as many calls as possible are placed in a short period in order to evaluate network performance.

### Valuable

"This has not been a traditional customer-supplier undertaking but rather a limited joint project in which we have carried out tests together," according to Erland Arvidsson, Ericsson's project manager for the experiment.

"We have been able to work in a very fine test environment and this has been extremely valuable for us. We have been able to simulate actual conditions and we have been able to test everything in miniature: normal operations, maintenance and so forth. We have also taken the opportunity to test frequency gaps in an indoor environment, as well as different radio parameters."

The speed with which RBS 2000 can be installed was also demonstrated. It did not take more than three hours from the time the truck arrived at the unloading platform until the first call went out over the air.

### New generation

RBS 2000 for GSM is a new generation of base stations that is distinguished primarily by its flexibility and expandability, by the

fact that it can be installed quickly and simply and by the operator's ability to monitor the system efficiently and detect and correct faults.

There are two versions of the new base station, a large compact model and a "mini" model. The base stations have initially been produced for GSM systems employing 900 MHz. But stations for the DCS 1800 version of GSM, using double this frequency, are on the way. The higher-frequency version is used for PCN (Personal Communications Networks) and for PCS 1900 systems, the network type used in the United States.

RBS 2000 base stations have already been sold in a large number of markets throughout the world.

### Ideal

"The cooperation we have had with Telia Mobitel, which provided 100 percent support, is really the ideal way to work with a product," Erland Arvidsson declares. "We still have to work on product development, and we have been able to design the product together with the customer. Another advantage of this method of working is that we who are suppliers develop closer ties with the customer and can share the customer's experience."

"When we have discovered a fault we have been able to correct it quickly, thanks to the total support of the various departments within Ericsson."

### Mutual benefits

The cooperation has also involved benefits for Telia Mobitel. It has gained greater knowledge of the product and has participated actively in all the tests.

"In this way we have been able to detect and report faults at an earlier stage," says Lars Anderberg, a member of Telia Mobitel's Technical Department.

"I am convinced that, as a result of this project, the first new RBS 2000s that leave the Ericsson plant will be better products".

"Our work in developing documentation for long-term planning and engineering – and in updating our agreement with Ericsson – has definitely been made easier since we have been able to share preliminary documentation on RBS 2000 in a simpler way."

Lars Cederquist



# Secretaries acquiring new skills for future

**Work methods of the future and the wave of new technology are imposing completely new demands on secretaries. Tomorrow's secretary will not only have to be efficient and possess broad administrative knowledge, but preferably should also be a specialist in some field. Ericsson's secretaries are concentrating on developing the skills that will equip them for the future.**

"In a few years things will be difficult for those who cling to the traditional secretarial role," says secretary Helena Liljeqvist.

"The technology of the future is taking over many of our tasks and is already breathing down our necks. You can't look back. Instead, we secretaries have to appreciate that there is much to be gained from the new technology and the modern way of working. We have to have the strength and will to help ourselves."

Many of the Company's secretaries today share Helena Lundqvist's view. They do not intend to be left behind in the new era that is changing their work places to a large extent. Instead, they regard their experience and knowledge as an asset that will continue to benefit the Company in the future. It is only a matter of finding new forms of work, of creating a new professional role for the secretary. This will be a tough and demanding job, but Ericsson's secretaries have found their ticket to the future: Skills development.

Eva Hagman is responsible for the pool of secretaries in Ericsson Telecom. With her as the principal organizer, the pool is currently working on a development program for secretaries in the company. Activities designed to increase their skills constitute the core of the program.

"Having solid competence that keeps pace with developments is the best job-security insurance," Eva Hagman explains. "A job can disappear but no one can take away your skills."

To date, the program for secretaries has involved trying to establish a common platform upon which to base activities. Eva Hagman and representatives of the secretarial group, together with consultants and managers, have discussed the professional role of secretaries today. They have studied the good and bad aspects of the present situation and have considered what they want the future to be like. The results of their evaluation will be clear objectives and visions on which the group can focus.

"As part of the program of skills development, 'MKY' (a model for enhancing the competence of professional categories of employees) will be our tool," Eva Hagman says. "This is a good pedagogical instrument when you want to determine the skills people possess and where there are gaps in competence. We are in the process of developing an MKY document for the group to consider."

## Specialist knowledge

Another result of the preliminary work will be the various network groups that the secretaries will be able to organize. These groups will serve as forums for discussions of future trends, and for planning various activities to improve skills.

"Beginning to change one's accustomed routines and tasks is not a simple, painless project," Helena Lundqvist acknowledges. "In the network groups we will have an opportunity to support and encourage each other, to exchange experience, to offer tips on courses, or to propose study trips that promote competence."

She herself discovered an opportunity to work outside Sweden. Following discus-



**Helena Lundqvist, a secretary in Switching and Network Systems, thinks that it will be difficult to maintain the traditional secretarial role over the long term.**  
Photo: Kurt Johansson

sions with the manager, there are now plans for her to work for a month at Ericsson in Norway. Helena wants to become familiar with the persons with whom she has many contacts in her daily work and exchange experience with them. When she returns home she will have new impressions that will benefit the company and contribute to her own personal development. Taking advantage of opportunities for job rotation is one of a number of initiatives that Helena Lundqvist is considering as a means of acquiring skills in new fields.

"It's a matter of acquiring specialized knowledge," she explains. "Our breadth of knowledge will not be adequate in the fut-

**Jill Andersson, employed in the Norrköping plant, described parts of the work of the 'MKY' group at the second seminar for secretaries at the end of April. ('MKY' is a model for enhancing the competence of professional categories of employees.)**

Photo: Karl-Evert Eklund

ure. But if we concentrate on the things we are good at and make ourselves unusually competent in these areas, the departments won't be able to get along without us! This may involve becoming expert in the fields of information technology, finance, marketing or employee relations."

## On own terms

A seminar held at the end of April confirmed that Helena and her colleagues have the proper view of their future role as professionals. Technical experts and other experts on future trends revealed their rising expectations with respect to our secretaries. There is every indication that tomorrow's secretaries will work very independently, with their own duties and areas of responsibility. That this is also the role that management wants secretaries to perform in the future was confirmed by Personnel Manager Lars Wiklund, who opened the seminar.

"Take the opportunity now to shape your situation," he urged. "Set your objectives and demand to be allowed to develop yourselves. See to it that the move into the future is on your own terms."

Lena Widegren

## Work form for new era

**The secretaries who form part of Ericsson Telecom's Internal Secretarial Bureau (Sekreterarkonsult) have appreciated that expertise creates confidence and enhances job security.**

Since the Bureau was formed in the summer of 1992 their objective has been to maintain a high level of competence and to ensure a continuous increase in knowledge. The nature of secretarial work is such that they are constantly facing new tasks and acquiring new skills, but team members are also using other means of improving their proficiency. They include such activities as courses, study visits and the exchange of experience within the group.

## Efficient and flexible

The work method of the Secretarial Bureau is clearly in tune with the times. The eight members of the group are fully booked at all times and the manager of the service, Eva Hagman, will have to hire two more secretaries in the near future. But it's a matter of finding the right persons.

"We ask a great deal of our employees," she says. "A Bureau secretary has to have a mind of her own and be highly flexible. The lengths of our assignments vary, but because many of them are short a secretary has to be able to move into a job quickly and work efficiently. An unusually good ability to work well with others is therefore also essential."

The Secretarial Bureau provides temporary help to units throughout Ericsson Telecom that need administrative assistance or additional secretarial capacity. This means that each employee must possess broad knowledge of administrative routines and, preferably, also be a specialist in some field. To ensure the smooth functioning of the Bureau, and continuing demand for its services, the secretaries have to update their skills continuously. And they have to regard each assignment as their own personal responsibility.

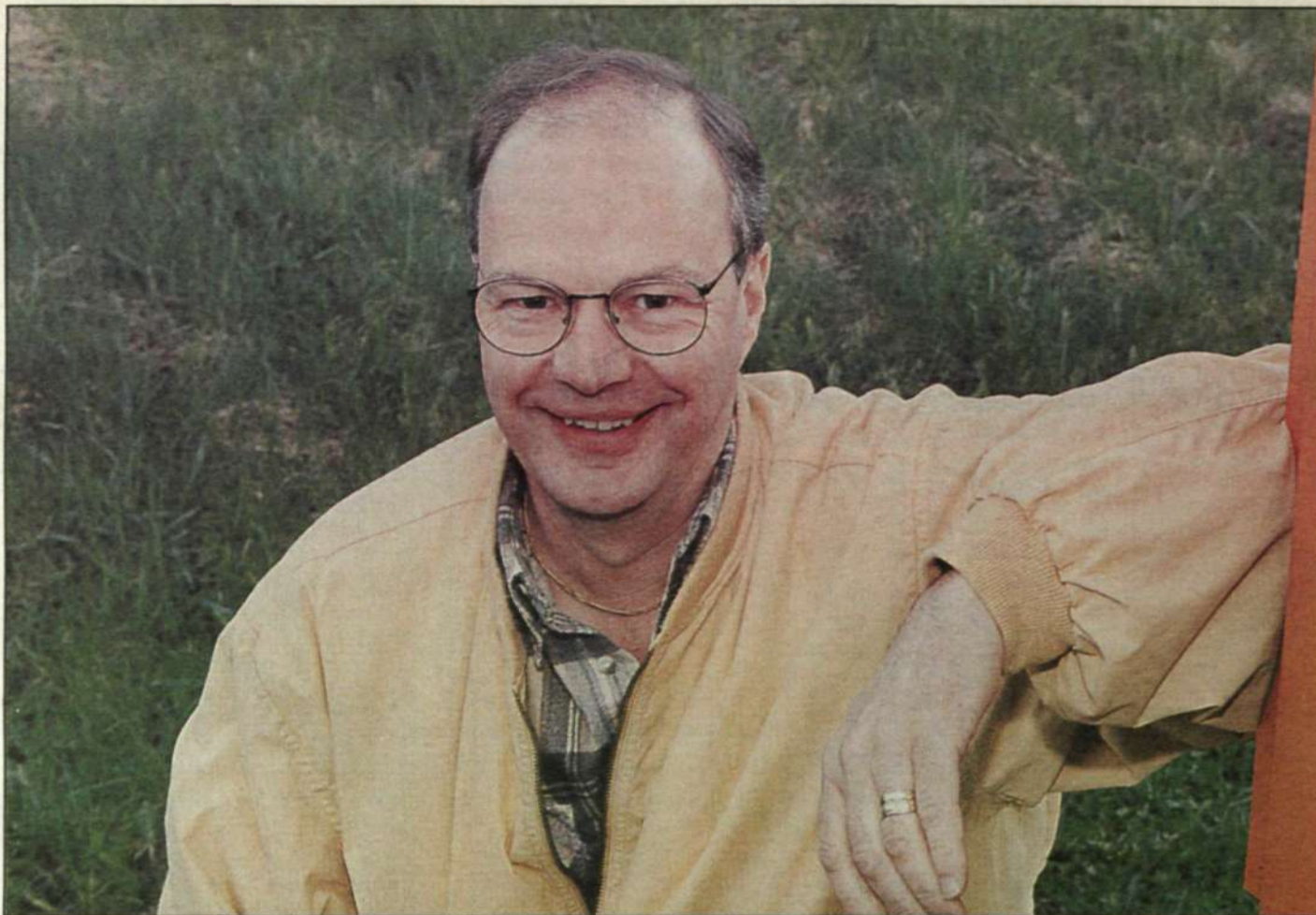
Lena Widegren



**The Secretarial Bureau provides temporary administrative and secretarial help to departments throughout the company. From left: Eva Hagman, Birgitta Eriksson, Eva Borgenstrand, Lena Simonsson, Pia Mattson, Katerina Larsson. Missing from photo: Lena Rönnlund and Charlotte Reinholdsson.**  
Photo: Karl-Evert Eklund

# CONTACT

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Jan Erling is employed at Ericsson in Söderhamn and owns a few Ericsson shares. He could consider lending his bicycle to Björn Svedberg. Photo: Peter Nordahl

## He wouldn't hesitate to lend his bicycle to Björn Svedberg!

**Dr. Björn Svedberg, Chairman of the Ericsson Board of Directors, was elected to chair the Annual General Meeting, held May 10 in Stockholm.**

Jan Erling, 45, project leader for industrialization at Ericsson in Söderhamn, attended the Meeting on his own time in conjunction with a business trip to Stockholm. He owns a few shares.

Contact's temporary reporter found Jan among the attendees at the Meeting and asked him to share his views about the Meeting with our readers. This turned out to be a great idea.

Consequently, one of Sweden's leading industrialists, namely Björn Svedberg, will never have to worry about transportation. Among his many comments, Jan Erling said:

"It was fun to watch how the Chairman of the Board handled the questions and criticism in this context. He's the type of person to whom I wouldn't hesitate to lend my bicycle."

But, let's first try to structure this report in the proper spirit and with the quality awareness that is a hallmark of this company.

### Employed since 1971

Jan Erling joined Ericsson in Söderhamn in 1971. He came direct from school where he studied electrical and telecommunications engineering for four years. The choice of Ericsson was not by chance. His father Uno retired as plant manager at Ericsson in Söderhamn in 1980. Accordingly, he was at the AGM for personal reasons.

Jan is married to Inga, who is a nurse. They have two sons, Henrik, 15, and

Johan, 13. Both are doing well in school.

The family moved into their five-room house with a basement rec-room in 1979. They also have a summer cottage at a nearby beach resort. Jan's favorite dish is steak with home-fried potatoes. His hobbies are photography and excursions through the archipelago.

Now back to the AGM. This was Jan's fifth year at the meeting. Before the Meeting got under way, he confided the following.

"I came to hear what management has to say; to get their view on Ericsson's situation. I want to know how I and my other 78,000 or so colleagues fit into the picture. I want a broader perspective of the company. Are there any threats? How did we do in the first quarter? Do we have the production resources for everything we're selling and will be selling?"

### Copious notes

The AGM was opened and Jan is listening attentively, with pen in hand. The first thing he writes is "order bookings 1995." After 22 minutes he has filled a page with notes. He starts a new page.

This reporter sneaks a peak at Jan's notes. He writes that the dividend was increased from 4.50 to 5.50. He also notes the 4-for-1 split. (He seemed to be very pleased when he wrote that note.)

After the meeting, he doesn't hesitate to give his opinion. He is particularly pleased with two things.

Firstly, that the managers for the two largest business areas – ERA and ETX in Ericsson language – were given the opportunity to make their own presentations.

"At previous meetings, only the two most senior executives spoke," Jan relates.

Secondly, that the presidium answered the questions from the shareholders so professionally.

"It was almost that I was sorry that there were not any more questions."

With respect to his role in the organization, he is modest, and at the same time proud. He says:

"Those of us who provide the power account for a very small part of revenues. But, of course, without us, there wouldn't be any power."

The AGM is over and there is still some refreshments left. Jan will be spending the night in Stockholm with an old friend.

### Best and worst memories

Contact requests that Jan tell us about his best and worst memories during his years with Ericsson. The best comes quickly.

"There were two projects that involved some exciting trips. One to Mexico in 1990 and to Spain in 1991 and 1992. What kind of a reception would our products get and what were the real possibilities we could give them."

It took him a bit longer before he came out with the worst memory. He hesitated for a while before he finally decided:

"I rushing away to an important business trip to Stockholm on November 3, 1992 when I slipped and fell on my one doorstep, sat on my foot and broke it. I went into surgery the very next day, spent six weeks in a cast and two months laid up at home. This was right in the middle of a heavy work load and preparations for a trip. But accidents always happen at the wrong time."

You are so right Jan! And Björn Svedberg should save this page for future reference. You never know when you might suddenly need a bicycle!

END  
LINE  
LARS-GÖRAN HEDIN



*Don't pull the plug!*

We live in an age of rising uncertainty. Increasingly, violence has become a daily feature of our society. Robbery and assault are no longer front-page items in the newspapers. A few weeks ago, I had the privilege of traveling backward in time. I visited the Lilliputian country of Iceland. There in the middle of the Atlantic Ocean, centered between America and Europe, 265,000 people live a life that harkens back to the time of Dragon ships and Norse epic poetry.

I realize that a two-day visit is insufficient for an overall analysis of the state of Iceland's society. Had it not been for a minor but rather uplifting occurrence, I would never have concluded that Icelanders still remain largely untouched by the uncertainty that haunts the rest of us.

We were out observing radio base stations. In Reykjavik, Postúr and Sími, the Icelandic Telecom, has installed a couple of the stations in the steeples of the city's two highest churches. Our Icelandic hosts decided that we deserved seeing the view and invited us up to both steeples.

While ascending the steps to the highest steeple, we passed another installation, this one too from Ericsson. It was the Reykjavik police base station for the police radio network. I paused in astonishment, realizing instantly that Iceland has much to recommend it as a place to live. The radio transmitter's power source was from a wall contact. The following was written in a scraggly but legible hand-style on the contact: "Please don't pull the plug!" Signed "Reykjavik Police."

Of course, it wasn't that easy getting up here, a couple of floors above the platform tourists reach by elevator. But even further up, where the NMT and GSM stations were installed, commonplace tourist graffiti was in abundance: "Anders was here in March 1994," etc.

The day that Stockholm's police places the same trust in the non-vertigo afflicted segment of the general public, is the day I will move back to Sweden's capital. Until then, I will bide my time in idyllic Mariefred. The policeman there operates out of a little red cottage on the town square.