



The water levels are slowly going down in Hubei province.

Photo: Mia Widell Örnung

## Hope returns to China

Day-to-day life proceeds almost as normal behind the dikes in flood-devastated China. Although many people have seen their homes and workplaces swept away, a surprising calm prevails. Contact spoke to local employees who have had to wade through water one meter deep.

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## How to win in the stock market

The stock exchange is steered by expectations, writes Gabriel Anderbjörk in his column. He urges everyone to roll up their sleeves and get to work to show that Ericsson justifies high expectations. He also ponders the perennial question: When is the right time to buy or sell shares?

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## Partnership at CyberLab

The final part of our partnership series focuses on CyberLab, in the heart of New York's Silicon Alley. CyberLab's manager, Donna Campbell, is also portrayed as "Ericsson's astronaut in cyberspace."

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### NEWS

#### Purchase strengthens

Ericsson has recently acquired Advanced Computer Communications (ACC). The company will become part of Ericsson's Datacom and IP Services unit. ACC specializes in remote access systems. **2, 10-11**

#### Moldova on the Ericsson map

Ericsson recently opened a representation office in Moldova. Contact visited the office, which is very small so far. But the Eastern European market is set to grow rapidly when the new republics build their telecommunications networks. **13-15**

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The portable office has taken on a new meaning with the wireless LAN. **3**

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Mobile telephones were produced as early as 1943. **32**

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The publication for Ericsson employees all over the world

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# Focus on datacom with ACC acquisition

Ericsson has acquired Advanced Computer Communication (ACC) for slightly more than SEK 2 billion.

The company is a leader in the rapidly expansive area of remote access, a technology used to establish Internet connections.

The acquisition strengthens Ericsson's focus on data communications and IP.

Based in Santa Barbara, California, ACC is one of the world's leading suppliers of routers and Internet access products.

The decision to buy ACC complies with Ericsson's established datacom strategy to acquire small and medium-size companies that provide skills and expertise in a number of targeted areas of technology.

"The access market is one of the fastest growing sectors of datacom. Starting from about USD 1.6 billion today, market growth is expected to average about 40 percent annually.

### ADVANCED COMPUTER COMMUNICATION (ACC)

- Founded in April 1991.
- Head office in Santa Barbara, California.
- More than 250 employees in all parts of the world.
- ACC is one of the world's leading manufacturers of access routers and Internet access solutions.
- Its best-known product line is Tigris, a system of scalable access routers.

ACC will be a key factor in Ericsson's strategy to penetrate and capture a share of the access market," says Michael Thurk, general manager of Datacom Networks and IP Services, a unit of the Infocom Systems business area, now developing a head office in Boston, USA.

### A new product unit

Immediately following the acquisition, ACC will be organized as a subsidiary of Datacom Networks and IP Services and continue to operate under present management, supplemented by representatives of

Ericsson's Mobile Systems and Infocom Systems business areas. Bert Whyte, President of ACC, has been named general manager of Remote Access, a new product unit of Datacom Networks and IP Services.

### Access to expertise

The acquisition of ACC provides Ericsson with valuable skills and expertise in the area of remote access, an important technology in many solutions now under strong focus within Ericsson.

ACC's products meet the stringent demands of Ericsson's customers regarding quality, reliability and scalability, collectively termed "carrier-class quality".

Remote access is expected to play a key role in the development of third-generation mobile telephony, which will include the capability to transmit Internet traffic. ACC has about 250 employees in all parts of the world. Established in 1991, the company has become a pioneer in data communications, with an installed base of more than 100,000 remote access solutions.

Ericsson and ACC have cooperat-

ed on several development projects for the past 18 months, including the integration of ACC's Tigris access routers with AXE.

The acquisition will provide Ericsson with complete access to the American company's entire product portfolio and its comprehensive skills and expertise in the field of Internet access.

Ericsson's strategy for capturing positions in the datacom market is based on acquisitions of, or investments in, small and medium-size technology companies. The plan is described as Ericsson's "string of pearls strategy". The purchase of ACC is the largest acquisition ever made by Ericsson.



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## Erieye dominates at Air Show

Ericsson Microwave Systems took advantage of this year's Farnborough International Air Show to conduct a massive marketing campaign for Erieye.

The airborne radar surveillance system totally dominated the company's stand at the aviation exhibition.

This year's Farnborough International Air Show was held at the beginning of September. More than 100,000 people visited the exhibition grounds outside London during seven hectic days to watch daily air shows and tour the exhibition stands of more than 1,000 companies.

Ericsson Microwave took a slightly different approach this year, compared with past exhibitions. The company usually presents its products in equally divided areas of the exhibition stand, but marketing management personnel decided to concentrate on a single system this year.

The stand was totally dominated by Erieye, the airborne radar surveillance system from Ericsson that has captured headlines from the company's recent tender to the Greek air force.

### Added attraction

"Our sharp focus on Erieye was a means of capitalizing on the positive interest that the system has attracted," explains Bertil Hellström, export marketing manager. "It is our hope that Erieye will create added interest in our other products."



Erieye, the airborne radar surveillance system from Ericsson, dominated the company's stand at this year's Farnborough International aviation exhibition outside London. Photo: Kamerareportage

"Ericsson Microwave also took advantage of the Farnborough show to introduce its new Information Superiority concept. Developed to support all marketing of Ericsson's defense systems, the Information Superiority concept confirms Ericsson's commitment to meet the information superiority requirements of customers," says Svante Bergh, general manager of the Defense Electronics business unit.

"We are creating an attitude, a school of thought, if you will. Information Superiority is a new concept that underlines customer benefits from the information advantages offered by our products."

Gripen, the Swedish jet fighter plane, was prominently displayed

at Farnborough this year. One of the Gripen jets took part in the daily air displays and the two-seat model made its official debut at the aircraft exhibition.

The first export order does not seem imminent, however. At a breakfast arranged for media representatives by British Aerospace, Saab's export marketing partner for Gripen, both companies answered questions about their expectations on the first order booking.

### Complicated business

"Sales of aircraft systems such as Gripen represent a complicated type of business," explained Hans Krueger, a member of the marketing staff at Saab BAe. "Marketing in this arena involves equal doses of

politics and business. We simply have to accept the fact that customers control the timetable."

According to Saab's estimations, the market for fourth-generation aircraft systems will amount to about 2,000 planes through the year 2015. Saab and British Aerospace hope to sell 400 Gripen airplanes in the market. And Hans Krueger is optimistic.

"Time is working in favor of the Gripen jet fighter. Competing companies are marketing much older systems, whose continued development will not be supported by the air force authorities in the companies' home markets."

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# Office revolution with wireless network

The moveable office takes on a new meaning with Ericsson's concept for wireless local area networks (LAN). Users are now able to connect their portable computers quickly and securely to the office network, the company intranet and the Internet. Links can be established from conference rooms as well as airports.

The W-LAN (Wireless Local Area Network) concept represents a breakthrough for Ericsson in the wireless LAN market. In pace with the growing use of laptop computers, competitive pricing and improved computer performance, the needs of various companies to link employees to their computer networks anytime and anywhere are constantly increasing.

"With our solution, users are afforded a more flexible work environment where they can work effectively in a project-oriented manner. Users can easily move their computers between their company's different office facilities without changing their network settings – and without cables," explains Henrik Abramowicz, General Manager of Wireless LAN Systems, a product unit based in Kista, with development operations in Mölndal and Linköping.

## Based on new standard

The concept, which is now being launched in the marketplace, includes products that offer data speeds of three megabits per second.

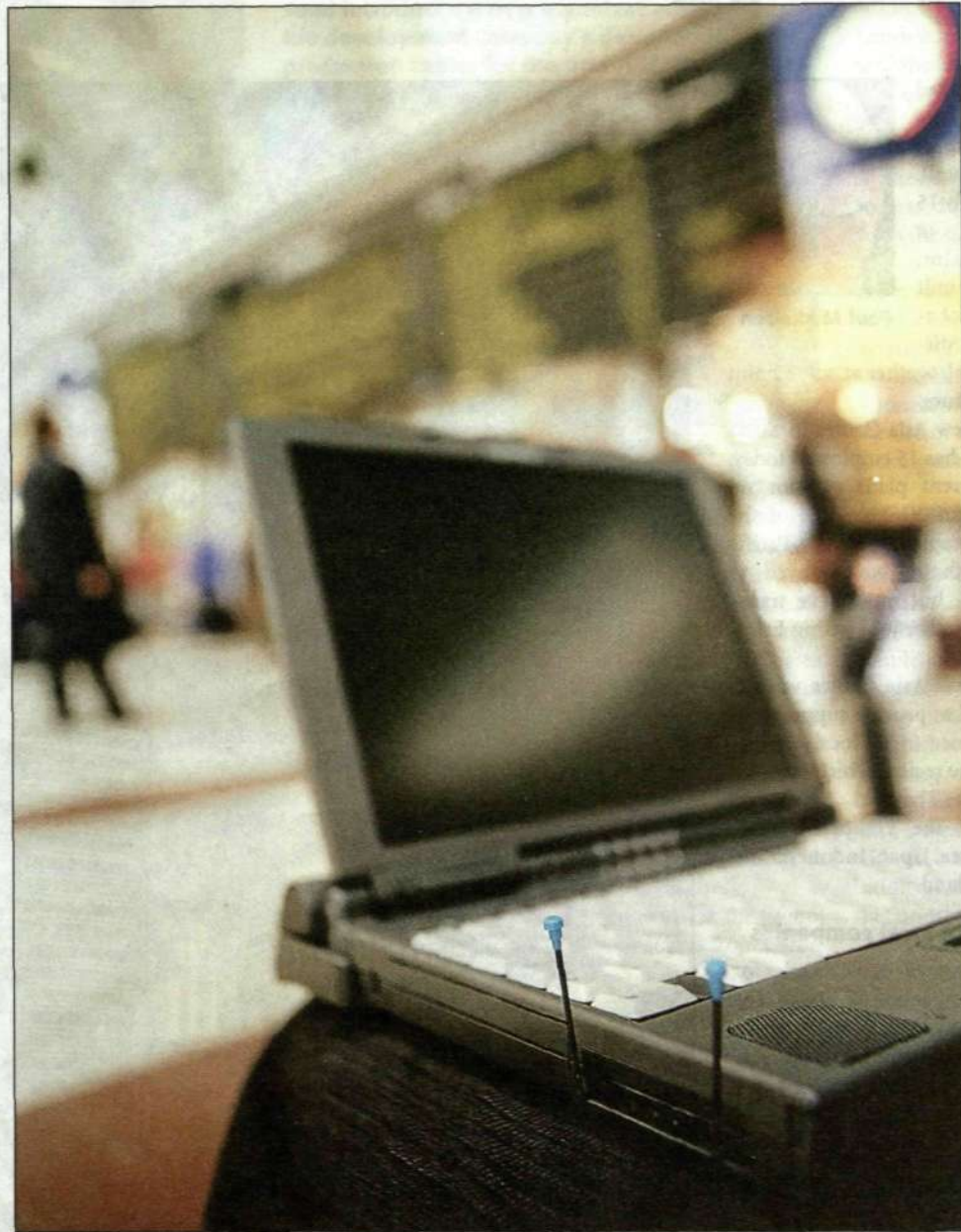
The technology is based on a standard issued by the Institute of Electrical and Electronics Engineers (IEEE) and operates on the license-free 2.4 GHz band.

"In the past, the wireless LAN market was fragmented by a wide variety of solutions. Development is now moving toward general office solutions. The new standard's open interface also facilitates various combinations of equipment from different suppliers," Henrik Abramowicz continues.

Ericsson's solution includes a PC Card that users insert in their portable computers to establish wireless communications.

"Supported by products from independent suppliers, we have been able to penetrate the market more quickly. The solution also includes a firewall, a separate unit developed by Ericsson that is linked to the access point to function like a filter for the mobile user. It provides the security that was lacking in earlier W-LAN solutions," says Magnus Gunnarsson, marketing manager of Wireless LAN Systems.

The concept supplements Ericsson's development work on Bluetooth technology and future mobile telephony systems, with particular focus on mobile office communications. The technology also functions in dense traffic areas, so-called hot spots, such as conference centers, airports and hotels.



Ericsson's new concept for wireless LAN offers new potential for flexible office environments. By inserting a PC Card into their portable computers, users can connect to their company intranets from airports, for example. A special firewall in the network prevents unauthorized access.

Photo: Alexander Crispin

"Our target is global, but with a special focus on markets characterized by a high percentage of portable computer users. The concept will be launched initially in Europe, with sales due to start toward year-end 1998," Magnus Gunnarsson adds.

## New standard expected

A new standard is expected to be introduced for broadband mobile access to intranets and public networks within the next few years. It will offer transmission speeds up to 25 megabits per second, which will allow highly flexible processing of images and video.

Ericsson is a major force in the standardization work for Hiperlan/2 (High Performance Lo-

cal Area Network) now in progress within ETSI, the European Telecommunications Standards Institute.

"Hiperlan/2 will utilize the license-free 5 GHz band, which is expected to be accessible in all parts of the world. The system is optimized for IP traffic, with the capability to process real-time IP services, such as IP-telephony and real-time video."

"Our objective is to become the world market leader for Hiperlan/2," says Henrik Abramowicz.

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## IN BRIEF

### Breakthrough in Africa

► Ericsson has sold a monitoring system for customer care and invoicing to Botswana Telecom.

Botswana is the first African nation to buy the Ericsson system.

The system enables telecom operators to control invoice processing routines, check if bills are paid and process customer orders and complaints.

Botswana Telecom's network is one of the most modern telecom networks in Africa. With telephone density in the range of six percent, Botswana has the fourth highest density among South African member nations of the Southern Africa Development Community.

### Mobile data at Truck 98

► Ericsson displayed its mobile data solutions at Truck 98, a transport exhibition held at Elmia in Jönköping at the end of August. Approximately 45,000 persons visited the exhibition.

"Mobile data and communication systems are gaining greater importance in the trucking industry, a factor that was obvious at the exhibition," says Lars Carlqvist, display stand manager for the Sweden division of Ericsson Mobile Communications.

"The transport industry accounts for one-fourth of Sweden's mobile data communications market. But there is considerable potential for a broader customer base, and we are also concentrating on forestry and other industrial sectors," Lars Carlqvist continues.

The Swedish transport sector has about 17,000 Mobitex users today and more than 2,000 GSM data communication subscribers.

The GSM segment is expected to increase sharply in the future due to higher data transmission speeds and packet data technologies.

### Web site offers best help

► "This is the best tool available today for help in writing product specifications quickly and accurately," agree members of various expertise groups in the Mobile Systems business area.

They have just completed a Web site that contains everything you could possibly want: product safety, electromagnetic compatibility, climate and cooling, environmental adaptation and mechanical strength.

Product specifications should not vary depending on the author. There should be no basic differences between specifications for a GSM system and a D-AMPS system, for example. In fact, Ericsson's products and systems compete today in markets with the same standardized statutory requirements.

Although the new Web site was developed by Mobile Systems and is accessed through the business area's Web site, it is also freely available to all product management groups in all parts of Ericsson.

Lars Göran Bernau, who coordinates the expertise groups, is highly satisfied with the decentralized mode of operations, which is based on active cooperation between various design centers. Central staff functions have been reduced, and everybody now has access to the gathered skills and expertise.

<http://www.br.ericsson.se/BR/techniques/globalprodreq.htm>



## Ericsson introduces a new dual band mobile phone

Ericsson introduces the S 868, a new mobile phone offering advanced dual band capabilities. Working on both GSM 900 and GSM 1800 networks, the S 868 improves international roaming and reduces the occurrence of dropped calls.

With GSM subscription continuing to expand globally, Ericsson's S 868 dual band phone is designed to prevent network overload on GSM 900 and GSM 1800

networks. The phone allows for seamless handover between the networks and offers heavy users better roaming and call efficiency.

The S 868 is a GSM Phase 2 phone and has advanced features such as Enhanced Full Rate (EFR) speech coding, which provides the user with speech and reception quality comparable to that of fixed line phones.

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# Public Networks is changing course in Asia

**Public Networks' new Asia Center, opened recently in Kuala Lumpur, is the result of a self-critical reappraisal and a new market approach.**

**Public Networks' Asia-Pacific marketing unit in Stockholm began to question its own organization and the values it was contributing to Ericsson a little more than one year ago.**

"We realized some of the things we were doing may have been ill-advised, and that we should work in closer cooperation with local companies," says Paul Mikkelsen, manager of the new Asia Center in the capital of Malaysia.

The primary reasons for restructuring were the shrinking markets in Asia and the Global Supply Chain (GSC), a new organizational format introduced by Public Networks. The business responsibility of product units was also clarified.

"Our operations were overlapping parts of the global supply chain and certain areas of responsibility assigned to the product units. We also realized that some job responsibilities should be re-assigned to the local companies," continues Paul Mikkelsen, former Controller of Public Networks' Asia-Pacific marketing unit in Stockholm.

#### A new Asian center

The Asia Center is part of Ericsson Support Center, a new Multi-Media Super Corridor company that encompasses all regional initiatives conducted by Ericsson in Malaysia.

A few years ago, about 110 per-

sons worked in the Asia-Pacific marketing unit. Now, only 15 remain in Stockholm, and the unit will probably be disbanded altogether at some point in the future.

The new Asia Center in Kuala Lumpur has 15 employees today, and current plans call for no more than 20-25. Some of the former employees of Asia-Pacific in Stockholm have moved to Malaysia, but most have transferred to other jobs within Ericsson.

The new Asia Center was established to provide support and competence to 10 local companies in the region, which includes Malaysia, Thailand, Singapore, Vietnam, the Philippines, Taiwan, Korea, Japan, Indonesia and New Zealand.

#### Easier for local companies

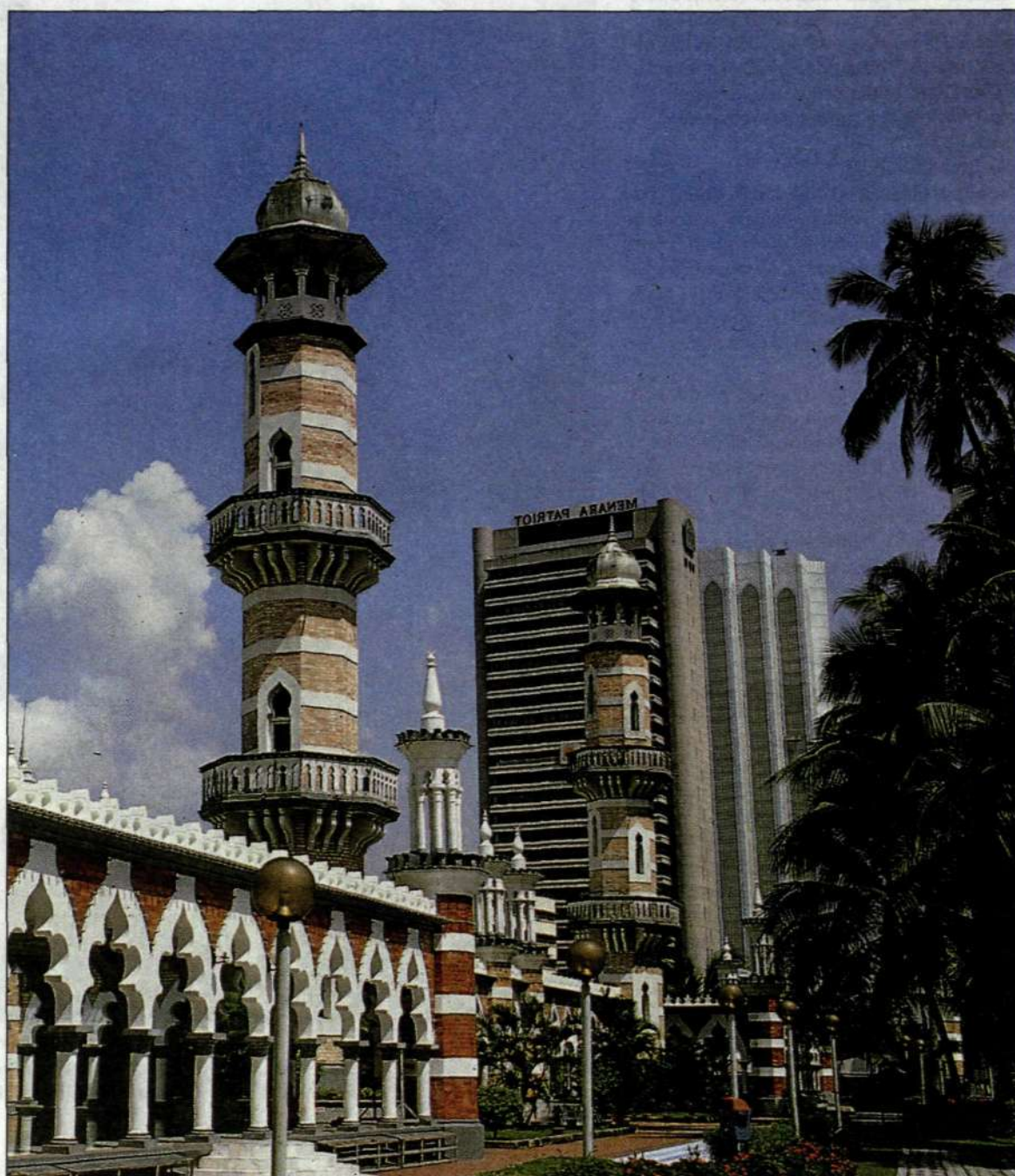
Asia Center will make it easier for local companies to access the Ericsson skills and competence they need to provide better service to their customers. Operations at the center will be controlled by the needs of local companies in the region.

When the Asia-Pacific marketing unit was situated in Stockholm, it often took several days before a representative from Sweden arrived in Asia to provide the support needed by local companies, a service now provided in a maximum of 24 hours.



Paul Mikkelsen

Kajsa Uppenberg



Public Networks' Asia-Pacific marketing unit has moved to Kuala Lumpur, where a new Asia Center was established recently for the entire business unit. Photo: Great Shots

## New model will increase efficiency

**"Ericsson's new business model will help reduce costs for our business processes," says Jan Henriques, manager of Ericsson Global Business Model.**

"In some areas, we've had as many as 12 different business systems. We are now introducing a single, uniform system."

It sounds like a paradox, of course: the highly successful Ericsson must improve its business skills.

Ericsson's only chance to maintain a lead over the competition in today's highly dynamic telecom world is to stay 6-12 months ahead of rival companies in terms of technological development, new modes of operation, the spread of trademarks and branding and the flows and processes that comprise the Group's business model.

"Our task is to find effective work methods. We concentrate primarily on improving Ericsson's contacts with customers and establishing a more uniform mode of operations. Customers that approach Ericsson in Malaysia should meet the same routines as customers in Mexico and England," continues Jan Henriques, who is in charge of introducing the new Ericsson Global Business Model (EGBM).

#### Improved coordination

Efforts to introduce the business model have now been intensified. The work involves much more than



Jan Henriques

new technological tools to facilitate business development.

A completely new approach to business operations is being introduced, and coordination is the key word.

In parallel with its growing success, Ericsson has expanded and broadened its horizons, and the need to improve its various business processes has also increased.

Until now, improvements have been made in certain isolated areas in different parts of the company, different countries and local companies.

This has created problems in coordinating business operations and projecting a uniform image in the marketplace. Ericsson Global Business Model, a genuine global model for the company's business processes, has emerged in the light of these insights.

The objectives are to devote more time to customers, to enhance the efficiency of IT support and to increase profitability – and the new business model is the tool that will enable Ericsson to reach its goals.

#### New mode of operations

The new wave sweeping around the world of Ericsson includes more than new technological tools designed to increase operating efficiency, such as SAP R/3, a business system that supports the entire business process, from logistics and financial control to production, personnel and projects. It also involves a completely new mode of operations that will affect most Ericsson employees.

Ericsson Global Business Model is now in the introductory phase. Work at the EGBM center in Hallonbergen, outside Stockholm, started

in March and pilot projects are now being conducted in Great Britain, Belgium and Australia.

The new business model will be introduced gradually, reaching full implementation in the years 2000-2001.

"Naturally, this is also a matter of rationalization," concludes Jan Henriques.

"But none of us would benefit if Ericsson were to fall behind the competition simply because we introduced more efficient and standardized routines too late."

Christian Wigardt  
Ivar Ekman

☉ <http://egbm.ericsson.se>

☉ [http://www3.ericsson.se/SE/kon\\_con/kontakten/kont04\\_98/k04\\_08.html](http://www3.ericsson.se/SE/kon_con/kontakten/kont04_98/k04_08.html)

# New enthusiasm at work



Camilla Lundstedt's job has become more interesting and rewarding since node assembly workers were given comprehensive workplace responsibility. As a node assembly employee, Camilla works with the equipment at all stages, including final installation.

Photo: Lena Widegren

**Camilla Lundstedt doesn't get a stomach ache anymore as she prepares for a new day at work. After the recent summer vacation, she even looked forward to building AXE cabinets again.**

**Ever since Ericsson Utvecklings AB in Östersund introduced a new organization following the development company's designation as a production center for the new AXE, new and improved work conditions have been created for node assembly workers.**

"Just imagine, sitting all day assembling thousands of circuit boards on a conveyor belt. We used to switch back and forth between three different boards, and that was the extent of variation in our job assignments."

Camilla Lundstedt looks tired just talking about her years as a circuit board assembly worker at Ericsson in Östersund, where she started in 1989. But her attitude is completely different when she talks about her new job. With obvious enthusiasm and a smile on her face, she talks about the job satisfaction she derives from having a more holistic view of the product she helps to create, about responsibility and the importance of cooperation with her co-workers on the floor and opportunities to travel abroad in her new job. Camilla Lundstedt was in Chile recently to install new AXE switching centers for a customer in La Serena, a vacation resort for residents of Santiago. It was an experience she will never forget.

"There was nothing, absolutely nothing in place, when we arrived. The building that was supposed to house the cabinet didn't have any electricity, windows or walls. The computer floor was installed, but nothing else."

It was a tough three-week assignment for the group, which consisted of Camilla and a co-worker from Östersund, six installation workers from Chile, a test manager from Finland, a foreman from Mexico and the project leader. Thanks to excellent cooperation between group members, the installation was completed on schedule. Overtime, however, amounted to about 40 hours a week.

"It's important to establish a steady work flow for the installation of a switching center. It was a good idea for all members of the group to live in the same area. The project manager rented bungalows where we slept and got together socially in the evenings. We got to know each other, and that helped in our cooperation at work."

## Shorter lead-times

Before the delivery and installation trip to Chile, the customer's test personnel traveled to Östersund to prepare for the job. When the product was ready for shipping, the test personnel and node assembly workers also traveled to the site where installation was scheduled for completion in a relatively short period of time. This mode of operations is becoming increasingly common as part of efforts to shorten lead-times in connection with deliveries.



Camilla Lundstedt

In the past, the cabinet was shipped by truck and it was difficult to monitor delivery precision.

"Hopefully, the new system will also help to establish closer contacts with customers. Today, there is a particular lack of feedback and communications with the installation after the node is placed in operation," Camilla Lundstedt says. "A great deal of new knowledge is generated through cooperation."

"Cooperation creates better exchanges of information with customers, and provides better insights into how and where improvements can be made."

The new organizational format in Östersund has placed increased production responsibility on node assemblers, from the time orders are booked through final delivery.

"I am responsible for the entire assembly process on the nodes I build, a format that offers considerable job satisfaction. I cannot blame somebody else when things go wrong."

Camilla Lundstedt describes the stimulating work environment she shares with co-workers on the floor, and we detect a sense of enthusiasm and zeal that has been lacking at the plant for a long time.

## Sharing experiences with others

"We know we have a good product in strong market demand, as well as invaluable skills and expertise. The combination creates greater incentive to work harder. When workers on the floor find out that a colleague has, for example, developed a better way to cable a clock, (a clock magazine in the system, which requires tremendous cabling dexterity) they share the new-found knowledge with other workers on the floor. Everybody benefits from working more openly."

The factory in Östersund has 55 node assemblers today, a figure that will be increased to 65 within the next month. More workers are needed to meet delivery obligations. The only fly in the ointment, according to Camilla Lundstedt, is a lack of materials that is restricting production. The shortcoming has been created by the failure of independent suppliers to punctually deliver materials required by Ericsson to fill customer orders.

"We are doing the best we can under the circumstances. During the summer vacation month of July, 76 nodes were delivered from the Östersund plant, thanks mainly to the contributions of many workers who stayed on the job instead of taking vacation. The output figure was a record for July," says Camilla Lundstedt.

Lena Widegren

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## BRIEF GLOSSARY

**Core of the new AXE:** The core of the switching system that includes central and regional processors, selectors and telephony. The system is uniform for all AXE applications in both mobile and fixed networks.

**Node:** A complete telecommunications exchange that includes all hardware and software. Nodes may vary from a single cabinet to as many as 40 cabinets.

# Success of new AXE heightens pace

**Ericsson's production plant in Östersund is operating at full capacity. The new AXE exchange has become a best-seller, and there is growing pressure to produce as many new units as possible — as quickly as possible.**

About 225 employees at the plant chose to work during the summer vacation period. And their efforts produced results as record production figures were reported in July, with 76 nodes delivered to waiting customers.

"An additional 550 working weeks were generated thanks to the sacrifice of employees who postponed or shortened their vacations," says Tage Modin, manager of the AXE product unit at Ericsson Utvecklings AB in Östersund.

"Everybody at the factory has realized we are working with a very popular product, and their awareness has stimulated greater work efforts."

Strong demand for the new AXE exchange

has led to delivery delays. Extra personnel have been recruited to correct the situation. Nobody could possibly have foreseen the enormous interest created by the new AXE, which has surpassed even the most optimistic expectations.

The entire solution to the problem does not lie solely in more workers in the production line. The start-up of production for a new product is a complicated process, and it takes time to trim and fine-tune various production routines.

## Different problems

Some problems and interruptions are inevitable. Other problems may arise from difficulties encountered during attempts to achieve rapid increases in production volumes of system hardware.

Ericsson Utvecklings AB in Östersund has now established better potential to meet its delivery obligations. Among other measures, the

company has put greater pressure on suppliers of components to meet their requirements, thereby eliminating material shortages at the plant.

## More independent units

Logistics flows were also reviewed and proprietary product areas have been created at the factories in Östersund and Katrineholm in Sweden and the plant in France.

The new format has helped to establish more independent production units, referred to as Node Production Centers, all of which concentrate exclusively on serving a single entity, or customer. Östersund's primary customer is the GSM unit of the Mobile Systems business area.

The factory supplies the GSM unit with a new type of AXE node called Mobile Switch Centers (MSC). Several contacts have been established during the year with various subsidiaries to secure added assistance for produc-

tion plants in the autumn.

"It's extremely interesting and educational to work with the new AXE," say Dinesh Babbar and Inderpal Singh, who are both from India, and Ezequiel Svarez from Argentina.

Dinesh and Inderpal are in Sweden to learn more about the new AXE technology and help transfer the knowledge to their respective companies back home.

They have also functioned as an added production resource, working with equipment and testing.

Ericsson expects that AXE deliveries will function normally before year-end 1998.



Ezequiel Svarez

Lena Widegren



The summer flooding in China has affected millions of people and resulted in more than three thousand deaths. Contact met with Ericsson employees who have had to wade in meter-high water.

# Waiting for the eighth crest

A remarkable scene awaits those who climb up onto the stone wall down in Wuhan's harbor. On the other side, murky river water flows calmly over the remnants of buildings which, only a few months ago were homes and businesses. Now they are just monuments to the incredible power of the Yangtze river. Seven flood crests have passed through Wuhan, and an eighth is on its way.

Looking in the opposite direction, a completely different view appears. Streets are teeming with life and movement. Hoards of bicyclists are on their way to work. Shopkeepers are opening their stores.

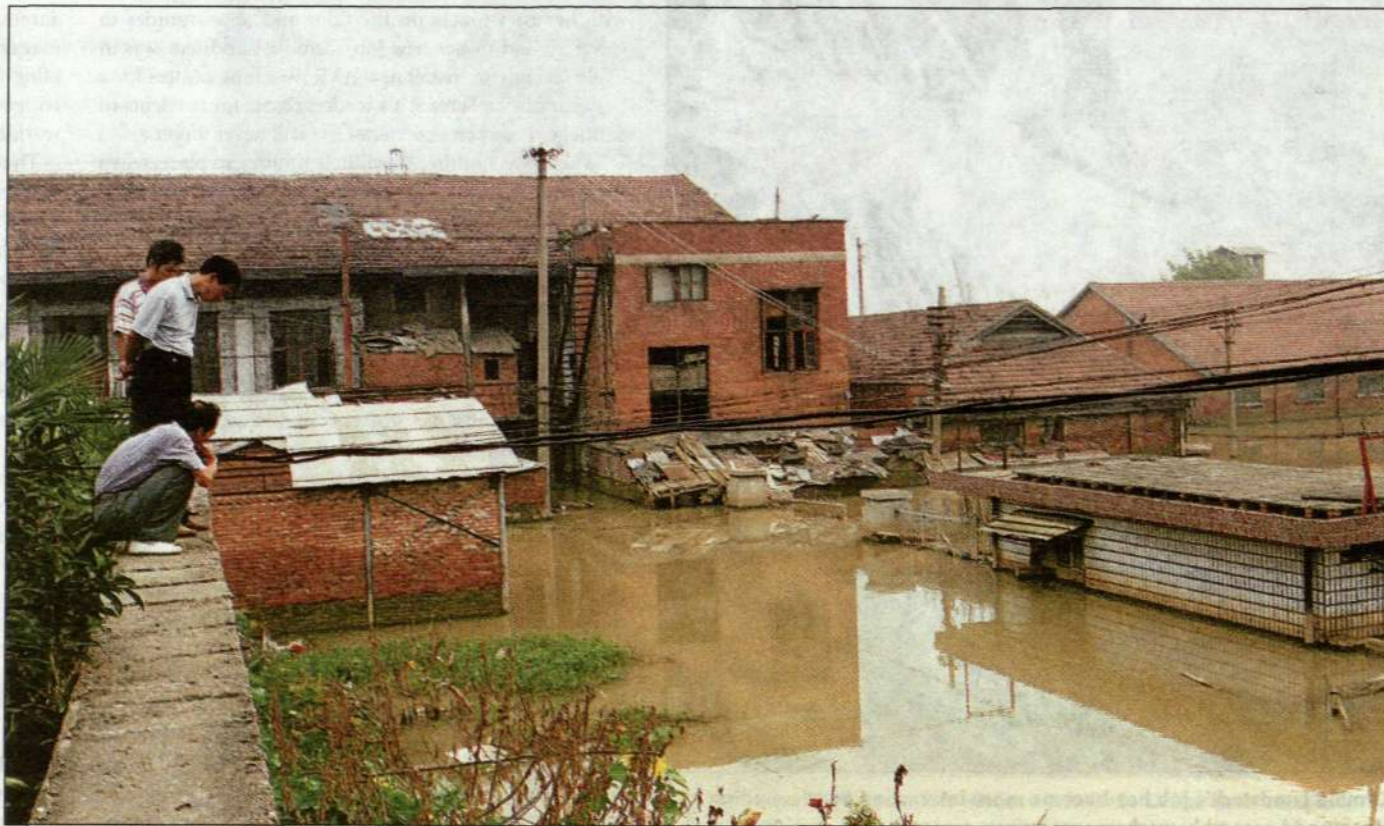
Old men are practicing tai-chi. Others are dancing or merely standing in conversation in the hazy morning. Nothing indicates that China is enduring its worst flooding in a very, very long time.

The Jiangnan Hotel, a beautiful turn-of-the-century building that once housed the French embassy, is located just a few blocks away from the river. This is where Ericsson opened its provincial office in January.

The postal and telecom administration in Hubei province has had plans to expand its GSM network in the capital city of Wuhan, and Ericsson wanted to be involved. Ericsson had failed to land an order for mobile telephony equipment three times before, but was willing to try one last time. An announcement was made on May 18 that Ericsson had received a GSM equipment order valued at more than USD 78 million.

### Flooding in the city

The beginning of June, however, brought rain and flooding. On July 22, rain poured down and the city's streets became flooded with water.



The rains started coming in early June and the Yangtze overflowed. A downpour on July 22 flooded the streets of Wuhan.

"I will never forget that day. I left the office at six o'clock and by the time I had almost reached home, I had to stop. I saw my house but couldn't get there. Men who were much taller than me were walking in water up to their waists," recounts Amy Wan Jinhong, one of Ericsson's four local employees.



Zheng Jian

Steven Gao Xu, the most recent addition to the small Wuhan office, was meeting with customers that day. "I had my good clothes on. So I took off my leather shoes and started wading. The water was 70 centimeters deep. Luckily, I live on the sixth floor so there was no damage to my apartment," explains Steven.

Zheng Jian lives in a new residential area on the outskirts of the city. He points while we walk towards the building where he lives. "There was water everywhere. It was most difficult for my parents. They were trapped at the school where they work. And I couldn't get there to help them."

Sitting on a wooden bench in the small living room of their apartment, Zheng's mother explained, "We lived in the water for a week. We

couldn't leave and for two days we couldn't prepare any food. We were worried, but in the end everything worked out."

With the exception of the heavy rainfall at the end of July, Wuhan, a city of seven million people, escaped flooding. The protective walls in the city held.

"It has been a difficult time for our employees here. A few weeks ago, our regional manager, Jim Gill, was here visiting from Shanghai. He spoke with us and gave us his full support. It is reassuring in a situation where you don't know what is going to happen," said Zou Ren Sheng, manager of the Wuhan office. He commutes between Wuhan and Shanghai, where he lives.

### Stay where it is safe

"Many people told me that I should stay in Shanghai where it is safe, but that isn't possible. I both want and need to convey the same level of involvement that Jim Gill did," says Zou.

It was also important to show customers that Ericsson is reliable.

"The same day the city was flooded with water, we were sitting in meetings with customers. We kept the Wuhan office open instead of pulling back to Shanghai," says Zou. Zhang

De Jun, a manager at the postal and telecom administration of Hubei province, says that moral support is important. "Many people have written letters to us, showing their concern. Others have given gifts or, like Ericsson, have donated equipment. That means a great deal to us," says Zhang De Jun.



Zou Ren Sheng

In some areas, the fixed telephone network is down completely. Cables have been destroyed and entire rural telephone substations are under water.

The postal and telecom administration has mobilized all of its resources to save what is possible to save. Installation of the new GSM network in Wuhan for which Ericsson received an order in May, has been postponed. The province will also be requesting bids for a planned expansion of the GSM network into other parts of the province. It could be difficult, however, for Ericsson to compete against suppliers by offering less expensive equipment, since the actual installation will cost a lot of money.

A stone's throw from the protective wall which shuts out volumes of water from the streets of Wuhan, morning tai-chi exercises continue as usual. On the other side of the wall, the water is three to five meters higher than Wuhan's streets.

### MAJOR ASSISTANCE NEEDED

Several countries, companies and relief organizations have now begun sending aid to the people inhabiting the flood-ravaged areas along the Yangtze river in northeastern China. Ericsson has donated three GSM systems specially adapted for the disastrous situation. The three most affected provinces - Hubei, Jiangxi and Heilongjiang - will each receive a system. In the province of Hubei, a GSM system was deployed just south of Yichang, providing coverage to a stretch of the river that was seriously threatened by flooding.

A collection to benefit the flood victims is being taken up among Ericsson's employees at Ericsson in China. Employees of the North Region, with an office in Harbin in the Heilongjiang province, were behind the initiative for the collection. This province is one of those which has suffered the most, and winter is just around the corner.

"I foresee good, long-term development in Hubei. I think that Hubei will take the lead among the inland provinces in terms of following the economic development lead of Shanghai, the head of the dragon. However, as a result of the floods, authorities will have to be more careful about spending the province's money," says Zou Ren Sheng.

### Enormous damage

A couple of days later, the newspaper reports that the water level is now falling. The eighth crest has passed and the risk for another is minimal. But the damages are enormous. Direct economic losses have been calculated at around SEK 40 billion in Hubei alone.

Almost four and a half million people in Hubei need assistance in the form of shelter or food. According to official statistics, more than 3,000 people have died as a result of flooding in China.

The taxi drives slowly out to the airport. Flooded houses and fields can be seen in every direction. The road lies ahead of us like a floating bridge in a sea of water. Slowly, slowly it is starting to drain away.

Mia Widell Örnung  
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The river has taken over homes and workplaces. Contact visited the lookout post down in the harbor, where women and men stand watch for the eighth crest. Photo: Mia Widell Örnung

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# Curvy and trendy

Current trends in the market for mobile telephones call for rounded shapes highlighted by a lot of silver and large display fields. Contact's reporters took a closer look at market offerings.

Rounded shapes are still the "in" design feature. Most models marketed by Nokia, Motorola, Alcatel and Bosch feature soft lines. Ericsson is still fairly unique with its sober rectilinear design. New models from Siemens, however, also reflect a shift toward straighter lines.

Every reputable brand on the market offers a small telephone. However, sales have not been characterized by the explosive trend toward "smaller is better" that was predicted by many market observers a few years ago when there was widespread speculation about how small mobile telephones could become.

Nokia recently introduced its small 8810, an elegant little jewel that reflects a new philosophy. It requires careful and delicate handling, however, in order for users to avoid leaving their fingerprints on the shiny silver casing.

Most manufacturers seem to follow the same color trends. "Business telephones" are gray-black or black, possibly silver, a new trend in medium and luxury price classes. Most brands also offer a variety of other colors for younger people with more limited buying power. But there are exceptions to every rule, of course, such as Nokia's 6110 model, a medium-priced telephone featuring sober colors in a metallic finish.

Several different mobile telephones for children are sold in the Japanese market. A particular favorite is the Tamagotchi telephone produced by Bandai, a PHS telephone that contains a small and very demanding electronic pet. The brightly colored GSM telephones produced by Sagem were obviously designed with children in mind. The market's major manufacturers have not shown any inclination to follow suit in this respect.

As a sign of the times, with the advent of smartphones, display fields are becoming larger, comprising more than half the surface of some mobile telephones. Smaller keypads are the compromise solution as "the screen" continues to expand. Users will need more nimble fingers while they wait for voice control to make its definitive breakthrough.

Gisela Zeime



## Telecom solution for the deaf

Wireless communications are now also available for the deaf and hearing-impaired.

BellSouth Wireless Data and Wynd Communications have entered a partnership that allows Wynd to connect its mobile communication services for deaf and hearing-impaired people to the wireless Mobitex network.

### E-mail or fax

Wynd has marketed a product called WyndTell since February 1998. The service terminal has a built-in screen and keyboard about the size of a

pager. Vibrations announce the arrival of incoming calls.

The terminal, which operates for about three weeks on a single AA battery, allows users to send e-mail, fax and text messages as well as voice mail containing up to 2,700 words.

### Nationwide coverage

BellSouth's wireless Mobitex network, which was supplied by Ericsson, offers virtually nationwide coverage in the U.S.

By connecting to the BellSouth network, WyndTell's users are now able to utilize the services from al-

most anywhere in the U.S., including more than 130 of the country's busiest airports.

WyndTell is the result of 18 months of research and testing.

Judy Viera, sales manager of Wynd Communications, who is herself hearing-impaired, assisted with the development of the service.

"Working in close cooperation with product development personnel and those who tested the product, we have created the first solution that allows deaf and hearing-impaired people to maintain their mobility while remaining connected," she says.

### COLUMN

Gabriel Anderbjörk

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## Hang on tight! It's a wild ride

Watching stock market trends over the past few weeks, I couldn't help thinking about Baloo, the big bear in The Jungle Book. Not only are market trends pointing downward (Bear market). Fluctuations from one day to the next reflect a roller coaster ride, with ups and downs in the range of four percent and more.

A question we and all market analysts hear over and over again in times like these is: should I buy or sell? And which stocks are the best bet? Many of us were also pleased to see the Ericsson share pass the conversion price a few weeks ago, only to watch it pass the same price level at even higher speed as stock prices fell sharply. What's going to happen next, many people are asking. I have no intention of trying to answer that question from a buy/sell perspective, but would like to put current stock market trends in a slightly more long-term perspective.

In a column I wrote before the start of summer, I tried to present a simplified picture of the factors used to determine a company's market value, pointing out that projected profit is the totally dominant factor.

Looking at the chart below, which covers the period from April 1997 until now, we see how the shift in values has increased sharply. In April 1997, Nokia and Nortel were the lowest-valued companies included among our traditional major competitors, with values just under USD 20 billion, while Cisco stood virtually alone in all its majesty, with a market value of approximately USD 45 billion. Today, 18 months later, the market values of companies in the pack have increased by USD 10-25 billion, with the exception of Motorola, which has noted a decline in market value during the period. Cisco has sustained its sharply rising value appreciation based on a strong financial position, strong growth and strong future potential. Lucent Technologies has accounted for the most remarkable growth in our industry, however. During the same 18-month period, Lucent's market value has risen from USD 33 billion to USD 107 billion, with a peak notation of more than USD 120 billion. The sharp increase was achieved despite Lucent's financial results, which have not been any more impressive than those of most companies in the telecom

pack below the top group. During the turbulence of this autumn, Lucent's market value has declined by about half of Nortel's market value. We are speaking in terms of very large amounts of money.

The key to market volatility, and differences in share price trends for different companies, lies in money market expectations and correlations with other market factors such as interest rates and economic growth. The Asian contagion is often cited as one of the main reasons for market decline, now mentioned in tandem with Russia's crumbling economy.

Looking exclusively at future reductions in investment capital in these regions, they do not by themselves account for the market's strong reaction, since their combined effects will probably not directly affect the industry's earnings level to such a large extent. However, their impact is exacerbated by the possible spin-off effects now being forecast by financial institutions, banks and other sources. Will the problems spread to Latin America? What will happen with interest rates? How will they affect inflation, consumption and other factors in EU nations and the U.S? Will China devalue its currency?

So the question is: are telecom stocks declining because something special is happening in these companies? The answer is No. The decline is attributable to the widespread uncertainty in the world around us, a sense of insecurity and fears that stock markets are no longer as certain about their earlier forecasts of future earnings.

What about the conversion price? As I mentioned above, a company's market value is established by money market expectations. So, if we all roll up our sleeves and work harder to make sure the stock market realizes our future potential, logic would dictate that we shall once again experience that pleasant feeling we enjoy when the figures on text-TV lead us to believe that we are making some money. As shown in the chart below, other companies have emerged from the pack as stock market winners.

Gabriel Anderbjörk is in charge of Business Intelligence activities conducted by Ericsson.

<http://bic.ericsson.se>





The mood at ACC's head office following the news that the company is to be purchased by Ericsson was a blend of pleasure, pride and high expectations. This was an opportunity that had been eagerly awaited. As part of Ericsson, ACC will have the resources it needs to grow and develop. Now the company can compete effectively with the major players.

"While Cisco, Ascend and 3Comm may have bigger guns, none of them has better technology," says Mark Sanchez, a strategic account manager who has been with ACC for many years. "Our main weapons to date have been our speed and our flexibility. We see Ericsson's investment as a huge compliment to our work and the technology we believe in."

On the day the news broke, Ericsson was the main topic of conversation at ACC, located in Santa Barbara on the Californian coast. Even President Clinton's sexual escapades in the White House were temporarily forgotten.

A sign that still hangs in the company's reception area proclaims, "ACC a Newbridge affiliate," and will probably continue to do so for a few more weeks. "Business as usual" is the operative phrase pending completion of all the legal technicalities related to the agreement.

#### Signs of Ericsson's takeover

Already, however, there are abundant signs of Ericsson's takeover. Ericsson's Annual Report is prominent on desktops and in public areas of ACC's headquarters.

Articles about the purchase clipped from local newspapers are displayed on bulletin boards, and a number of people admit to having perused Ericsson's web site in search of relevant information. This is one news item that has captured everybody's attention.

Like Mark Sanchez, many ACC employees have unusually strong ties to the company, where the prevailing atmosphere feels like that of a family firm. The harmonious spirit and the employees' strong identification with the company have evolved during years of hard work with limited resources in an extremely competitive market. Since the company's establishment in 1991, its 250 employees have developed an extensive product portfolio in the routing and Internet access segment. ACC's success is founded on speed and solid technical know-how.

Ericsson's management describes ACC as "a pearl among datacom companies". The company's employees include some of the highest-profile names in the industry, providing an exceptional core competence in routing and Internet access technology.

#### Good life in Santa Barbara

ACC's "small-company culture" is a major asset that Ericsson fully intends to safeguard. The level of commitment and creativity among the personnel is unique. Mark Sanchez has his own explanation for the phenomenon: the good life in Santa Barbara!

"Virtually all the people working at ACC could get a job with another company in another city for example, in Silicon Valley in the San Francisco Bay area, where career op-

portunities are greater and salaries higher. But the quality of life in Santa Barbara is exceptional. House prices are reasonable and you don't have to do a long commute to work. And let's not forget the beach culture!"

The presence of California's golden expanses of beach just a few minutes' jogging time from your workstation is a major factor in the work environment. For most ACC employees, and for Santa Barbara residents in general, an exercise break on the beach is an essential part of the daily routine. The area has a Mediterranean climate, with an average of 3,400 hours of sunshine each year, and a spectacular setting between the mountains and the ocean. Tourism is one of the city's major sources of income.

#### Informal atmosphere

"I jog an average of about six miles a day, and when the tide is low, I pick up glass. I have a pretty large collection at this point," says Mark, smiling as he holds up a pot containing a colorful mass of sea-polished glass fragments.

"The atmosphere is really informal here, and I like the people I work with," says Rebecca MacDonald, head of sales support and one of the company's few female employees. "At certain periods, particularly for a few days around the end of each quarter, we have to work extremely long days, and sometimes weekends too, to get all the orders shipped. It would be impossible without good teamwork."

Rebecca's extensive customer contacts include Ericsson, her experience of which has so far been exclusively positive.

Ben Hernandez, ACC's credit manager, who spends much of his time talking on the telephone to his Ericsson contacts, shares her positive sentiments toward Ericsson.

"I get the impression that Ericsson is an excellent company to work for," he says. "Hopefully, the deal will boost business in a big way. It was too bad that I wasn't here the day that news of the purchase was released. But I heard that the reaction was like a victory celebration!"

Ben is introduced to me as the company's party organizer. He is the one who organizes the annual Christmas party, as well as picnics for employees and their families. While Ben may appear somewhat formal and self-contained on the outside, the exuberant display of Latin American art decorating his office gives him away.

#### Contest with a female colleague

Not to mention his love of conversation. Jogging on the beach holds little attraction for him. He would rather give his jaw muscles a workout!

"If you think this is something, you should see my office around Christmas," he adds proudly. "I have a contest with a female colleague to see who can create the best-decorated office. It's a real blast."

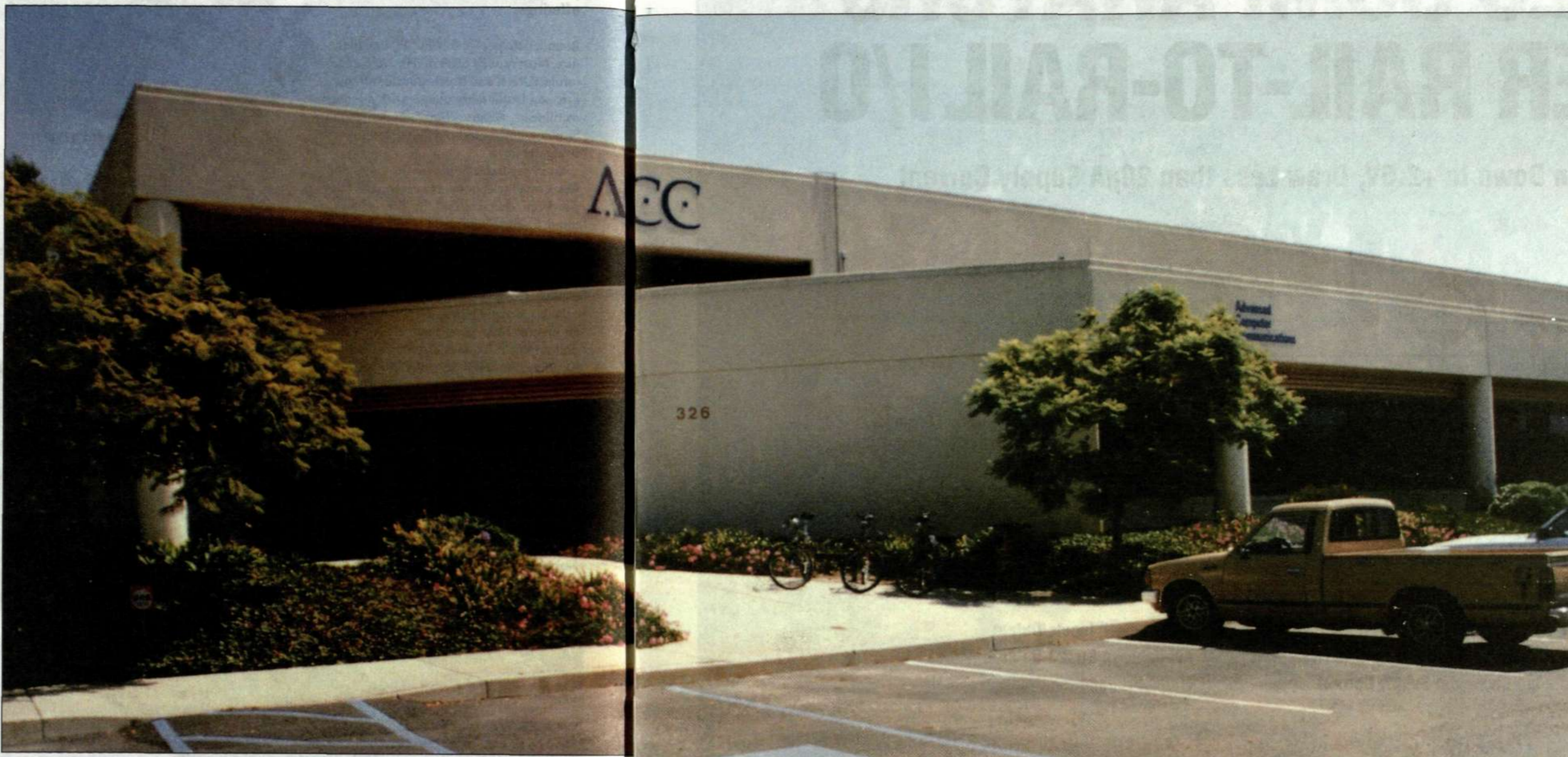
Ben Hernandez is enthusiastic about becoming part of Ericsson and can already see strong similarities between the two companies.

"Both Ericsson and ACC take good care of their employees and see people as their number-one priority," he concludes.

Lena Widegren

Mark Sanchez is a strategic account manager who has been with ACC for many years.

# New jewel in Ericsson's crown



ACC in Santa Barbara is one of the leading producers of routers and Internet access products. Through its purchase of ACC, Ericsson gains access to unequalled expertise in remote access, the technology at the heart of a number of the solutions on which Ericsson is focusing. Photo: Lena Widegren

## A company with roots in Internet prehistory

The University of California at Santa Barbara is one of four universities that founded the Internet during the 1970s. ACC recruits some 70 percent of its employees from UCSB. The people who laid the foundation for the successful company that ACC is today began their careers at the university.

These were the employees who experienced the very beginnings of the Internet, when the university was conducting research into computer networking for the U.S. defense administration at the end of the 1960s. The institutions involved were linked together in Arpanet, the

computer network that was the predecessor of the Internet. Art Bergren, once a member of the original UCSB research team and now a member of ACC's technical management team, is one of ACC's key personnel and was among the company's founders.

Art's experience and broad technical know-how are a major asset for ACC. He has been involved to a greater or lesser extent in the development of all of ACC's products. His door is always open to his colleagues.

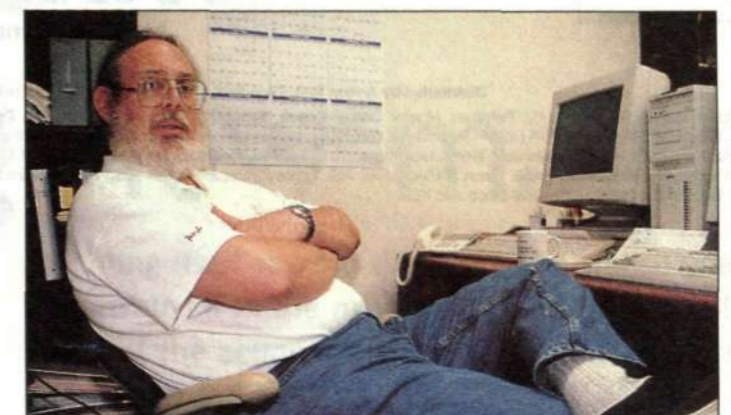
"People drop by when they have hit a sticky patch in a development project and need advice," he says.

"My own work nowadays is mainly concerned with further development of the software architecture of our products."

As is only natural for someone who has been involved with the company from its beginnings, Art has mixed feelings about seeing ACC absorbed by a giant such as Ericsson.

"It's true that it's a rather sentimental occasion," Art admits, "but as a shareholder in ACC I see only benefits. With Ericsson's backing, we can grow and develop. ACC has been understaffed for far too long now."

Lena Widegren



Art Bergren, once a member of the original UCSB research team and now a member of ACC's technical management team, is one of ACC's key personnel and was among the company's founders.

#### COLUMN

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## A logical marriage

Ericsson's and ACC's technical strengths are complementary. The marriage of these two companies epitomizes the convergence of datacom and telecom. The prospects for success for the new generation of public data networks in this area improve dramatically when two such companies combine their resources.

#### A leading producer

ACC is one of the leading producers of routers and Internet access products. Through its purchase of ACC, Ericsson gains access to unequalled expertise in remote access, the technology at the heart of a number of the solutions on which Ericsson is focusing. ACC's products meet the rigorous requirements in terms of quality, reliability and scalability that Ericsson's customers impose collectively referred to as "carrier-class quality".

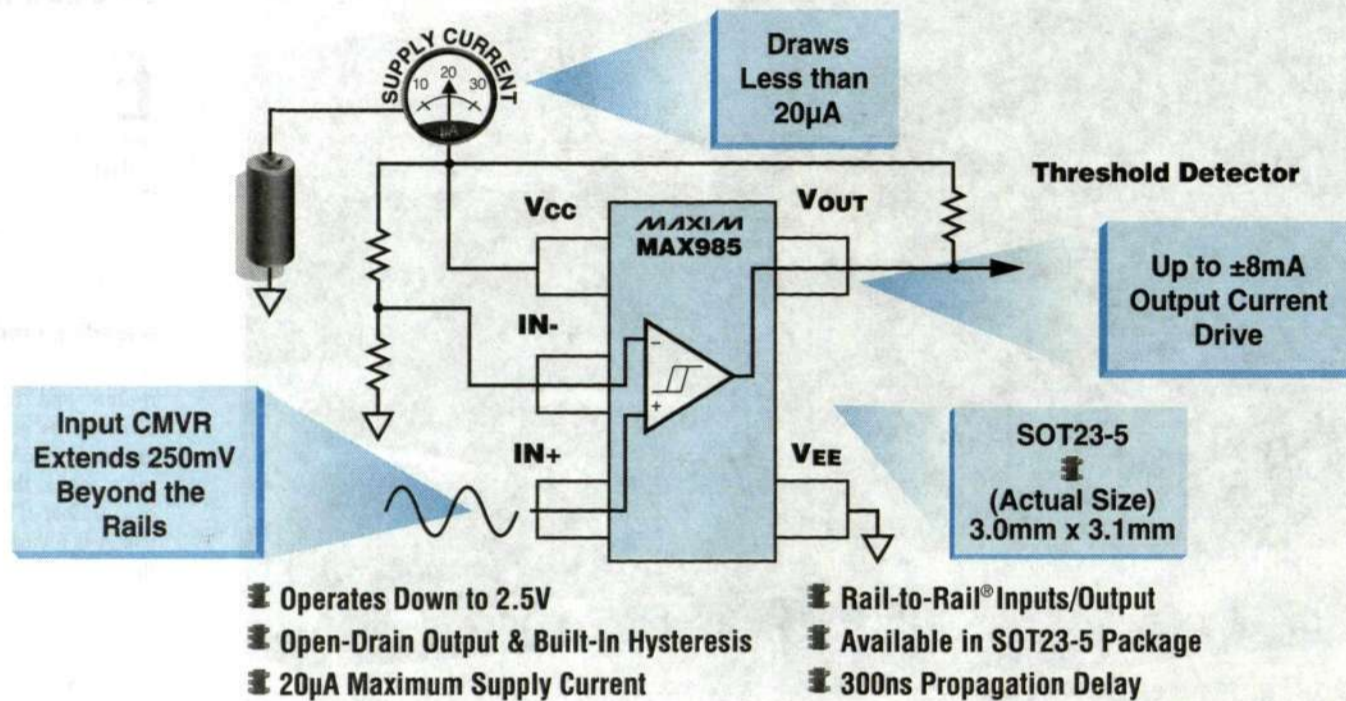
Ericsson's interest in ACC began a year and a half ago, when ACC introduced its Tigris platform. A partnership was formed, largely focused on the integration of Tigris into the AXE architecture. Ericsson became one of ACC's most important sales channels for the new carrier-class technology. As an Ericsson product offering, Tigris is known as the Central IAS (Ericsson's integrated access system).

#### Target groups

Tigris is a remote access solution that enables enterprise access networks and carrier broadband networks to talk to each other. The customer target groups are large Internet service providers (ISPs) and traditional telecoms. By using remote access technology, they in turn can offer their own customers such services as dial-up Internet access, wholesale Internet, dedicated Internet access and outsourcing of corporate remote access.

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MAX989/990	2	Yes/No	+2.5 to +5.5	20	Yes	300	8-pin SO/ $\mu$ MAX
MAX991/992	2	Yes/No	+2.5 to +5.5	80	Yes	100	8-pin SO/ $\mu$ MAX
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## - a burgeoning new market

Ericsson recently opened a representation office in Moldova.

The Eastern European market is growing rapidly and it is important to establish a local presence.

An independent state since 1991, Moldova is clearly

orienting itself toward the West. The state-owned telecom is to be privatized in the near future and Ericsson plans to have a piece of the action when the telephone network is modernized.

# Opening doors to the West

Well-known among wine lovers, but unknown to the world at large, Moldova, a small agricultural nation in Eastern Europe, is investing in telecommunications to establish stronger ties with the Western World.

Ericsson's recently established office in Chisinau, the capital of Moldova, has expanded the company's global representation to 140 countries throughout the world. It also attests to the growing strength of telecom markets in Eastern Europe.

Ericsson's new branch office in Chisinau is situated on Banulescu Bodoni Street, adjacent to the Moldovan Bank building, on the fifth floor of one of the most modern office buildings in the city. Construction workers are still busy on the bottom floor. Several other foreign companies are now moving into the building.

McDonald's first restaurant in Moldova is situated nearby, yet another sign of the internationalization process now taking place in Moldova.

## Focus switched to West

Seven years after its declaration of independence in August 1991, this young republic, surrounded by Romania to the west and the Ukraine on the other three sides, has slowly moved closer to becoming a market economy. The former Moldavian Soviet Socialist Republic's strong ties with other republics of the Soviet Union have been broken. A reorientation toward the West and Romania, a country with strong historical ties to Moldova, can now be discerned.

"The present Moldovan government has used a liberal political approach and substantial foreign borrowing to get the country's economy moving in the right direction. The hope is that the ongoing process of privatization will attract foreign investors to the country. The most urgent requirements are infrastructural, including telecommunications, and we have high ambitions in the Moldovan market," says Göran Uvner, Ericsson's marketing manager for Eastern Europe.

"Our goal is to assume an active role in the development of Moldovan telecommunications, serving as an important partner to the government-owned operator Moldtelecom, a company that will be partially privatized in the near future."



Ericsson's focus on Moldova is an extension of its market cultivation in Eastern Europe, a region of significant strategic importance to the company.

"Our market in Eastern Europe is characterized by strong growth, and is expected to be worth approximately SEK 12 billion in 1998, an increase of about 30 percent over last year," says Göran Uvner.

## Fixed network to be expanded

The new office in Moldova is managed by Ericsson's local company in Romania.

"Our primary focus in Moldova is to expand the nation's fixed network, which will provide the stability to underpin expansion of our new office," says Thomas Lundin, head of Ericsson operations in Romania and Moldova.

"Moldtelecom plans to install 500,000 fixed telephone lines before the year 2002. As the first supplier of telecom equipment in the country, we hope to install a minimum of 250,000 lines over the next five years."

Moldova already has about 57,000 AXE lines installed by Intracom, a Greek company of which Ericsson is part-owner. In addition, Ericsson will soon open a D-AMPS network for 2,000 subscribers in Chisinau, after which a gradual expansion of the network is planned. In the mobile sector, Moldova has only one small NMT system installed by a Danish supplier.

## MOLDOVA

**Geography:** Richly fertile agricultural country with favorable climatic conditions, situated on the northwestern corner of the Black Sea, between Romania and the Ukraine.

**Population:** About 5 million. Moldovans with ethnic origins in Romania account for 65 percent. Russians and Ukrainians account for 27 percent and compose a majority group in the Trans-Dniestr region, where armed conflicts flared up in 1992. A number of ethnic minority groups are also represented in the country.

**Languages:** Romanian (Moldavian) and Russian.

**Capital:** Chisinau (Kishinev in Russian), with a population of about one million.

**Industry:** Agricultural products account for about 40 percent of the country's total production value. Wine is the largest export product. Moldova also exports substantial amounts of apple juice concentrate and has long-term plans to seek accession to the EU.

**Telecom:** Fixed telephone links are available to 17 percent of the population. The country's current objective is to increase availability to 25 percent by the year 2002. Ericsson recently delivered a mobile telecom network based on the D-AMPS standard. The country also has a small NMT network. A GSM license was purchased earlier this year by France Telecom. According to present estimates, Moldova will have approximately 250,000 mobile telephone users within the next five years.

Earlier this year, France Telecom purchased a GSM license in Moldova and is expected to start a new system toward year-end, with Alcatel as the supplier. It is estimated that Moldova will have about 250,000 mobile telephone subscribers within five years.

"This development also creates opportunities for Ericsson to sell mobile telephones in the Moldovan market. We also see business potential in various banking systems, PBX systems, military communication systems and fiber-optic solutions," continues Thomas Lundin.

## Important with personal contacts

On the subject of establishing an office in a new country, Thomas Lundin emphasizes the need for personal contacts and local market knowledge. Ericsson will benefit from added assistance provided by Ion Casian, head of Ericsson's local office in Moldova and the republic's former Minister of Communications.

"Advisors at high political and business levels are extremely important," Thomas Lundin explains. "It is essential to understand the culture and people of the country, and our establishment of business operations in Moldova signals that we are serious about investing there."

When the new office was inaugurated, Göran Uvner expressed his sincere hope that Ericsson and the Swedish people would not have to withdraw from the country in the same manner as their compatriots nearly 300 years ago. At that time, in 1713, Karl XII and his soldiers were forced to flee following the infamous uprising in Bender, just south of Chisinau, in what was then the Ottoman Empire. The presence at the inauguration ceremony of Petru Lucinski, President of Moldova, indicated otherwise. "Ericsson is a welcome guest in our country," he said.

Nils Sundström

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Classic trolley bus passes in front of the Moldova parliament building in Chisinau. Ericsson is the first telecom supplier to become established in Moldova. The representative office has the unofficial status of being the Swedish embassy.

Photo: Nils Sundström



Advertising for GSM in Bucharest. Ericsson is delivering equipment to Mobifon, the operator of the Connex network, the largest in Romania.

## Strong growth in Romania

In 1994, when Ericsson opened its branch office in Romania, many people were skeptical about the business opportunities in the Eastern European nation. Switching equipment from Alcatel and Siemens was already installed in the major metropolitan areas. Today, Ericsson has 220 employees in Romania.

Ericsson has conducted business operations in Romania since the 1920s, but local representation was established only four years ago. After delivering an NMT system to a Romanian joint venture company working in cooperation with Telefonica of Spain, contracts and orders have increased steadily in mobile and fixed telephony.

Through total solutions based on ANS, an AXE exchange for low-density traffic, and AXE equipment combined with DRA 1900, the local company has obtained a firm foothold in smaller cities and rural areas of Romania.

## Third largest market

"Sales in 1997 were valued at approximately SEK 660 million, and we expect to exceed sales of SEK 1 billion this year. Romania has become our third largest market in Eastern Europe, after Russia and Poland," says Thomas Lundin, Ericsson's manager in Romania and Moldova.

Ericsson's substantial growth in Romania has been achieved through contracts with Mobifon, an international consortium and one of the country's two GSM operators. Mobifon placed its GSM network in commercial operation in 1997 and now serves more than 230,000 subscribers. By year-end 1998, the operator expects to have about 350,000 subscribers in all parts of the country, including 200,000 in Bucharest, the capital.

"Mobifon also plans to introduce intelligent-network (IN) services on the mobile network, as well as prepaid subscriptions," says Moncef Mettiyi, Ericsson's key account manager with customer responsibility for Mobifon.

## Joint training program

"We are now working in close cooperation with the customer to avoid problems experienced in the past with hardware and faulty installations. Among other initiatives, a joint training program is currently under way to familiarize all personnel with the next system version of the GSM network," continues Moncef Mettiyi.

The new design center recently started in Romania for development of ANS soft-

ware is another sign of Ericsson's growth in the country. The design office, which already has about 15 employees in Romania, is an integral part of ANS development at Ericsson DiAx in Denmark. The unit is expected to expand to more than 40 employees in due course.

"There are many highly skilled software engineers in the country, a resource that has been discovered by a large number of international companies," says Thomas Lundin. "Our establishment is part of a framework agreement signed earlier this year with RomTelecom, the Romanian operator for fixed telephony. We have been contracted to deliver 500,000 AXE and ANS lines over a five-year period."

Ericsson's penetration into the fixed network sector and the company's recently established close cooperation with RomTelecom represent a major accomplishment in view of the market's total dominance by Siemens and Alcatel only a few years ago. Thomas Lundin is optimistic about Romania's pending infrastructure investments and privatization process.

## Market share increases

"There is an urgent need to digitize and increase the effectiveness of Romania's wired network. Today, only about 14 percent of the country's 23 million inhabitants have access to fixed telephone service. By the year 2003, RomTelecom estimates that 25 percent of the population will have access to fixed telephony," notes Lundin.

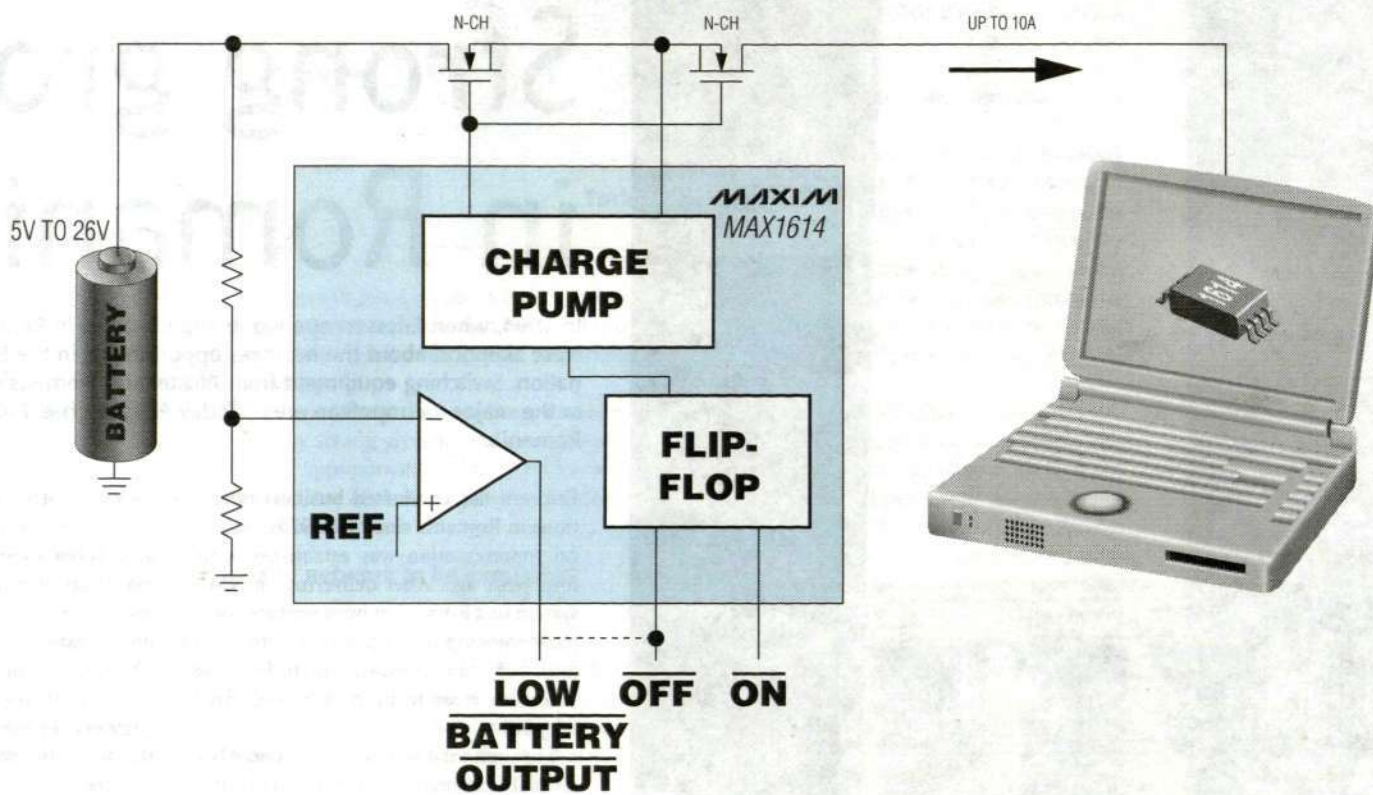
The local company's rapid growth has led to the establishment of four branch offices in Bucharest. A new head office that will accommodate about 300 employees will be opened in the autumn of 1999 near Baneasa Airport, a gateway for domestic flights in Romania.

This year, Ericsson and Solectron, a co-operation partner, will open a factory in Timisoara in northwestern Romania. The new plant will have about 1,500 employees and manufacture circuit boards and components for Ericsson's AXE equipment.

Nils Sundström

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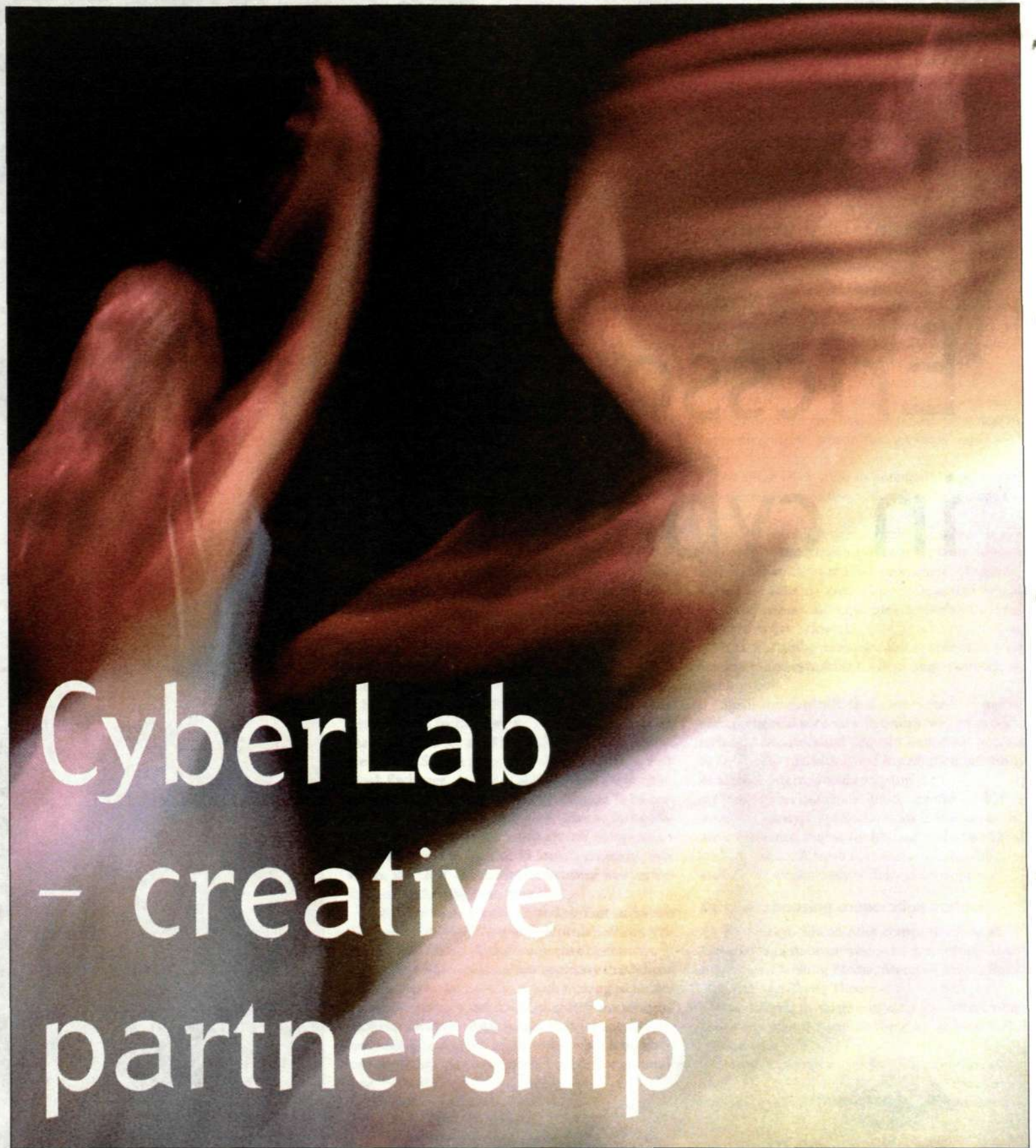


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This page concludes Contact's series on partnerships and the importance for Ericsson of cooperating with other companies. Previous articles in the series were published in Contact 11 and 12, 1998.



# CyberLab – creative partnership

The pace of development in the infocom sector is increasing constantly. Ericsson's CyberLab brings together various partners to develop tomorrow's work methods. The aim is to tear down boundaries and create dynamic relations.

Photo: Michael Going

Ericsson is forming a number of its partnerships for the future in the U.S., which is the uncontested leader in the computer industry and Internet development. The company's two CyberLabs provide vital focal points for these alliances.

What direction will developments in the infocom industry take? What technical solutions will be leading the way, and what will be the dominant content – in two, three, five years?

No-one knows for sure. Many, though not all, developments will focus on the Internet Protocol (IP).

Ericsson's CyberLabs are aimed at tearing down boundaries and creating new dynamics. Project hotels and business-development or research centers are some of the new concepts associated with the CyberLabs.

The CyberLabs provide locations where cooperation partners can rent premises while they pursue various projects in cooperation with Ericsson. Advanced testing and development environments, based on a number of technical platforms, are available.

#### Focus on newly started companies

Data and communications companies, as well as universities and Ericsson customers, are the main target groups. The focus is on small, newly started

companies – often the antithesis of Ericsson in terms of their corporate culture, and therefore a desirable complement.

"These companies bring new and vital expertise to Ericsson, at the same time as our global presence and market position make us attractive for them," says Tapio Anttila of Ericsson's business development unit. "They help us to move closer to the market and enhance our knowledge of what end customers want. Above all, we are learning to be quicker."

#### Pace of development increasing

"Our CyberLabs help us both to realize the existing potential and to open up new possibilities," agrees Bo Hedfors, who until recently was head of Ericsson U.S. "The pace of development is constantly increasing and it is difficult to tell exactly where we are heading. It is essential for us to be at the core of the IP world, where new partners can teach us to work in new ways and in totally new business areas."

The first CyberLab was CyberLab West, located at

the heart of California's Silicon Valley, which opened at the end of 1997. The recently inaugurated CyberLab East is located among the cluster of high-tech companies known as Silicon Alley in New York. The two CyberLabs focus on slightly different areas: in the western lab, the emphasis is on technology, while the eastern facility focuses on content and distribution. There is naturally an intensive exchange of knowledge between the two labs, which also function as a dynamic channel linking Ericsson's many markets, companies, product units and business units.

#### Flying the Ericsson flag

The CyberLabs serve as highly effective Ericsson markers, giving Ericsson a prominent position on the Internet map. Ericsson U.S. reports that the new venture has sparked considerable publicity and interest. The CyberLab strategy strengthens the Ericsson brand and increases Ericsson's impact – in the eyes of customers, competitors and future partners.

Kari Malmström

<http://www.erilab.com>

She is manager of a global center for new media and her gaze is directed toward cyberspace. Her job is to encourage technicians, entrepreneurs and creative individuals to talk to each other. Electronic commerce and mobile data applications for the financial sector are among her latest projects.

# Ericsson's astronaut in cyberspace

Donna Campbell is manager of Ericsson's CyberLab in New York, which gives small new companies working with Internet solutions the opportunity to cooperate with Ericsson. The lab is located in the area that has come to be known as Silicon Alley in New York's financial district in Lower Manhattan.

Photo: Roger Schederim

Donna Campbell is manager of Ericsson's CyberLab East in New York's Silicon Alley. With her blonde hair, trim figure and green eyes, Donna looks more Scandinavian than many Swedes.

She has Norwegian blood in her veins, inherited from her maternal grandmother in North Dakota, but the direct connection she now has with Scandinavia and Ericsson is a recent development.

"I've been working with new media since 1991, but it was only a few months ago that I took the step of joining Ericsson," relates Donna, as she gazes out over Manhattan's financial district through the panoramic window of the New York Information Technology Center building.

"Back in 1991, people didn't give much thought to the Internet," recalls Donna. "It's fantastic how rapidly the situation has changed, and you need to be able to change with it."

Donna Campbell's main strengths lie in corporate management and strategic planning — she does not regard herself as a technician.

"I have a somewhat varied background that includes the performing arts, publishing and new media," she explains.

#### Sharing the eureka experience

"What I regard as my specialty is working with people and trying to get them to come up with new ideas through interaction with each other," continues Donna. "I'm waiting for the familiar 'eureka' moment when everyone reaches a common insight. The technical people know their area and the customers know theirs, but together they can spark a eureka experience."

Ericsson's new world-class unit for research and development in Internet technology is located on the sixteenth floor at 55 Broad Street, in the heart of New York's Silicon Alley, next door to the New York Stock Exchange. As one of about 50 high-tech companies installed in the building — ranging from major Ericsson competitors such as Lucent Technologies and Nokia to small, newly started companies — Ericsson hopes to be able to form a meeting-place where the creative interaction between human beings and technology can flourish.

The difference between CyberLab East in Silicon Alley and CyberLab West in California's Silicon Valley lies in the focus of their respective operations.

"As a general statement you could say that Silicon Alley is primarily concerned with making technology useful rather than developing it from scratch," observes Donna. "This means that we focus more on content and applications, although it is an obvious advantage for both units to be able to communicate with each other."

Ericsson's president and CEO Sven-Christer Nilsson, the former manager of Ericsson U.S., Bo Hedfors, and the chairman of the New York City Investment Fund, Henry R. Kravis, were all present at the recent inauguration of CyberLab East. The lab is a collaborative project between Ericsson and the New York City Investment Fund, an organization supported by more than 60 New York-based companies.

"CyberLab in Silicon Alley is vitally important for us," says Sven-Christer Nilsson. "I see the lab as a key element in the evolution of telecom services. Telecom means communication — everywhere and at any time. It means multimedia. We want Ericsson to be at the cutting edge of this evolution and assume a leading position in the Internet world."

#### Several development projects under way

Donna Campbell's mission is to provide a state-of-the-art environment for the development and production in prototype form of software and applications for the next generation of communications and commerce packages on the Internet.

CyberLab plans to work in close cooperation with all the Ericsson employees worldwide who are involved in developing Internet applications and technologies.

"Ericsson has a number of exciting development projects under way worldwide," says Donna. "There

is already substantial specialist expertise in Dallas, China, Stockholm, Silicon Valley and many other locations, and CyberLab can serve as a platform for supporting these projects in the U.S. market. We plan to base our activities on Ericsson's existing strengths and raise visibility for our Internet objectives."

The relationship with the New York City Investment Fund also has a bearing on the projects that Donna Campbell intends to implement at CyberLab East.

"Since we are located in New York, it is only natural for us to focus on those areas that New York is renowned for, such as finance, and broadcast media," notes Donna.

CyberLab's advisory board includes representatives of the New York City Investment Fund, the new media industry and Ericsson. The purpose of the board is to help CyberLab to identify and evaluate projects.

"Our links with the New York City Investment Fund

and Silicon Alley give us a substantial advantage in developing viable, worthwhile projects," says Donna.

"We must work close to potential customers, so that we deliver real value, rather than technology for its own sake."

CyberLab's objective is to establish Ericsson in the Silicon Alley environment while at the same time involving Silicon Alley in Ericsson's spheres of activity. CyberLab aims to create an environment where small companies can cooperate effectively with info-com giants like Ericsson.

"It is crucial for us to establish cooperation with small companies in Silicon Alley," underscores Donna Campbell.

"Small companies here are often the doorway to entrepreneurial successes. In return, we can provide technical resources and — equally important — access to the global marketing and distribution functions of a major international company."

One of CyberLab's most important tasks will be to develop prototype applications for customers in the areas of finance, media, health care, real estate, retail and education. A small core team of CyberLab specialists will work closely with local developers.

#### Difficult choosing cooperation partners

As examples of Silicon Alley companies with which CyberLab might be interested in cooperating, Donna names Thinking Media, Mercury Seven, Reset, Avalance and Planet Theory.

"It's difficult to single out just a few from among the many talented people working in New York," Donna adds.

Donna is still reticent about future projects at CyberLab East but reveals that a project has been initiated in the e-commerce area in cooperation with another Ericsson unit and a start-up company.

"We are also discussing mobile data applications for the financial sector," continues Donna.

E-commerce, multimedia content delivery via the Internet, wireless applications, distance learning programs, virtual communities and agents are some of the areas that CyberLab plans to explore in the future.

"While CyberLab has a very broad agenda, it is important that we focus initially on a few strong projects that leverage Ericsson's expertise," says Donna. "We must also capitalize on the close contacts we have in the New York community."

Donna herself has a special interest in the subject of education and training.

"People should go on educating themselves throughout their lives," she asserts, "and this is an area where the end user can derive considerable benefits from computers and the Internet."

"Just now, it is important to be flexible," Donna reflects. "It's a challenging time for large companies. The important thing to do is constantly reevaluate your strategies and make the changes when the market demands it."

Charlotte von Proschwitz

Back in 1991 people didn't give much thought to the Internet

We want Ericsson to be at the cutting edge of this evolution

# Forms replaced with more efficient IT system

**A company-wide IT system for purchasing via the Web will soon become a reality. It is both expensive and inefficient to fill out purchase orders and send invoices manually.**

A task force was set up to find a system that will work for the entire organization. The new system, "Click to Buy", which was developed by Ericsson Telecom, has received a great deal of attention.

There is a dizzying array of Ericsson forms – purchase orders, internal orders, and requisition drafts, just to name a few. Their processing takes both time and costs money. In order to tackle this big problem, a company-wide IT system for electronic purchasing on the intranet will soon be implemented. A task force is currently in the process of finding a system that will best serve Ericsson based on certain specific criteria. One of those is that the system has to be compatible with several different accounting systems.

## Orders now cost SEK 650

One of the candidates is an IT system developed by Ericsson Telecom called Click to Buy. The main reason for such a system is the need to streamline the flow of orders and the authorization and payment of invoices. The new system will enable employees to take responsibility for their own purchases, further reducing costs. Currently a purchase order costs SEK 650 in administrative costs. That figure could be reduced by 90 percent using Click to Buy.

"Click to Buy also reduces lead times for purchases," says Madeleine Sjöberg, who helped develop the system. "Authorization of orders and invoices is done directly on the Web meaning that items never run the risk of being neglected."

## Better control of purchases

For the past few months, Ericsson Telecom employees in Sweden have been testing Click to Buy. All purchases that are not related to production or customer orders are to be made using the system. Consultant services, office supplies, flowers, measuring devices, travel and computers are a few examples.

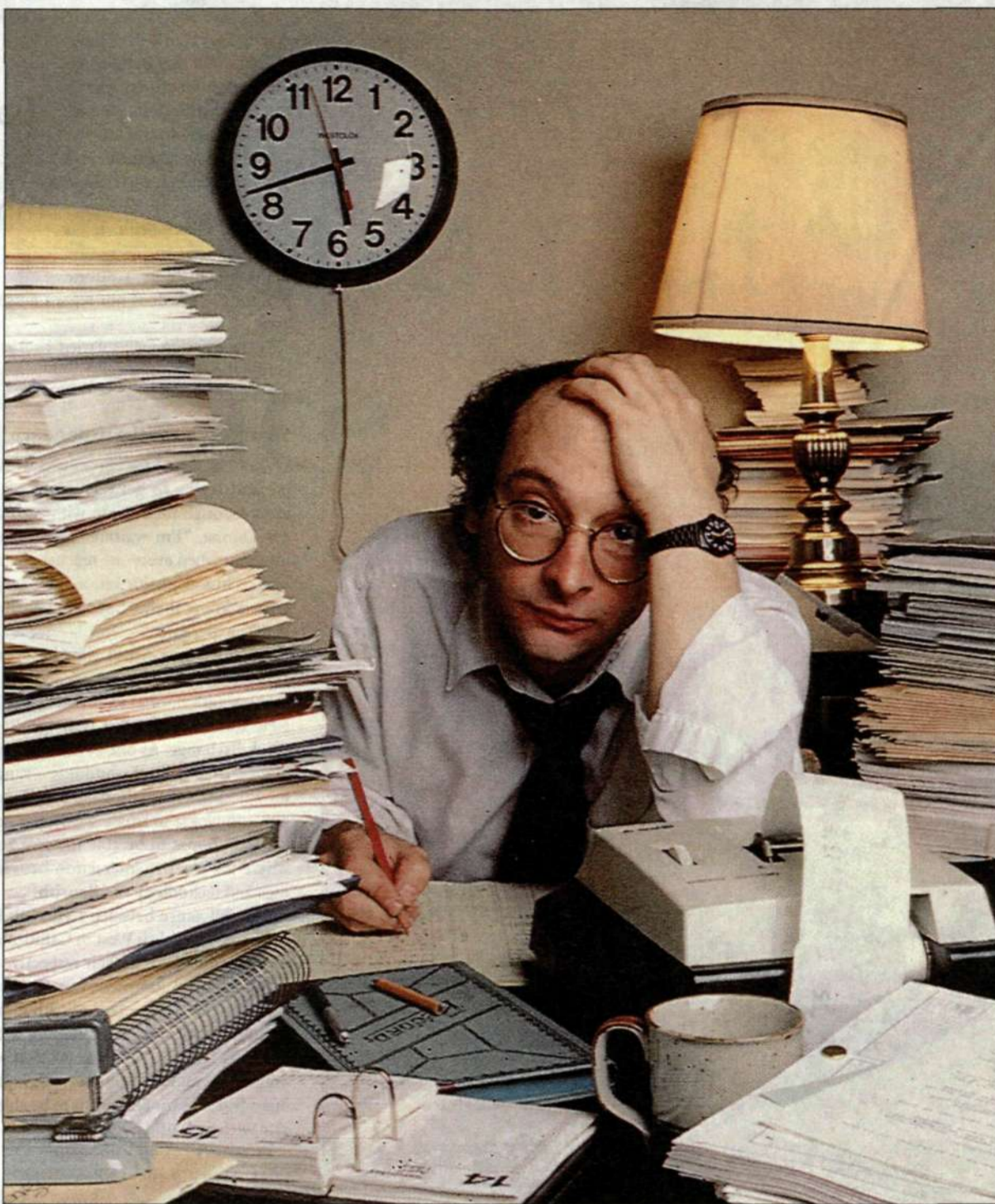
One purpose of the new system is to gain more control over large volumes of small purchases. In October, Ericsson Telecom in Sweden will convert to making all purchases using the Click to Buy system.

The need for a good internal electronic commerce tool is being felt throughout Ericsson. Therefore, the results of the Click to Buy test are of interest to the entire company.

"If the system works well, we can implement it very quickly," says Georg Hodosi, who is leading the task force that developed Click to Buy. They have received the task of taking inventory of products on the market and making a recommendation regarding a system for the entire company.

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Ⓞ <http://bnsourcing.ericsson.se/ClicktoBuy/index.htm>



Several projects are currently underway within the Ericsson company aimed at reducing unnecessary paperwork. An electronic purchasing system has been developed by Ericsson Telecom for the company. Ericsson Data will soon begin testing a system for digital signatures. That will increase security and reduce unnecessary paperwork.

Photo: Sjöberg Bildbyrå

## Better security with digital signature

**Today, many documents are printed up for authorization by a manager before being sent on for payment, for example. These include invoices and travel expenses. Soon all of that could be history.**

A system for digital signatures will soon be tested within Ericsson. If everything works as planned, 40,000 people will be able to give their signatures and identify themselves electronically by next year.

In order for this new system to work, current ID cards will be exchanged for so-called smart cards and workstations will be equipped with card readers and special soft-

ware. A special Certification Authority (CA) will be established for the issuing of the smart cards.

### A unique project

"The technology behind this is nothing new. It is based on a mathematical discovery from the 1970s, but until the past couple of years there has not been any significant market demand. Our project is unique in that we are focusing on practical usage and the establishment of a Certification Authority," explains Magnus Petersson at Ericsson Data, who manages the project.

There are three areas of application for this technique. The first is as a digital signature which can be used

in connection with authorizations, for example. When using the digital signature, both the authenticity of the signed document and the provider's identity can be verified. The technique can also be used in verifying the identity of both individuals and systems. A third application is for encryption. It will be possible to make documents legible only for selected individuals.

### Easier for Ericsson

In places where similar projects have been tested, it has often been the actual transmission that is protected or encrypted, e.g. bank transmissions over the Internet. But with Ericsson Data's system, it will be the actual

document that is encrypted, or which bears a personal signature.

"It is quite possible to implement this technique on a national, European or even global level, but that requires a significant amount of legal work. It is much easier for a company such as Ericsson to try this," says Magnus Petersson.

### Not an easy task

Since the system involves encryption, it is not an easy task to implement it in many countries, let alone within the same company. This product falls under the jurisdiction of a "Strategic products" law and requires import and export licenses. As a result, it could take some time

to implement the system company-wide at Ericsson.

"We have made it simple for users by selecting an interface adapted for the Windows 95 and Windows NT operating systems. In that way, it will be easy for users to learn the new functions since they will be operating in a familiar environment," says Magnus Petersson.

The project is called Public Key Infrastructure (PKI) and is being overseen by Ericsson Data in Norrköping.

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Ⓞ <http://npeng0201.ericsson.se/pki/>



# We're just getting fatter...

Ericsson carries a lot of weight. Not just corporate clout in the stock market but also in terms of employee body weight, expressed in kilograms. A recent physical fitness study conducted within Ericsson Telecom shows that employees show a distinct tendency to become overweight after a few years with the company. The main reason being insufficient exercise.



Physical fitness consultant Britta Berggren's study will form the basis for a master's degree in public health-care sciences. The assignment was to study how a group of employees change their lifestyles during a certain period. The study is based on interviews conducted with 979 salaried staff within Ericsson Telecom, who have undergone health checks during a 17-year period, from 1979 to 1996. Of the sample group, 73 percent were men and 27 percent women.



Britta Berggren

Britta Berggren discovered that employees' lifestyles were affected by their jobs. A particularly startling fact was that persons who had been keen on exercise earlier stopped exercising after having worked at Ericsson for a while. Despite having improved their diets, this has led to weight gains for many employees. She also found that people who are generally physically active tend to lead healthier lives than those who do not exercise at all. For example, it was shown that individuals who started to exercise during the study period also improved their eating habits.

## Two percent lead healthy lives

During the period the sample group was being studied, it was found that only 19 persons of 979 led healthy lives and enjoyed good health. In other words, they ate well and exercised regularly (meaning that they took a 30-minute walk each day, or did some form of physical exercise 1-3 times per week) drank only moderate amounts of alcohol and refrained from smoking and taking snuff.

"This was a remarkably low result," says Britta Berggren. "It indicates that we tend to change our living habits to a significant extent during our lifetimes."

Britta Berggren hopes that this study will contribute towards a greater awareness within

the company about the risks associated with physical inactivity and overweight. It is widely known that persons who are overweight run a greater risk of contracting heart and circulatory diseases and other problems deriving from comfortable living, such as high blood pressure, high cholesterol levels and diabetes. And good physical condition is essential today if people are to have any chance of meeting the high demands placed on productivity and competence within an organization.

"Formerly, people were forced to rest after work. Today, we need to exercise in order to cope with our jobs and recreational activities."

## Promoting good health

The company's health care service arranges regular projects to keep employees in good physical condition. But management can also play a major role in promoting and supporting healthier living habits.

"Encouragement to exercise on an everyday basis leads to a general improvement in public health and thus also the health of the company's employees. All that's needed is that a whole group of employees goes off one evening a week to play indoor bandy, for example."

A separate point arising out of this study was whether there is a connection between changes in living habits and stressful working conditions.

"This will be determined in a later study," says Britta Berggren.

Lena Widegren

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## HOW TO KEEP YOUR WEIGHT DOWN

You don't have to be a star athlete to feel better and still shed a few surplus kilos. Physical fitness experts recommend:

- A 30-minute walk every day throughout the year.
- Organize social and physical training activities on a departmental basis.
- Eat regularly. Do not miss meals.
- Drink a lot of water to raise your efficiency.

# How to make the right decision

They make an anonymous team. But combined they are responsible for a major proportion of Ericsson's business. The first training program for project sponsors is now being started, with guidelines on faster decision-making and better resource utilization.

"Approximately 80 percent of Ericsson's operations are conducted in the form of projects. It is therefore extremely important that the personnel responsible for approving project investments, the project sponsors, make the right choice, invest in the right project and can analyze the financial consequences of the decisions they make over the short and long term," says Nigel Birch of the Ericsson Project Management Institute.

He is in charge of the road show for senior-level project sponsors, which is now in progress and will cover more than 30 different venues worldwide. Combined, it is estimated that more than 10,000 project sponsors exist at different levels within Ericsson. The training program, which takes the form of a two-day workshop, is the first management training course of its kind to be directed specifically at project sponsors.

"Ericsson must become more business-oriented. At the same time as the training helps project sponsors in their individual careers, it also reinforces Ericsson's business efficiency," underlines Birch.

What role does a project sponsor play?

"A project sponsor bears the ultimate responsi-

bility for the economics of any given project throughout its entire life cycle. Not simply during the development phase of a product, for example, but for as long as that product is on the market," explains Nigel Birch. As an ambassador for the project, the sponsor must continually focus on its profitability, on customer satisfaction and on the efficient utilization of resources.

## Discussing the consequences

"The concept behind the workshop now being offered is designed to clarify the role performed by the project sponsors and to facilitate their work by engaging them in simulated decision-making situations for various projects. We then show and discuss the economic consequences of the decisions they made," says Birch.

The background to the training includes the intensified competitive situation in the telecom market, which requires faster and more efficient decision-making as to whether projects should or should not be undertaken. In spring this year, new directives were also assigned to Ericsson's PROPS project model, which is based on different development levels, so-called "tollgates".

The new, more flexible tollgate model emphasizes the profitability and business focus of each project.

"It is up to the different organizations how they use the model in their work, but we can assist with advice and support. It is important to test the profitability of new business ideas at an early stage. At the same time, the project sponsors must be able to handle the human factors when a project is terminated," notes Nigel Birch.

## Generally educational

A pilot seminar for project sponsors was held in Stockholm in mid-August.

"I view this as a good all-round educational workshop for business decision-makers, regardless of whether they work in a project format or not. The seminar is all about how you assemble information, process it and gain the confidence to make a decision," says one participant, Gabrielle Wessel, from the business management side of the GSM unit responsible for southern Asia.

During the autumn, three open seminars will be staged for project sponsors. The first will be in Stockholm in October. The others are planned for Malaysia and Australia.

Nils Sundström

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Nigel Birch is leading the first management training program for Ericsson's project sponsors. Many of Ericsson's operations are conducted in the form of projects. Photo: Nils Sundström



"It was tough to set everything up within the three weeks we were given, but by working as one team in human resources we have improved our speed significantly," says Jane May, manager of the Human Resources Customer Service Center. Here together with Louise Wynne.

Photo: Split Image

# New approach streamlines human resources services in UK

Where would you expect to find customer satisfaction surveys, customer complaints procedures, and business and marketing plans? At Ericsson UK, your best bet would be the human resources department.

A new team of specialists called Human Resources (HR) Solutions has been formed to provide human resources services to all Ericsson companies in the UK. The decentralized organization works from offices in Burgess Hill, Guildford, Scunthorpe and Horsham.

Martin Kirke, vice president HR Solutions, takes up the story.

"When Ericsson UK reorganized earlier this year, Customer Facing Units (CFUs) were created to serve external customers and Shared Services Units (SSUs) for internal Ericsson customers in such areas as supply, design and finance, as well as human resources. The SSU serving human resources was named HR Solutions to emphasize our key belief in delivering total solutions to meet customer needs. A solution is basically the answer to a customer's problem in those cases where the customer lacks the resources to solve the problem without assistance."

HR Solutions had its origins in a survey of customer needs and customer satisfaction levels. The results of the survey, which was conducted in March 1998 and covered both

managers and other employees, helped to define the services that were required to tackle improvement areas.

The improvement needs identified included more effective competence management, faster administration and increased business awareness in HR. To achieve these improvements, HR Solutions now provides services such as learning solutions, internal communication, expatriate services, technology and process improvement and a call center known as the Human Resources Customer Service Center.

#### Ericsson products were used

The call center was set up in partnership with Ericsson UK's Enterprise Networks department, capitalizing on the unit's experience in dealing with external customers. Ericsson

products were used to equip the center, which now handles most aspects of human resources administration for Ericsson UK.

Jane May, manager of the Human Resources Customer Service Center, comments:

"It was tough to set everything up within the three weeks we were given, but by working as one team in human resources we have improved our speed significantly, with 80 percent of offers of employment now being sent out within one to two days. The software we now use enables us to measure our performance, which will help us to improve further."

Another focus for HR Solutions has been to reduce supplier costs, particularly for training, and to combine technical and non-technical programs at Ericsson's training facility in Haslemere. Suppliers of non-technical training have been reduced from 38 to four, resulting in significant cost reductions due to the increased purchasing power achieved.

While HR Solutions' main focus in its first six months has been to im-

prove the quality of human resources services and reduce costs within Ericsson UK, the team has also succeeded in winning new business within Ericsson as a whole and is thus earning additional revenue for Ericsson UK.

#### The customers are pleased

Customer reactions testify to the success of the venture.

Göran Nordqvist, Director of a GSM unit in the UK, comments:

"I have been pleased with the excellent customer service approach from Human Resources Solutions, particularly their flexibility and responsiveness to business needs."

Kjell Gustavsson, program manager at BT TCC in Slough, UK, is equally enthusiastic.

"When we opened the BT TCC program headquarters in Slough, we thought staffing would be a relatively simple task that a few of us project managers could easily handle with some help in the contracting area. We did not actually realize what a tremendous chain of activity is involved, ranging from recruiting and work permits to contracts, housing

and relocation. But the process went smoothly, thanks to the highly professional help we received from Human Resources Solutions in gathering approximately 100 people from around the world."

HR Solutions' services will also be included in the Ericsson UK's service portfolio for external customers, aimed particularly at new operators who may need help with organizational and competence-development issues.

Martin Kirke sums up what has become a major success story.

"Perhaps the best way for human resources personnel to enhance their business competence is for parts of their operations to function as a business. We have learned a lot through this approach and have successfully implemented major changes within human resources. We still have further improvements to make, but costs have already been reduced substantially and we now have the business tools in place to continuously improve the quality of our services."

Mike Meadows

# vacancies

## AT ERICSSON

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

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

Contact No. 12 1998

Updated August 31

### in sweden

#### LM Ericsson Data AB

A new challenge in a unique organisation?

The Global Help Desk is a service organization for all IT Help Desks within Ericsson. The department Global Help Desk includes the actual Global Help Desk solving infrastructure requests in all environments, a Help Desk Competence Center, responsible for providing all Ericsson IT Help Desks with tools, routines and processes, and the Maintenance team, responsible for operation and maintenance of the connectivity between all Ericsson Help Desks and expertise organizations.

The operations is truly global with personnel in Sweden, Holland, Dallas and Melbourne.

We now need the following people to be located in Åvsjö. Good knowledge of English is mandatory in all positions.

#### 5 HELPDESK TECHNICIANS

● Requirements: Serviceminded. Broad technical competence. Ambition and ability to constantly learn new things

#### TEAMLEADER GLOBAL HELPDESK

● Requirements: Serviceminded. A good coach. Experience from helpdesk or other service oriented tasks

#### MANAGER OF THE MAINTENANCE TEAM

● Requirements: Serviceminded. A good coach. Experience as a manager or project leader. Experience from development and/or maintenance of software

#### MANAGER OF THE HELPDESK COMPETENCE CENTER

● Requirements: Serviceminded. A good coach. Experience as a manager or project leader. Experience from work with helpdesk or related services

#### INFORMATION MANAGER FOR GLOBAL HELPDESK

● Will be responsible for the production and distribution of internal and external information regarding Global Helpdesk.

Requirements: Serviceminded. A good coach. Experience as a manager or project leader. Experience from work with information

#### STAFF FOR HELPDESK COMPETENCE CENTER

● Requirements: Serviceminded. Long experience from work with helpdesk or related services. Knowledge of tools and methods to support helpdesk work. Experience as a manager or project leader

This position can be located in any country where Ericsson Data is represented.

**Contact:** Sivert Forslund, +46 8 721 74 19, e-mail [sivert.forslund@edt.ericsson.se](mailto:sivert.forslund@edt.ericsson.se), Manager or Johanna Karling, +46 8 726 28 09, e-mail [johanna.karling@edt.ericsson.se](mailto:johanna.karling@edt.ericsson.se) (Human Resources)

For more information regarding Helpdesk Technicians and Teamleader Global Helpdesk contact also; Åsa Granlund, +46 8 721 70 52, e-mail [asa.granlund@edt.ericsson.se](mailto:asa.granlund@edt.ericsson.se) or Susanne Lindqvist, +46 8 726 29 88, e-mail [susanne.lindqvist@edt.ericsson.se](mailto:susanne.lindqvist@edt.ericsson.se) Application: Johanna Karling, +46 8 726 28 09, e-mail [johanna.karling@edt.ericsson.se](mailto:johanna.karling@edt.ericsson.se)

#### Ericsson Radio Access AB, Kista

##### MANAGER SOFTWARE DESIGN

The business segment RBS - Radio Base Stations - develops and manufactures various types of base station products for a number of different cellular mobile telephony systems. High performance and cost effective design are some of our distinctive features on this rapidly growing market.

RBS is a decision making, result focused unit, characterised by flexibility in an international environment. New radio design technique such as wideband, multi channel and multi standard techniques, using fast DSP's, will very soon change the architecture of the RBS making it more generic and more cost effective.

Our R&D organisation RSA/B/U (app. 100 people) which successfully has developed high quality, cost effective radio base stations since the mid 1980:ies, is now taking a new step into tomorrow's technology.

● We are looking for a new manager responsible for the software design unit, today around 15 people.

You will report to the R&D manager and be part of the R&D managing team. You should have long experience of mobile systems, project management, integration or SW/HW radio design. You should be a good leader of the unit, enjoy fast results with high quality and fluent in written and spoken English. You should have a Master Degree or similar education.

**Contact:** Eric Sandberg, R&D Manager, phone +46 8 757 1730 Anna-Greta Eriksson, Human Resources, phone +46 8 40 45369 Application: Ericsson Radio Access AB RSA/HPS Pia Bolmgren Box 11, 164 93 STOCKHOLM e-mail: [pia.bolmgren@rsa.ericsson.se](mailto:pia.bolmgren@rsa.ericsson.se)

#### Ericsson Mobile Communications AB, Lund

The Time To Market TTM process at Ericsson BT is well established, and is now entering a phase focusing on training and improvements. To lead this work you need to be an experienced

##### PROJECT MANAGER

● with a genuine interest in process work and continuous improvement.

Main tasks: Be the TTM ambassador. Manage the TTM Steering committee twice a year to share experience and decide on major changes. Support local implementation worldwide. Produce training material and perform training in TTM. Interface the Time To Customer, TTC process. Interface other related processes.

The ideal candidate has several years of experience from project management and process work, preferable within BT. The candidate should have experience from work in the international field and an understanding of differences in local work procedures. Fluency in English is required as well as the ability to act as a team leader.

**Contact:** Jan Gunnarsson, +46 46 194698 or Olle Hagelin, +46 46 193534 Application: Ericsson Mobile Communications AB, Human Resources Unit, 221 83 LUND

#### Ericsson Radio Systems AB, Kista

##### GROUP MANAGER AND TEAMLEADERS TO SUPPLY MANAGEMENT

Supply Management at HardWare Services, Customer services. RMOG is expanding rapidly due to new services provided from our department.

We work on a world-wide market of supply service focusing on the after sales business potential for the mobile systems of GSM, NMT & TACS. Due to this and the increasing amount of people we need to organise our section into

three groups to meet today's and the future demands on our services.

##### GROUP MANAGER SUPPLY SUPPORT

● A new group will be established to secure that our services provided are implemented, running and improved in our supply management process world-wide. Customer satisfaction and profitability of supply service in accordance with stated service agreements with local companies and/or Operators should be the focus.

For this group we need a person with good knowledge in supply management on an international market and of course a good background as a manager or project leader. It's preferable if you have a good knowledge in customer services, after sales logistics and/or sales logistics in general. English both written and spoken are essential for this job. You should be customer driven, positive to changes, open-minded, personnel in focus and easy to co-operate with different segments/functions in an international organisation.

The group today consists of 4 individuals but will increase to 10 during the winter. The group manager work consists of 70% management of personnel and operations and approx. 30% project work.

##### TEAM LEADER MASTER PLANNING

● Our existing planning group needs to have a TEAM LEADER working 50% as leader and 50% operational in the group as Master Planner. You need to have experience from planning, purchase and logistics in general.

It's preferable if you have worked as master planner or logistic co-ordinator. English both written and spoken are a demand. To enthusiasm people, be service minded and to have a positive attitude to changes are essential for this job. The group today exists of 4 individuals.

##### TEAM LEADER INVOICING

● We need a TEAM LEADER to our future invoicing group working 60% of the time with operative invoicing and 40% as Team-Leader for the group. You need to be service minded, have a good mind for order and a positive attitude to changes. You have an economical education and it's preferable if you have worked with invoicing and economical follow up within Ericsson Radio Systems AB. The group will also be responsible to handle reporting of supply management statistics. The group consists of 4 individuals working at another section today but will move to our section and increase to 5 during the winter.

**Contact:** Rickard Slettmyr, phone + 46 8 757 06 77, ERAC.ERARISL, Göran Kördel, phone + 46 8 757 57 08, ERAC.ERAGK or Charlotta Rydgren (Human Resources), phone + 46 8 404 2807, ERAC.ERACHAS. Application: Ericsson Radio Systems AB LY/HS Viveka Viklund 164 80 STOCKHOLM

#### Ericsson Radio Systems AB, Kista

##### MANAGER, PRODUCT MANAGEMENT, PSS

Join our team!

Product Group UMTS Packet Switching Systems has the mission to provide profitable and competitive UMTS packet switching products to mobile operators all over the world. The unit has bottom-line product responsibility, and consists of product management, system management and design departments. UMTS packet is about bringing together two of the most exciting and fast-growing areas of technology: wireless communication and Internet based services.

● As a Manager you will be responsible to build, manage and develop the Product Management department. The unit will initially consi-

st of some 5-7 people and be responsible for strategic product management and market support. The product portfolio comprises the GSN nodes as well as products in the area of Internet interworking.

Your organisation is responsible for defining the UMTS products, working out business cases, and taking part in product marketing and tender work. Another important part of the work is to define product requirements, and to order and follow-up development work. Since the UMTS standard is not ready yet, setting directions for standardisation is vital.

You have an M.Sc degree or equivalent, and experience of product management in the field of telecom and/or datacom. You are business-and result oriented, and have excellent leadership capabilities. Good communication skills and fluency in English are also important. The position is located in Kista. Welcome with your application via e-mail.

**Contact:** Magnus Fransson +46 8 757 1485 [magnus.fransson@era.ericsson.se](mailto:magnus.fransson@era.ericsson.se) Application marked: MANAGER, Product Management, UMTS Packet Switching Systems bo.danielsen@era.ericsson.se Ericsson Radio Systems AB KI/ERA/LK/H, Bo Danielsen 164 80 Stockholm

#### Ericsson Telecom AB, Telefonplan

##### CONTROLLER

Product Unit Access (PU Access) within Switching is now being created to meet the customers and end-users need for current and future Access solutions.

You will have a key role in the success of the Product Unit, therefore we are strengthening our competence within the area. The Access area is changing and growing rapidly. We see an increasing demand for more bandwidth, Internet, as well as support for new services. At the same time we must secure our margins by developing products at minimum cost in the delivery flow.

PU Access has more than 700 employees working within 11 Local Design Centres around the world. We are working with a small company approach which means that we take an end-to-end product and business responsibility.

● AXE-10 PRODUCTS needs someone who will work with financial analyses and follow-up of our business within the line organisation and projects.

You will also be involved with benchmarking, logistics and production costs and creating income possibilities. You are prepared to use your creativity to broaden the scope of your work area.

Your profile: Market oriented. Result, business and solution oriented.

**Contact:** Hans Gustafsson +46 8 7197803 Sirpa Björklund +46 8 719 9484 Ansökan märkt Controller: Ericsson Telecom AB Jesper Smith, PN/XC 126 25 Stockholm [jesper.smith@ericsson.com](mailto:jesper.smith@ericsson.com)

#### Ericsson Radio Systems AB, Kista

##### PRODUCT PROFITABILITY CONTROLLER

Services Solutions are an expanding business area within RMOA. Due to this expansion we need to strengthen our product controlling capabilities.

● We are looking for someone to work alongside our (M)LC's in ensuring that the information regarding the service revenues and costs are reported timely and accurately, and to prepare and present the financial results both internally, within RMOA, and within Ericsson to our most important partners. The person chosen must have very good analytical and social skills and be prepared to travel world-wide to the RMOA markets, influencing and ensuring the highest quality reporting when it comes to the financial figures.

A B.Sc. with a major in business administration (or equivalent) and at least three years within Ericsson with experience from related areas is required.

Fluency in English is required and Spanish is a plus.

**Contact:** Håkan Lindhe, phone +46 8 404 28 58, memoid ERA.ERAHLE Applications: Ericsson Radio Systems AB KI/ERA/AH/H Marianne Molin 164 80 STOCKHOLM

#### Ericsson Telecom AB, Telefonplan

##### PROJECT QUALITY COORDINATOR

Product Unit Access (PU Access) within Switching is now being created to meet the customers and end-users need for current and future

Access solutions. System managers will have key roles in the success of the Product Unit, therefore we are strengthening our competence within the area.

The Access area is changing and growing rapidly. We see an increasing demand for more bandwidth, Internet, as well as support for new services. At the same time we must secure our margins by developing products at minimum cost in the delivery flow.

PU Access has more than 700 employees working within 11 Local Design Centres around the world. We are working with a small company approach which means that we take an end-to-end product and business responsibility.

AXE-10 PRODUCTS needs

● A team member who works globally with quality analyses, statistics surveys and follow-up of goals. You will lead and evaluate risk analyses and Opportunities for Improvements.

You will have the opportunity to influence your work direction and it is an advantage if you have a quality/technical education or experience within the quality area.

Your profile Curious and open-minded. Result, business and solution oriented.

**Kontakta:** Sirpa Björklund +46 8 719 2071 Ansökan märkt PROJECT QUALITY COORDINATOR. Ericsson Telecom AB Jesper Smith, PN/XC 126 25 Stockholm jesper.smith@ericsson.com

Ericsson Radio Systems AB, Kista

## PRODUCT MARKETING, GSM CIRCUIT SWITCHING SYSTEMS

Market and Sales Support is a unit within the Product Unit GSM Circuit Switching Systems. We are responsible for product marketing and global market and sales support of the GSM Switching System. Our main task is to drive and actively support Local Companies and Marketing and Sales Organisations in the sales of switching products and solutions towards new and existing customers.

● We are now looking for a marketing and sales oriented person with a good technical understanding of the GSM switching system. One part of the work is to develop and implement product marketing strategies including everything from doing market analysis, business cases and marketing material to customer presentations. Another part is to work closely together with local companies in all phases of the sales process towards customers, i.e. actively take part in pre-tender, tender and negotiation work.

You should have a M. Sc. in Engineering, preferably including a degree in Industrial Marketing or similar\*, and at least two years experience in the area of marketing and sales or GSM Switching System. The position entails extensive contacts with Local companies and customers and you must be prepared to do some travelling. You are result oriented, creative and willing to take initiatives. Communications skills and fluency in English are important. The position is located in Kista.

**Contact:** Johan Dahlström, phone +46 8 757 2421, memoid ERAC.ERAJOD johan.dahlstrom@era.ericsson.se Application: Ericsson Radio Systems AB LX/HS Ann Beer, 164 80 STOCKHOLM ann.beer@era.ericsson.se

Ericsson Radio Systems AB

## BUSINESS INTELLIGENCE ANALYST

Business Strategy and Planning (KI/ERA/LG/S) is a unit within Business Management Europe and Africa (KI/ERA/LG). We are responsible for Business Strategy, Business Intelligence and Market Research, Market Launch and Price Management towards existing customers, within the product areas of GSM, NMT and TACS.

● The Business Intelligence (BI) & Market Research team are now looking for a person to work with BI.

We work with BI in a broad perspective covering operators, partners and endusers as well as competitors. Through the Ericsson Business Intelligence Network (EBIN), we co-operate with analysts from other parts of the Ericsson group.

As a BI analyst you will provide active input to our units for business management and business development. The position involves defining and planning of BI projects, information research, analysis and communication of results to the organisation.

The tasks require both commercial and technical competence. As a person you shall be analytical, self-motivated, outgoing and independent with strong social and communication skills, both oral and written. You have a university degree in engineering or economics and a minimum of two years experience in the tele-

com industry.

**Contact:** Per Sjöden, phone +46 8 764 16 13, Per.Sjoden@era.ericsson.se Ann-Christin Rosenholm, phone +46 8 757 35 42, Ann-Christin.Rosenholm@era.ericsson.se Application: Ericsson Radio Systems AB KI/ERA/LGHS Ingela Vikenfolk 164 80 Stockholm Ingela.Vikenfolk@era.ericsson.se

Ericsson Telecom AB

## NEGOTIATION EXPERT

Ericsson is the world's leading supplier of Intelligent Network (IN) solutions. Over 100 operators of have chosen our products of fixed and mobile systems in more than 45 countries. Thanks to our experience in the most advanced IN technology,

Ericsson's range of IN products assures an effective solutions for our customers. We will now take the next step and become the first-choice supplier of IN solutions on the world market. De-regulation, service mania and new operators will be the driving forces for a continuous business growth.

● Business & Marketing Support is one of six functional units within Global Business Management, the unit responsible for channelling the full Network Intelligence portfolio to the market.

We are responsible for such area as price strategy, product marketing information, presence at events, business intelligence and the co-ordination of NI product launches.

We are now looking for you that has been working close to the customers and have been responsible for negotiations, maybe as an Account Manager at a MLC/LC, for several years and want to retire physically not mentally to Sweden.

We are looking for you who have gone through all aspects of close customer negotiations with all the tactics and will power needed to win or the will to learn when you loose. Price strategies, sales tactics, negotiation process, how to avoid objections, how to form a selling message etc.

Your long experience in this field will now be used in your new job as negotiation expert in Sweden.

The ability to communicate well in English is a must. Some travel will be required in the co-ordination of these activities with our Product Line Entities and the marketing and sales force at Ericsson's local companies.

## PROCESS MANAGEMENT

Business & Marketing Support is one of six functional units within Global Business Management, the unit responsible for channelling the full Network Intelligence portfolio to the market.

We are responsible for such area as price strategy, product marketing information, presence at events, business intelligence and the co-ordination of NI product launches. With the unit lays also the responsibility for our processes, sales tools and methods as well as the operational system.

● We are now looking for a person that could put him/her self in the driving seat and take the responsibility of improving our ways of working.

To ensure that our operational work is in line with Ericsson's policies and follows the demands from BSI. You will participate in networks with other process responsible. You will also be responsible for the overall structure of our product marketing information and our use of sales tools. You will participate in overarching improvement projects and be responsible for that our unit adapt to new ways of working.

As a person you shall be creative, analytical, self-motivated, outgoing and independent with strong social and communication skills, both oral and written.

You have a university degree in engineering or economics and a minimum of two years experience in the telecom industry. Experience from quality work or marketing and sales is an asset.

The ability to communicate well in English is a must. Some travel will be required in the co-ordination of these activities with our Product Line Entities and the marketing and sales force at Ericsson's local companies.

## BUSINESS INTELLIGENCE

Business & Marketing Support is one of six functional units within Global Business Management, the unit responsible for channelling the full Network Intelligence portfolio to the market. We are responsible for such area as price strategy, product marketing information, presence at events, business intelligence and the co-ordination of NI product launches.

● We are now looking for some one that could

be responsible for our business intelligence activities.

We work with BI in a broad perspective covering operators, partners and end-users as well as competitors. Through the Ericsson Business Intelligence Network (EBIN), you shall co-operate with analysts from other parts of the Ericsson group. As a BI analyst you will provide active input to our units for business management and business evolution. The position involves defining and planning of BI projects, information research, analysis and communication of results to the organisation. Whith this function lays also the responsibility for our trade marks. That means, you should be our competent adviser and deal with these issues together with the LME staff functions. The tasks require both commercial and technical competence.

As a person you shall be creative, analytical, self-motivated, outgoing and independent with strong social and communication skills, both oral and written. You have a university degree in engineering or economics and a minimum of two years experience in the telecom industry. The ability to communicate well in English is a must. Some travel will be required in the co-ordination of these activities with our Product Line Entities and the marketing and sales force at Ericsson's local companies.

**Contact:** Ronne Hamerslag Manager, Business and Marketing Support Phone: +46 8 719 0442 or ECN 850 90442 E-mail: ronne.hamerslag@etx.ericsson.se or memo etx.etxham Ericsson Telecom AB HF/ETX/PN/NIB S-126 25 STOCKHOLM SWEDEN

Ericsson Radio Systems AB, Kista

Business Management New Accounts (LI) is the Kista based RMOG unit responsible for sales to major new accounts around the world excl. America and China. During the first six months of 1998 this unit was successful in capturing close to 50% of all business opportunities it was targeting. Business Support (LI/S) is the competence development department within LI. This unit thrives to deliver world class support in vital areas required to secure new business. We need to further strengthen our department in a number of areas and is currently searching for qualified individuals who like to work in a team-oriented, fast-moving and aggressive business climate.

## PRICING MANAGER

● We are looking for a person to work with operational and strategic pricing. You will be expected to perform the following activities: Tender pricing. Price comparison and analysis. Pricing and packaging of new HW and SW solutions. Maintenance of price information databases. Supporting the (M)LC's and Business Management with price strategies and general pricing questions

The ideal candidate should have a university degree and an interest in business/commercial matters.

You should also have an analytical and inquisitive mind; be able to think on your feet and enjoy working under pressure in a lively environment.

Fluency in written and spoken English is essential, as is a flexible attitude to travelling. Applicants must be prepared to travel to local companies and work there for periods of up to 3 weeks at a time.

**Contact:** Chris Houghton, phone: + 46 8 404 49 14 E-mail: chris.houghton@era.ericsson.se Gunnar Liljegren, phone: + 46 8 404 82 25 E-mail: gunnar.liljegren@era.ericsson.se

## TELECOM RESEARCHER

● This researcher supports the Telecom analysts and takes part in our marketing team in order to win new customers. The aim is to support mobile telephone operators in creating viable business plans meeting their financial objectives.

This requires involvement in the following: Research. Building a data bank with benchmarking data for mobile operators. Production of customer presentations. Computer modelling.

The ideal candidate has a minimum of 1-2 years experience in telecom marketing or finance with an outspoken ambition to develop into an analysis professional.

You have a high level of dedication and commitment to both team and personal performance and a social talent in project and customer relations.

You have a BSc in Engineering or Business Administration or similar.

**Contact:** Christian Ekström, phone: + 46 8 404 94 29 E-mail: christian.ekstrom@era.ericsson.se Gunnar Liljegren, phone: + 46 8 404 82 25 E-mail: gunnar.liljegren@era.ericsson.se

## SENIOR TELECOM ANALYST

● As a Senior Telecom Analyst you will be a part of our marketing. The aim is to support mobile telephone operators in creating viable strategies and business plans using the technology that meets their financial objectives. This requires direct involvement with telephone operator executives who are our potential or existing customers.

Your main tasks will be: Analysis of business opportunities. Support to the operator top management in the strategy development process. Analysis of financial implications on alternative strategies and environmental scenarios. Assist in fitting technology to strategy requirements

The ideal candidate has: MSc in Engineering or Business Administration or similar. A minimum of 5 years experience in business/finance analysis whereof at least 3 years in telecom analysis.

High level of dedication and commitment to both team and personal performance. Social talent in project and customer relations. Ability to lead and develop professionals. Proven ability to develop and maintain customer top management relations. Fluency in english

**Contact:** Christian Ekström, phone: + 46 8 404 94 29 E-mail: christian.ekstrom@era.ericsson.se Gunnar Liljegren, phone: + 46 8 404 82 25 E-mail: gunnar.liljegren@era.ericsson.se

## TECHNICAL MANAGER

● As a Technical Manager you will have the following responsibility: Team leader for a technical team.

Based on account managers analysis of the potential customers Strategies, identify the solution that will win the contract. Create and maintain a network of contacts.

The ideal candidate has experience as a technical manager in the C3 process. Is very experienced with GSM and knowledge about UMTS.

You have experience of customer contacts. Good understanding of the operators issues on a competitive market. You also got a general knowledge of CME 20, network design and 3rd party products.

**Contact:** Jonas Mattesson, phone: + 46 8 757 13 37 E-mail: jonas.mattesson@era.ericsson.se Gunnar Liljegren, phone: + 46 8 404 82 25 E-mail: gunnar.liljegren@era.ericsson.se

## BID MANAGEMENT

● As Bid Manager you will lead our Core 3 based bid teams (typically 10 - 15 persons) to winning offers. You are managing the bid project during the Tender - stage and are responsible for that Ericsson's bid fully satisfies the customer and covers his Request For Quotation well.

During the Tender stage you will report direct to the local New Account Manager (NAM). Hence you will be an important player in the teams that hunts for new business.

Our customers are new operators in Europe and Asia and the environment is highly competitive.

Bids may be better managed in our company. You will join in the middle of our World Class Bid Management (WCBM) program, in which we develop efficient tools and processes to get the job done at minimum effort.

The ideal candidate has a university degree and minimum 3 years of marketing in a Core 3 Marketing position is required as well as extensive experience of tender projects.

Your colleagues find you well structured and clear in your communication. You are a team builder, and know that high pressure is easier to handle with a smile.

You know delegation and follow-up by your hart.

We are working at a department with good team spirit and a stimulating high pace. You have participated in a number of tenders and are looking for next challenge. You are prepared on extensive travelling.

You find Bid Management to be an opportunity to contribute hands on to new business and to get extensive Project Managerial experience.

**Contact:** Jonas Högborg, phone: + 46 8 404 73 48 E-mail: jonas.hogberg@era.ericsson.se Gunnar Liljegren, phone: + 46 8 404 82 25 E-mail: gunnar.liljegren@era.ericsson.se Application: Ericsson Radio System AB KI/ERA/LIHA Lise-Lotte Ramneby (E-mail: lise-lotte.ramneby@era.ericsson.se) 164 80 Stockholm. In return we can promise you an exciting and challenging job in a dynamic and stimulating environment.

Ericsson Business Networks AB, Sundbyberg

## SOLUTION MANAGER - DEDICATED NETWORKS

*Dedicated Networks is the unit within Enterprise Networks, with the global responsibility to provide advanced voice- and data communication solutions for specialized applications. The main unit in Sweden is located in Sundbyberg, in the outskirts of Stockholm.*

The unit responsible for Solution and Bid Management is currently looking for a Solution Manager specializing in Networking. This position offers the right applicant the opportunity to work closely with creative solutions, based on the latest technologies, in a challenging environment.

● This is an opportunity to: get an overall understanding of telecommunications, broaden system knowledge, learn about new market- and customer segments, follow projects from initial pre-sale contacts to final acceptance.

The work involves development of telecommunication solutions with systems mainly from Ericsson.

Some of the main activities would be: support the marketing unit with expertise on concept models, perform customer presentations, support the sales unit with customer adapted telecommunication solutions during the tender process, participate in contract negotiations.

The work involves frequent contacts with external and internal suppliers and customers. Some travelling will be involved

We believe that the right applicant has a background similar to an M. Sc., B Sc. or equivalent. In addition he or she would have gained relevant generalist experience from work with customer solutions, network planning or product marketing. The experience includes general knowledge about Ericsson product- and service portfolio

We will offer our Solution Managers a training package, adapted to individual requirements.

**Contact:** Uolevi Partanen, +46 8-764 3231, EBC.EBCUAPP e-mail: Uolevi.Partanen@ebc.ericsson.se Kurt Trogen, personal +46 8-764 0811, EBC.EBCKUTR Per Svahn, personal +46 8-764 0420, EBC.EBCPSVA Application: Ericsson Business Networks AB SL/EBC/EN/H Kurt Trogen S-172 87 STOCKHOLM Sweden

Ericsson Radio Systems AB, Kista

### TENDER SUPPORT TEAM FOR NETWORK BUILD INTERNAL SALES SUPPORT

RMOG is providing cellular systems all over the world based upon the GSM, NMT and TACS standards. Within LY, Customer Services there is a unit responsible for Network Build Services. These are services for the mobile operator to help him to plan, implement or expand his cellular network.

It is a wide area of services and in some cases it means that Ericsson will take a total turn-key responsibility including Site Acquisition and Civil Works.

New customers all over the world demand Ericsson to provide these services and therefore this product area will contribute substantially to our Customer Services Net Sales.

● You will work in a Tender Support Team which will support BM units and (M)LC:s with system and service tenders during the whole tender, contracting and project establishment phase. You will support Market & Sales with the service part of the contract, initiate and enable the supply of Network Build as a part of the total Customer Implementation Project, which can be a project in any country in the world.

The Tender Support Team must also be active with internal sales support and present the Network Build concept for BM units and (M)LC:s. To perform this task well, you should be a telecom generalist with business interests.

Preferably you have some years experience of working with Telecom Network Implementation Projects. Experience from work by an Operator is of great value for the job. Project Management/Sales support/Consultancy work experience is also relevant background for this position.

You must be market/customer oriented and service minded. You speak and write English fluently.

If you are focused and task oriented, interested in creative work in a new product area, let us hear from you!

**Contact:** Alan Turner, tel+46 8 404 40 26, memoID:ERAC.ERAALTU or Robert Mathson, tel

+46 8 757 01 32, memoID: ERA.ERAROB e-mail: robert.mathson@era.ericsson.se Application: Ericsson Radio Systems AB KI/ERA/LY/HS Viveka Viklund 164 80 STOCKHOLM viveka.viklund@era.ericsson.se

Ericsson Radio Systems AB,

### MARKETING MANAGER, SYSTEMS INTEGRATION SERVICES

The wireless communications field is one of the most dynamic and expansive industries of this century. Today, Ericsson's D-AMPS/AMPS products and services support 50% of the world's wireless subscribers. New and dynamic applications such as PCS, Wireless Office, Fixed Wireless, and Wireless IP (via CDPD) are forging new frontiers within the D-AMPS/AMPS wireless world. With its strong entrepreneurial spirit, the Cellular Systems - American Standards (RMOA) business unit has established itself as a leader within the Ericsson group to meet the challenges of today and tomorrow in this dynamic wireless communications market.

Product Unit Service Solutions are responsible for the profitability of the RMOA Service solutions portfolio and includes the following functions: product management, marketing & sales support, project office & development and product deployment.

● We are working in a matrix organization with multi functional teams addressing specific business areas. We put pride in being a slim organization where the individual team members are given and taking responsibility for their team's success.

Ericsson is doing a lot of systems integration already today. What we are looking for is a Marketing Manager who understands systems integration in an open systems environment. The task will be to define the RMOA service offering in this area. And to formulate marketing messages, co-ordinate development of marketing material and manage Market Introduction to convey those messages to the market.

Your task requires commercial, legal as well as technical competence. The successful candidate will be able to translate the existing and future market requirements on systems integra-

tion services into clear, concise commercial arguments.

The position will involve co-ordination of different functions within the organization. It is therefore essential that you are outgoing, independent and self-motivated. You should possess strong interpersonal and communication skills. You should have a university degree, with a minimum of five years experience of the telecom/infocom industry. Another requirement is documented experience of open systems integration. Fluency in English is a requirement, and Spanish is a plus.

**Contact:** Stefan Jelvin, phone +46 8 404 2039, memoID: ERASJEL stefan.jelvin@era.ericsson.se Application: ERA/AH/H Marianne Molin Ericsson Radio Systems AB 164 80 STOCKHOLM

Ericsson Radio Systems AB,

### MARKETING MANAGER COMPETENCE DEVELOPMENT SERVICES

The wireless communications field is one of the most dynamic and expansive industries of this century. Today, Ericsson's D-AMPS/AMPS products and services support 50% of the world's wireless subscribers.

New and dynamic applications such as PCS, Wireless Office, Fixed Wireless, and Wireless IP (via CDPD) are forging new frontiers within the D-AMPS/AMPS wireless world. With its strong entrepreneurial spirit, the Cellular Systems - American Standards (RMOA) business unit has established itself as a leader within the Ericsson group to meet the challenges of today and tomorrow in this dynamic wireless communications market.

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We are working in a matrix organization with multi functional teams addressing specific business areas.

We put pride in being a slim organization where the individual team members are given

## Do you want to work for a company which sees no limits for communication between people?

In 1876, Lars Magnus Ericsson made his dream come true and opened his own little repair shop for telegraph equipment. Today Ericsson is a world leader in telecommunications. About 100'000 people work for Ericsson in 137 countries, but we still need some more.

If you are interested in any of the possibilities offered below, we would like you to know that Ericsson's very advanced technologies have only one objective: to make it easier for people to communicate.

Wherever they are, whenever they want.

### Marketing professionals for Switching

Marketing & Business Management (M&BM) within Switching has the responsibility for the Switching business. Switching is the largest product line unit within Infocom Systems, dedicated to lead fixed telecommunications into the Infocom era. We do this by defining and implementing product and marketing strategies. Some examples are the definition and marketing of the Next Generation Network scenario, the creation of global pricing strategies, global launches of our products and commercial and technical support to our markets.

People skills, language skills and good personality are essential attributes. Besides that we are top ranking professionals, we are also having fun!!

### Product Marketing Managers

Products and Solutions (P&S) is a product marketing unit with a technical flavour and a global perspective.

Working within P&S you will be a part of our cross-functional product marketing and sales teams where we

globally promote our different products. Other key tasks are to participate in tenders tailoring and promoting Ericsson's switching based solutions.

For a job where you benefit from and broaden your solid telecommunications skills whilst working towards the market, join Products & Solutions.

**Contact:** Claes Hagel, phone +46-8-719 85 15.

### Project Managers Marketing Communications

Marketing Communications (MarCom) has the responsibility to communicate the unique selling points in Switching's product portfolio.

Your task as Project Manager will be to manage MarCom activities together with external advertising agencies. You will put an emphasis on analysis of the strategic information needs and to choose the most effective media mix.

You should have some form of Marketing Communication education, and possibly experience from project leading at an advertising agency, or an MSc in Industrial Engineering and Management combined with an interest and experience in the MarCom area.

**Contact:** Klas Reimers, phone +46-8-719 74 66.

### Commercial Marketing Managers and Area Sales Managers

Commercial Marketing (CM) is responsible for Switching's marketing and pricing strategies as well as the implementation of them globally. Our focus is on marketing the customer value of our different business solutions.

If you like to work close to the market, take on the

challenge of implementing our new pricing strategy and support M&S on commercial issues, Commercial Marketing is the right place for you.

You should have experience from M&S preferably as Account Manager. You must have an interest in changing Ericsson's way of working towards the markets. Frequent travelling is required.

**Contact:** Anette Silvergran, phone: +46-8-719 04 62.

We are also looking for AREA SALES MANAGERS with extensive experience as Account Managers.

**Contact:** Anders Larsson, phone +46-8-719 53 01.

Send your application to:

Ericsson Telecom AB, Margareta Nordström  
TN/ETX/PN/XC, 126 25 Stockholm  
Memoaddress: ETXT.ETXMSH



## Make yourself heard.

**ERICSSON**

and taking responsibility for their team's success.

As Marketing Manager you will formulate marketing messages, co-ordinate development of marketing material and manage Market Introductions to convey those messages to the market. This also includes a responsibility for production of service/product descriptions.

Your task requires both commercial and technical competence. The successful candidate will be able to translate the detailed content of the services into clear, concise commercial arguments, which highlights the value of our Service Solutions.

The position will involve co-ordination of different functions within the organization. It is therefore essential that you are outgoing, independent and self-motivated. You should possess strong interpersonal and communication skills.

You should have a university degree, with a minimum of five years experience of the telecom/infocom industry. Another requirement is documented experience of competence development (training).

Fluency in English is a requirement, and Spanish is a plus.

**Contact:** Stefan Jelvin, phone +46 8 404 2039, memoid: ERASJEL  
stefan.jelvin@era.ericsson.se Application to: ERA/AH/H Marianne Molin Ericsson Radio Systems AB 164 80 STOCKHOLM

Ericsson Radio Systems AB, Kista

### MANAGER WITHIN PRODUCT MARKETING

During this autumn a new Ericsson company will be established in Sweden. The head quarter will be situated in the central parts of Stockholm and the operations will also take place there.

The main mission for this company is to serve and provide customers on the Swedish market with Ericsson's products and services. One of these customers is the wireless operator Euro-politan that, by many people, is regarded as a very proactive operator.

● In order to serve Euro-politan we need to hire a Manager within Product Marketing. To meet the requirements we need a person with initiative and broad competence within GSM, IT systems and telecom in general.

You will be responsible for all technical issues and regarding future business you have to define solutions and applications that will meet Euro-politan's requirements for its end users. You will also be responsible for transferring of our customer's requirements to our product units taking part in business opportunity tracing and business case analysis.

We believe you have a background working with either mobile network design, Local Product Management or within the IT area working with telecom products.

You are open minded, flexible and have good communication skills. Operator experience is a plus. We expect you to be creative and result oriented.

**Contact:** KI/ERA/LG/YC Johan Nylund, phone +46 8 757 16 10, TN/ETX/PN/HR Pia Bernmark, phone +46 8 719 91 41, Application: Ericsson Radio Systems AB, LGHS Ingela Viken-falk, 164 80 STOCKHOLM

Ericsson Radio Systems AB, Kista

### MANAGER ADVERTISING AND SALES PROMOTION

The wireless communications field is one of the most dynamic and expansive industries of this century.

Today, Ericsson's D-AMPS/AMPS products and services support 50% of the world's wireless subscribers.

New and dynamic applications such as PCS, Wireless Office, Fixed Wireless, and Wireless IP (via CDPD) are forging new frontiers within the D-AMPS/AMPS wireless world.

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

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

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

We are part of a dynamic department in an exciting business unit and an explosive industry and as such have a high profile role in a fast moving and creative environment.

As manager of Advertising and Sales Promotion you will manage the project flow, execution, development, and budgeting of RMOA's advertising and sales promotion and support activities world-wide. You must be able to work effectively in a cross cultural environment as co-operation and collaboration with diverse local companies is an important aspect of the position.

Ideally you have experience within Ericsson and an MIM/MBA or equivalent. Knowledge of D-AMPS products/services and customers and/or the wireless industry is a plus.

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

**Contact:** AM/IC Donya Ekstrand, ERA.ERADONY, Phone: +46 8 404 4848 AH/H Henrik Bergkvist, ERA.ERAHENB, Phone: +46 8 404 73 32. Application: In English to AH/H Henrik Bergkvist, Ericsson Radio Systems AB 164 80 STOCKHOLM

Ericsson Radio Systems AB, Kista

### PRODUCT MANAGER - HOME ZONE SOLUTIONS

Within RMOG we are responsible for Strategic Product Management at the Product Unit Circuit Switching Systems (CSS).

● We need a product manager who can take the total responsibility for Home Zone Solutions. Home Zones will be used by the operators for service differentiation and is expected to be the next killer application.

You will be responsible for the solutions total profitability during the life cycle in accordance with set profitability goals. You will for instance analyze operator's need and translate these to commercial product offerings and keep the market and sales organization with the information needed for a successful market launch.

You will have contacts with several different parts within Ericsson: systems management, design, marketing and sales, product management, local companies etc.

The required expertise and skills are: Business oriented and result oriented. At least 3 years experience working with related areas (either technical or economy/marketing). Good communication skills. M.Sc., B.Sc. or comparable experience. The person we are looking for is self-motivated, ambitious, out-going and mature.

**Contact:** Peter Johansson +46 8 757 3453, memo id ERAC.ERAPJOH Application: Ericsson Radio Systems AB LX/HS Ann Beer 164 80 STOCKHOLM

Ericsson Business Networks AB, Datacom Networks and IP Services, Nacka Strand

### PRODUCT MARKETING MANAGERS

For Service and Network Management, Datacom Network and Internet. A challenging future. A strong technical concept. The small company approach but still with the big company resources. Work carried out in teams but individual responsibilities. Close to market. Business oriented.

These are some of the keywords describing our Business Unit - Datacom Networks and IP Services.

Business Unit Datacom Networks and IP Services has recently announced the Multiservice Management Suite, a family of integrated applications for Service and Network management of our Datacom network offerings. As our growth continues, we now seek to enhance our Product Marketing Management team within this area.

● As a Product Marketing Manager your responsibilities will be to drive the definition, positioning and packaging of our management offerings. This includes collecting and analyzing requirements, defining the road map for future developments and generating business cases to support the development of both new products and enhancements to existing products.

You will also make customer presentations and support introduction of new products and solutions. In this role, you will be working closely with customers, Ericsson Local Companies, internal and external development organizations and Ericsson partners.

We look for you who are innovative, professional and business oriented as well as having good communications and co-operation skills. You should be familiar with industry trends in both the Datacom industry and the network management area and have a genuine interest in

developing and improving products and solutions with a focus on customer satisfaction.

You probably have an Engineering degree and/or a Business degree and experience from the Service and Network Management industry.

**Contact:** Tomislav Migotti, +46 8 42 20135, e-mail: Somislav.migotti@etx.ericsson.se Application: Ericsson Business Networks AB, NA/EBC/DN/H Lotta Josefsson, 131 89 Stockholm, Sweden

Ericsson Radio Systems AB, Kista

### PRODUCT MANAGER, PACKET SWITCHING SYSTEMS

Product Group UMTS Packet Switching Systems has the mission to provide profitable and competitive UMTS packet switching products to mobile operators all over the world.

The unit has bottom-line product responsibility, and consists of product management, system management and design departments. UMTS packet is about bringing together two of the most exciting and fast-growing areas of technology: wireless communication and Internet based services.

● We are now in the process of building up the Product Management unit and are looking both for market and technically oriented persons. Product Management involves having an active customer dialogue in order to identify product requirements and business opportunities, as well as market the product.

Taking part in tender and negotiation work is also included.

Another important part of the work is to define product strategies, product plans, and ordering of development work. Since the UMTS standard is not ready yet, setting directions for and participation in standardisation is essential.

You have an M.Sc degree or equivalent, and experience of product (or system) management in the field of telecom and/or datacom. You are business- and result oriented, and an excellent team player. Good communication skills and fluency in English are also important. The position is located in Kista.

Welcome with your application via e-mail.

**Contact:** Carl Lundquist +46 8 4043593 carl.lundquist@era.ericsson.se Application marked Product Manager, UMTS Packet Switching Systems: bo.danielsen@era.ericsson.se Ericsson Radio Systems AB KI/ERA/LK/H, Bo Danielsen 164 80 Stockholm

Ericsson Radio Systems AB, Sundbyberg

### SENIOR PROJECT MANAGEMENT CONSULTANT

● Would you like to be the Manager of a new support unit "Project Management Competence Support" at LZ, RMOG Implementation Services in Sundbyberg?

As Senior Project Management Consultant you will head a group of five experienced project managers and your task is to support customer projects in project management issues.

Your previous experience from projects in Sweden and abroad will be of great value but also your ambition to create new methods to support customer projects to a successful result.

As Senior Project Management Consultant you will lead the unit to: assist the management of customer projects within RMOG to carry out projects to the customers satisfaction and as cost efficiently as possible. follow up customer projects in different parts of the world. assist to find temporary project leaders in cases of emergency. organise and carry out conferences for project managers. suggest measures to strengthen the competence of project management at (M)LC.

You will also be responsible for the further development of the unit and to create good relations with the (M)LC:s and other organisations responsible for customer projects.

We expect that you have an academic education, good knowledge of mobile telephone systems and are fluent in English. Training courses within Ericsson, knowledge of management and other foreign languages is an asset. 3 - 5 years of project management and implementation of customer projects abroad will help to qualify. Of course you easily co-operate and adjust to different and unusual working environments. Your leadership skills are excellent!

### FIVE PROJECT MANAGEMENT CONSULTANTS

● Would you like to join a new support unit "Project Management Competence Support" at LZ, RMOG Implementation Services in Sundbyberg?

As Project Management Consultant you will be a member of a group of five experienced pro-

ject managers and your task is to support customer projects in project management issues.

Your previous experience from projects in Sweden and abroad will be of great value but also your ambition to create new methods to support customer projects to a successful result.

As Project Management Consultant you will: assist the management of customer projects within RMOG to carry out projects to the customers satisfaction and as cost efficiently as possible. follow up customer projects in different parts of the world. temporarily act as project leader in cases of emergency. organise and carry out conferences for project managers. suggest measures to strengthen the competence of project management at (M)LC.

We expect that you have an academic education, good knowledge of mobile telephone systems and are fluent in English.

Training courses within Ericsson, knowledge of other foreign languages and experience of management is an asset. 2 - 3 years of project management and implementation of customer projects abroad or in Sweden will help to qualify.

Of course you easily co-operate and adjust to different and unusual working environments. Your leadership skills are excellent!

**Contact:** Göte Åkerman, phone +46 8 757 11 01 gote.akerman@era.ericsson.se Mats Ulfgren, Human Resources, phone +46 8 764 13 49 mats.ulfgren@era.ericsson.se Application: Ericsson Radio Systems AB SG/ERA/LZ/HS Anna Häger 164 80 STOCKHOLM anna.irving-hager@era.ericsson.se

Ericsson Radio Systems AB, Sundbyberg

### REGIONAL RESOURCE MANAGER

● The main task for the Regional Resource Manager (RRM) are to analyse and forecast the need for resources and competence in the European region and actively support sharing and exchange of resources between (M)LC's to facilitate efficient resource utilisation. The RRM will support the described tasks within following service areas:

Switch Site Implementation. Radio Base Implementation. Network Integration & Verification.

Major work areas are as follows: To compile resource requirements and resource status for the region and maintain an updated database of qualified candidates. On a day to day basis assist the (M)LC's resource requests, trying to match available resources against needs. In close co-operation with (M)LC's obtain information about current and future resource situation in various markets. To establish and maintain a register of major sub-contractors in the region.

Qualifications: Sound business competence and a good knowledge of the market situation in the region. Solid operative experience from implementation services in various positions. Established network within the company. Strong communication skills both oral and in writing. Administrative and report writing skills.

Personal skills: To be successful in your position you need a lot of drive and determination combined with a flexible and open-minded attitude.

You must also have the ability to work with people of many nationalities and in various positions. Last but not least - a good sense of humour.

**Contact:** Mats Ulfgren, phone +46 8 764 13 49 e-mail: mats.ulfgren@era.ericsson.se Memoid: erac.eramun Application: Ericsson Radio Systems AB LZ/HS Anna Häger 164 80 STOCKHOLM

Ericsson Business Networks AB, Nacka Strand

### PROJECT LEADER, INTERNAL RELATIONS

Ericsson communications solutions for enterprise networks combine and improve advanced ways of exchanging information via voice, data, video and evolving future media. This requires a true understanding of how businesses and professionals interact - an understanding that goes far beyond meeting just the technological requirements.

Our customers include owners of small to large enterprise networks, local as well as multinational.

We also offer solutions for Internet service providers. We deliver quality of service over converged networks.

We provide staff with full onsite and offsite mobility. We integrate computer and telephony applications on the desktop.

We enable coordination of all business interactions over the media of choice. In essence, we help businesses forge enduring relationships with customers.

● Together with our Manager for Press & Internal Relations, you will take responsibility over defining and mapping our business unit's specific internal information needs and audiences; create, develop and implement current and new information channels and media, initiate and coordinate local and global information meetings and provide editorial management to all appropriate media.

You should possess a University degree in Communications, Marketing or closely related discipline, including excellent practical knowledge of communications processes, channels and media.

Your editorial skills are effective and to the point. Fluency in English, both in speech and writing, is a must. You have a high degree of independence, paired with affinity to work in teams.

You should be familiar and comfortable with technical and constantly changing environments.

**Contact:** Caroline Freudenthal, phone no +46 8 422 2089, memo EBC.EBCFREU or Susanne Pettersson (Human resources), phone no +46 8 422 0102, memo EBC.EBCSP. Application: Ericsson Business Networks, NA/EBC/EN/H Susanne Pettersson, 131 89 STOCKHOLM.

#### Ericsson Telecom AB, Telefonplan

It is our responsibility to develop the worlds most cost-effective and profitable ISDN Basic Access linecards for Access 910, the new multi-service access node for AXE.

We are now looking for experienced designers, to help us meet the challenges we are facing in the digital access area. Our designs are characterized by performance, integration and high quality combined with low cost. To support this we have modern development tools and a well equipped lab.

#### HARDWARE DESIGNER

● You will be working with design of ISDN and other HW products, including analog and digital design, schematics and board layout preparation, prototype and design verification and verification tools. All phases of design work are included, from prestudies to product release.

We expect that you have experience from electronic circuit design, preferably modern mixed digital and analog transmission products, as well as experience from drawing schematics, preferably with Cadence Concept, and board layout preparation.

You know the art of designing for productivity. Software design competence or subproject management experience is a plus. You are result oriented and quality minded. You work well both in teams and on your own. You communicate easily in English, both verbally and in writing.

PU Access has more than 700 employees working within 11 Local Design Centres around the world. We are working with a small company approach which means that we take an end-to-end product and business responsibility.

**Contact:** Fredrik Staaf  
fredrik.staaf@etx.ericsson.se +46 8 719 8781 Application marked HARDWARE DESIGN: Jesper Smith TN/ETX/PN/XC 126 25 Stockholm jesper.smith@etx.ericsson.se

#### Ericsson Telecom AB, Telefonplan

##### REALTIME SOFTWARE DESIGN

It is our responsibility to develop the worlds most cost-effective and profitable ISDN Basic Access linecards for Access 910, the new multi-service access node for AXE.

We are now looking for experienced designers, to help us meet the challenges we are facing in the digital access area. Our designs are characterized by performance, integration and high quality combined with low cost. To support this we have modern development tools and a well equipped lab.

#### HARDWARE RELATED SOFTWARE DESIGNERS

● You will be working with design and debugging of realtime systems, based on C/C++ and assembler. Currently we are using 68k microcontrollers from Motorola, ENEA OSE realtime OS and high level debuggers and emulators from Lauterbach.

We expect that you have experience from hardware related C/C++ design and debugging on hardware using emulators and other instruments.

You are result oriented and quality minded. You work well both in teams and on your own. You communicate easily in English, both verbally and in writing. Knowledge

in SDL/SDT and/or subproject management experience is a plus.

PU Access has more than 700 employees working within 11 Local Design Centres around the world. We are working with a small company approach which means that we take an end-to-end product and business responsibility.

**Contact:** Anders Herranen  
anders.herranen@etx.ericsson.se +46 8 719 7265 Application: Jesper Smith TN/ETX/PN/XC 126 25 Stockholm  
jesper.smith@etx.ericsson.se



## WHO HAS ERICSSON'S MOST COMPLETE LINE OF *CompactPCI*® PRODUCTS?

#### ERICSSON ACCOUNT TEAM:

##### WORLDWIDE STRATEGIC SALES MANAGER

Rob Davidson  
USA Headquarters

Tel: +1.805.782.4500  
Ext. 6033

E-mail:  
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##### SWEDEN

Dennis Norlin

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##### USA EASTERN REGION

Tim Whelan

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tim\_whelan@ziatech.com

CompactPCI is a registered trademark of the PCI Industrial Computer Manufacturers Group.

## international

#### Ericsson Radio Systems AB, Puerto Rico

#### RBS ENGINEER

● We are looking for an RBS Engineer to work in our facilities in San Juan, Puerto Rico.

The RBS Engineer will be responsible for modules C,I, documentation, Switch DT inserts, coordinate activities with the customer and engineering personnel supervision.

QUALIFICATIONS: Hold an B.A. in Electrical Engineering, 3 to 5 years experience, Knowledge of Ericsson portfolio

JOB FUNCTIONS: Knowledge of 882 and 884 radio bases STATIONS. Basic knowledge of cell planning. Basic knowledge of IOG and AXE SWITCH.

Experience in CDD(CELL DESING DATA)creation for 882 and 884 RBS's. Knowledge in Data Transcript. Experience in Switch data loading. Knowledge in Ericsson's elaboration rules documentation.

This position requires that you are solution-oriented, have the initiative to make decisions, professionalism,perseverance, fluent in English and Spanish and a good sense a humor are other factors that we appreciate in this young company.

**Contact:** Sergio Sequeda (EPR.EPRSEE) Professional Services Director, or Carmen Nadal (EPR.EPRCLNR)Human Resources Administrator

Application: Ericsson Caribbean 654 Munoz Rivera Ave., Suite 1910, San Juan, P.R. 00918-4141

#### Ericsson Telecomunicações Lda, Portugal

#### GSM SWITCHING SYSTEM SUPPORT ENGINEER

Ericsson Telecomunicações in Portugal is supplier of all three GSM operators.

● At our FSC you will have the opportunity to work with new GSM products and features in the Switching System. We offer a Long Term

Hot Swap Ready

Power Supplies  
CPU Boards

CUSTOM BACKPLANES

Enclosures  
Peripherals

Software Support

DEVELOPMENT TOOLS

- The company that authored the standard.
- The company with the most expertise.
- The company that leads the industry in implementation.
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- The company with the best hardware, software and technical support.

In other words: Ziatech.

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**ZIATECH**  
CORPORATION

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Contract, starting ASAP, in a good working environment with attractive conditions.

**Job description:**

- Trouble Report handling, preparation and implementation of SW and HW updates/upgrades (new AS releases, SW correction packages).

- participation in the Emergency service by being part of the On-Call team, provide Consultation service to our customers,

- Troubleshooting of SW faults on/off site, testing and demos of new features and services.

Qualifications: The applicant must have a minimum of 5 years experience working with the CME20 Switching System (MSC/VLR/HLR), preferably with Customer Support.

Good knowledge of IN (SCP/SSF) is a clear advantage but not mandatory.

The candidate must have a good SW troubleshooting experience and skills, and must be experienced in the handling of emergency situations.

Good knowledge of spoken and written English is essential. The applicant must be flexible, have initiative, good communication skills and be able to work under pressure. Customer and team oriented with capabilities to transfer knowledge to the local staff.

**Contact:** Carlos Ferreira, Memold SEP.SEPCAF, FSC Manager or Luiz Ofner, Memold SEP.SEPLOF, Customer Services Director.

Ericsson Telecommunications, Inc. Manila, Philippines.

The GSM FSC in Philippines has a vacancy for a

### BSS SENIOR SUPPORT ENGINEER

● The main responsibilities for this position are: Be able to work towards a Nokia MSC. Be able to deal with inter-system (BSC-MSC and BSC-BTS) problems. - Be able to test/demo/implement new features/services. Be able to perform trouble-shooting activities on/off site. Be

able to perform HW/SW upgrades such as: APZ upgrades/AS changes/AC-A's/CN-A's/EC-A work. Participate in an "on call" rota, dealing with emergency situations. Trouble report handling. Be able to provide a "Transfer Of Knowledge" to local staff.

The competence requirements are: CME20 experience with a minimum of two years working on BSS Subsystem, preferably in Customer Support, but applicants with testing/verification experience will also be considered.

Strong knowledge of Test System and ability to trouble-shoot software problems.

Familiarity with RBS 2000 series is essential.

Experience of APZ stoppage handling. Knowledge of MHS

The applicant should be both flexible and be able to work under pressure that will be applied by a demanding customer.

The successful applicant will be based on the island of Cebu, in the central Visayas region of the Philippines.

Travel to the main HQ in Manila will be occasionally demanded. Good knowledge of spoken and written English is essential.

The contract offered will be for a minimum of one year with a possibility of an extension. Contract start date will be November 1998

**Application:** Michael Kelly, ENP.ENPMPK

### Nippon Ericsson K.K Japan

Work with the next generation Broadband Wireless Technology: W-CDMA!

Japan is in the frontline of W-CDMA development and Ericsson is committed to be a key-player in this market.

We are building up the team to make this happen. Join us for a great and exciting market environment!!

Nippon Ericsson, Mobile Phones and Terminals is building up a team willing to take responsibility for the success of the next generation Mobile Phones.

### PRODUCT MANAGER

● You will be responsible for the definition and specification on the MMI for the W-CDMA terminals product line. Some of the main responsibilities will include:

Competitive analysis of user and MMI of competitor phones to improve overall MMI quality. Define MMI functional specifications based on human engineering science and principals of user friendliness. Develop MMI SW specification to ensure that customer requirements are met or exceeded.

Requirements: High knowledge of the Telecommunication and Computer Industry. Knowledge of SW Systems. Fluent in English. Professional experience of User Interface Industry. Engineers Degree, MBA or Human Factors M. Sc., or similar preferred in a technology related field

**Contact:** Elena Neira, phone: + 81 908 621 620 E-mail: elena.neira@ericsson.co.jp Karin Enberg, (HR) phone: + 81 (03) 3222 4710 E-mail: karin.enberg@ericsson.co.jp

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### W-CDMA PRODUCT MANAGER

● You will be managing the product planning for the first W-CDMA mobile phone/terminal and its accessories. Some of the main responsibilities will include:

- Ensuring that our business operation fulfil the objectives decided in the Ericsson Strategic Plan by defining and implementing product strategies and product plans for the Japanese market.

- Manage products for full product life cycle including profit and loss.

- Develop product business plan, including product positioning and segmentation.

- Develop product goals, objectives and estimates for product life cycle.

- Analysis of customer segment and needs.

Requirements: High knowledge of technology and business trends. Very high knowledge and proven work experience of RF, particularly of the CDMA Air Interface. Fluent in English. Engineers Degree, MBA or similar preferred in a technology related field. Some years of professional experience in the Wireless Industry. One year Product Management of Product Marketing experience.

**Contact:** Elena Neira, phone: + 81 908 621 620 E-mail: elena.neira@ericsson.co.jp Karin Enberg (HR) phone: + 81 (03) 3222 4710 E-mail: karin.enberg@ericsson.co.jp

Ericsson Eurolab Deutschland GmbH, R&D centre in Herzogenrath, near Aachen in Germany offers the following job opportunities. The system house AXE Mobile Core (AMC) is looking for a

### PROCESS ENGINEER

● The main responsibilities are the improvement of work processes within the AMC organization and monitoring the usage of the AXE 108 methods in projects. The position is located at Ericsson Eurolab Deutschland GmbH, Herzogenrath, and reports to EED/U/OQC.

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

# Do you want to work for a company where change is constant?

*The global Supply organization within Ericsson's Business Area Mobile Systems, located in Kista, leads the development of Supply Chain Management. The organization includes experts in various fields, such as business development, operational development, logistics and contract management. The Business Development department and the department for Operations and Logistics are searching for highly qualified people who could contribute to the transformation of tomorrow's supply chain.*

## Business Development – Senior Adviser

Our focus is to transform from component suppliers to system suppliers, from HW-suppliers to SW-suppliers. This will create new business opportunities for Ericsson and for our suppliers.

The position will include involvement in some of the following areas:

- Outsourcing projects
- Vendor-related mergers and acquisitions
- Partnership development
- Internal business consulting

Your key strengths are your ability to understand complex business situations and to manage general business projects. You have approximately 10 years of relevant experience.

## Operational Development – Adviser

The position will include involvement in some of the following areas:

- Project management: operational development
- Vendor assessment
- Project management: IT-tools
- Process development

You have experience from procurement or operational development, preferably from the Ericsson Group. Your key strengths are an ability to and interest in understanding and developing organizations. You have 5 years of relevant experience.

## Program Manager

This position will involve you in the following areas:

- Developing our strategic and operational relation with the supplier
- Being commercially responsible – which means coordinating and finalising negotiations and agreements
- Being the keyperson in relations between Business Area Mobile Systems and the supplier

You are a businessman with a high degree of integrity and at least five years' commercial experience. You should have a sound knowledge of logistics and relevant experience in the electronics industry.

If you have the right qualifications for the above positions, we can offer you a challenging job in a

dynamic environment in one of the most interesting areas in the world: Supply Chain Management within the fast growing telecom industry.

*For further information please contact:*

*Business Development:* Per Kågebjær, tel 070-677 66 67

*Operational Development:* Per Kågebjær, tel 070-677 66 67  
Håkan Birell, tel 08-757 20 85

*Program Manager:* Bo Österberg, tel 08-404 58 43  
Mats Dérans, tel 08-757 38 36

Please send your application no later than September 25, 1998, marked with the position you are applying for, to:

Ericsson Radio Systems AB  
F/HSS Mari Skoglöf, 164 80 Stockholm



# Make yourself heard.

**ERICSSON**



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

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

**Contact** latest 981015: Human Resources Simon Seebass, Memo-Id: EED.EEDSIMS, Dial: +49 2407 575 163 or Manager Methods & Quality AMC Andreas Bleeke, Memo-Id: EED.EEDANB, Dial: +49 2407 575 394

**Our AXE Mobile Core (AMC) system groups need additional**

### PC-XSS SUPPORT

● The AMC system groups are responsible for the system development of the core products used commonly by all Ericsson's digital mobile systems ie. CME20 (GSM), CMS30 (PDC), CMS40 (PCS) and CMS88 (D-AMPS). Running PC-AXE 106 Mobile, PC-XSS 210 25 as well as overall technical coordination of the projects in AMC are responsibility areas of the system groups. To be able to handle all the responsibilities assigned to PC-XSS, there is a need to involve one additional person that could support the chairman, and in the long run take over the responsibility for PC-XSS.

PC-XSS is an inspection forum, and the purposes are to: Maintain XSS (APT) system properties and structure. Ensure that uniform solutions are implemented in XSS. Handle allocation of functionality to products. Act as a decision making body when a number of PC-ANTS cannot come to a common decision. Handle allocation of functionality to products.

We are looking for an AXE software designer with 2-3 years experience, who is interested in developing the overall system competence and is interested in leading and driving an inspection forum. As a suitable candidate you have good communication and cooperation skills, and are able to understand complex technical problems.

**Contact:** Human Resources Simon Seebass, Memo-Id: EED.EEDSIMS, Dial: +49 2407 575 163 AMC System Kristina Martelius, Memo-Id: EED.EEDNKA, Dial: +49 2407 575 692

*The System House GPRS (EED/D) is responsible for the successful development of products and applications for the GPRS bearer service. The unit Product & Operations (/D/P) just recently got the assignment to build up the Central Configuration Management (CCM) for Ericsson's GPRS products. For this ambitious task we need your help. We are looking for a*

### CONFIGURATION MANAGER

● who will enable us to secure, enhance and extend our current configuration management activities in the areas of: Development Environment (ClearCase, imake). Software/System Builds. Integration of PRIM/GASK/Trouble Reporting Tools. Trouble Report Handling (Introduction of ClearDDTS).

As a technical CM you need a good understanding of software version control, UNIX and Makefile systems. Knowledge of ClearCase and/or imake is an asset.

The department and Human Resources will support you in all areas needed. You need to bring initiative, very good communication and cooperation skills as well as a good ability to work under pressure.

**Contact** latest 980928: Human Resources Simon Seebass, Memo-Id: EED.EEDSIMS, Dial: +49 2407 575 163 EED/D/PC Stefan Eissing, Memo-Id: EED.EEDSTE, Dial: +49 2407 575 159

Ericsson Data Malaysia

### SAP R/3 CONSULTANTS ASIA PACIFIC

● Ericsson Data in Malaysia looks for experienced SAP R/3 Consultants to be the key players in building the Ericsson SAP Competence Centre in the Asia Pacific region.

We believe that you have worked as a Business Consultant, Project Manager or Applications Consultant in the SAP R/3 area for a few years and feel it is time for a true challenge (probably) far away from your current

workplace. With your background we expect you to have a broad and deep knowledge about R/3 and that you have the ability to share your knowledge with others.

We also expect that you are a person that, get things done, work very well with other people (as well as on your own) and enjoy working in a demanding but positive environment. That you are fluent in English and prepared to travel.

You will be working in three main areas : SAP R/3 implementation projects. Competence development of others. Establishment of the Ericsson SAP Competence Centre in Asia Pacific.

The placement of the positions will be in Kuala Lumpur in Malaysia. Are you interested ?

**Contact:** Mikael Hansson on mobile +46 70 591 73 02 or email mikael.hansson@edt.ericsson.se Memo ID: EDT.EDTHAMI Or Björn Taube on mobile +46 70 662 03 45 or email bjorn.taube@edt.ericsson.se Memo ID: EDT.EDTBJTA Or Wong Pooi Yin on phone +603-7087112, email ecmwpy@xchg.emy.ericsson.se Memo ID: ECM.ECMWPY

### Nippon Ericsson K.K Japan

*Work with the next generation Broadband Wireless Technology: W-CDMA !*

*Japan is in the frontline of W-CDMA development and Ericsson is committed to be a key player in this market. We are building up the team to make this happen. Join us for a great and exciting market environment !!*

*Nippon Ericsson, Mobile Phones and Terminals is building up a team willing to take responsibility for the success of the next generation Mobile Phones.*

### W-CDMA IMT 2000 STANDARDS & SPECIFICATION ENGINEERS

● In order to enable product managers to specify phones and terminals correctly and act as interface for understanding the cellular phone services of today and in the future your main responsibilities will include:

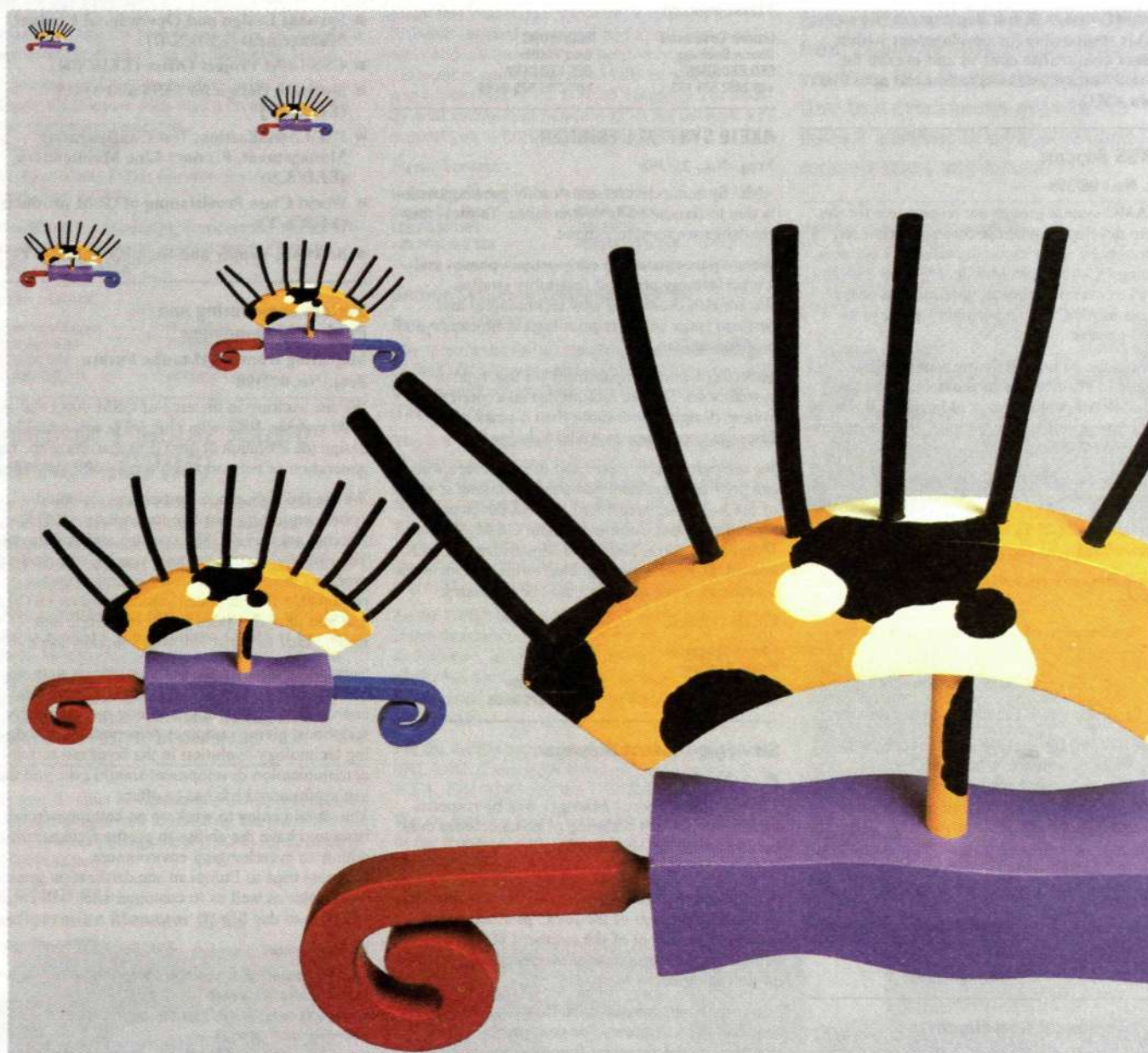
- Coordinating the IMT 2000 standards. Standardization Work.

- Operators requirements and system specifications.

You will be working in close cooperation with the Ericsson main standardization group, by participating in meetings. You will report standardization changes and recommend adaptations in the terminal product planning work. You will also participate in meetings with operators in order to understand their services and network plans, and how to use the new features in the network.

Requirements: M.Sc or B.Sc in telecommunications, E.E. or similar. Good knowledge in Radio Communications and CDMA Air Interface. Good communications skills. Japanese national. Flexible and open minded. Fluent in English and Japanese, both written and spoken. Familiar with PC environments and their related applications. Ability to travel. Preferably 3 years work experience in CDMA. Experience in telecommunications SW and HW.

**Contact:** Elena Neira, phone: + 81 908 621 620 E-mail: elena.neira@ericsson.co.jp Karin Enberg (HR), phone: + 81 (03) 3222 4710 E-mail: karin.enberg@ericsson.co.jp

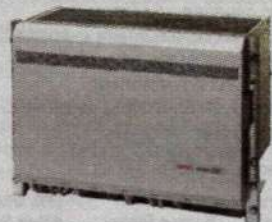


*How can you bridge the gap in your access network?*

The new UMUX 1500 bridges the gap in your access network. UMUX 1500 extends the flexible UMUX platform from the end customer to the transport network, permits seamless expansion with SDH technology, offers V5.x services and increases the capacity and flexibility of your infrastructure. What's more, UMUX 1500 can be equipped with the full range of UMUX interfaces, allowing you to configure your access and transmission network according to your individual needs. And when it comes to making new services available to your customers, UMUX does this quickly and efficiently using the existing network infrastructure. To find out more about how the UMUX 1500 can bridge the gap to your end customers, contact Ascom Transmission Ltd, Belpstrasse 37, CH-3000 Berne 14, Phone +41 31 999 13 03, Fax +41 31 999 18 74, E-mail martin.ueltschi@ascom.ch, Internet www.ascom.ch/transmission.

Ascom Transmission Ltd is a partner of Ericsson in the field of carrier access.

Ascom is an internationally active Swiss telecommunications and service automation group, with 12 000 employees worldwide.



**ascom** *thinks ahead*



## FROM THE PAST



The test car, with its large antenna on the roof, attracted a great deal of attention when it appeared on Kungsgatan in Stockholm.

# A bulky mobile telephone

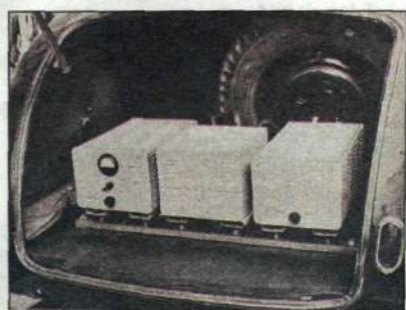
Fifty-five years ago, in 1943, during the height of World War II, Ericsson unveiled one of the first mobile telephones.

It was manufactured by LM Ericsson in cooperation with Swedish Radio AB and was made to specifications proposed by the police radio committee.

The experience of both foreign and Swedish military stations was taken into consideration when designing what would be considered very bulky equipment by today's standards. The telephone was unveiled to certain invited guests including the telegraph commission, the police and the air defense service.

### Took up lots of space

More or less the entire trunk of the demonstration car was filled with the



More or less the entire trunk of the car was filled with the transmitter, power supply and receiver.

equipment, including the FM system's transmitter, power supply and receiver.

A large antenna was placed on the roof of the car and, inside the car, the telephone handset was mounted directly on the dash-

board. Tests went very well and were a great success. The government authorities involved were delighted.

### Received orders immediately

Orders soon arrived from Norrköping, Helsingborg, Linköping and Karlstad. Orders from the largest Swedish cities followed soon afterwards.

This is yet another example of how important it is to be involved at the beginning and to be the first, or one of the first, with new solutions that can later grow into something really big.

Thord Andersson

thord.andersson@ebc.ericsson.se

Source: LM Ericsson customer newspaper Impulsen, issue number 2, 1943.

## A letter to the editor arrived...

...from Fiona Macadam in Inverness, Scotland.

Fiona is a devoted collector of old telephones, and not long ago she received an old Ericsson telephone as a present from her husband. Now she has written to Ericsson in order to find out more about this treasure, which is the oldest telephone in her collection. She also informs us

that she is the proud owner of an Ericsson mobile telephone.

It is our hope that Contact readers can assist Fiona Macadam with her questions.

Does anybody know how old the telephone is, what the model name is, how many were manufactured, and so on? The numbers 567968 are printed on the bottom of the telephone.

There is also an ear-piece, belonging to the telephone, which is not shown in the photo.

Do you know anything about this telephone? If so, please contact the editor. There is a telephone collector in Scotland who would be very happy.

Lotta Muth

lotta.muth@lme.ericsson.se



## UPCOMING

**October 5-9:** Internet World Expo in New York. Several Ericsson units will take part and the company will show its Zopps Project.

The new Swedish company is looking for new premises for about 400 people in the Stockholm area. The company plans to be operative at the beginning of 1999.

New employees can now subscribe for convertibles under the terms of the Ericsson offer.

## UPDATES

Ericsson recently inaugurated its new premises in Tallinn, Estonia, amid due pomp and ceremony.

Following the tragic crash of Swissair flight 111 off the coast of Nova Scotia recently, Ericsson Canada contributed extra equipment to strengthen the mobile telephony network in the area and thereby help the work of rescuers.

Ericsson is working with The Children's Wish Foundation in Canada through the company's Hot-Air Balloon program.

<http://www-ca.emc.ericsson.se/>

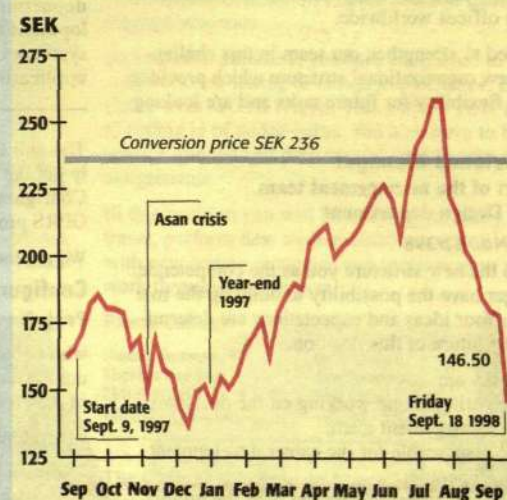
## NEW ASSIGNMENTS

Roland Sjöö has been appointed Millennium Controller reporting directly to Ericsson's CEO, Sven-Christer Nilsson. His task is to ensure that the millennium shift will have a minimal impact on Ericsson's customers.

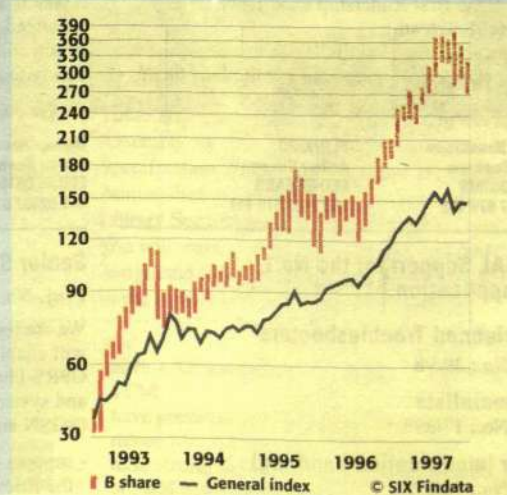
Per Olof Sjöstedt has been appointed new President of Ericsson Russia. He succeeds Yngve Redling, who has been named Regional Director, Western and Central Europe for the parent company unit, Corporate Markets.

Lars Lindén has been named new President of Ericsson Uruguay. Previously Marketing Manager for Ericsson Telecom's Latin American unit and for Ericsson Mexico, Lindén replaces Peter Axell, who is returning to Sweden.

## THE ERICSSON B SHARE



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





**THIS IS HOW WE USE IT**  
**LOTS OF TIPS PAGES 9-14**

# ACCESS

SEPTEMBER 1998

**SMARTEST  
ON THE WEB  
PAGE 16**



**BLUETOOTH**  
**CUTS THE CORD PAGE 6**

# TIMES ARE CHANGING CONNECTED GET

Ericsson's aim is to be world-class in the use of information technology (IT). World-class in using IT as sales support, in increasing efficiency through IT, in pioneering the use of our own IT products and, when necessary, those of others. World-class in surprising and inspiring our partners and customers.

For this reason: Use the Net! Make the Web a part of your workplace: electronic calendar etc. Upgrade your software! Think about how you can make IT a full partner during your workday – and what that might mean to Ericsson.

Ericsson, the IT and Internet company, should “take its own medicine.”

We are doing this because we have to – if we are to be competitive.

This autumn we must start adopting best practices. The only way to prevail in these times of change is to learn more about IT, to use more IT tools.

Access, Ericsson's well-established IT magazine, will be one of the instruments of this change. The way Access is being produced, in a global, virtual network including

Web distribution in several languages, also sets an excellent example.

We are now expanding its scope and making Access even better.

World-class in reporting on Ericsson's goal: that anyone or anything should be able to reach anyone or anything – at any time, any place, by any means – offering real-time ease of use and flexibility.

World-class in reporting on Ericsson's move toward information-based products and services, from telecom to a convergence of telecom and datacom.

But Access cannot be world-class without your help! Send all your tips, comments and contributions to

*[access.access@edt.ericsson.se!](mailto:access.access@edt.ericsson.se)*

**ROLF SKOGLUND**

*CIO LM Ericsson AB*

*Member, Access Advisory Board*



# NOW

# WIRELESS FUTURE

## TELEMETRY LETS DEVICES TALK TO EACH OTHER

A GSM phone will send data signals when your copier is low on toner. GSM phones will be installed in alarm systems, cars, trucks, and freight containers. They will send status information to central computer systems, making it easier to control operations.

Sweden's largest telecom operator, Telia, and the new Swedish company Wireless Maingate AB are hoping to establish a whole new mass market for telemetry services based on GSM. The goal is to supply GSM transmitters for all equipment that has some form of built-in intelligence. They forecast that within five years, the new market will be worth SEK 2 billion (USD 250 million) annually.

"New driving forces have emerged, persuading us that a mass market can be established. GSM is a world standard, and we think that GSM transmitters will become standard modules that are installed in all kinds of intelligent machines in the future. This reduces the need for adaptations to establish this kind of data communications. Costs are low enough that a mass market can develop. So there is potential for growth," said Håkan Ericsson, acting marketing manager at Telia Mobile.

Örjan Johansson, head of Ericsson's Bluetooth project, commented: "This is a very natural development toward reduced dependence on cables and plugs. Of course, it is an exciting area since GSM is being updated with new functions. Bluetooth also fits in very nicely, connecting peripheral equipment without wires. (See article on pages 6-8.)

**THIS IS SOMETHING BRAND NEW** that does not exist anywhere in the world. Today, these kinds of telemetry services are operating in mobile data networks on a very limited scale.

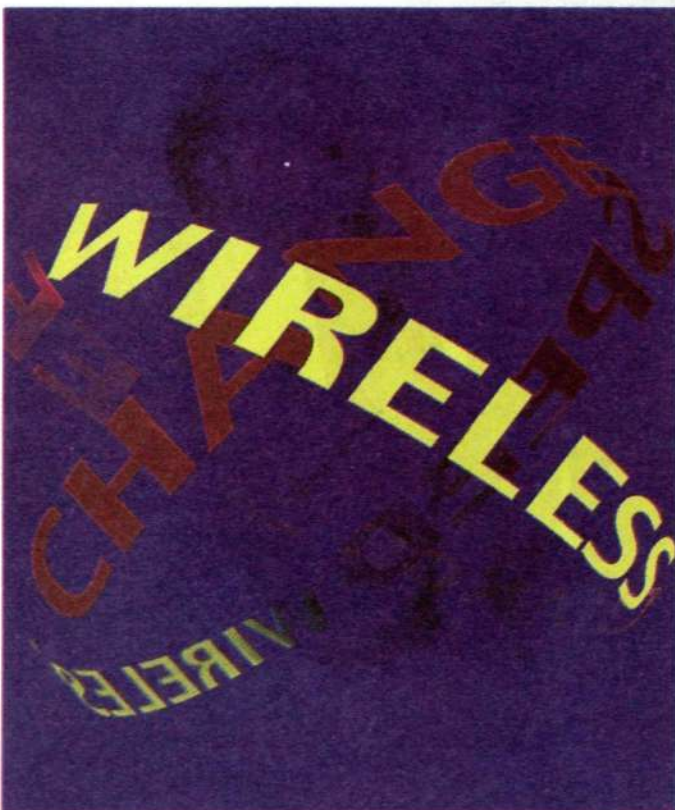
Mobitex networks operate in 14 countries. Normally, the customers are large organizations with telemetry services. Examples are airports that turn landing lights on and off, weather stations and large building owners that have alarm systems connected to Mobitex. Energy companies control the transmission of electricity, and the armed forces of various countries (we can't tell you which ones) use Mobitex.

With GSM, Telia is choosing a brand new way to attack the market.

In principle, Maingate works like a service bureau and sells the actual subscriptions for its services to end-users.

**THE MAIN FOCUS** is on areas such as alarm systems, electricity meter reading and credit card authorizations. Credit card authorizations will become much faster. A new generation of credit card terminals is being developed. According to Maingate, they are being equipped for data communications via GSM.

In the future, Maingate expects to sign direct contracts with office equipment suppliers such as the Japanese-based Canon. This means that Canon copiers can be equipped with a GSM phone at the factory in Japan. In Sweden, the same copier can then be equipped with a supplier identity module (SIM card) for data communication via Maingate's operations center. The GSM card can be programmed for different services.



## 1999: GSM ON THE INTERNET 2001: ULTRA FAST GSM

When Ericsson integrates GSM with IP telephony, the result will be a brand new network that may well shake up the telecom marketplace. As of next year, GSM operators will be capable of taking over large segments of the market for corporate telephone services.

Existing Private Branch Exchanges (PBX:s) can be thrown out and replaced with exchanges based on IP (Internet Protocol). The market is huge. Worldwide, there are about 250 million PBX extensions in large corporations.

GSM on the Net means that IP telephony is being introduced to corporate data networks. The PC becomes another phone and corporate phone traffic can be moved over from the PBX to the data network. Intercommunication will be established between IP telephone services and the PBX so that everyone can communicate internally between phones and computers.

GSM base stations will be connected to corporate data networks. This way, companies will have their own internal GSM network.

Year 2001, 384 kbit/s data services in GSM and D-AMPS networks (an American standard) will become available courtesy of yet another Ericsson technique – EDGE.

EDGE was created primarily for multimedia services such as the Internet, intranets, video conferencing and e-mail.

@ To learn more:

<http://www.ericsson.co.uk/Eripres/Archive/1998Q2/Net.html>

[http://www.ericsson.co.uk/datacom/edge\\_router\\_axi51x.htm](http://www.ericsson.co.uk/datacom/edge_router_axi51x.htm)

<http://www.ericsson.se/WN/wN1-98/evolution.html>

<http://www.ericsson.se/Eripres/Archive/1998Q2/EDGE.html>

## IP TELEPHONY MOVING AHEAD

At least one tenth of the international telephone traffic in Europe will be carried via the Internet by 2002, according to Datamonitor, a research and consulting company. IP telephony is no longer just for computer hobbyists. As reported in *IP Telephony Markets in Europe and the US: Beyond Internet Voice*, large companies are evaluating the technology. Telecom companies such as Deutsche Telecom are on their way to establish IP services. It is expected that 1999 will be the year of the big breakthrough, when many companies will offer IP telephony. Note that Europe is considered to be one step ahead of the U.S. (Source: [www.uppsnappat.com](http://www.uppsnappat.com))

## INTERACTIVE IRIS DOES IT ALL – SIMULTANEOUSLY

Instant Recording Internet Solution (Iris) is the name of a new IT and Internet product from Ericsson, intended for interactive multimedia communications. Seminars, conferences, meetings and presentations can be videotaped for broadcast – in real time via the Internet or later via e-mail or CD.

Using Iris technology, everything is concurrent: a presenter speaks live while images or texts are shown on the same screen.

@ To learn more, contact:

[kristoffer.nyberg@era.ericsson.se](mailto:kristoffer.nyberg@era.ericsson.se)

## INTEGRATED NETWORK FOR VOICE, DATA AND VIDEO

US West, one of the largest phone companies in the U.S., is launching an integrated network for telephony, datacom and video services for its corporate customers. Companies that want to tie their facilities in various locations into one private network can now buy network capacity with integrated access. The advantage is savings, of course. Today, many companies are purchasing separate network capacity for telephony, datacom and video.

US West is offering several different services. Its customers can choose between Frame Relay, ATM and/or IP-based networks.

Cisco is supplying network equipment. Initially, the services are being offered in 14 Western states of the U.S.

IN ENGLISH, SPANISH AND CHINESE

<http://www.ericsson.com/accessmagazine>

# THE ERICSSON IT MAGAZINE

ERICSSON



**THE WIRELESS SOCIETY** is right around the

corner. Radio communications are

taking over. Wireless local networks

and the tiny Bluetooth chip that

enables mobile phones and comput-

ers to communicate with each other

are elements of this development.

This creates new business oppor-

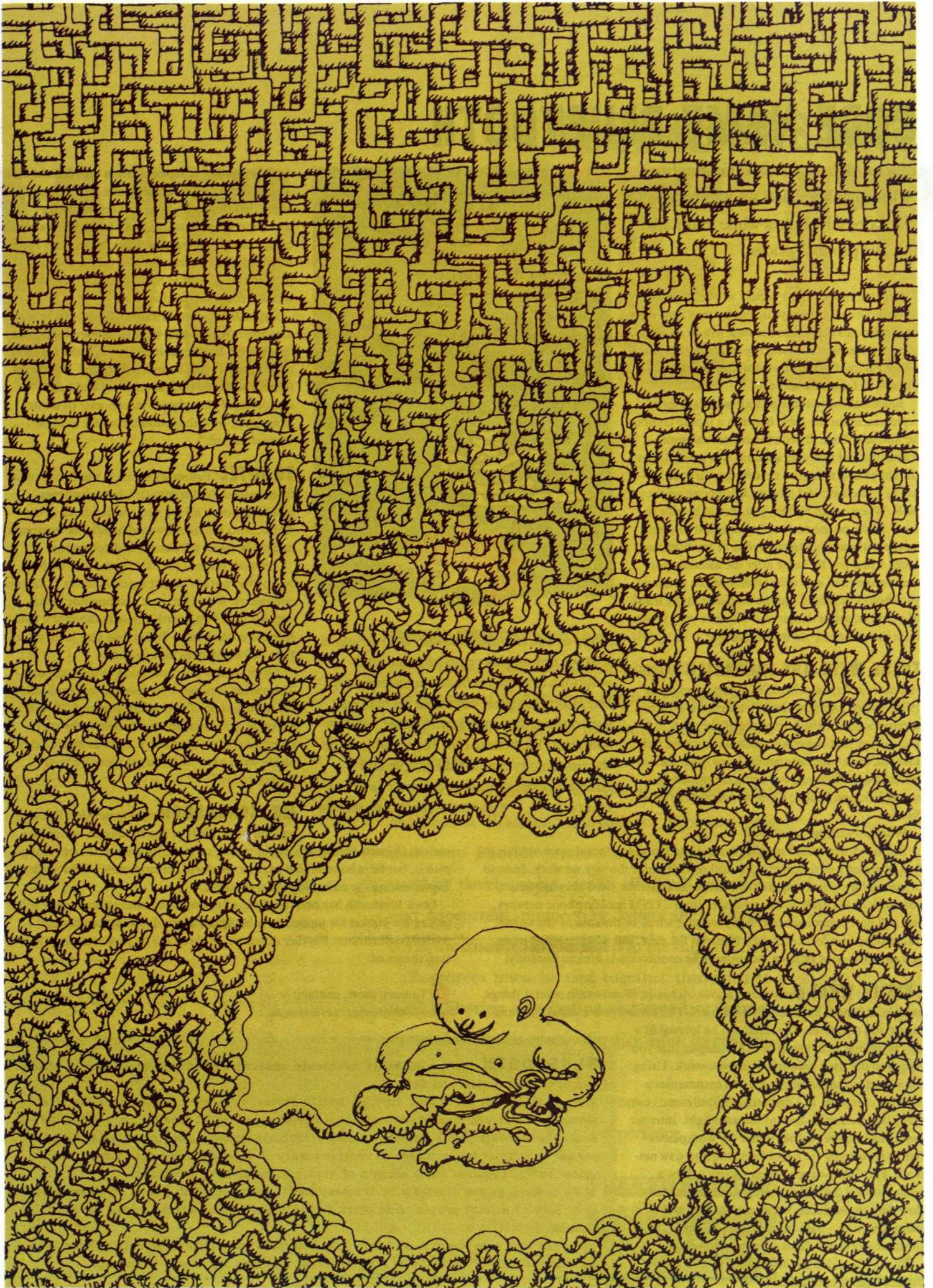
tunities for Ericsson while main-

taining mobile phone profitability

and demand.

# CODE NAME BLUETOOTH

**WIRELESS FUTURE BRINGS ERICSSON SUCCESS**



»To grow, we have to cut the cord«

# CODE NAME BLUETOOTH

Bluetooth brings new functionality to the telephone and we will be able to sell more telephones while maintaining our product prices.

The dream of a cordless society will become reality toward the end of next year, and by then slow data transmission via the GSM network will be a fading memory. People will access the Internet and e-mail either via fixed workplace networks or via mobile phones and the GSM network.

Bluetooth was conceived four years ago as a replacement for the cable between a laptop computer and telephone. By eliminating troublesome cords, a brand new user scenario was created. You should be able to attend a meeting with your laptop in a briefcase and your mobile phone on the table. When e-mail arrives, you should be able to see it on the phone and easily transfer it to your laptop without even taking it out of the briefcase. Later, when you fly home after the meeting, you read your e-mail and write replies. When you land, you should be able to put the briefcase in the trunk of your car, get in the car and transmit your replies from the computer via mobile phone.

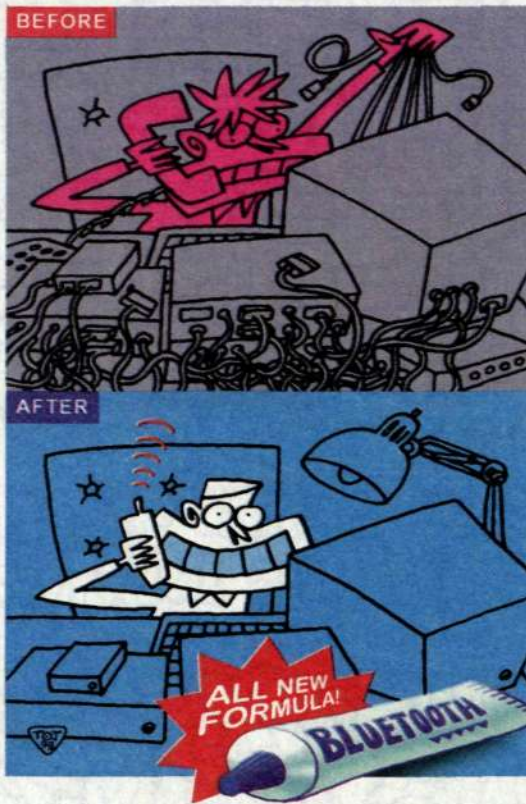
**THESE WERE THE FANTASIES** of a few engineers at Ericsson Mobile Communication in 1994. Today, four years later, we are almost there – wireless is one of the buzzwords of the year. Technology that famous IT consultants could only wish for, back when few people knew what the Internet was all about, was being developed for real at Ericsson Mobile Communications in Lund, Sweden.

What is “wireless” all about?

Ericsson's new SH888 mobile phone (<http://mobile.ericsson.com/sh888>) is the first phase of a development that will revolutionize the way we work. Instead of connecting your computer to a network, either the fixed network where you work or via cable to the computer from a GSM mobile phone network, you will now communicate entirely without wires. In the case of the SH888, infrared rays – a form of light – transmit the data. But what happens when you close the door or leave the room? The connection is broken instantly!

**THIS IS WHAT** Bluetooth is about. Actually, Bluetooth is several things at once. It is both hardware and software. The hardware is a radio – a transmitter and a receiver. The radio can be located in a mobile phone, in a laptop or in an adapter that you plug into the fixed network where you work. Using the software, the mobile phone can communicate with the computer at a distance without wires – but using radio waves instead of infrared light. Internet and e-mail can be reached either via workplace's fixed networks or via a mobile phone and GSM network. The dream of a cordless society will be a reality toward the end of next year, and by then slow data transmission via a GSM network will be a fading memory – data transmission will be substantially faster thanks to new technology.

Bluetooth is also a joint project of several market-leading companies.



“One of the reasons Ericsson is so strong is that we not only develop products and solutions that makes communication easy, but also place great emphasis on making sure our products work with other vendors' solutions. We believe that Bluetooth will be the technology that makes simple and effective communication between devices a reality.”

SVEN-CHRISTER NILSSON, CEO, ERICSSON

such as chipsets that handle radio traffic, or the software and drivers that go with it, but he is hopeful that partner Intel will perform most of the work of implementing the technology in computers.

Once Bluetooth has been established in telephones and computers, it will generate a market for numerous other types of products that are closely related to Bluetooth. Further downstream there will be products we cannot even dream of.

@ To learn more, contact:  
[orjan.johansson@ecs.ericsson.se](mailto:orjan.johansson@ecs.ericsson.se)

This past May, five companies unveiled the idea of Bluetooth and radio networks. The companies argue that this technology will revolutionize wireless communications, both for individuals and companies. Ericsson, IBM, Intel, Nokia and Toshiba have joined forces and are working together to promote Bluetooth as a standard for inexpensive wireless communications.

Örjan Johansson, Ericsson's Bluetooth project manager: “A year ago, we finished developing the technology. But we realized that in order for this to succeed, it must be widely adopted. We turned to Intel and they told us that they had been wondering if they should incorporate GSM into computers, or if they should commit to some other standard.”

**TO INTEL**, Ericsson's solution was like manna from heaven. Not computers, but telephones would reconcile all the various standards in the world. And Bluetooth would handle the communications between telephones and computers.

Ericsson pitched the idea to IBM and Toshiba, two of the world's largest manufacturers of laptop computers. When Ericsson's competitor Nokia decided to get on board, Ericsson thought it had reached critical mass. Today, one year later, more than 100 companies have joined!

“It simplifies the connection to the computer. This makes it possible to develop new applications for the telephone,” Mr. Johansson said. “It will make the telephone more valuable to the user. Compared to a computer, it costs as much today as ten years ago – but you get more for your money today.”

**MR. JOHANSSON** anticipates that Ericsson can sell other parts of the Bluetooth technology,

**BLUETOOTH** uses a globally available unlicensed radio band, 2.4 Ghz, which supports both voice and data.

The radio can be built into laptops, mobile phones, printers, fax machines and fixed networks. Bluetooth supports transmission speeds of up to 721 Kbps for both voice and data. The allocation of bandwidth is user selectable depending on transmission type. If you surf the Internet, you want to receive plenty of data while you send little, but voice traffic requires equal amounts of transmission in both directions.

The technology was developed by Ericsson Mobile Communication, but as of a year ago, it is part of a joint project into which Ericsson has invited Nokia, Intel, IBM and Toshiba.

You can read more about it at <http://www.bluetooth.com>. (Andrew Seybold's <http://www.outlook.com> also offers lots of information on wireless and mobile computing)

## A GLOBAL MESSAGE

# WE ARE IT

**ERICSSON EMPLOYEES** must change the way they work, use Ericsson's products and demonstrate excellence in their use of information technology as one step in the process of creating new world-class products and services.

This message will be widely broadcast this autumn as Ericsson's massive IT program gets underway. Shorter product cycles require faster product development, more efficient operations and concurrent engineering, where the company collective knowledge is utilized to the fullest extent.

Resources must be tied together through networks. Sharing information and expertise through networks reduces costs – for Ericsson, its customers and partners.

Here are some opinions from one of the most important sources of IT experience – Ericsson employees themselves – on how to use IT to improve efficiency, sell more and have more fun.





**AMANDA ALLEN**, communications manager at Ericsson's CyberLab in Menlo Park, California:

"I use e-mail, a Palm Pilot, web sites and a computer. The Palm Pilot is my favorite.

"I also like Ericsson's MC16 handheld computer with its wireless connection and ability to make phone calls via a PC."

IT web sites Ms. Allen likes to visit:

<http://lighthouse.eur.ericsson.se>

[www.Internet.com](http://www.Internet.com)

[www.developer.com](http://www.developer.com)

**DONGHUI YANG**, Ericsson Data, Stockholm, uses Ericsson's intranet to obtain information about his customers:

"As an Account Manager I need wide-ranging information about a customer's operations, and the intranet is where I find it. The sales support system and the financial support system give me data I need to analyze the customer's purchasing activity."

Other IT tools Donghui Yang appreciates are e-mail, the ability to log on to the network anytime, anywhere, the Public Folder in Outlook that allows you to create teams across organizational boundaries and the HIT document management system designed to download internal documents from the Web.

**SIGRUN HJELMQUIST**, President, Ericsson Components:

"I am positive toward IT and regard it as a given, but am not yet a power user. IT is very practical, but devices and systems must be user-friendly and have built-in tutorials. If it takes too long, I lose patience. After all, learning new things takes time, time that I don't always plan for."

E-mail makes work easier, but differences between systems are obstacles. "I use Memo for Windows so that I can send attachments even if it is a bit old-fashioned and not as efficient as "regular" e-mail. Some parts of our company have converted completely to electronic documentation of our operations.

"Those are all the IT devices I use - I have a laptop but rarely carry it with me because it is heavy, even though it is small. Devices must be small and fit into my purse, just like my mobile phone, Ericsson's very smallest."

Usefulness is the deciding factor. Working from home means more freedom. "The modem I used to have was not dependable, but my ISDN connection has given me the opportunity and freedom to work from home. Unfortunately, the devices are ugly, with lots of wiring and large boxes hanging on my walls."

**THOMAS LANGTHALER**, Ericsson Data, Austria:

"I use almost all of the IT infrastructure," said Thomas Langthaler, SAP R/3 business support system project manager.

His base is a laptop computer with a mobile Remote Access Communication (RACOM) connection. He uses it to communicate and look up information on the Internet and on Ericsson's intranet.

"Finding information on the Internet takes time, but it is always faster than asking someone to look for it and send it..."

Ericsson's Standard Office Environment (SOE), the Ericsson Global Infrastructure Program (EGIP) and SAP R/3 are tools that are necessary for Ericsson's IT development, in Mr. Langthaler's opinion.

"They are needed to integrate Ericsson's local companies tightly into one real IT company."

**TAPIO ANTILA** works with Ericsson's corporate business development and new networks.

"My laptop," Mr. Anttila replied when asked how he uses IT to improve his efficiency. The laptop is his desk. He brings it everywhere and uses it for everything. "More people ought to do that. It is hard to work in two environments."

Mr. Anttila also has a handheld computer for e-mail, calendar and addresses, and he was one of the first 100 people in San Francisco to get a Digital Subscriber Line (DSL) for Internet communications. The transfer rate is 384 Kb per second, thirteen times faster than a regular modem.

This has changed the way he uses the Web.

"I prefer news sites. Today they are just as easy to read as a newspaper. It is easier and faster to download software from the Net, and to get connected. I don't have to wait as long."



Mr. Anttila's best advice on being IT efficient is simply this: "Use Ericsson's own products and make them part of your working environment. The only way to learn is to do it yourself. The only people who learn from books are analysts..."

This applies especially to IT products, he believes. Ericsson employees

have to use and experience Ericsson products.

"And those of our competitors! How many Ericsson employees can tell you the name of Nokia's latest mobile phone - and what their sales pitch is."

Learning to handle new IT tools is not easy. "We learn best when we play, and we play most easily with children at home. Also, change comes easiest where freedom is greatest - at home."

It is easier to use the IT infrastructure there than at work, where the systems, of necessity, are large. That's why Zopps Network is offering Ericsson employees a platform where they can learn new technology in a relaxed setting with access to training, conferencing, chatting, the Internet, virtual worlds and network computer games.

Starting in January, Zopps Global Network will be offered to everyone at Ericsson. Local pilot sites are already operating in Spain, Finland and Australia.

"All Ericsson employees, starting in Sweden, are going to gain access to PCs at home. This will accelerate the process of making the Internet both a business tool and a source of entertainment for employees."

@ To learn more about IT, and business development, contact:

[tapio.anttila@lme.ericsson.se](mailto:tapio.anttila@lme.ericsson.se)

@ To learn more about Zopps Global Network, contact:

[william.agostini@lme.ericsson.se](mailto:william.agostini@lme.ericsson.se)

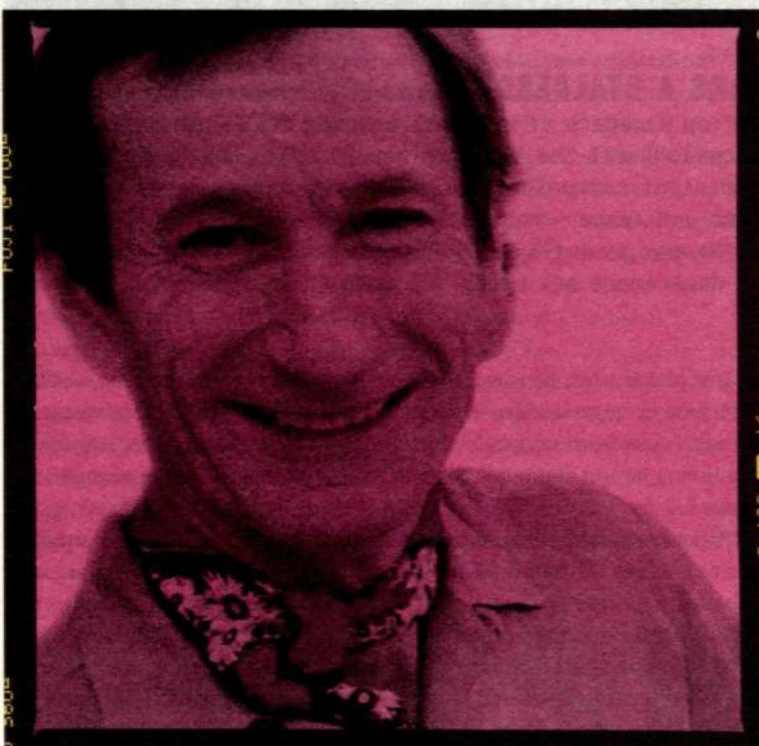
“The only person who makes no mistakes is someone who is asleep.”

**JEREMY BENNETT**, Stockholm, co-manages the Ericsson World Wide Web with Ken Ryan.

Mr. Bennett's task is to promote, develop and coordinate Ericsson's presence on the Web.

“I too have to improve as an IT user,” Mr. Bennett confessed. “Using IT is often associated with a certain amount of hassle and bugs: it is hard to get connections via laptop or hand held computers such as the Palm Pilot and mobile phones to work. The memory capacity is not big enough to send attachments with e-mail. The modem speed is too low and vulnerability to interference is great.

“When the connection is down for an instant, information is lost.” Mr. Bennett is testing infrared connections via the latest Ericsson phone and handheld computer, the MC16 – naturally.



“It is fun to be on the cutting edge – and necessary for me if I am to practice what I preach.”

Ericsson's strict security regulations often prevent the use of new opportunities. It is generally not possible for most Ericsson Web users to view external real-time broadcasts via the Internet since the firewalls exclude streaming audio and video.

“This is frustrating to those of us who want to use new opportunities that can save both time and money. One challenge for our security department and Ericsson Data is to find solutions that don't jeopardize security. We can do much more than what is permitted today – without jeopardizing security.”

Ericsson employees should be encouraged to use their IT tools more, and to use the Internet and Ericsson's intranet to take Web-based classes from home.

“IT must become a part of their lives – even outside of work. That's why I think we should offer Ericsson employees equipment and dial-up from their homes.”

On the job, the Ericsson Standard Office Environment (ESOE) and Ericsson Global Infrastructure Program (EGIP) standardization projects are making it easier for Ericsson people to network and enhance their use of IT. Especially on the Internet.

The most important purpose of Ericsson's Web marketing is not to persuade end-users to call Ericsson to make a purchase. It is to make customers at all levels aware of the breadth of Ericsson's product portfolio: from consumer products such as mobile phones to advanced systems →

## ONE INTERNET STANDARD

I like to be on the leading edge without being on the bleeding edge. To me, that is the difference between being practical and being too much of a visionary. I prefer to stick to technology that everyone at Ericsson can use and benefit from.

At Ericsson Data in the Netherlands, we are developing an Ericsson Standard I-net (Internet and intranet) Environment (ESIE), based on the Ericsson Standard Office Environment (ESOE) project, which will make it easy to publish and manage content on the Internet and intranets.

This is a workflow methodology for the development, testing, approval and publishing of content for I-net environments, using standardized tools which already are available in ESOE. Review and approval is embedded electronically in the process.

The model is based on print production flow by separating content from style and defining different roles – writing, editing and publishing. The entire flow is adapted to the I-net environment.

The I-net group in the Netherlands, with people from Ericsson as well as Ericsson Data, also works with voice and video via IP. When you receive a voice/video call via IP, you can see the person calling even if you do not have a video camera yourself.

This technology also enables sharing documents and/or applications in “one-to-many” scenarios. Imagine doing an interactive document review or multi-media presentation with people in different locations – live!

Here are a few practical tips for better use of IT, both for Ericsson as a company and for end-users:

Implement the Ericsson Standard Office Environment (ESOE). This will enable everyone at Ericsson to be using the same set of leading edge applications and platforms. Today the end-users who need them the most are (often) the ones with the weakest platforms and the oldest IT tools.

Go for Outlook and Exchange. These are effective tools everyone in Ericsson should be using.



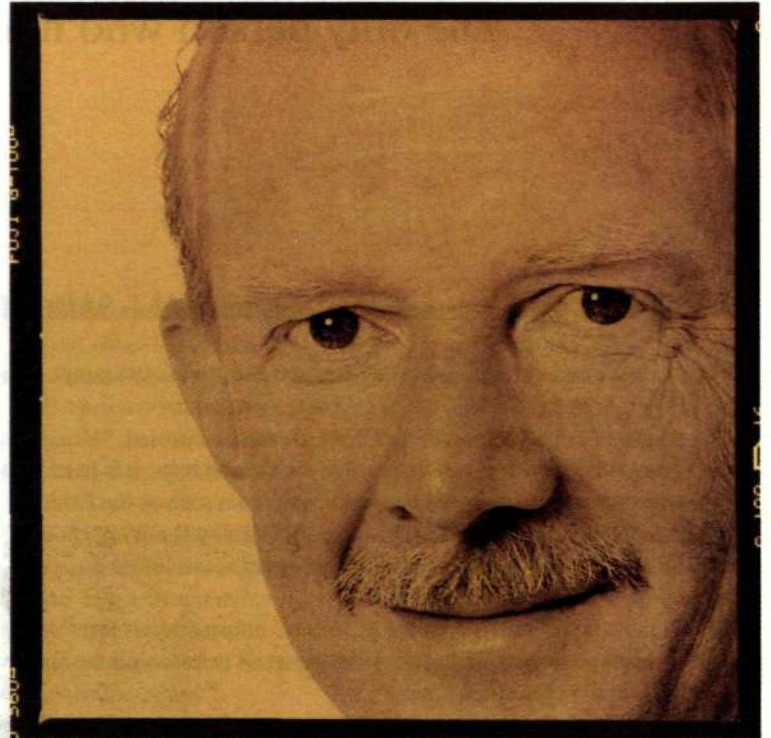
Adopt Ericsson Standard I-net Environment for I-net content and publishing needs. If we do this Ericsson-wide then we've got something. We're on the way!

**TIM EHRHART** is Webmaster and an advanced IT user in the I-net group (Internet and intranet) at Ericsson Data in the Netherlands.

solutions for voice and data communications via fixed and mobile networks. "This strengthens our brand," Mr. Bennett said.

Here are Mr. Bennett's pointers for a better Web site:

- User-friendly and consistently designed web pages: similar solutions, links and design across the entire Ericsson Group.
- Use an established standard: underlined links. The ones you have already visited should change color.
- Do not overuse technology. Don't do something just because it is possible.
- Customize Web pages to the needs of users: pass up fancy pages in favor of functional ones.
- Pages should be up-to-date and should download quickly.
- Make it easy for readers to contact you. Take all their comments seriously.



**LARS A STÅLBERG**, Ericsson corporate relations:

"Top managers of a global company travel to different locations all the time. We use IT tools that enable efficient communications and availability independent of time and space – mobility.

"We are gradually use IT tools more and more. People in my department are using the MC16 to an increasing extent."



**KARL DAHLIN**, head of business development at Ericsson Data in the U.S., would like to see Ericsson select Hotmail as its e-mail tool: slow but free and available to everyone, anytime, anywhere!

Mr. Dahlin uses IT in many different ways. He suggested that Ericsson as a high-tech company should use IT in still more ways.

"I could write a book about it – and I probably will. I'll comment on the high points here: E-mail is at the top of my list – anyone who does not use e-mail to maintain important business contacts and to communicate with customers, partners and employees will not make it.

"Ericsson's decision to sponsor the Grammy Awards was made because I sent e-mails to the Recording Academy project manager on virtually a daily basis last December, asking if Ericsson could help."

In Mr. Dahlin's opinion, the switchover from Memo to Exchange is a step in the right direction, although it took too long.

"We could allow advertising to pay for a truly modern e-mail system at Ericsson. Right now, the most important thing is to see to it that all employees get wireless access to their e-mail.

"The Internet is a very powerful search engine for market analyses, customers and competitors, and it keeps me up-to-date on what can be done in IT and telecommunications. Interestingly, I have discovered new business opportunities – based on what I cannot find on the Web even though I know it is actually there."

Mr. Dahlin brings his office along with him by using a laptop and

mobile phone when he travels. He can be productive at times that would otherwise be unproductive. He looks forward to being able to hook up without wires from anywhere at 56 kilobits per second or more – and to combining laptop computer, mobile phone and Palm Pilot in a single device.

"Ericsson must pull these important tools out of the glossy color brochures and put them in the hands of employees the world over before it is too late."

Mr. Dahlin closed by describing a psychological advertising trick that provides a strategic advantage:

"When I meet customers, I always keep my elegant laptop open and the Palm Pilot and mobile phone on the table. Customers gain greater confidence in both me and Ericsson when they see that we understand how to use the technology. Does anyone think that we will accomplish that by sticking yellow Post-it notes all around the table?"

How old is Karl Dahlin? That depends:

"Some days I am 36 going on 16 and other days I am 36 going on 76."

Mr. Dahlin likes to visit the Mecklermedia Internet News site to keep up-to-date on IT and the Internet industry.

WHY ARE IT

“If you're not on the cutting edge you take up too much space.”

**WONG KAR HONG**, IT manager, Ericsson China:

“I use the Internet and intranet. I never go anywhere without my Notebook PC. I look at it more than I look at my wife and children.”

By using e-mail, he gets things done quickly wherever he is. He was an early user of the Apple Newton.

“The first generation did not live up to expectations. I suppose the Palm Pilot III is much better, but I don't have my own yet.”



**ROLF CARLSSON** works with the development of strategic information technology for Marketing and Sales at Ericsson Radio in Stockholm. He believes in using IT

tools himself. “This is essential to be able to develop new applications.”

When Mr. Carlsson travels, he can always access e-mail and intranet via his laptop computer, so that he can work efficiently.

“I use modem and mobile connections when I travel, internally and when I visit customers.”

Mr. Carlsson's task is to learn all aspects of operations in order to determine how the tools work, make sure they are supported, and to develop concepts for Internet, intranet and extranet applications for various purposes. All to support Ericsson's transition into the 21<sup>st</sup> century.

“We are trying to solve the problem of slow mobile connections by using extranet applications with our customers and partners, among other things. But we are also basing internal applications on this technology. Speed is a keyword for the future.”

Mr. Carlsson considers intranets to be the basis for many applications:

“Post as much information as possible on the intranet so people don't have to bring their laptops.”

He prefers the smaller and lighter handheld MC 16 computer for downloading e-mail and taking notes. The MC 16 also provides access to an address book, to-do list and calendar. He constantly updates these functions with his stationary computer.

**DONNA CAMPBELL**, head of CyberLab East, New York:

How do you use IT to be more efficient and sell more?

“Cyber Lab works with Ericsson's various departments and other companies around the world, in all time zones. E-mail enables us to connect with our colleagues in Melbourne, Stockholm and Japan no matter what time it is in New York. It may sound a bit imperialistic, but the sun never sets on Ericsson's empire, and this is important to our global competitive strength.”

“We keep the New York market informed about opportunities to work with Ericsson and keep Ericsson informed about the opportunities in New York. Without intranet and e-mail we could not handle this.”

“We are developing an on-line CyberLab which is more than a simple information or positioning tool. It will allow us to reach markets where we want to establish lasting relationships with potential development partners and customers.”

What is your favorite gadget?

“The telephone, without a doubt. Perhaps it does not belong in the 'gizmo' category, but it is still the most fantastic technical invention I use every day. People talk to each other – you don't normally write messages to one another. At least not at the parties I attend.”

Do you have any special suggestion about e-mail?

“Unfortunately, communication doesn't improve because of spell check and grammar tools. I suggest we learn to write again. E-mail is turning into a fourth type of communication behind voice, written texts and smoke signals. Written texts are still what counts. No technical

applications can replace the thoughts you put down on paper.”

How old are you?

“Ah, an easy question – 35.”

Which is your favorite IT Web site?

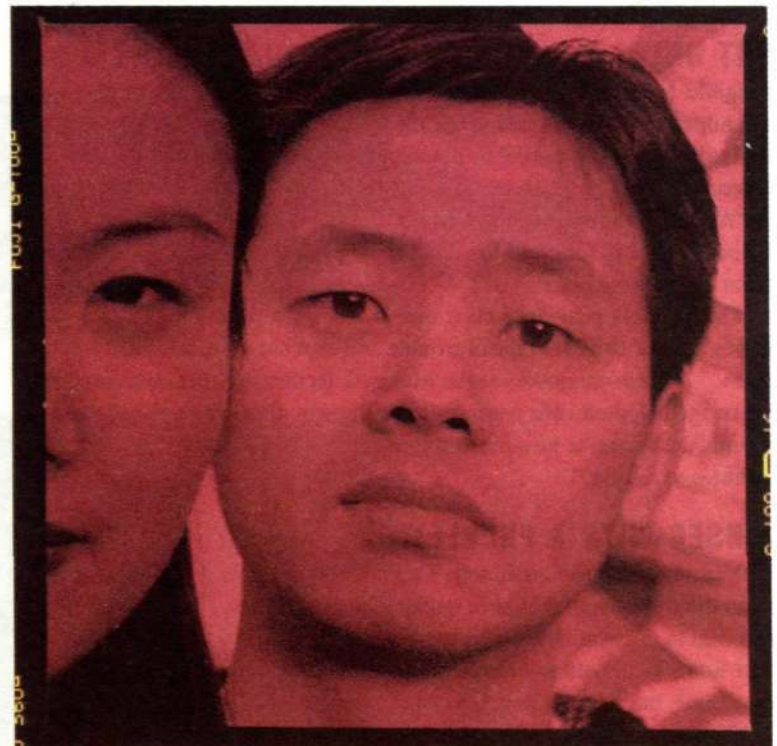
“My favorite sites are those that give me the information that is relevant to my job. Naturally, I read sites that deal with data and voice communications, but the ones that don't directly connect to our industry are even more important. To CyberLab, it is important to keep up with what is happening on financial services, media, education and health care Web sites.”

**AGNETA HÄRTE JACOBSSON**, press officer at Ericsson Radio Systems:

“I work with communications issues in Ericsson's global business program and use IT to the hilt to get our messages out. IT helps me reach out in a smart, attractive and efficient way and gives me rapid feedback on how recipients perceive our message.”

Ms. Jacobsson's favorite gadget is Ericsson's MC 16. Because she does not have to chase people, she saves a lot of time.

“I know that they get my messages one way or another. I can work in locations other than my office, at home for example. As a mother of four, I can devote myself to my family until 9 p.m. and work on high priority tasks later. I can also communicate with my colleagues outside working hours.”



**TAO JIN**, who is in charge of wide area networks and various IT projects at Ericsson Data in Beijing, China:

“IT is my job, not just something I use to become more efficient. Based on that, my advice to all users is this: Content is what is important, not appearance. Don't spend too much time on the latest gadgets. That can reduce your efficiency.”



# ONE COMPANY, ONE TOOL

Following the ambitious yearlong effort to roll out ESOE, positive results are weighing in.

"Many large companies are looking for solutions, but the Ericsson Standard Office Environment is the technically most advanced solution I have seen," project manager Måns Nordgren said.

A large proportion of Ericsson's current IT initiative consists of the Ericsson Standard Office Environment (ESOE). "ESOE will provide a standard PC desktop to the entire Ericsson Group," said Mr. Nordgren, who is in charge of the worldwide ESOE launch.

Måns Nordgren arrived at Ericsson Data from Pharmacia-Upjohn just four months ago, but he has already found several good examples of positive results: "Perhaps the best part is that anyone who looks at ESOE is compelled to think about the company's entire IT structure. This is very useful, but would rarely happen otherwise. By the last week of August, 14,100 users in the Ericsson Group had received ESOE. Most teething problems are past and this one-year-old can walk. This autumn he will start running."

**BUT ONLY** when you start using it yourself do ESOE's benefits become tangible. Mr. Nordgren explained: "Its accessibility, stability and mobility are impressive. When I was in the U.S. last summer, I could log on to a PC and take care of my e-mail or download my documents from the server in Sweden.

"And even though I am new in the company, I have only had to call the helpdesk once in four months. That is a lot less than what I am used to from earlier workplaces."

The helpdesk provides a clear measure of ESOE functionality. If it receives a lot of calls, that means trouble and that the system is hard for users: "The 130 employees at the Marievik facility in Stockholm used to make 250 helpdesk calls per month. With ESOE, they make 35 calls per month. Just imagine how much money this saves if each problem takes 15 minutes to resolve."

**A USER WITH A PROBLEM** can let one of the pros at the helpdesk run his or her PC remotely. This happens with three out of four calls from the workplaces that have implemented ESOE. Usually, the problem is resolved in a few minutes, whereas waiting for an IT expert to arrive could take hours in the old environment. A lot of money is saved by reducing downtime, but another gain is in work satisfaction.

"The expertise and technical skills of the helpdesk has improved rapidly as we have brought in professionals who were previously stationed at user facilities," observed Mr. Nordgren, who has studied similar solutions at other large companies:

"I dare say that we have the most advanced solution, primarily thanks to our centralized distribution process. If a user needs a new program for his or her work, a call to the helpdesk will almost instantly provide access to it, since software is distributed via the network.

"The same thing applies to curing computer viruses. A virus elimination program reaches all PCs worldwide that use the Ericsson Standard Office Environment, with very little delay."



**JACQUELINE O'HALE**, Ericsson Internet Professional Services, Madrid, Spain:

"Rapid, dependable information is one of the keys to speed when we work with IT. I want to recommend the book *BLUR - The Speed of Change in the Connected Economy* by Stan Davis & Christopher Meyer - it describes what the Internet and the new economy are about and how they will affect us all.

"Newsletters in the form of e-mails to my computer are excellent. I prefer Edupage from Educom ([www.educum.com](http://www.educum.com)).

"And don't forget Ericsson's own global news! You can subscribe to What's new at Ericsson by sending an e-mail to [majordomo@www.ericsson.com](mailto:majordomo@www.ericsson.com) with the message 'subscribe whatsnew' on the subject line. Eight thousand people all over the world already do."

**CECILIA LUNDIN**, Ericsson Data's project manager for the DO IT corporate culture program.

"Outlook is my basic tool. It is better than Memo with regard to e-mail, and you can run it as a desktop. I have an Outlook calendar that I share with others. We set up meetings and plan together. I have a paper Filofax as well.

"I search for information via the web. I know where to find what I need internally; I find the information I need quickly - and importantly, without depending on others - and the information is up-to-date."

Ms. Lundin's external focus at the moment is private - she is looking for a house on the Internet.

She has a laptop for travel with a RACOM connection so she can access her e-mail via the mobile phone. Ms. Lundin likes IT. New devices and applications are fun.

"It is hard to find the time to learn. So I do that mostly at home."

**THIS IS ONLY THE BEGINNING** Please keep sending us your tips - URL's, books, newsletters, favorite gadgets, e-mail, products from Ericsson and others, compatibility - anything that has to do with how IT can make work more efficient and give you more time with the customer. Send your tips - in English - to [eva.andersson@intervista.se](mailto:eva.andersson@intervista.se). Subject: "We are IT."



# ERICSSON'S NEW MAGIC TRICK: HOW TO MAKE THE INTERNET MOBILE.



**NOTHING HERE.**



**NOTHING HERE.**



**BUT HERE.**



**AND HERE.**

## THE NEW SH 888 WITH INFRARED LINK AND BUILT-IN PC-CARD.

The new SH 888 is so advanced you can't even see how advanced it is. Everything you need is hidden inside.

Thanks to the infrared link and the built-in PC-card, you can connect the SH 888 to your laptop without any

wires. You can access the Internet, send and receive e-mail and faxes. Where you and your SH 888 go, the Internet goes with you. Suddenly it has become easy to get things done, wherever you are.

# SMARTTEST

JAKOB NIELSEN WANTS TO ADAPT COMPUTERS TO PEOPLE

# ON THE WEBB

"Ericsson seems to be well on its way in its commitment to usability," said Jakob Nielsen.

This Dane turned Californian, recently dubbed "The Smartest Person on the Web," is the man teaching Ericsson employees worldwide to create a user-friendly Web site.

**M**r. Nielsen travels throughout the world and lectures on usability and the web. Using the automotive industry as an analogy, he stated "we're before the Ford T even" when it comes to the questions of usability and development.

"User trends are very clear, more multimedia and (a demand for) more bandwidth. In five years, the Web will be the most important medium."

Predicting a universal interface – echoing Sun's slogan, "the network is the computer" – Mr. Nielsen describes a distributed user interface unifying all of our electronic devices into one common interface, perhaps using a sort of global icon Esperanto or omni-interface.

Mr. Nielsen named three "killer apps" of today's Internet. The first one is e-mail, the second is the spate of Web browsers, which came out in rapid succession during the early 90s, and the third, directed to an area of Ericsson expertise, will be mobility.

**"I WANT A HOMING DEVICE,"** stated Nielsen, "which can, at any moment, receive or send e-mail and phone calls from anywhere in the world. Using a distributed user interface, I want the option of being

able to exchange levels of business card information from anywhere to anyone in the world; computers adapting to the needs of humans, not humans to computers."

Mr. Nielsen depicted a current consumer market inundated with products which are difficult to learn and use.

As usability becomes a hallmark of quality products, Mr. Nielsen stated, "the ability for the user to learn it (the product) will be taken for granted." Ease of use will determine price categories of consumer products. The only way to determine ease of use is by usability testing. Beyond ease of use, "the next challenge" is going to be joy of use.

"The goal (of web usability) is to protect you from information" Mr. Nielsen deadpanned. It seemed ironic coming from Jakob, who himself is a deluge of effusive statements: poke him with a question and out comes a splurge of laughter and prescient knowledge.

**WEB USERS ARE** in a "hunter/gatherer period" of foraging through the web in search of information – in other words, a primitive state. Yet Mr. Nielsen foresees how users will consciously demand more quality information and move over into "a sedentary farming culture," as their information needs increase.

To effect such a fundamental shift, Mr. Nielsen called for a new writing style: "the Web can be improved by redesign, and more directly, by rewriting texts! There is no such word as 'Repurposing,'" he declared, "It just doesn't work! People perform better because they don't have to cope with promo language; they don't react (negatively) to what they read." If a reader resists information, then the Web or information designer has lost the battle. If you lose the user, you lose credibility and you lose your site's intrinsic trustworthiness.

Mr. Nielsen stated: "The writing style of the Web (generally speaking) is a throwback to the industrial era," a period in which people had both the time and inclination to wander through writing. Today, our



“Download times  
rule the Web,  
graphics should  
be small.”

“The Web is one big compromise. I think the Web is very horrible right now... but it can be improved by redesign, and more directly by rewriting texts.”

modern information workforce, ironically, has neither. We need information fast!

“If you write a manual as a book, you have failed right there. You have to write the manual for access, for searching, for people who ask for the information nuggets. That is how people really graze or forage, they pick the pieces they need.”

Taking online writing and faster response time factors into account and combining them with better navigation and searching, Mr. Nielsen predicts a total improvement potential for the web at over twenty times what it is now!

**IT SEEMS THE FUTURE** lies in transforming information into a series of beacons on a sea of Web sites, a sort of information and knowledge management. As our society moves into the information age, the mode and means of communication we use must necessarily adjust to keep pace with the technological environment we are surrounding ourselves with.

Always prosaic, Mr. Nielsen presented a “Web-Design Hamburger,” which consists of three tiers: Web Project Management, Interaction Design, and Content Design. In addition to these tiers, there are several ways of keeping your Web site “hamburger” and information up-to-date, namely by:

- project management
- writing guides for the Web
- writing workshops
- minimal or no manual management

of your site

By following these guidelines, your Web site is likely to thrive and experience Netsurfer aplomb.

It all goes back to Web usability, however.

On that note, Mr. Nielsen declared “I don’t trust computers.”

His relationship to technology is provocative.

“A laptop presentation... will invariably break down in the middle of your talk.”

From a usability standpoint, Jakob Nielsen is most likely correct! Pragmatic in nature – he attributes this character trait to his engineering background – Mr. Nielsen defined usability in three easy concepts.

**THE FIRST** is ease of use, whereby the computer adapts to the human and not the human to the computer. The

second concept is understanding that “the user is always right,” and lastly, yet equally important, as a usability engineer, communicating the usability test results to engineers so they can “understand and appreciate (and use) the information.”

From a company vantage point, Ericsson’s engineers would ideally create products or Web sites based on results provided by usability engineers. Why? Because usability engineers are able to translate the needs of the users to the technically minded engineers: the easier it is for someone to use an Ericsson product, the easier it is to keep them as a customer.

A similar corollary applies to Inter, extra and intranets as well: the easier it is to navigate, the happier and more satisfied the employee, customer, user or whoever. Wow, how marvelously simple!

“The Web is one big compromise” Mr. Nielsen commented. “I think the Web is very horrible right now... but it can be improved by redesign, and more directly by rewriting texts.”

**INDEED, ERICSSON SEEMS** to be well on its way in its commitment to usability. Impressed, Mr. Nielsen commented at the January 1998 Amsterdam Web conference that he didn’t know of any other company where over “200 people (would) do a seminar on Web user interfaces” and travel to another country to do so.

“Usability is a process, it’s knowing how to do it...the real general principles do not change, (but) technology changes all the time,” which brings to mind our Ericsson motto “It’s about communication between people... the rest is technology.”

Communication is our goal; technology is only the means of achieving it.

Jakob Nielsen’s personal Web site <http://www.useit.com> pretty much sums up the story: it’s all about usability.

Mr. Nielsen – formerly employed as an expert on usability and Web design at Sun Microsystems – has now teamed up with Don Norman – former Apple vice president and author of *The Design of Everyday Things* – to form the Nielsen Norman Group. Definitely a powerhouse wedding in the field of usability.

### FOR MORE INFORMATION

about usability issues, why don’t you visit Mr. Nielsen’s Web site at <http://www.useit.com>.

Additionally, he cited AnchorDesk at <http://www.zdnet.com/anchordesk> as being one of his favorite news “repurposing” Web sites.

Have fun!

### JAKOB NIELSEN

**Residence:** Lives in Atherton, California, right in the heart of Silicon Valley.

**Company:** Up until July 1998 Sun Microsystems. Now with the Nielsen Norman Group.

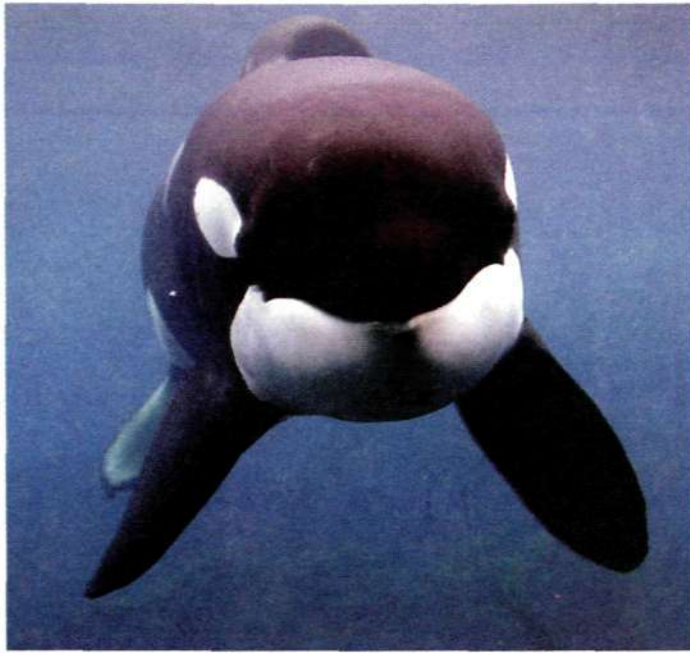
**Occupation:** Usability Evangelist.

**Family:** Wife, Hannah Kain, President of Alom Technologies.

**Hobbies:** Science fiction, opera, good food and three-star restaurants, and travel within the digital economies.

**Vision:** Everyone, everywhere: connected!

**Favorite Web sites** <http://www.nngroup.com>, <http://www.useit.com> and AnchorDesk



## INTERNET STANDARD USED IN INTEGRATED TELEPHONE NETWORK

Sprint, the American telephone company, is modernizing its national telephone network, combining ATM and IP.

Sprint is hoping to become one of the first in the world to use the new Multi Protocol Label Switching (MPLS) Internet standard. MPLS can handle telephone, datacom, and video services in one integrated network. Sprint expects this to reduce the cost of a phone call by about 70 percent, while boosting capacity.

The new network is called the Integrated On-demand Network (ION) and will be available to business customers by the summer of 1999 and residential customers by the end of 1999.

Subscribers are connected by a single line that handles access to all services with the aid of packet technology.

"Networks built this way on an ATM foundation are well suited to handle demanding multiple services. With the addition of MPLS functionality, the network is being adapted to the increasingly important IP standard. When IP runs on top of ATM, we gain far better accessibility in IP networks," said Gunnar Wranne, head of Business Development at Ericsson Data's Network & IP Services business unit.

Sprint is abandoning the switching technology that has been the basis for the world's public telephone networks since the 19th century.

Cisco is the networking equipment supplier. Northern Telecom and Lucent were the suppliers of the old circuit-switching network. This means that an important supplier change is taking place as well.

"Sprint is the largest network operator in the world that has decided to build an integrated network so far," said Stefan Lindberg, head of technology at Cisco Sweden AB. "The MPLS standard is not yet finalized, but there is great interest in MPLS in the telecom world."

A handful of telecom companies are competing for the American long distance telephone market, worth about SEK 500 billion (USD 65 billion) per year. AT&T, MCI and Sprint are the largest. New long distance operators are maneuvering to break into the market using new, more efficient technology, such as optical IP networks.

The changeover in technology facing American telecom operators will undoubtedly be expensive. By the end of 1996, total investments in today's American telecom network were about SEK 2,500 billion (USD 300 billion), according to the Wall Street Journal.

## ERICSSON WEBCASTS WILLY'S TRIP

Ericsson sponsored the web broadcast when Keiko, the killer whale who starred in the "Free Willy" movies, was flown to Iceland in early September. There, he will be re-trained for a life of freedom in the seas where he was born. Millions of viewers could follow Willy's travel via the Web, from his pool in Oregon to a fenced-in, protected cove in Iceland. Ericsson Data handled the wireless network and Web design services for the Free Willy Keiko organization. RealNetworks handled streaming media.

"We are proud that we can use the same technology that enables millions of people to communicate in order to return the whale to his native waters around Iceland," said Karl Dahlin, Ericsson U.S. business developer who was involved in Ericsson's part of the release.

This was the second major media event this year at which Ericsson sponsored webcasting. The first was the Grammy Awards last spring.

To learn more, visit Web-Access, <http://www.ericsson.com/accessmagazine> and <http://www.keiko.org>

## CABLE TELEPHONY CHALLENGES TELECOMS

Several American cable TV companies have started launching telephone services via their cable networks. According to the Dow Jones news service, Cox Communications has made the most progress. Five thousand of its cable TV customers in Orange County, Southern California, have become telephone subscribers as well. Cox started offering this service in 1997 and expects to continue offering it in coming years. By 2000, Cox plans to offer cable network telephone service in another nine areas in the U.S.

Several other cable companies are offering telephone services on a smaller scale. According to Dow Jones, prices are substantially lower than those offered by traditional telephone companies, as much as 50 percent less. New technology can reduce costs further for cable companies that expand into telephone services.

## INTERACTIVE TV IN HONG KONG

Hong Kong Telecom has started a fully developed interactive TV service, according to the company the first commercial large-scale launch in the world.

Subscribers in Hong Kong are gaining access to rapid Internet connections, banking services, videos, music and other commercial services via their TV set. Hong Kong Telecom is using technology from America's JOIN. Subscribers are connecting to servers that deliver interactive TV services via the network.

## INTERNET ADS WORTH ONE BILLION DOLLARS

American companies are now spending over one billion dollars a year advertising on the Internet. But that is still only 1.5 percent of total media advertising in the country, and many analysts think that Internet advertising can grow substantially.

Some of this advertising is criticized - some observers even think it might scare off

potential customers. A debate is underway in the American advertising industry about what it takes to make Internet advertising more attractive.

**WEB ON THE TUBE** The world of TV is merging with the Internet. If some large media and technology companies have their way, TV broadcasting will be synchronized with the Internet in the long run.

A group called Advanced Television Enhancement Forum (ATVEF) has just started development of a protocol that allows TV programming to be combined with data in the HTML web format. Disney, Intel, Microsoft, Sony and Warner, among others, belong to the group. The idea is that broadcasting can be done via analog and digital TV, cable or satellite. The specification is due by the end of the year, and six months later broadcasts should be ready to start. Learn more at:

<http://www.atvef.com>

(Source: [www.uppsnappat.com](http://www.uppsnappat.com))



## ABB'S INTRANET: BUILT USING ERICSSON VISIONS

Ericsson is not just telephones and exchanges – customers buy experience and know-how as much as advanced technical solutions.

“Ericsson’s experience and expertise made it an easy choice,” said Richard Fahlström and Therese Hammerman of Ericsson Data Business Support.

Their project is a good example of how Ericsson’s ideas about openness and knowledge management should work.

ABB Generation is a traditional industrial and engineering company making power generation equipment. The idea of establishing an intranet was born in an internal business development project. An intranet would solve many internal communications problems and facilitate daily work.

**IT STARTED AS** a rather limited Web project, but has grown along the way and turned into a complex system where several areas of expertise at Ericsson contribute solutions. Ericsson Data’s Web Solutions unit won the contract in competition with seven other large computer companies.

“Together with ABB Generation we have reviewed their needs and, based on that, created a design and a structure on several levels,” Ms. Hammerman said.

The resulting intranet has room for information and knowledge on working processes such as marketing, tenders, product development, aftermarket and deliveries. In the next phase, the intranet will become more interactive. Together with the customer, Ericsson will develop applications that fit ABB Generation’s existing business system.

“In the middle of all this, the customer said: ‘We have this other project...’”

**THIS PROJECT WAS** a document management system, which in time will be integrated with the company’s intranet. A Web interface search window is already in place.

The people at ABB Generation who are going to work with the intranet are being trained in both software and “netiquette.”

ABB Generation people will handle daily updates, and ABB Info-systems will handle technical operation. But when it comes to develop-

ment work and ideas for the future, Ericsson will participate.

In order to gain support for Ericsson’s ideas for future communications at ABB Generation, Ericsson is planning seminars for managers. Ms. Hammerman and Mr. Fahlström believe this is important.

“Early on, Ericsson employees were given access to the Internet and created their own intranet. This gave Ericsson expertise and experiences which we can now offer our customers.”

@To learn more, contact:  
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**Customer:** ABB Generation, Västerås, west of Stockholm. The intranet is set up in a Windows NT environment with Microsoft Internet Information Server and Lotus Domino as servers. The daily task of updating is done using Microsoft FrontPage. The document management system is Documentum.

# Daydreams become reality: SUPERFAST MULTIMEDIA IN CABLE NETWORKS

When Ericsson Data selected a partner for its concept of multimedia via cable TV networks, it went to Umeå, a university town in northern Sweden. Result: its daydreams became a reality. Partly because Daydream is the name of its partner company.

“Entertainment has been around for many thousands of years,” said Daydream President Jan Phersson-Broberg. “We will be using our knowledge of games to help Ericsson’s customers create communities around cable TV and wideband networks.”

Daydream is one of several partners that Ericsson Data Systems Integration is linking up with as it sells its Internet Multimedia Community Solutions (IMCS) concept all over the world.

Daydream’s expertise is important in obtaining answers to some of the questions now arising. What should the customer interface look like? What will attract return visits? What do you censor when offering global family entertainment? What might games without language look like?

“To us, Ericsson is an excellent partner,” Mr. Phersson-Broberg said. “Content is king, but Ericsson has the technology it takes to deliver it to the customer.”

**ERICSSON DATA** is working directly with Daydream subsidiary Sombrero, which began by primarily selling computers and services to the graphics industry.

Daydream produces its own games, based on its own ideas. All outside inquiries and ideas are channeled to Sombrero, which means that Sombrero and its employees are using Daydream’s expertise to produce the IMCS interface.

But first – what is IMCS? Bengt Lundberg, IMCS project manager at Ericsson Data Systems Integration, explained:

“Wideband networks are required to provide users with fast Internet connections. Those who have wideband want to develop new, IP-based services such as Internet and multimedia. IMCS makes this possible. Users get high-speed connec-

tions through the cable network. And network operators can introduce new IP-based multimedia services within the IMCS concept.”

**IN THE AUTUMN OF 1997**, Ericsson Data developed a way to access the Internet via cable networks. Three hundred households are now participating in a test by cable operator StjärnTV (*StarTV*) in Stockholm. Interest has exceeded expectations and thousands are standing in line to get rapid data communications via cable. In time, all 230,000 StjärnTV customers will be getting Internet access via cable.

With IMCS, this concept is now being developed and promoted to other customers. Basically, it amounts to a local area network (LAN), which provides certain services. “This makes a number of new services possible. With the right infrastructure, in principle you can provide everything the world of multimedia has to offer. Besides the Internet, this could be video conferencing, chatting, games, or building communities of various user groups,” Mr. Lundberg said.

**THIS IS WHERE** Sombrero enters into the picture. It is a company with three employees, and part of the Daydream Group. Daydream gained an international reputation by first landing a contract with media giant Time-Warner Interactive, and then terminating it.

“Being just three employees, a modern virtual company with many freelancers, can be a problem

when we deal with a traditional company that measures size by the number of employees," said Mr. Phersson-Broberg, one of Daydream's founders.

Daydream has 12 employees, of whom three work at Sombrero. Add five to ten subcontractors, entrepreneurs with vertical knowledge in niche specialties. Actually, Daydream is nine companies – nine one-man companies that Daydream uses for various projects because they have special expertise.

"They have to be incredibly good at their specialty. An employee can never be as good. 'Computer games in Umeå? Are you crazy?' But with modern technology it doesn't matter where we are located."

#### IT SUFFICES

to read my son's Playstation magazine to realize that Mr. Phersson-Broberg is right. Many of the games featured there are designed by Swedish companies. And they sell.

"We saw a change four years ago," Mr. Phersson-Broberg continued. "It used to be that new developments in graphics and real-time simulation came from the defense industry. But then computer games took over. They develop innovations that let you enjoy experiences, not killing."

Daydream asked some of the guys working on games if it was hard. "No, it's ridiculously easy. I designed two for my sister." They came up with 40 ideas in a short time. One of these turned into Safecracker, the computer game that made Daydream world famous.



Together with Ericsson Data, they are now going to work with "star networks," or cable networks built to allow separate return traffic. In other networks, all return traffic must share the same line. Star networks feature a separate cable to each household from a central point in the building or neighborhood. Where wideband is available and information transfer is based on the IP protocol, it is possible to develop this kind of environment.

"We offer operators this service. It might be a cable company, a property owner or another type of company," Mr. Lundberg said. "There are 120 million meters (75,000 miles) of cable in star networks in the world. This is a common technical

solution, for example in the U.S.

"Downloading the latest version of Netscape, at 19 Mb, normally takes less than two minutes."

**STILL, THIS IS JUST** the beginning. The next generation of cable modems will reach 27–30 Mb/sec. This will mean warp-speed karaoke in the cable TV households of Hong Kong and Malaysia!

@To learn more, contact:  
[bengt.lundberg@edt.ericsson.se](mailto:bengt.lundberg@edt.ericsson.se)

See also *Access* Mar.98, page 19.

EN INGLÉS, ESPAÑOL Y CHINO

<http://www.ericsson.com/accessmagazine/spanish>

**REVISTA TI DE ERICSSON**

ERICSSON



**A**t lunch, an entrepreneur told me that these days every company is like a software company, or should be. The idea appeals to more than the vanity of technology entrepreneurs: managers of industrial companies yearn, keenly, to be like software engineers. The venerable CEO of a British chemical company recently informed me that "we are all information technologists now."

This dogma is called the business revolution, and it has become a commonplace. The most recent issue of *Harvard Business Review* (that un-failing barometer of management theory) praises British Petroleum – of all companies – for "starting to look like a Silicon Valley enterprise . . . with its flat organization, entrepreneurial business units, web of alliances, and surging profits."

Here are the five principles of the business revolution, according to Alan Webber, one of the founding editors of *Fast Company*, the party organ of the business Bolsheviks. In the new information economy,

1. Ideas are more valuable than factories, equipment, natural resources and cash.
2. It's not enough to have good ideas. You must implement those ideas more quickly than ever before.
3. Companies compete globally.
4. Companies are less hierarchical than they used to be.
5. Companies have many, shifting alliances.

Business revolutionaries believe these principles are applicable to any industry, but they think that IT companies precipitated the revolution and best exemplify it. Silicon Valley, in other words, is a managerial model for agriculture, mining, or manufacturing or any business at all.

It's not true. The principles of the business revolution are either specific to the information technology industry, or are not revolutionary, or are wrong.

CONTRA 1. Tangible assets are more important than "intellectual capital" in most commodities businesses, where companies benefit from economies of scale. Innovative ideas are a competitive advantage only in IT

businesses and in those commodities businesses where competitors have roughly equal tangible resources. But whether an idea is more valuable than tangible assets depends on the business, the circumstances and the idea.

CONTRA 2. When innovative ideas are a competitive advantage, the market will reward both the kind and the frequency of innovation. There is nothing revolutionary about the fact that product cycles are getting shorter in industries that favor innovation. Product cycles are always getting shorter in these industries. Such is capitalism.

CONTRA 3. Not all companies compete globally. Construction companies don't.

Dairy farmers don't. In all, exports and imports account for just one-fourth of the U.S. economy.

CONTRA 4. It's a matter of personal taste, but I am inclined to dismiss this out of hand. Here at *The Herring* the entire staff is obliged to call me "Guv'nor."

CONTRA 5. Companies have always had many, shifting alliances.

The benefits of information technology are specific to each business: sometimes technology will help a business develop innovative ideas; sometimes it will let a business use its tangible assets better. In the long run, those benefits may be more wonderful than the business revolutionaries can imagine. But they will not transform ordinary businesses into high-tech companies.

My old dad, who founded two companies and was a manager in ten more, reminds me that ingenious but impractical management theories never last. "What goes around comes around," he says. "The basics of business have never changed: meeting your obligations to your customers, your shareholders, your employees and your brand."



JASON PONTIN  
is editor of *The Red Herring*, a U.S.-based magazine covering the business impact of emerging technologies.

## KILL THE MYTHS ABOUT IT COMPANIES

# ACCESS

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ERICSSON

# GORDON JUST CLICK ONE BUTTON

With Gordon's help you can access all of Ericsson's IT services – in one place, with a just few clicks.

"This is a modern application that handles all functions automatically," said Anna Odén, Gordon information manager.

"The goal is that each customer shall feel that an order has been handled efficiently and professionally."

For instance, using Gordon you can set up mail accounts for Microsoft Outlook, set user privileges for employees in various systems and order services such as Trading & Distribution.

Gordon can be used independent of the time of day, location in the world, or what service is involved. Everything is handled via the Web. Wizards answer questions from those who need help.

This autumn a prototype will emerge and by the summer of 1999, when the last Memo users convert to Outlook, Gordon will have grown up.

@To learn more, contact:  
anna.oden@edt.ericsson.se



## THE KEY TO SECURE DATA COMMUNICATIONS

Ericsson Data has initiated a project to implement a Public Key Infrastructure (PKI) at the Ericsson Group. The intent is to protect and create confidence in the security of information that is stored and transported in digital form.

All Ericsson employees as well as outside partners and consultants will be able to sign documents and information that will be stored or delivered to others at Ericsson, or externally to partners and consultants. If the sender wants to limit distribution to a particular recipient, the information can be encrypted and the key sent to the recipient using PKI.

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## POINTCAST MAKES AN ABOUT-FACE

PointCast, the company that pioneered push technology, has withdrawn its initial public offering of common stock. The company said it still believes in push technology and will release a new program version shortly. The truth may be that interest in push technology is fading.

Those who still think push is an ingenious idea may find PointCast Network version 2.6 a sensible upgrade. The program requires fewer computer resources than before. Many users have complained about resource requirements. (Source: [www.uppsnappat.com](http://www.uppsnappat.com))

## GET YOUR E-MAIL READ TO YOU BY PHONE

Now you no longer need to be connected to the Net to check your e-mail. With CoolMail you can do it by phone. When you have registered your account with CoolMail, you can have your e-mail read by a synthetic voice, just by calling a special number. The service also offers an opportunity to respond to e-mail with a voice message. Based in the U.S., CoolMail is mostly free. So far, the service is not available in Sweden. <http://www.planetarymotion.com/>

(Source: [www.uppsnappat.com](http://www.uppsnappat.com))

## E-MAIL WITH RETURN RECEIPT

Sure e-mail is fast, but you can never be 100 percent sure it arrives. Certified-mail.com, a new service, enables you to send e-mail letters and receive a return receipt verifying that the letters arrived. The service is priced at about SEK 30 per month (USD 3.95).

The site's creator, Court Coursey, is expecting that lawyers, economists and researchers will be the most important customer categories. <http://www.certifiedemail.com/> (Source: [www.uppsnappat.com](http://www.uppsnappat.com))

<http://www.ericsson.com/accessmagazine/chinese>

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