



President Kurt Hellström was more than pleased to announce Ericssons quarterly result at a pressconference last week. Last time CEO lars Ramqvist promised that the fourth quarter should be Ericsson's best ever. He was proved right. Photo: Peter Nordahl

# Best quarter ever

Last week, Ericsson released it's financial report for the fourth quarter of 1999, boasting the best quarter ever in terms of orders, sales, income and cash flow.

Income for the full year was slightly less than in 1998, but exceeded market expectations. Share prices jumped in response to the report. Ericsson also announced changes in the executive management. Among other things, Jan Wäreby has been appointed as the new head of Consumer Products, succeeding Johan Siberg. 4-7

#### New unit for Internet

NEWS

#### Ericsson Internet Applications is the name of a new Ericsson business unit. It will be organized under the Network Operators segment and handle all IPbased solutions and applications for mobile and fixed networks. **4**

#### Still difficult in Venezuela

Extensive work remains to recover from the flooding catastrophe in Venezuela in December. Ericsson is providing assistance with communications and transportation.

#### Heavy focus on IP skills

This spring Ericsson will launch its largest combined training program ever. Throughout Ericsson there are already a number of initiatives under way to increase employees' skills in datacom and IP. **15-17** 

#### A consistent Ericsson image

His mission is to increase the awarness and perception of the Ericsson brand and values. Meet Art McCabe, who is to ensure that Ericsson communicates the proper message.

14

# 2,900 to new companies

Stockholm 28/1

Ericsson B share,

629

Ericsson is outsourcing additional units as part of the restructuring program. These actions were announced during the past few weeks. Energy Systems, with 2,200 employees, is being sold to Emerson Electric. Private Radio Systems in Lynchburg, Virginia in the US, with 700 employees, is being divested. **5** 

### Increase data trafffic under water

Rapidly rising datacom traffic means that the market for submarine cable is growing at a booming pace.

It is projected that 500,000 nautical miles of submarine cable will be laid during the next three years, offering large business potential for Ericsson. As one of the ten submarine cable manufacturers in the world, Ericsson is focusing on smaller projects to link cities with undersea cable. **12–13** 



Meet Ericsson's seamen carrying out a large submarine cable project currently under way in the Gulf of Thailand. Photo: Lars Åström

#### New web site

A new business intelligence web portal was recently launched at the intranet.

11

#### COMIC STRIP

Eric & Son takes a look at what makes a business project successful. **21** 



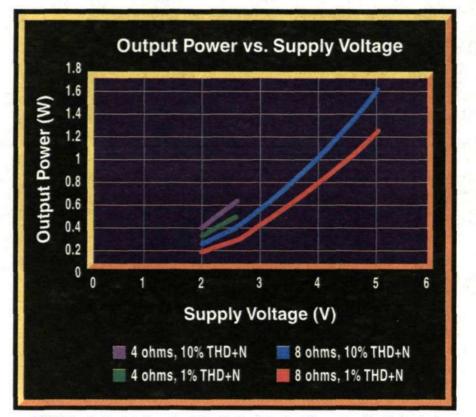
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# **Concentrating our resources**

"To meet the ambitious and realistic goals we have established and to continue to concentrate our resources." Sten Fornell, the new Chief Financial Officer of Ericsson, didn't hesitate when asked about his most important responsibilities during the first six months of this year.

The first results of his efforts was reflected in Ericsson's 1999 yearend financial report, which was released on February 28.

When Contact met Sten Fornell for an interview, there was a large bouquet of flowers on his desk, with a note wishing him good luck. That same morning, he was named new Chief Financial Officer in a press release issued by Ericsson. Sten Fornell, who will be based in London, was appointed interim Chief Financial Officer in September 1999.

"I'm moving to London with the objective to establish my primary office there, but I will also keep my office in Stockholm in order to maintain the excellent contacts I have established with important Ericsson operations here in Sweden," he says. "By establishing corporate functions in London, we will create new opportunities to recruit first-class international candidates for Ericsson's executive management staff. It's important to keep the market informed of Ericsson's business development and, particularly with regard to our international shareholders, it will be easier to accomplish our objectives from London.

"Operationally, I am strongly involved in our companies in Turkey and South Africa, and it's easier to fly to both countries from London, as opposed to Stockholm. My wife, who is a dentist, will not move with me to London at first, but we have a daughter who is studying there, and she has promised to take care of me," says Sten Fornell with a laugh.

#### From a Swedish perspective

Ericsson's new CFO doesn't try to hide the fact that last autumn, and the wave of negative press, was a difficult period. Media attention is a good thing, but the coverage was based on a highly pronounced Swedish perspective. Sten Fornell spent an unusual amount of time in Sweden during the autumn. He believes spending too much time in Sweden creates a narrow perspective, however.

"Kista and Telefonplan are not always the focal points of all Ericsson



"We must continue to build market confidence in Ericsson's commitment to fulfill our promises. This applies to both market shares and financial results as well as delivery times for new products," says Sten Fornell.

activities. It's important to find the right balance," he says.

Financial reporting, cash flow and Ericsson's overhead are some of the key areas in which Sten Fornell concentrated his attention during the autumn. Ericsson's new structure, which was introduced a little more than a year ago, made financial reporting highly comprehensive and detailed. Compared with former requirements, the scope and volume of financial reports quadrupled. "Naturally, we need financial information, but the wealth of details must be balanced more evenly," continues Sten Fornell.

Financial reporting was simplified in the autumn by eliminating about half of the former volume of information requirements. Ericsson's interim report for the first six months of 1999 showed an all-time low in terms of cash flow, but the trend was reversed in the third quarter and a positive cash flow has now been restored. In 1998, Ericsson's overhead corresponded to 33 percent of sales, and no improvement was noted in 1999.

"The goal this year is to reduce our operating expenses to about 30 percent of sales, and I am optimistic that we can meet this objective," says Sten Fornell.

#### **Concentrated production**

He believes the restructuring program, which he prefers to call a program of transformation, is now gaining momentum and beginning to make serious inroads throughout the organization. The program is designed to increase operating efficiency and speed in all parts of Ericsson, and measures that have been implemented are now starting to yield results. "The concentration of resources should run like a red thread throughout our entire organization," he says emphatically, while adding that a great deal has already been accomplished in this area.

Production, for example, has been concentrated to only a few plants. Ericsson Services has created a joint unit for service and, in the same way, greater concentration has been established in finance through Ericsson Shared Services. Focus is now being shifted to Ericsson's development resources.

#### "A fantastic industry"

An important task during the first six months of this year will involve continued efforts to nurture and develop the market's confidence in Ericsson.

"It is essential, therefore, that we live up to our promises, both in terms of market shares, financial results and delivery times for new products. It's also important to accelerate the pace of our transformation program," Sten Fornell continues.

"We work in a fantastic industry characterized by dynamic growth, and we have strong positions that we must now use to our best advantage," he adds.

Sten Fornell joined Ericsson as Chief Financial Officer of the former Ericsson Information Systems in 1982.

After six years, he transferred to Ericsson Radio Systems and the former Radio Communications business area, which was succeeded by the present Network Operators business segment, where he worked as Controller until last autumn.

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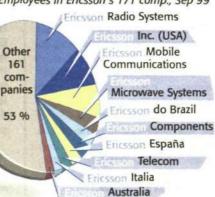
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Contact on the web: http://inside.ericsson.se www.ericsson.se/Lib.shtml nearly half of all employees work for one of Ericsson's 10 largest companies. Employees in Ericsson's 171 comp., Sep 99

DID YOU KNOW THAT ...



#### Internet solutions form single unit

IN BRIEF

➤ Ericsson's new Internet Applications business unit, which goes into operation in February, plans to focus on consumers, making it even more fun to surf, shop and conduct banking via the Internet.

Lars Boman, who is leaving his position as Vice President of Ericsson in Japan, will head up the new unit. The unit's business strategy is already in place – to make Ericsson a world leader in mobile Internet. Establishing a new business unit, which the Network Operators business segment, is yet another step in that direction.

Its focus will be on developing IPbased solutions, for both wireless and wireline networks, with increased collaboration between various Ericsson units around the world that are working in the field, as well as working towards standardization. Several strategic ventures are in the works, including the joint venture with Microsoft.

A total of 600 Ericsson employees in the U.S. (Dallas, Texas; Long Island, New York; Raleigh, North Carolina) and Sweden (Stockholm and Sundsvall) will form the new unit to be headquartered in Stockholm.

Jan Lindgren will serve as the acting head of the unit until Lars Boman assumes his new position.

www.ericsson.se/infocenter

#### Cutbacks to be made in Karlstad

➤ Some 170 employees will be affected when the operations of Ericsson Radio Systems in Karlstad, Sweden, are either moved to other units within Ericsson or shut down.

Approximately 90 people, who currently work with so-called platform technology and open systems, will be transferred to Ericsson Infotech in Karlstad. The Intelligent Network Applications (IN Applications) operations will be moved to Ericsson in the Netherlands. The Operations and Site Management and Support units will be shut down.

Ericsson, together with union organizations, hopes to find solutions that will allow the affected employees find new work either within or outside of Ericsson.

#### Cooperation for mobile Internet

► HQ.SE and Ericsson Business Consulting has signed a cooperation agreement regarding mobile Internet solutions.

The partners will develop a solution for financial services via Ericsson's new WAP telephones.

The development will target functions that enable clients to buy and sell stocks and derivatives via HQ.SE, stock quotes, price alerts and access to analyses.

"Mobile Internet solutions give our customers opportunities to trade stocks when they want, where they want," says Nicklas Storåkers, CEO of the Internet brokerage firm HQ.SE Fondkommission.

"Ericsson's leading-edge competence in this area enables us to be at the forefront in this area."

# Jan Wäreby new head of Consumer Products

Last Friday, January 28, Ericsson announced major changes in the executive management team. These changes will take effect on February 15.

Jan Wäreby will succeed Johan Siberg as head of Ericsson's Consumer Products business segment. Jan Wäreby is currently head of the Europe, Middle East and Africa market area.

Jan Wäreby will be based at Ericsson's corporate office in London – major activities within the business segment in Lund (Sweden) and Research Triangle Park (US) make London a good hub for managing the segment.

Jan Wäreby (born in 1956) joined Ericsson in 1980 and has held various positions within the company. During the past 15 years, he has worked in marketing in the US, and at Ericsson Radio Systems in Sweden.

Johan Siberg (born in 1944) will take up a new position as the coordinator of Swedish operations. In this role, he will participate on major Ericsson boards and in steering groups that relate to operations in Sweden. He will also represent Eric-



Jan Wäreby, left, currently Executive Vice President and Head of Market Area Europe, Middle East and Africa, is appointed new head of Consumer Products after Johan Siberg. Johan Siberg, middle, will move to a new position as coordinator of Swedish operations and participate in major Ericsson boards and steering groups relating to operations in Sweden. Ragnar Bäck, right, currently President and Country Manager of Ericsson in Italy is appointed Executive Vice President, head of Market Area Western Europe and member of the Corporate Executive Team.

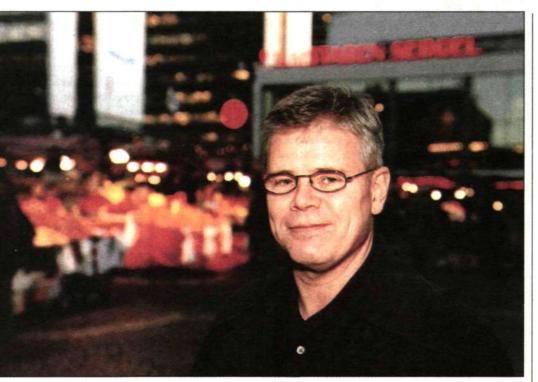
sson in industry associations and overall industrial relations.

The Europe, Middle East and Africa market area will be divided into two areas: Ragnar Bäck, currently President and Country Manager of Ericsson in Italy, has been appointed Executive Vice President and head of the Western Europe market area. He will also join the Corporate Executive Team. Ragnar Bäck (56) joined Ericsson in 1969. Before his appointment, in 1995, as head of the Italian operations, he served as President of Ericsson in New Zealand and the Netherlands.

Massimo Gentili, currently Vice President and General Manager Public Operators, succeeds Ragnar Bäck as head of Ericsson in Italy. Gentili (53) joined Ericsson in Italy in 1968.

The appointment of a manager of the new Eastern Europe, Middle East and Africa market area will be announced shortly.

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Prior to CeBIT, the challenge for project manager Per Söderström has been to encourage the emphasis of a more distinct message, to cut costs and to focus on fewer, more appropriate applications and products. Photo: Lars Åström

### High time to book for CeBIT

It is now high time to book for this year's CeBIT trip. Ericsson will be presenting many new and exciting items. In addition, regular CeBIT visitors will notice that Ericsson is concentrating on a more distinct message and fewer products this year.

"During recent years, CeBIT has simply grown and grown. This has meant more products and greater expense every year. The objective at this year's CeBIT is to show Ericsson's strength in mobility, to convey a more distinct message and to cut costs," says Per Söderström, project manager for Ericsson's CeBIT participation.

The trade fair takes place between February 24 and March 1 and is one of the world's largest telecom and IT trade fairs. The theme for Ericsson's contribution to CeBIT is "The Power of Mobility." Mobility is one of the most powerful driving forces in the data and telecommunications industry, a fact which is emphasized in Ericsson's contribution to CeBIT. Ericsson will also show applications and products within 3G mobile telephony, GPRS, mobile Internet, mobile e-commerce, datacommunications and multiservice networks.

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#### Specifications for the first version of the UMTS mobile system standard have now been determined.

The decision was made in December by the 3GPP industry organization. 3GPP consists of six regional standardization organizations and representatives from suppliers and operators. At their meeting in December, the organization made decisions on over 300 specifications for the first UMTS standard for the third-generation mobile system.

The standard is based on an expansion of the core GSM network, along with WCDMA and TDD for technologies such as radio transmission.

The 3GPP's specifications are considered to be the official world standard for UMTS/WCDMA, since the International Telecommunication Union (ITU) refers to them in its recommendations on applying the standard globally.

The idea is to release annual revisions of the UMTS standard, as was done with standards for GSM technology. The annual revisions are necessary, since the market is constantly demanding new applications.

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# **Energy Systems sold**

Last week it became clear that Ericsson Energy Systems would be sold to the American firm Emerson Electric. Energy Systems – with its 2,700 employees, including 1,700 in Sweden – is currently a part of Ericsson Components.

Most employees will remain with the company under its new ownership. The 580 employees at Energy Systems who work with power modules will, however, remain at Ericsson as a part of Ericsson Microelectronics.

Emerson Electric is paying just over SEK 6 billion for Ericsson Energy Systems, which will continue to be operated as a separate unit under Emerson Electric.

#### No core operation

Ericsson Energy Systems is currently a profitable unit for Ericsson, but is not a part of the core operations on which the company is focusing. Consequently, Ericsson has de-

cided to sell the unit. During a three-year transition

period, Ericsson has agreed to

#### THIS IS EMERSON

Emerson is a US based global conglomerate, headquartered in Missouri, with operations in five major fields.

One tenth of its current revenues come from energy and power-related products.

In addition to electronics and telecom, Emerson divisions include process control, industrial



Howard Lance from Emerson Electric shakes hands with Rolf Pettersson after concluding the deal. Rolf Pettersson will continue to manage Energy Systems under the new owner. Foto: Lars Åström

continue purchasing products from the company, even after Emerson Electric assumes control. Several interested buyers were involved in the sales process.

volved in the sales process.

automation, ventilation and cooling and applications and tools. Emerson reported sales in 1999

of SEK 115 billion and currently

employs 128,000. Emerson has previously acquired energy systems operations from Nortel.

www.emersonelectric.com

"We chose to sell the unit to Emerson since the company, with this acquisition, will become the largest supplier in the market. Emerson also has considerable experience with telecom energy products," says Sigrun Hjelmquist, president of Ericsson Components.

#### Headquarter in Stockholm

Rolf Pettersson, who currently manages Ericsson Energy Systems, will continue to oversee operations under the new ownership. Company management will remain headquartered at Kungens Kurva, south of Stockholm. The deal was completed in a very short period of time. The parties met for the first time on November 9. Today there is a binding contract, al-

though a great deal of work remains. The primary task is to separate Energy Systems from integrated Ericsson operations overseas. All work is expected to be completed within a few months.

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www.ericsson.se/infocenter
 www.eka.ericsson.se/energy
 www.ericsson.se/energy

## US company acquires Private Radio Systems

Ericsson in the US is to divest its Private Radio Systems operations. Pennsylvania-based Com-Net Critical Communications, specialists in providing radio network solutions to the public safety and service market, will acquire the division.

Headquartered in Lynchburg, Virginia, the PRS business employs more than 700 people, but no positions will be lost as a result of the deal. Denise Woernle, Public Relations and Internal Communications Manager at PRS, said, "Com-Net purchased the expertise and knowledge of the PRS employees. They will transfer to the new company. The new company will remain in the Central Virginia region. We will move to a different facility in the near future."

#### Lynchburg still key player

Lynchburg should remain a key player for Ericsson in the US The Consumer Products Production and Mobile Systems and Distribution business units will become the main Ericsson businesses in the region. PRODUCT WITH TRADITIONS

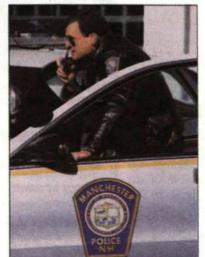
With the sales of Private Radio Systems, products that for many years represented an important element of Ericsson Radio Systems will disappear.

The company, formed in 1919 as Svenska Radioaktiebolaget SRA, began selling private radio systems in 1943, to the police among other customers!

When Ericsson and GE formed a joint company in 1989, private radio operations expanded as a result of merging with GE's mobile radio operations in Lynchberg, Virginia. The most wellknown system from these is probably the Edacs.

The number of Ericsson employees, contractors and support staff remaining will total approximately 3,600.

The announcement is inline with Ericsson's overall strategy, to concentrate on the convergence of mobility and Internet communica-



Private Radio Systems is being taken over by US-owned Com-Net Critical Communications, which is forming a new company with Ericsson as a minority shareholder.

tions; a strategy which has led Ericsson to make various acquisitions as well as divestments as it pursues the future wireless market.

The sale of the PRS division is hoped to bring increased focus on the private radio market by the new company, to be known as Com-Net Ericsson Critical Radio Systems. Denise Woernle continued, "An important aspect of the acquisition is that Ericsson chose Com-Net as the acquiring company because the company intends to focus on the land mobile radio market, and maintain current customer commitments while pursuing new customers. This creates a positive situation for employees who will have tremendous opportunities for growth and development as the company expands."

#### **Continuity for customers**

Ericsson will retain a minority interest in the new company, since it wishes to provide continuity during the transition for employees and customers.

"We are very pleased to have entered this new business relationship with Com-Net Critical Communications," said Joe Hagan, Chief Financial Officer for Ericsson US He followed, "Their leadership and focus will ensure the success of the business for our customers and our employees."

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#### New internal TV system

➤ Two projects are currently in the works to improve the company's internal TV system – ready-to-use packet solutions and the option of upgrades using Ericsson Standard Office Environment (ESOE).

Elisabeth Ljungberg is responsible for the internal TV system at the corporate level.

"A test project is currently underway at Ericsson in Gävle, in which we are testing a new system and new software. If things go well there, we will abandon the existing Scala system and replace it with Composition 2000," says Ljungberg.

The system is currently being used by Telia, among others. Ericsson is collaborating with Cetevo, which has been modifying the system to include a web-based interface. The new system will be both more inexpensive to acquire and to operate.

A major advantage with the system is the ability to add the software into the ESOE package. A final decision on a system change will be made by early summer.

The other project is to develop finished packet solutions for internal TV broadcasts to all local companies. This will require some new equipment for those who are currently using Scala, since the Scala and Composition 2000 systems are incompatible. Complete information will become available once the Gävle test project is completed this summer.

Elisabeth is happy to receive suggestions about new items that she can include. A special e-mail address has been set up for that purpose: internal.tv@lme.ericsson.se

#### Helpdesk for WCDMA queries

➤ A helpdesk has now been set up on the intranet to answer questions about the third-generation mobile systems WCDMA and UMTS.

Assistance is available 24 hours a day through the ASQ Helpdesk web portal, using a database and a network of experts.

If the helpdesk cannot find the answer in its database, questions are forwarded to a network of more than 300 experts, who reply within three days or less.

ASQ Helpdesk can also respond to questions about GSM and Ericsson's various service offerings.

#### asq.ericsson.se

#### More finding way to Info Center

➤ Since its inception back in August 1999, the number of visitors to Ericsson's Information Center news website has continued to increase.

Information Center is available on the Internet and can be accessed from Ericsson's official website www.ericsson.se.

It can also be accessed internally at inside.ericsson.se.

The site is one of Ericsson's most visited and is a good source of information for those who would like the latest news about the company.

The busiest one-month period so far has seen over a half million visitors.

# The best quarter ever

Quarter four of 1999 was Ericsson's best ever. Income for the full year ended at SEK 16.4 billion, slightly exceeding market expectations. Nearly half the year's results were generated in the fourth quarter.

During the last quarter of 1999, received orders increased by 40 percent to a total of SEK 66 billion. Sales and income also increased significantly. Sales rose during last quarter by 25 percent to SEK 73.8 billion, and income before tax was SEK 8.5 billion, an increase of 39 percent. These results are Ericsson's best ever.

Mobile phones also showed a strong increase in volume during the fourth quarter, with sales rising by 33 percent. The operational margin was 5.6 percent.

Ericsson expects revenues to grow by more than 20 percent, and predicts substantial growth in earnings during the coming year.

Mobile systems were the primary contributors to the results with strong performance in all market areas. Total orders received during the quarter were up 40 percent compared with the fourth quarter of 1998. Sales during the fourth quarter increased by 25 percent and income before taxes rose 39 percent.

For the full year, orders and sales grew by 19 percent and 17 percent respectively. The strong performance of mobile systems and the weaker performance of mobile phones, were the main factors affecting the company's results. Income

EXTERNAL SALES BY MARKET ARE

before taxes for the full year was SEK 16.4 b, a decline of 10 percent compared with 1998. Earnings per share were SEK 6.17 (6.66).

Considerable strategic progress has been made during the year giving Ericsson a forefront position when the market for mobile Internet now starts to take off.

Ericsson is the undisputed market leader in mobile infrastructure and among the top three in mobile phones.

Sales growth was led by a 39 percent increase in the US, again Ericsson's single largest market. Europe continued to show strong growth. In Asia Pacific, Japan showed a 78 percent growth. The Board of Directors will propose to the Annual General Meeting on March 31 an unchanged dividend of SEK 2.00 per share.

The Board proposes a bonus issue by way of an increase of the par value of the share from SEK 2.50 to SEK 4.00, followed by a split 1:4. Trading with the new par value of SEK 1.00 is expected to commence in the beginning of May 2000.

The Board furthermore welcomes the proposed possibility to repurchase shares and will present a proposal to the Annual General Meeting in the light of the final decisions taken by the legislative bodies in Sweden.

America

Kurt Hellström, president
Lars Ramqvist, CEO
Edited by: Patrik Lindén

Marth America

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	EMEA	Asia Pacific	Latin
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	ENIEM	Asia Facilic	Latin America	North America
TOTAL SEK billion*)	115.1	44.9	30.2	25.2
Share of total Ericsson	53%	21%	14%	12%
Network Operators	73.7	33.8	23.9	17.7
Consumer Products	25.3	9.3	4.9	6.2
Enterprise Solutions	9.1	1.2	1.0	0.4
Other Operations	7.0	0.6	0.5	0.8

#### SEGMENT RESULT 1999

Segment	Net sales SEK billion	Growth %	Operating Income SEK million	Operating Margin %
Network Operators	149.9	22	19,637	13
Consumer Products	46.4	3	253	1
Enterprise Solutions	17.3	19	64	0
Other Operations Unallocated costs Less: Intersegment	16.8	10	75 -2,439	0
sales:	-15.0	10		
Ericsson	215.4	17	17,590	8

# Strong demand for mobile communications

Ericsson's sales growth was driven by strong demand for mobile communications in all market areas. The fastest growth, 36 percent, was seen in North America. Market areas Latin America and Europe, Middle East and Africa (EMEA) grew by 19 and 18 percent respectively.

#### Europe, Middle East and Africa

The strongest growth was seen in the UK, Spain, the Netherlands and Turkey. There is a high activity level in the market to invest in mobile systems and to prepare for the migration into next generation networks.

#### **Asia Pacific**

The sales in China were SEK 18.8 billion, 16 percent lower than last year. Excluding China sales increased 27 percent.

The slowdown in China is considered temporary and caused by restructuring of the Chinese operators and regulatory uncertainty. During the fourth quarter orders and sales started to recover. Orders booked in China increased during the fourth quarter by 22 percent compared to the fourth quarter of 1998.

Strong sales growth was reported in Japan, 78 percent, and India, 82 percent.

#### Latin America

In Latin America, sales increased by 19 percent. Strong development in Brazil (20 percent) and Mexico (74 percent), compensated for lower sales in other countries.

#### North America

The growth in North America is reflecting the very strong growth in mobile telephony. The introduction of new flat rate or bundled tariffs was the stimulus for subscriber growth and minutes of usage in the US similar to development in several other markets.



The US was Ericsson's single largest market during 1999. The growth in sales was 39 percent. The US represented 11 percent of Ericsson's sales during 1999. Photo: Lars Åström

#### RESULTS

Results for the full ye	ar of 1999	Results for the fourth quarter of 1999			
6756	(SEK billion)		(SEK billion)		
Orders	223.8 (+19 %)	Orders	66.0 (+40 %)		
Sales	215.4 (+17 %)	Sales	73.8 (+25 %)		
Income before taxes	16.4 (-10 %)	Income before taxes	8.5 (+ 39%)		
Cash flow before		Cash flow before			
financing	-2.4	financing	+ 9.5		

#### TOP 10 MARKET

	Sales SEK billion	Change from 1998 %	Total net sales % of
United States	23.6	39	11
China	18.8	-16	9
United Kingdom	15.9	15	7
Brazil	14.3	20	7
Spain	12.0	85	6
Italy	12.7	11	6
Turkey	9.9	117	5
Japan	8.6	78	4
Sweden	7.6	-11	4
Germany	6.0	3	3

# **Restructuring plan** back on schedule

The restructuring program that was announced in January 1999 is after initial delays, implemented according to plan. Decisions made during the fourth quarter will partly be realized during the first quarter 2000.

Overall SEK 2.4 billion was spent during the year with cost savings amounting to SEK 600 M. This affected 9,600 people. Restructuring is well under control and will from now on be

#### Sales increase of 20 percent for 2000

➤ For the full year 2000, Ericsson believe in continued strong market growth where Ericsson gains benefits from its leading position in mobile telephony and in the growth of mobile Internet. Ericsson's long-term financial targets remain unchanged. We intend to grow faster than the market, which means growing by at least 20 percent, and with a return on capital employed of 20-25 percent with positive cash flow before strategic acquisitions, and an operating margin of at least 10 percent.

Ericsson expect sales to increase by more than 20 percent during the year 2000, and a substantial growth in earnings. This is to be achieved with a positive cash flow.

The first quarter of 1999 was exceptionally weak, affected by restructuring costs and slow development in China and for mobile phones. For the first quarter of year 2000, we expect a sales growth by more than 30 percent and income before taxes in the range of three times that of the first quarter of 1999.

part of Ericsson's normal operations. The number of employees at year-end was 103,290. The net reduction in total number of employees was 377 for the year. However, around 9,600 employees were affected by the restructuring program during 1999. Almost 5,400 employees were recruited into new jobs mainly within Consumer Products. About 2,400 employees were added with acquisitions. Sales per employee increased 17 percent to SEK 2.1 M from SEK 1.8 M in 1998.

The objectives for Ericsson's Millennium program were to retain customer satisfaction, to protect shareholder value and to secure working conditions. All three objectives were met and no major incident was experienced during the transition.

The global program has been running since 1997, with a total accumulated cost of SEK 2.7 billion During 1999 SEK 1.8 billion was spent, mainly affecting selling and administrative expenses.

CEO Lars Ramqvist were proud to present Ericsson's best quarterly results

ever on the press conference last week. Photo: Peter Nordahl

### **Rapid increase for Network Operators**

The market for mobile communications is driven by strong subscriber growth, increasing usage per subscriber as well as expenditures by network operators to enhance the networks for mobile Internet capabilities.

Network Operators and Service Providers segment experienced a strong year in 1999. A very high growth of traffic in all kinds of networks resulted in a rapid increase in sales for Ericssons largest business segment. Net sales increased by 22 percent to 149.9 (123.2) billion, while order bookings increased by 19 percent to 151.8 (127.6) billion. The operating margin increased faster than net sales, 29 percent for the full year and was 13 (12) percent of sales. The sales growth in mobile systems isolated was over 40 percent.

With the acquisition of Qualcomm's infrastructure division, Ericsson is now able to of fer all existing mobile telephony standards and will be able to deliver systems according to all major modes of the IMT-standard for 3G (third generation mobile systems). With more than 30 percent of the market, Ericsson is the undisputed leader in mobile systems.

#### Wireline Systems improves

The results of Wireline Systems were positive, indicating that the ongoing restructuring program has been successful. The Operating Margin for Wireline Systems improved to 5.6 percent during 1999. Several major contracts for ENGINE - Ericsson's solution for next generation networks with seamless migration of circuit switched networks to IP- and ATM-based networks - represented a break through for Ericsson in this area.

Consumer Products experienced a year with a strong growth in volumes, with 31 (24) million phones sold during the year. However, growth in sales were modest, rising with 3 percent to SEK 46.4 (45.2) billion. A larger proportion of low-end segment phones caused reduced margins. Problems in the ramp-up of production of new models, like T28, limited the sales of the new generation products. During the fourth quarter, the production volume started to reach the targets. Operating income for the quarter was SEK 928 M or 5.6 percent of sales.

Ericsson's market share for mobile phones decreased during the year. With an improved product offering, combined with strong market demand for mobile phones in general, Ericsson should be able to improve its market share. During 1999 more new models than ever before were presented, several of them WAP-enabled, which will be delivered in volumes during this year.

#### **Growth for Enterprise Solutions**

Enterprise Solutions also noted a growth in sales. During 1999 external sales increased by 19 percent to SEK 11.6 (9.8) billion Sales of Ericsson's PBX-s reached record level with improved operating margin. Continued development of offerings are focused on advanced solutions for integration of IP and wireless communications into enterprise networks as well as providing mobile Internet based business solutions and services.



### 1999 -

 Ericsson can look back on an exciting and eventful year. Ericsson share has increased in

son has prepared for this development for more than a decade. In the late 1980s, we began development of third-generation mobile systems. Seventeen test systems have already been delivered.

Mobile Internet brings significant business

Currently we have the market's broadest range of WAP knowledge, including hardware, applications development, consultants and terminals.

#### Over 50 percent of GPRS orders

The next step toward third-generation systems is GPRS, which is a packet-switched technology. During 1999, Ericsson won well over 50 percent of the world's GPRS orders.

During 1999 Ericsson started a new business activity, Business Consulting. With 2,700 professionals in 36 countries, Ericsson is a leading provider of mobile Internet business solutions. Customers during the year include Reuters, the Dutch daily paper De Telegraaf, Scania, LYCOS

### an exiting year

value by 183 percent, which corresponds to an increase of SEK 694 billion. Mobile Internet is becoming a reality. Erics-

The growing number of mobile subscribers

creates demand and development in the market. As early as 2003, we are expecting the number of subscribers to reach one billion. Some 120 million are expected to be using third-generation systems as early as 2004.

opportunities for Ericsson. Interest in the first phase, in which WAP is the leading technology, provides a clear demonstration of the growing importance of mobile Internet. And this is even before the higher transmission speeds of third-generation systems can be achieved.

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When it comes to fasteners and joining technology for the telecom industry, Colly Components is your

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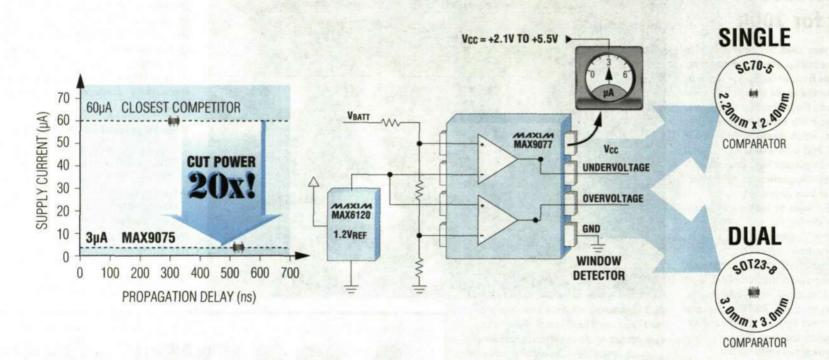
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MAX9075	1	+2.1 to +5.5	3	Yes	540	5-SC70, 5-SOT23
MAX9077	2	+2.1 to +5.5	3	Yes	540	8-SOT23, 8-SO

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1999 EDITION! FREE FULL-LINE DATA CATALOG



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Entire blocks were washed away. Only car antennas were visible sticking out of the mud. The area outside of Caracas in Venezuela was badly damaged in the December flooding. Photo: Pressens bild

# Ericsson provides aid to victims in Venezuela

The flooding in Venezuela last December was the largest natural disaster ever in Latin America. Some 50,000 people are missing and 300,000 have lost their homes. Fortunately, no Ericsson employees were seriously injured.

Three employees and their families did, however, lose their homes and some people required medical attention at the hospital.

"It was a couple of very nervous days before we accounted for every-

one. We have approximately 500 employees so it took some time to contact them all. Moreover, large portions of the telecommunications system were knocked out in the affected areas," explains Olle Ulvenholm, head of Ericsson in Venezuela.

#### **Assisting victims**

Immediately following the disaster, Ericsson and its employees began working in several ways to assist victims.

"Many went out and volunteered

their help in the general rescue effort. Others raised money. There's been a very strong outpouring of solidarity towards the victims," explains Olle Ulvenholm.

#### **Restore communications**

Four of Ericsson's four-wheel drive vehicles and their drivers transported food, water and medicine on behalf of the Red Cross.

Three others shuttled back and forth with provisions for disaster victims along the coast. In addition, Ericsson donated 50 mobile phones which its client, Movilnet, quickly distributed to relief organizations that were leading the rescue efforts.

Ericsson also set up a number of MINI-LINK radio links. However, work repairing damages to the telephone network is far from being completed. Ericsson is working with its two clients in Venezuela, Movilnet and CANTV, to restore communications.

> Mia Widell Örnung mia.widell@Ime.ericsson.se

### **Harrowing experience**

"You can attribute it to either a guardian angel or good luck – either way I'm incredibly happy that I survived with my life." Erik Nordling, a member of the Board of Directors of the local company in the country, was on his way to a board meeting in Venezuela. Instead of a couple days of routine meetings, he went through the worst he has ever experienced.

Erik Nordling was met at the airport by Hermes Cabrera, Ericsson's chauffeur. Hermes explained that the tunnels through the mountain from the airport to central Caracas were filled with water and that there was a risk of falling rock. He suggested that they spend the night at his house, which was nearby.

"We managed to make our way to his house," explains Erik Nordling.

At three-thirty in the morning, Hermes woke Erik. From the balcony of the little apartment, it was possible to discern how the hillsides farther up the mountain had started to give way. Brown water was flowing around the building.

"Cars, a sofa, entire households, were floating by in the water and the main floor of the building was flooded with water. There was nothing we could do but cross our fingers," explains Erik Nordling.

#### Cut off from outside world

They lost electricity and water along with fixed telephone service. Nevertheless, the mobile network continued to operate and Erik Nordling was able to use the remaining charge in his mobile phone battery to call home and to Olle Ulvenholm, head of Ericsson in Venezuela. After that, they were cut off from the outside world.

They waited the entire next day before venturing out the following day, returning to the airport.

"It was then that I first realized things were much more serious than I could have possibly imagined. Roads, bridges, even entire blocks had disappeared. We slogged through the mud, walked on top of cars with only their radio antennas sticking out of the mud."

The airport was in the process of being converted into a command center to coordinate the rescue work. From there, Erik Nordling managed to make his way into downtown Caracas, which was largely spared from the flooding. A few days later he was able to leave Venezuela.

#### Solidarity and warmth

"It was an incredible relief to get out of there. At the same time, my heart goes out to all those who were affected, and of course you feel bad about leaving the country. But the board came to the conclusion that the best thing we, as foreigners, could do for our friends in Venezuela was to place as little a burden as possible on the scarce resources, and to instead try and spread information about what had happened."



Erik Nordling experienced several chaotic days riding out Venezuela's flood disaster. Photo: Jim Mejia Mittmann

"The strongest, most lasting impressions I have are probably not of the actual devastation, but of all the outpouring of warmth and solidarity that was generated. People pulled together and shared what little they had, helping strangers such as myself, but especially those who had fared poorly. Hermes Cabrera, and all the other people who helped deserve all the honor," says Erik Nordling.

#### New view on inspections

Inspections are boring. Reviews are unnecessary. At present, this is the common perception. But if a group of "advocates" are to be heard, all this will change. To them inspections mean savings and reviews spell increased profits.

The Local Development Center based in Burgess Hill, England, has reported a saving of GBP 1.35 million. A saving of six times the sum they invested. This has come as a result of implementing the procedures developed by business advisors, known as champions, at Ericsson's Reviews and Inspection Academy (ERIA). Supported by Ericsson's Business Consulting Sweden group, ERIA intends to be the center of excellence for reviews and inspections, commonly referred to as R&I. A website has recently been launched detailing how R&I can help those involved in projects.

Robert MacFarland of Ericsson's UK operation believes R&I has far-reaching benefits for project work at every level within Ericsson: "The R&I website is intended to be our shop window for the products and services that we shall be offering to our customers. These will include forums, newsletters, access to R&I website discussion groups, and the solving of problems and questions that may arise."

In the past, the R&I procedures employed by ERIA have been confined to hardware and software development. However, these practices are considered by the academy to be of use to the whole of Ericsson, and the hope is that the website will offer an accessible platform to everyone interested in their ideas. Speaking to an assembly of R&D managers earlier this year, Tom Holmen, Vice President for Strategic Business Development, affirmed the importance of inspection: "Quality is built into a product during the early design phases, so allocate the resources needed to ensure excellent structure and basic testing."

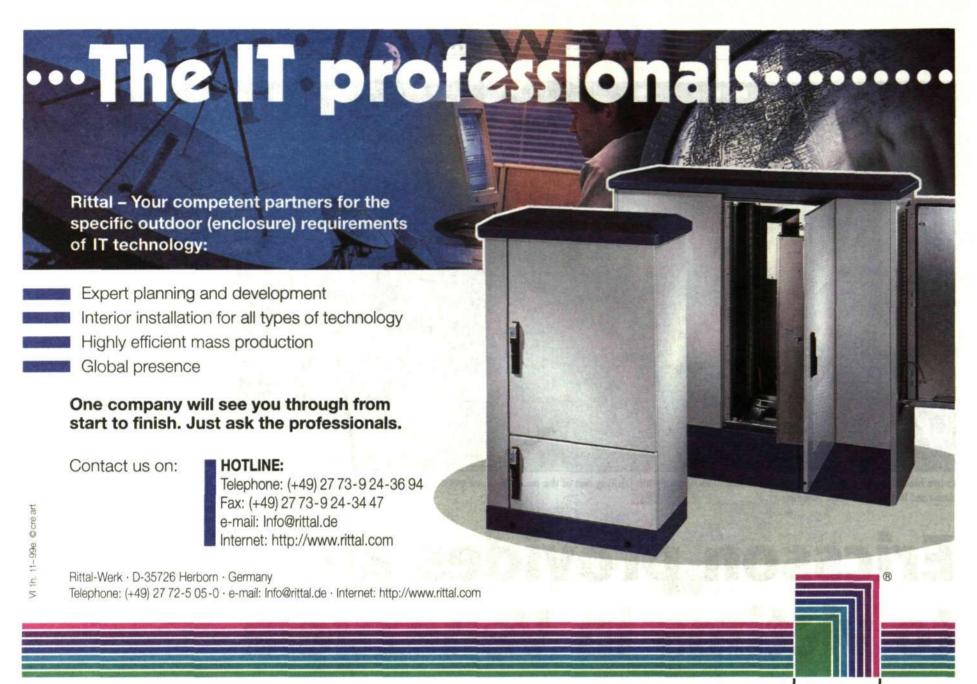
ERIA has performed a thorough study of different review methods. These fall roughly into three categories. The first, Frequent Review, focuses on a team's performance and whether it is completing tasks correctly. The second, Presentation/Walkthrough, provides early checks and feedback to show if work is heading in the proper direction. Finally, and tentatively, comes Inspection. "It is the inspections that probably get the worst press. This is because they are more formal," says MacFarland. "We have tried to view them from a user's perspective to make it as easy as possible to hold inspections within a specific department. This means providing the method, tools and training to carry out the process."

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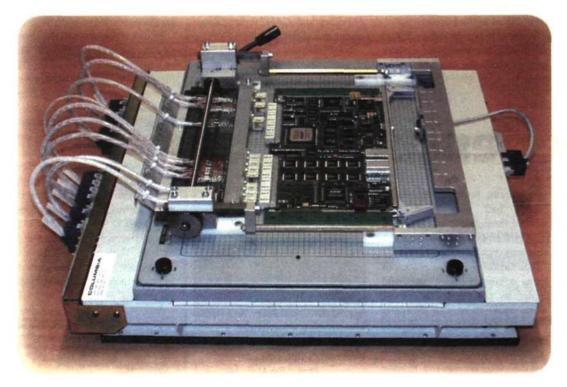


Audits and inspections are not a boring, necessary pain. It is a way to save money. The website offers various tips that Ericsson units can apply to save money.



Switch to perfection RITTAL





A typical Ericsson test fixture, here with mechanical dual edge connector access plus vacuum actuated spring probe access to the PCB bottom side.

As Scandinavia's leading PCB test fixture producer Columbia acquired Ericsson's Stockholm fixture fabrication unit in 1999 and is today one of the major fixture houses in Europe.

Columbia, with its two production units, ships customer specified fixtures to electronics industries all over the world, including Ericsson's own factories as well as its subcontractors.

Columbia's historical familiarity with Ericsson's procedures and requirements makes it a natural and superiour partner in creating production test solutions that works.

PCB test fixture solutions from Columbia range from standard vacuum actuated fixtures to technically complex, automatic in-line systems, always in accord with Ericsson's strict requirements on quality and – not the least – comprehensive documentation.

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see you there!

|

# New tool on the web analyzes external data

**On January 28, Ericsson** launched a new website for all employees who want and need to know about industrial and technical trends, information about competitors, news about large customers and industry news in general.

**Business Intelligence Center Portal** (BIC) is a refinement of the former Business Information Center. The unit responsible for BIC is Corporate Business Analysis & Intelligence. The portal has undergone major and distinct improvements. It is now more an analytical tool rather than a library.

By collecting all internal and external information about the outside world in a single location, Ericsson is saving large amounts of money while ensuring the high quality of the information and making it accessible to all.

All employees with access to the intranet can make use of more than 10 gigabits of information that is easily searchable.

"With the changes that we have made in the website and the intelligent search engines, employees will be able to use their time to think and analyze instead of looking for information," says Eric Wedin, who - together with four colleagues - is responsible for the website.

#### A step in the right direction

The website is part of Ericsson's unit for "external" knowledge and commercial analysis. "The new web

portal is a big step in the right direction," Mats Vilander, manager of Ericsson Corporate Business Analysis & Intelligence, ex-



**Mats Vilander** 

plains. "It is a tool designed for all employees. Ericsson's professional analysts also have access to other web tools."

Reports purchased from outside companies that sell "external information" are expensive. Earlier, they were bought by units in various sectors of Ericsson. Now these reports can be purchased centrally and made available on the web at only a fraction of the cost. It will also be easier to ensure that everyone has updated information.

Selected persons will have "access



Eric Wedin is manager of the new external information portal, Business Intelligence Center (BIC), bic.ericsson.se, that is opening up on Friday. With this service, you can find everything you need to know about the competition and the industry. Photo: Patrik Lindén

rights" to the website and will be able to input information. This group includes Ericsson's analysts in all parts of the world. However, all users of the website can comment on the input and contribute material to the editorial department. There are discussion forums ("chat rooms") for various subjects.

"Among other features, you can set up your own so-called agents who monitor your areas of interest. You can write a question in plain language and obtain a list of relevant texts. After having done some weeding out, the agent conducts a new search, taking into account how you made your choices. In this way, the more you use it, the more the agent becomes adapted to your requirements," says Eric Wedin.

#### Searching at three levels

"The terms Business Intelligence or Business Information are really a little misleading," Eric Wedin says.

"One might think that there is nothing dealing with technology, that the content deals only with commercial information. That's not the case.

The search for information on the website takes place on three levels. The first is to simply search with the aid of search engines. The next level involves finding out, with the aid of the website, who within Ericsson is working on the matters in which you are interested, and then getting in touch with him or her.

#### Available to all

As a third approach, if the information is not already available, those who are working with the Business-Information Center can ask an external consultant to conduct a study. The findings will naturally be publicized on the web and will be available to all.

"When you have established a 'search agent,' as well as a certain subject area, you will also be able to see which other users of the website have posed similar questions to the system.

"In this way you can locate colleagues who are working on the

#### ALL ABOUT COMPETITORS

On the opening page of the Business Information Center website you will find analyses and news that is of general and basic interest.

Here, there is also a calendar of events, trade shows and seminars for example. You can see what is happening in the industry throughout the world. Reports from external suppliers and Ericsson's own analysts are also listed, as well as a discussion forum

nanstidningen, these services may

same matters, even though they may

be in a completely different Ericsson

If you are working in several differ-

ent fields it is possible to establish a

number of profiles for search agents.

For example, you search for informa-

tion on the development of WAP in

the United States and fixed network

During the spring, the persons re-

sponsible for the Business Intelli-

gence Center Portal will travel

throughout the world to present the

"new" website and conduct training

sessions. You will be able to see when

they are in different locations by

for current topics. Various subject

areas are listed on the opening

page. You can select news or other

information dealing with any par-

The website will be especially

valuable when you use the sys-

tem's "personal agents" that search

for the information you are seeking.

that the links are up-to-date while

sorting out so-called "dead" links.

The system itself makes sure

ticular competitor or operator.

Patrik Lindén

patrik.linden@lme.ericsson.se

checking the web.

Dic.ericsson.se

development trends in Europe.

company," Eric Wedin explains.

Tomas Isaksson will be stationed in San Francisco with the new organiza-1995, he was employed by Ericsson.

### Motorola down

**New strategy** after failed telecom merger

What would have been the largest Nordic merger of the past millennium failed to materialize. Telenor management's failure to clarify all its intentions and business plans from the beginning was the main reason for the breakdown in merger negotiations.

Jan-Åke Kark has now returned to his former position as President of Telia. Before joining Telia, Mr. Kark was President of Ericsson Microwave Systems. In the interview below, he expresses his opinions of experiences gained from the failed merger and his future plans for Telia.

#### Merger would have been unique

The proposed merger of Swedish operator Telia and its Norwegian equivalent, Telenor, would have been a unique business transaction in several respects. It would have been the largest divestment ever of a Swedish government-owned company and the largest Nordic business transaction of the century all categories included. But the deal fell through. Jan-Åke Kark offers his explanation of why and how the proposed merger failed.

"Telenor did not put all their cards on the table from the beginning, for example, their desire to localize the business unit for mobile systems in Norway. That issue was the main reason for the final breakdown in negotiations. Of course, there were other minor stumbling blocks, such as the collision of cultures that was encountered during the first few months, but nothing that warranted a complete breakdown." Statistics show that only two of every three mergers succeed. The greatest difficulty with mergers arises from a "locked-in effect," as Jan-Åke Kark calls it.

When two companies discuss various forms of cooperation and work together to merge their business cultures, there is always a high risk they will lose their market focus, which is often disastrous. The proposed merger of Telia and Telenor was no exception to this common syndrome.

#### "On solid technical ground"

"We have lost some of our footing in the European market, and a minute share of the Swedish market, but where technical advancements are concerned, we stand on solid ground," explains Jan-Åke Kark.

It is seldom that an ill wind, however, does not bring some good, and the tangled mess from the proposed merger has created a strong desire among the employees of Telia to reassert the company's prowess as a major force in the telecom world.

> Ulrika Nybäck ulrika.nyback@lme.ericsson.se

#### INDUSTRY NEWS **Telefónica** grows even larger

> Telefónica, the Spanish telecom operator, recently announced that it plans to issue new shares in the amount of approximately SEK 180 billion (EUR 21 billion) in order to expand in Latin America. The Swedish newspaper Svenska Dagbladet reported the news in an article in January 16.

Telefónica's ambition is to consolidate its position in Latin America

ally. With the new shares the company will buy out the other part-owners in four South American telecommunications companies. The companies involved are Telefónica de Argentina, Telefónica del Peru, Telesp (São Paulo) and Telsudeste Celular in Brazil. At the same time, Spanish Telefónica wants to take over CTC, the largest telco in Chile.

and to become stronger internation-

Telefónica is merging all of its mobile telephone operations in Spain, Latin America and North Africa and is thereby becoming the world's sixth-largest company in the field of mobile telephony.

#### **Europolitan's** head to Vodafone

> Tomas Isaksson, the president of Europolitan, the Swedish mobile telephone operator, is joining Britishowned operator Vodafone.

In his new position he will be responsible for developing services for the mobile Internet. According to the Swedish financial daily, Fi-

involve electronic trading or other services that are applicable globally for Vodafone.

### tion. Before joining Europolitan in

### after report

➤ Motorola released its full-year 1999 financial report last week.

It was weaker than a number of observers had hoped, and the price of the company's stock fell slightly following the report.

Problems with satellite-telephony and a shortage of components were responsible for the decline in earnings. Motorola today ranks second in the world in mobile telephony.

Jakob Cederquist, Swedish market manager, tells Finanstidningen that Motorola will recapture the first-place ranking from Nokia within a period of two years.

#### SUBMARINE CABLE

CONTACT No. 1 2000

CONTACT No. 1 2000

Growth in the market for submarine cable is dynamic as the industry strives to expand in parallel with data traffic. According to present projections, 500,000 kilometers of submarine cable will be laid during the next three years, creating substantial business opportunities for a group of about 10 submarine cable manufacturers throughout the world. Ericsson specializes in smaller submarine cable projects. Despite the many advantages of submarine cable, there are certain problems that must be overcome. In Thailand, Ericsson employees are working under severe weather conditions.

# Ericsson's seamen defy the



A heavy storm in the Gulf of Thailand caused some delays in the cable project's preliminary stages in mber. Under favorable conditions the vessel is able to install 30-60 kilometers of cable per day, depending on depth and other underwater conditions. The work is also sensitive to high seas, and weather is a very critical factor.



Ericsson's project managers, Thong Karbkaew and Bill Shaw, are transported in a rented fishing boat to the cable vessel situated five nautical miles offshore in the Gulf of Thailand.

he large cable vessel towers high above the horizon like a floating industrial complex in the Gulf of Thailand. A storm has blown across the Gulf for several days - the tail of a cyclone that wreaked havoc on northwestern India, where heavy rains flooded rice fields and roads. Operations on the cable vessel have been suspended until the stormy waters subside.

Bill Shaw, total project manager, explains how the powers of nature have frowned upon preliminary work efforts on the cable vessel. A 900-kilometer submarine cable will be laid from Sri Racha, northeast of Bangkok, along the innermost part of the Gulf of Thailand, to Petchaburi, south of the resort island Koh Samui to Song Khla.

"Every extra day we use the cable vessel and the onboard leased equipment costs USD 36,000. But we will meet our deadline. The project is scheduled for completion in March," says Bill Shaw hopefully, when Contact boarded the vessel in November for a trip into the Gulf of Thai-

#### One month at a time

Workers on the cable vessel include shipmasters, divers, engineers and some employees from Ericsson Cables, who supervise and monitor the cable-laying operations. The employees from Ericsson live on the ship for about one month at a time.

"The actual cable laying work is carried out by several subcontractors. Our personnel are here to coordinate and manage the operations," says Bill Shaw.

"The total project is valued at SEK 290 million. The customer is the national Communication Authority of Thailand (CAT), which ordered a cable system to handle transmission speeds up to 2.5 gigabits per second."

The cable itself is 36 millimeters thick and contains eight fibers. Ericsson in the U.K. has supplied the SDH equipment needed on land. The network can easily be upgraded to WDM (Wavelength Division Multiplexing), which makes it possible to transmit approximately one million calls simultaneously via a single microscopic cable.

"The network has a total of six connections to the mainland. The longest stretch of cable is 320 kilometers long; it includes fiberoptic amplifiers integrated into the cable to accommodate transmissions over such a long distance," says Kaj Sjölin, technical manager from Ericsson Cables, who has been onboard the cable vessel for th first two weeks of preliminary operations.

#### Important reference project

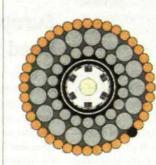
A total of 15 employees from Ericsson Cables are working with sales and supervision of Ericsson's submarine cable projects. About half of them are seamen, who take alternate shifts living and working on the cable vessels.

"The Thailand project is a very important reference project for us," says Kaj Sjölin. "This is the first time we have ever commissioned a local company for a submarine cable project, and one of our secondary plans is to develop technical skills and a special Asian Center for submarine cable activities in Thailand."

Nils Sundström nils.sundström@lme.ericsson.se



tworker, the specially built cable vessel, lays submarine cable 40 meters under the and, supported by a water injector, digs a trench 1.5 meters deep into the ocean floor. work is monitored by divers, who also carry out precision work when the cable crosses encountered, for example. During installation, the cable is connected to test equipment



The submarine cable used most extensively by Ericsson is 36 millimeters in diameter. A variety of different layers of composite materials protect the fiber against water and hydrogen. A plastic tracer profile holds the fibers together in the core of the cable. A polythene layer surrounds the core of the cable, which is further reinforced by an insulation cladding sheath and a layer of reinforced steel. The reinforced surface, which is protected by a layer of zinc and tar, provides the cable with a tensile strength of 5 to 40 tons. The outer layer consists of plastic material to provide extra durability and bond the cable.

surface of the Gulf of Thailand. A large steel sword is positioned against the seabed The method moves sand and gravel away from the trench while the cable is laid, The gas lines or other cables, in addition to solving problems when underwater cliffs are to provide constant supervision. Photo: Lars Aström

One of the unique properties of Ericsson's submarine cables is the so-called Ribbonet technology used in the production process. This allows the fibers to be bunched together, which provides a distinct advantage when the need arises to increase capacity. Ericsson's unrepeated submarine cable eliminates the

need for underwater cable networks to be augmented by any form of voltage feed or any active components on the ocean floor. Limitations arise, however, on the length of the cable. Depending on the transmission equipment, the optical signals - strengthened by amplifiers - can be sent up to 400 kilometers without any significant loss of signal strength.

# elements in Thailand





### Data traffic drives market for submarine cable

The rapid development of IP and datacom has generated dynamic market growth for submarine cable. Ericsson is a niche player in the industry, but its sales of submarine cable have doubled annually during recent years.

"The future looks highly promising. Our submarine cable production lines are operating at full capacity. We expect to double our production

output this year, and are now investing in another reinforcement machine for cable production," says Leif Karlsson, manager of submarine cable sales at Ericsson Cables.

Historically, about 500,000 kilometers of submarine cable have been installed through- Leif Karlsson out the world. In view of to-



day's growing volume of data traffic, projections indicate the same amount will be laid during the next three years. As a result, substantial business opportunities will arise for a group of about 10 of the world's leading manufacturers of submarine cable.

"Ericsson is a niche player, but we will obviously increase our role as a manufacturer of socalled unrepeated systems," continues Leif Karlsson. "Many of today's submarine cable projects call for ocean cables with repeated transmission systems, which means they include underwater amplifiers. They are large and expensive projects that require the involvement of many subcontractors. We do not operate in that sector, since we have not specialized in the technology required for long distances. We look instead for more opportunities to accept smaller projects."

#### **Growing market**

Revenues from Ericsson's submarine cable operations, including product sales and installation work, amounted to SEK 200 million in 1999. This year, revenues are expected to reach SEK 320 million. About 600 persons are employed at Ericsson Cables production plant in Hudiksvall, Sweden. About 100 others are employed on project contracts to meet growing demand within fiber optics, for both land and submarine cable.

felecom operators choose submarine cable for a variety of different reasons. In addition to bodies of water that divide cities and continents, the operators eliminate problems that often arise on land with excavated cable - theft and landowners that demand high payments for cable installed across their property. Having said that, however, the installation of submarine cable is by no means a simple task. All projects begin with applications to gain requisite approval from public authorities.

"The number of gas lines, electrical and telecom cables already installed on ocean floors and in lakes around the world necessitates the utmost precision for installations of new submarine cable lines. Submarine cable can also require excavation work on the ocean floor to protect installed cables against anchors and trawlers," explains Leif Karlsson.

Ericsson Cables often sells total solutions,

whereby the company also assumes responsibility for installation work, assisted by subcontractors that supply specially equipped vessels and divers.

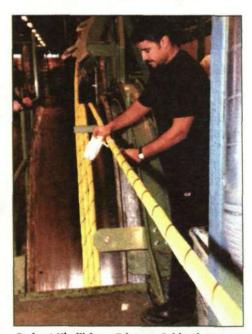
Ericsson's concentration on submarine cable operations started with the development of an environmentally compatible product for Telia in 1993. Instead of the old type of cable with a protective sheath of lead, the company developed a production method in which the fiberoptic core was protected by a copper sheath, which is more environmentally compatible than lead. Since then, Ericsson Cables has developed and produced several different types of fiberoptic submarine cables based on the new copper core.

#### 400 meters under the surface

Among other contracts, Ericsson has delivered and installed submarine cable lines in Croatia, between Sweden and Poland, between Sweden and Finland and 400 meters under the North Sea to Norwegian offshore oil rigs.

"We have several large projects now in progress, including the project in Thailand. This spring, we are going to deliver submarine cable to the islands of Guernsey and Jersey in the English Channel. We are also working on a project that calls for a large cable network in Mexico. A submarine cable system covering more than 3,000 kilometers will be installed from Corpus Christi, Texas, along the entire Gulf of Mexico, to Cancun," says Leif Karlsson.

> Nils Sundström nils.sundstrom@lme.ericsson.s



Sarbast Khalil from Ericsson Cables in Hudiksvall, Sweden, places a meter marking on a reinforced submarine cable.



Art McCabe is responsible for a large area. He is to ensure that Ericsson communicates the proper messages through sponsorship, social events, product placement and events. "If we want to be seen as trend-setting, and innovative, then we must sponsor events that communicate these values."

If you stop a stranger on the street and ask who and what is Ericsson, the answer should come quickly and without hesitation. That is one of Art McCabe's goals, whose mission is to increase the awareness and perception of the Ericsson brand and values.

# Art McCabe strives to create a consistent Ericsson image

e is renowned for his passion and for getting things done. After all, that is his mandate - to add emotion and passion to Ericsson's marketing activities through sponsorships and events.

McCabe and his team have a tremendous responsibility and an equally challenging task: working globally to ensure that Ericsson's brand image and values are consistently reflected in events and marketing activities. At the same time, delivering a positive return from our investments in these activities. He also wants the entire organization committed to importance of the task and intends to accomplish this by coordinating all the activities for which he is responsible: sponsorship issues, social marketing (previously corporate citizenship), events and product placement. It's a broad palette that requires a steady hand.

#### **Different messages confuse**

McCabe constantly emphasizes the importance of speaking the same language through all channels, from sponsored events to the annual report.

"What message is conveyed when Ericsson sponsors tennis one year and a golf tournament the next?" he asks pointedly. "And let's



#### Ericsson sponsored the MTV European Music Awards in November. "Music reaches everyone without regard to culture or nationality," notes McCabe. "In this respect, it is different from sports, which often are more national specific."

not forget about all the events sponsored by local companies around the world. Consumers must be very confused and wonder what in the world Ericsson brand stands for."

The most important task right now is therefore to develop common guidelines for all of Ericsson and to identify key projects for further development. "The field are trying hard to use event marketing to promote the brand but they need clear guidelines and valuation criteria to help them do their jobs effectively" emphasizes Art McCabe.

#### Too many different activities

In his opinion, the most pressing problem is that Ericsson sponsors too many different activities, often with no real measurable objectives.

The people responsible for these activities must always ask themselves why the company is sponsoring a particular project, what will be the real return in the investment and how it will affect the brand and differentiate Ericsson from our competitors.

"If we want to be seen as trend-setting, innovative technology experts, then we must sponsor events and be seen in films that communicate these values," explains McCabe.

The key issues are long-term commitment and consistent messages. Ideally, all Ericsson companies should sponsor the same category of events over a number of years. Sponsoring the biggest events does not always produce the greatest returns. Sometimes, the opposite is the case. Major events are often very expensive and add little value in relation to the costs for participating. The Olympics are an example of this. Sometimes the solution may be to create completely new events.

"Erica, the Ericsson Internet Community Award, is the best example. This is an annual competition for 'not for profit' organizations website development that was founded by Ericsson. The award has generated considerable publicity in the media, with over 1,400 applications for last year's competition. We have full control over the development and the content of the program. Erica is ideal because it repeats and reinforces the same messages, which are visible over a longer period of time. Eventually we will bring in other sponsors, who will pay us for the privilege of being part of the program," says McCabe.

Ericsson could take further initiatives by organizing a contest for the best newcomers in different types of music, for example.

"Music is universal," notes McCabe. "It is something that reaches everyone without regard to culture or nationality. In this respect, it is different from sports, which often are more national specific."

Art knows what he's talking about and what he wants. His knowledge and experience have been won the hard way, through working for some 20 years with international marketing for Digital and Wang before joining Ericsson in 1989, when he became marketing manager for Ericsson in Canada.

#### A bit to go

According to Art, Ericsson has a bit to go on the right path in achieving one of the most important goals: communicating consistent messages.

"We certainly have a lot to learn from skilled market communicators like Volvo and Coca-Cola," he notes. "But I'm confident that we'll make rapid progress. We have excellent employees and are using talented consultants. Give us 18 months, and you'll see an enormous difference," says Art McCabe confidently.

> Ulrika Nybäck ulrika.nyback@lme.ericsson.se



The America's Cup qualifying series in Auckland, New Zealand, is one of Ericsson's larger sponsor activities this year.

#### ART MCCABE'S AREAS OF RESPONSIBILITY

- Social events refers to activities promoting the company as socially responsible. Support can involve mobile telephones and base stations to restore communications after a natural catastrophe. Vietnam, Turkey and Taiwan have received such assistance.
- Events is the group responsible for corporate events, such as the San Diego meeting in 1998.
- open this autumn while watching Ally McBeal, The X Files, Party of Five and Sabrina the Teenage Witch. · Major sponsorship events, which include
- the America's Cup and the MTV Music Awards.

He's a curious, gentle guy dressed in space-aged clothing. This spring, Ericsson employees will become more closely acquainted with Mr. E. Their task will be to guide him through various worlds in a web-based game that is part of the "Datacom and IP for all" training program.

# Mr E. will test your IP competence

The rapid pace of developments within datacom, IP and the Internet have created a whole new world where customers, competitors and work routines have changed. These changes have affected how and to whom Ericsson will sell its new products and services.

"In order for Ericsson to remain a leader within the converging telecom, datacom and media industries, a series of skills initiatives for various occupational groups and levels are needed," explains Nils-Gunnar Håkansson, project manager for The Competence Shift training campaign.



#### Designed as a game

The educational campaign is designed to ensure that there are common skill levels throughout Ericsson, while at the same time increasing the rate at which changes are being implemented at the company.

The web-based training program, "Datacom and IP for all" is an important part of the campaign and also contains a basic level diagnostic test.

The test is designed as a game where participants have to make their way through various worlds together with Mr. E, answering his questions. Web courses are available for study for those portions of the test that participants fail. The game can be resumed at will, allowing participants to receive the required certificate.

This training program has been tested in Sweden and the Netherlands and is now being launched worldwide within the company in order to create a common base of knowledge for all employees regarding the implications of the new telecom and datacom industries for Ericsson.

"All employees must complete this training. Every company has to have their own plan for how they would like to implement it and follow up. Those who have already had training in the new technologies and business cultures can use the game as a test to ensure that they have acquired the appropriate skills and that they understand what the changes mean for Ericsson," says Nils-Gunnar Håkansson.

#### Web-based training

The training is being offered through Ericsson Weblearn, the company's center for web-based training. In addition to the basic course, there are also specialized datacom and IP courses, aimed at development engineers and sales rep-



This spring, all Ericsson employees will become more familiar with Mr. E, the main character in a web-based game which is part of the "Datacom and IP for all" training program. Participants have to solve problems and answer questions in various worlds, each of which represent a technical or marketing skill area. The game takes approximately 30 minutes and provides insights into participants' knowledge of what the new telecom and datacom worlds mean for Ericsson.

resentatives. Other courses are available for Key Account Managers, New Account Managers and Global Account Managers.

Several of the various skills initiatives are described in the accompanying article. Included among the training programs is the Knowledge Step, which is being used in the Netherlands to quickly reach all employees,

### Practical sales skills

➤ The "Datacom and IP for employees in marketing and sales" course will begin in February. The program is aimed at 3,000 people who will gain hands-on insight, relevant to the New Telecom World where telecom and data merge.

The course consists of three parts: "Value-Based Selling," a three-day seminar; "Datacom/IP strategies and products," a one-day seminar where products and strategies are presented; and a number of courses and workshops that fall under the heading of "Applied Sales Training."

"Value-Based Selling is a training program that we've previously offered, but which has now been applied to the new marketing strategiving employees the responsibility of deciding which training courses they want to attend.

> Nils Sundström nils.sundstrom@lme.ericsson.se

weblearn.ericsson.se

#### gies and datacom. One new aspect is that we've created a customer case which mixes business opportunities with datacom connections," explains Birgitta Engardt, head of training operations at the Network Operators business segment.

At the one-day seminars, participants learn about the implications of the new networks for operators, what the architecture and applications for these networks look like, and which business opportunities are available at Ericsson.

Other courses and workshops cover subjects such as GPRS and WAP, providing more details about both the subjects and the technologies.



### Training to strengthen Ericsson competitiveness

Ericsson is implementing its broadest educational training program yet. Various initiatives are underway throughout the company to increase skill levels among employees, especially when it comes to market logic, datacom and IP. This is an important part of Ericsson's strategy to maintain and strengthen its leading position.

"Expertise is our most important tool available to increase our competitiveness," says Per-Olof Nyquist, head of competence and talent development at Ericsson. "Today, we're wellequipped with our system solutions, our product portfolio and our global presence. Nevertheless, we cannot become complacent. In order for us to be successful in the new world, it's important that everyone understand how the market changes and what the new business strategies, which are now developing, mean for Ericsson. We need to focus even harder on developing ourselves."

The training program is not just about technology, but also about understanding why the market is going through these changes.

"We're a skills-based company. That's why it's important that all employees have skills pertaining to the new marketing strategies and Ericsson's strategy to help ensure that our products and services fulfill our customers' new needs," says Per-Olof Nyquist.

The company's biggest training initiative to deal with these changes has now been posted on the intranet. A couple of the projects

were started already last autumn, and are now being made available for many more people.

"The various initiatives complement each other well. I'm convinced that we need all of

Per-Olof

Nyquist

the various efforts now underway in order to increase our expertise within the datacom and IP fields," says Per-Olof Nyquist.

The plan is to identify several skills initiatives that have been ongoing throughout the company on a new common web site.

"Everyone who wishes to share their competence initiatives with us are free to contact us," says Per-Olof Nyquist.

Nils Sundström

A link will soon be available at:

inside.ericsson.se

#### EDUCATION

Easy access, personal responsibility, coaches and mini-courses. Those are some of the main aspects of "The Knowledge Step" program, a datacom training program that the GSM Systems business unit started one year ago. Now, the training system is being used by many Ericsson units and companies to hone employee competence.

# Coaches provide employee support

ore than 4,500 employees at GSM Systems in Sweden have already completed one or more courses through Knowledge Step. This is proof that the new training system is working very well. Knowledge Step was created in the summer of 1998, when the GSM Systems management team decided that all of its employees in Sweden should upgrade their datacom skills.

"We knew that it would be impossible to get very many employees back into a traditional classroom setting. We also know,

from experience, that it doesn't work very well to simply send out a training CD, since only 10 percent ever complete the course," explains Hans Nihlén, project manager at Ericsson Radio Systems.

and his five colleagues in the project group as evangelists. The term actually fits rather well, considering they are the ones who report on training to the management teams and get managers involved.

Training is coordinated by department, so a positive attitude on the part of managers is important. Preferably, he or she leads by example, completing a knowledge step himself or herself by participating in one of the classes or seminars.

#### Coaches follow up

One task that managers have is to appoint coaches in every department, to stimulate and place demands as well as follow up on how things are going for the "students."

"Coaches don't need to have datacom skills themselves, rather they need to be involved and remain tough. We have many secretaries who are skilled coaches," says Hans Nihlén. "People who want to become coaches attend a three-day training program, similar to a short course in managerial training."

The program is introduced by managers who explain the department's needs for datacom skills. The subsequent training program lasts three months. At GSM Systems in Sweden, each department meets with someone from the project team halfway through the

program. At that time a summary is given of how the training is going. Once training is complete, diplomas are distributed and a lottery for a cordless telephone is held.

An essential part of the training system is easy access, which is achieved by using the web. Course registration as well as seminars are conducted via the web, allowing departments to see who has signed up for what. It also lets people see how much of the training program has been completed.

#### Training program on a menu

Employees are allowed to choose their own training programs from a menu, which offers many alternatives, including everything from two and a half hour seminars to longer courses at the Royal Institute of Technology to five-week correspondence courses at the University of Örebro. The short seminars have become quite popular, last autumn over 200 seminars were offered. Administration for the Knowledge Step

program is very streamlined. "We want to practice what we preach and take advantage of IT," says Hans Nihlén, who explains how participants register and retrieve class materials themselves via the web. "Even the sandwiches that are offered during the courses are ordered electronically. The 35 instructors who are involved in the program come from computer companies in the greater Stockholm region. Although there are Ericsson employees who

are knowledgeable within the datacom field, their regular jobs are considered to be too valuable for them to take time off to teach." In addition to GSM Systems in Sweden, the Knowledge Step educational concept has been put into use at Ericsson in the Nether-

lands, while Ericsson in Aachen, Germany as well as Ericsson in Finland and South Africa also plan to utilize the concept. "Training should be fun and I think we've succeeded in that regard by getting entire

departments involved, and by arranging certain activities in conjunction with the training," summarizes Hans Nihlén.

> Gunilla Tamm gunilla.tamm@lme.ericsson.se

Employees assume responsibility for their own competence development. That is the foundation of Ericsson's Knowledge Step training program. Just like in the world of sports,

coaches are used. Their job is to provide support, place demands and follow up on how things are going for participants in their respective departments.

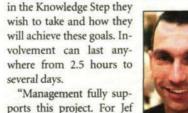
### Dutch strengthen skills

Over the coming spring, all of Ericsson's 3,000 employees in the Netherlands will learn what the new telecom world means for Ericsson. All employees will be able to specify what skills

"We are using the Knowledge Step as our training concept and the web-based interactive game 'Datacom and IP for everyone' as a diagnostic test of employee skills," relates project manager Jack Aerts.

Ericsson in the Netherlands will have about 30 seminars availible, use web-based training and numbers of workshops are planned to explain what is happening in the Dutch market and the industry as a whole.

"This training is extremely important in ensuring that we remain competitive in the future. The objectives are to provide an understanding of the market and the new technique and products and to learn more about the strategic aspects of Ericsson's vision," continues Jack Aerts.



Together with their immediate supervisors, employees can themselves decide what modules

Keustermans, our new President, it is one of the goals Jack Aerts

several days.

for year 2000. But it is also important for people to take responsibility for their own skills development.

"Before the summer, all 3,000 Ericsson employees in the Netherlands will have completed their knowledge step," concludes Jack Aerts.

# Global UMTS training via the web

methodology over a three-year period to train the web. 20,000 Ericsson employees in the use of the This allows every person to choose the develthird-generation mobile system, UMTS, The goal is for everyone to complete the equivalent

of ten training days. The education campaign will begin this spring and is being conducted on behalf of the WCDMA Systems business unit. Training will be conducted locally in numerous countries - primarily in the form of independent studies via the intranet, but also through seminars, workshops and teacher support in the workplace.

"The fact that a large portion of the training program is web-based places great demands on the organization that is being trained. Every individual needs to assume responsibility for their own training," emphasizes Erik Oldmark, head of Ericsson Education.

In keeping with the Knowledge Step concept,

Ericsson Education is using the Knowledge Step the entire curriculum will be administered via

opmental steps they would like to take, after consulting with their immediate supervisor. All results and skill profiles are available on the web for other participants.

"The training package for UMTS includes a library with some fifty different subjects that are presented using videos and PowerPoint presentations. Topics range from SDH to GPRS to Bluetooth. Every lesson is between five and fifteen minutes long," explains Erik Oldmark.

#### **Customer training as well**

Ericsson Education also plans to offer similar product-related courses for other solutions within the third generation telephone system for both fixed and mobile applications.

This will involve training for those who work

customer training

#### Largest training unit

biggest training unit, employs 1,000 people worldwide. The unit is part of the Ericsson Services business unit in the Network Operators and Service Providers business segment.

In addition to overseeing numerous internal courses, the unit is also responsible for the company's customer training around the world. Major centers with regional responsibility are located in Stockholm, Dublin, Kuala Lumpur, Melbourne, Dallas, Mexico City, São Paulo and Beijing.

"Since we use the same training packet inter-



#### EDUCATION



#### Photo: Tommy Larsson/FLT-Pics

Ericsson Education, which is the company's

### Customer reps train on-site in Silicon Valley

How is the business climate in Silicon Valley changing the new datacom and telecom world? Ericsson's customer representatives are being trained on-site in California in order to see the new business culture firsthand and form their own opinions

"There is a fundamental need among our senior account managers to form an understanding of what the new competition looks like, not from a product point of view, but rather to understand the logic behind business operations, something which can best be done on-site," says Thomas Westling, head of Ericsson Business Academy, who develops courses for the company's customer representatives, among other things.

In order to generate an understanding of the new ways of doing business, an intensive five-day course has been developed. The course, entitled "Inside the IP Tornado," is held in San José, California in Silicon Valley, and will be offered at least eight times this year to 300 participants.

#### **Company visits**

A number of field trips to relevant players in the telecom industry are included in the curriculum, along with lectures by top-notch speakers, including from Berkeley University outside of San Francisco. The purpose is to make participants more active in their customer relations.

"The best way to influence a customer is to offer added value in the discussions. We're providing participants with the tools to do this by creating an understanding of the new business logic," says customer representative Alf Levy.

A pilot course was held at the end of November. One of the participants was Peter Olson, Vice President business development for market area Europe, Middle East, and Africa.

"This was one of the best courses I've ever participated in. It provides a direct view into how Silicon Valley companies think, operate and view the world at large. By gaining an understanding into all this, we'll be in a better position to deal with the competition for qualified employees and, in the end, customers and market share," says Peter Olson.

He recommends the course for managers at all levels who work closely with customers.

"It's important to understand that our customer's expectations do not simply continue to increase, but they also change. The course, 'Inside the IP Tornado,' provides good insights into what these changes looks like and the mechanisms behind them," says Peter Olson,



The IP train is rolling. Telecom, datacom and the media industry is changing rapidly. Ericsson is training its customer representatives on-site in Silicon Valley to create an understanding of the new markets logic. Photo: Lars Åström

"Special versions of the class are being planned for market unit managers.'

Ericsson Business Academy is also developing more broadly focused courses within the subject, such as its three-day "Competitor Strategy Understanding" course. That course will be starting up this spring and will be held locally, around the world for a target audience of between 5,000 and 6,000 Ericsson employees who work with customers.

#### **Comparing strategies**

The course develops themes around the "The New Network Economy," comparing Ericsson's telecom and datacom strategies with those of its competitors.

"We're doing better than what many think we are. The purpose of the course is to make participants more comfortable about their role, especially in a situation where aggressive competitors try to give the impression that Ericsson belongs to the past. We provide arguments that can be used with customers to show that Ericsson is absolutely still in the game," says Thomas Westling.

Yet another three-day course, "Business Dynamics of Professional Services," focuses on how Ericsson can use the sale of services as a tool for furthering dialog with customers, thereby increasing overall sales volume.

"Ericsson has traditionally consisted of engineers who have sold products to other engineers. Today, there is a completely different reality," says Thomas Westling.

> Nils Sundström nils.sundstrom@lme.ericsson.se

with the cdma2000 and TDMA/Edge mobile nally that we use for our customers, we're systems as well as Ericsson's new third-genera- ensuring TTC and TTM flow (Time to custion fixed telephone system, Engine. Portions tomer and Time to market) of the material will also be made available for within our own organiza tion. That's why it's important that we be involved at an early stage in the devel-

opmental process," says Erik Oldmark. The primarily webbased UMTS training is

new mobile systems.



aimed at installation technicians, employees in-

volved in operation and maintenance as well as those in marketing who will be working with the first commercially available versions of the

Nils Sundström

### New university partnership

Ericsson in Sweden has made use of a different method to increase IT skills among its employees. The sales company for the Swedish market has initiated a partnership with the Royal Institute of Technology in Stockholm (KTH).

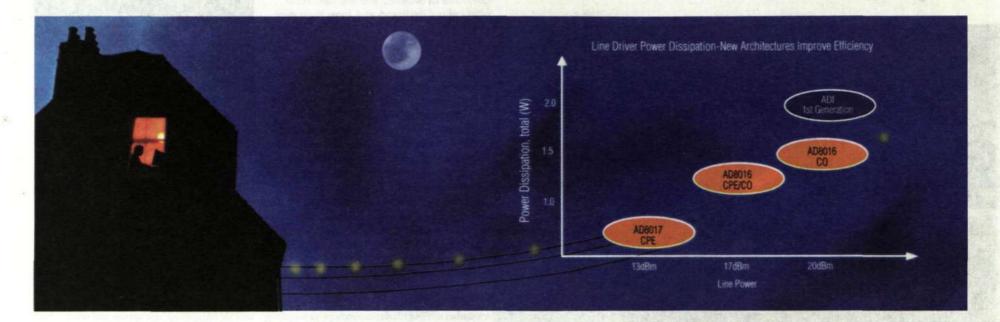
The training program consists of numerous short courses and can be adapted to individual needs.

"It's been our experience that customers sometimes know more than we do about a certain area. Consequently, we have a great need to increase the expertise of our employees," says Charlotte Rubin, who oversees organizational development at Ericsson in Sweden. "But our organization encompasses everything from generalists who need to know a little about many things, such as general staff and account managers, to specialists who need to know a great deal about very specific areas, such as those who work in customer support."

The partnership with KTH is intended to complement efforts to raise IT skills at Ericsson. It corresponds to approximately 60 percent of the overall campaign. KTH has, in conjunction with Fricsson in Sweden also deve oped technical courses that provide academic credit.

The courses that appear to be most in need include introductory courses in data and telephone networks and Internet and broadband technologies such as ATM and ADSL. Other courses planned include LAN+WAN, ISDN, Mobile networks and more. These courses, which are offered during working hours, can either take the form of lectures at KTH or remote learning. It is anticipated that it will take approximately four months to provide a person with "focused expertise" in a specific subject area.

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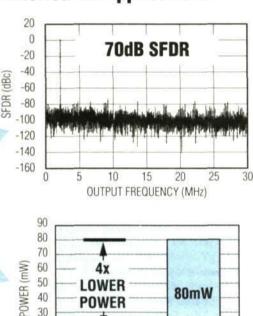
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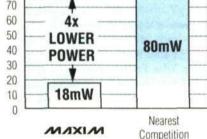
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MAX5186/MAX5189	8	2 (Simultaneous)	58	± 1	±0.2	Iout/Vout
MAX5187/MAX5190	8	1	60	N/A	N/A	<b>IOUT/VOUT</b>
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#### NEWS

# Working to make **Nacka Strand** 'greener'

Nine thousand cars pass through Nacka Strand, on the outskirts of Stockholm, every day. The number is far too large, and companies in the area have therefore joined together in the CommIT project to do something to safeguard the environment.

Nacka Strand, at the entrance to the Stockholm archipelago, is one of the most beautiful sites where Ericsson has an office. Here, an aggressive environmental program under the campaign name of CommIT is now under way. The project involves utilizing information-technology (IT) aids and implementing practical communications measures.

#### **Limits bursted**

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Underlying the program is a joint commitment on the part of the largest companies in the area: Nacka Strand Förvaltning, Telia, Ericsson and Apoteksbolaget. Nacka Strand, which was originally planned to accommodate 4,500 work places, has already burst these limits and now has nearly 7,000. In addition, there are 700 private residents. The area, which in the beginning offered an environmentally attractive mixture of buildings, nature and water, now faces the risk that its environment will be impaired.

"There is no doubt that travel and transport to the area constitute the greatest impact on the environment," says Roland Lahti, environmental manager in Telia's Corporate **Communications Business Area and** the initiator of the CommIT project. The vision is to make Nacka Strand a model of the resource-efficient IT community of tomorrow. How is this to be done?

To begin with, it involves reducing the number of cars that employees use to drive to work. This requires that employees are able to get to work conveniently in another way - or perhaps not drive at all. Indeed, with IT aids, many persons are already able to work flexibly from their homes or other locations.

A car pool is already available. It is a service that the companies in Nacka Strand are jointly leasing from Statoil. Both small and large cars are available, depending on the need.

Once a contract has been approved, it is simply a matter of signing for an electronic key when you require a car. A clever electronics system distinguishes between "corporate" and "private" driving. Companies and their employees no longer have to own cars.

Supplementing the car service to Nacka, there is now a ferry from central Stockholm via the island suburb

of Lidingö. A number of trips are made mornings and evenings throughout the year. During the summer season the ferry traffic is heavy throughout the day.

Anyone wishing to reach a destination on two wheels can borrow one of the pharmacy's green bicycles at any time.

#### No limits to the project

The possibility of using telephoneand video-conferencing is easily available via the web. Soon it will also be possible to book taxi trips via web-based virtual cabstands. With the aid of information technology it

is easy to arrange for a number of persons who are going to the same address to share a taxi. The next step is to develop IT-equipped taxis that can be used as temporary workplaces.

Ericsson and the other large companies in Nacka Strand on the outskirts of Stockholm have joined together in

a program to improve the environment in the area. A common car pool is one element in the program.

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There are really no limits to how far the CommIT project can be developed. New solutions that can later be offered the market will certainly be developed by Telia and Ericsson.

Experience showing how the services now being offered are functioning will give rise to other services. Steps leading to the introduction of the CommIT concept in other locations are already under way. Perhaps Kista can be the site of the next project.

Photo: Per Gunnar Ljungquist

**Thord Andersson** thord.andersson@ebc.ericsson.se

#### Footnote:

If you wish to participate in the car pool described in this article, you can obtain information describing how it works on the web: sllj@statoil.com

You can also call Lennart Ljung at Statoil directly: 08-429 65 30. The car pool is also available to residents of Nacka Strand.

### **Environment work offers opportunities**

"Environmental issues are becoming increasingly important for our customers and we in Ericsson are now working aggressively in this area," says Björn Boström, a member of the Corporate Staff. "We also see substantial commercial opportunities as a result of profiling Ericsson as a 'green' company."

The environmental program is about to totally embrace Ericsson's regular

processes and operations. In accordance with Ericsson's new environmental policy, certifiable environmental management

programs are to

mental management program is to cover the entire company, including units that do not have manufacturing operations. All this is to implemented by the end of 2000. Martin Davies, who is based in London, is responsible for the project.

The environmental program and

the new policy has the support of top management. Björn Boström is responsible for operations and Torbjörn Nilsson for marketing and external relations. The divided responsibility reflects the fact that the program involves both the production environmentally compatible of products and seeing commercial opportunities in the systems used. There is no conflict between environmental concerns and business. Environmentally compatible and energy-efficient solutions mean lower costs for Ericsson's customers, and thus greater competitiveness for

#### Lower consumption of energy

Ericsson and other IT companies generally maintain that information technology offers the only path to a sustainable society that uses resources efficiently.

"That is true," says Björn Boström. "IT solutions make it possible to work and live in a way that radically reduces the impact on the environment. But we must not forget that the new IT society involves a great deal of new hardware in the form of electronic equipment that, in turn, must be environmentally compatible. We have a lot of work ahead of us in this area."

#### **Energy reduction**

The primary task is to reduce the consumption of energy in switches, base stations, terminals and other equipment. But it also involves eliminating such harmful substances as cadmium and lead and designing products in such a way that it is easy to deal with them when they are worn out. Procedures for final disposal are also needed. Environmental aspects are now included in the early stage of a process and there are tools - life-cycle analyses, for example - for calculating impact on the environment.

The design of "resource-efficient" products is something that Ericsson can control. But it is more difficult to get at the content of components.

"We are now beginning to see solutions where lead in our soldering connections is concerned, but it will take many years for the industry to adjust completely," Björn Boström says.

"We are cooperating technically with suppliers and we are working increasingly with partners and in alliances; we will reduce the number of suppliers from approximately ten thousand to several hundred. We are outsourcing operations and our purchasing often takes place on a higher level. All this requires that we be smarter purchasers, and that environmental demands on our suppliers be part of our evaluation of the companies, comparable with accurate and reliable deliveries.

> Lars Cederquist lars.cederquist@lme.ericsson.se

#### More about environmental program on web

> Are you interested in Ericsson's environmental program? Then check out the company's environmental pages on the web.

You can read about Ericsson's policy and objectives, how the environmental management system is organized, and how it is proceeding.

If you are an Ericsson employee, you can explore each subject area in greater depth on the internal web page.

Subjects include "Design for Environment," "R&D," "End-of-Life Treatment" and "Marketing."

www.ericsson.se/environment



be introduced in all plants and a basic environ-

**Björn Boström** 

Ericsson.

# Around the world in 18 weeks for 3G

January 27 in Singapore heralded the start of a new Ericsson-arranged road show for 3G, the third-generation mobile phone system.

The goal of the "3G Global Symposium" is to present the potential offered by 3G and to show Ericsson's leading position within the industry.

"A similar tour was arranged about a year ago. The difference this year is that a significantly greater number of Ericsson units are participating. We also provide a better overall impression, since CDMA is also taking part," notes project manager Töger Åström at Ericsson

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Radio Systems. The road show, which started in Singapore, will then make an 18-week tour of the world during which 23 symposiums will be held. A total of 16 personnel are involved full-time in the tour. Some 20 Ericsson colleagues are involved as program leaders and presenters. The symposiums take place in a specially constructed environment, designed to look like a TV news studio.

"The news channel is called Ericsson, the program is called 'On Air' and the subject matter will focus on the power of mobility, with special emphasis given to the third-generation's systems and services," explains Åström.

During the 3-hour symposiums, 20 interviews will take place with external company executives, such as Tim Samples and Hans Snook, presidents of the operators, One2One and Orange, respectively. The interviews focus on current events within the industry.

Operators, analysts and representatives of various power bases will be invited to the symposiums. Separate symposiums are being arranged for the media.

personnel "Ericsson's own around the world naturally constitute another key target group," underlines Töger Åström. "Accordingly, a symposium will be arranged for them at each venue, prior to the main symposium."

> Gunilla Tamm gunilla.tamm@lme.ericsson.se



Töger Åström (left) is project manager for the 3G Global Symposium. Here, he is shown with Larry Wood, Charlotta Thomesson and Peter Lancia.

**3G video reached** 

finals in New York

> Ericsson's film, "Leading the way in

3G" got as far as the finals but didn't re-

ceive a winning prize in the New York

Festival. "There were 1,200 video entries from 43 countries in the class in which we participated," says Yvonne Wilow

The Ericsson video, which was pro-

duced by Jarowskij Beställningsfilm, was made for viewing at a conference in Japan last autumn. In brief sequences, end-users explain how they would like to use 3G, the next generation of mobile phone system. Yvonne Wilow worked in close cooperation with Ericsson Mobile Communications in Lund to produce

from PDC system.

the video's content.

mcom.ericsson.se

Photo: Peter Nordahl

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### Satellite utions csson

Make your IP, ATM, Frame Relay, ISDN, and SS7 traffic flow seamlessly between remote sites connected via Ericsson's LINKWAY satellite terminals

Unlike conventional VSAT systems, LINKWAY handles circuit-and-packet-switched traffic dynamically, utilising a unique multi-frequency DMA architecture; combined with flexible andwidth management the system offers efficient and effective enterprise satellite communications. Its Java-based network management software, with a interface, enables quick and flexible remote access from any PC.

www.ericsson.co.uk/uk/col

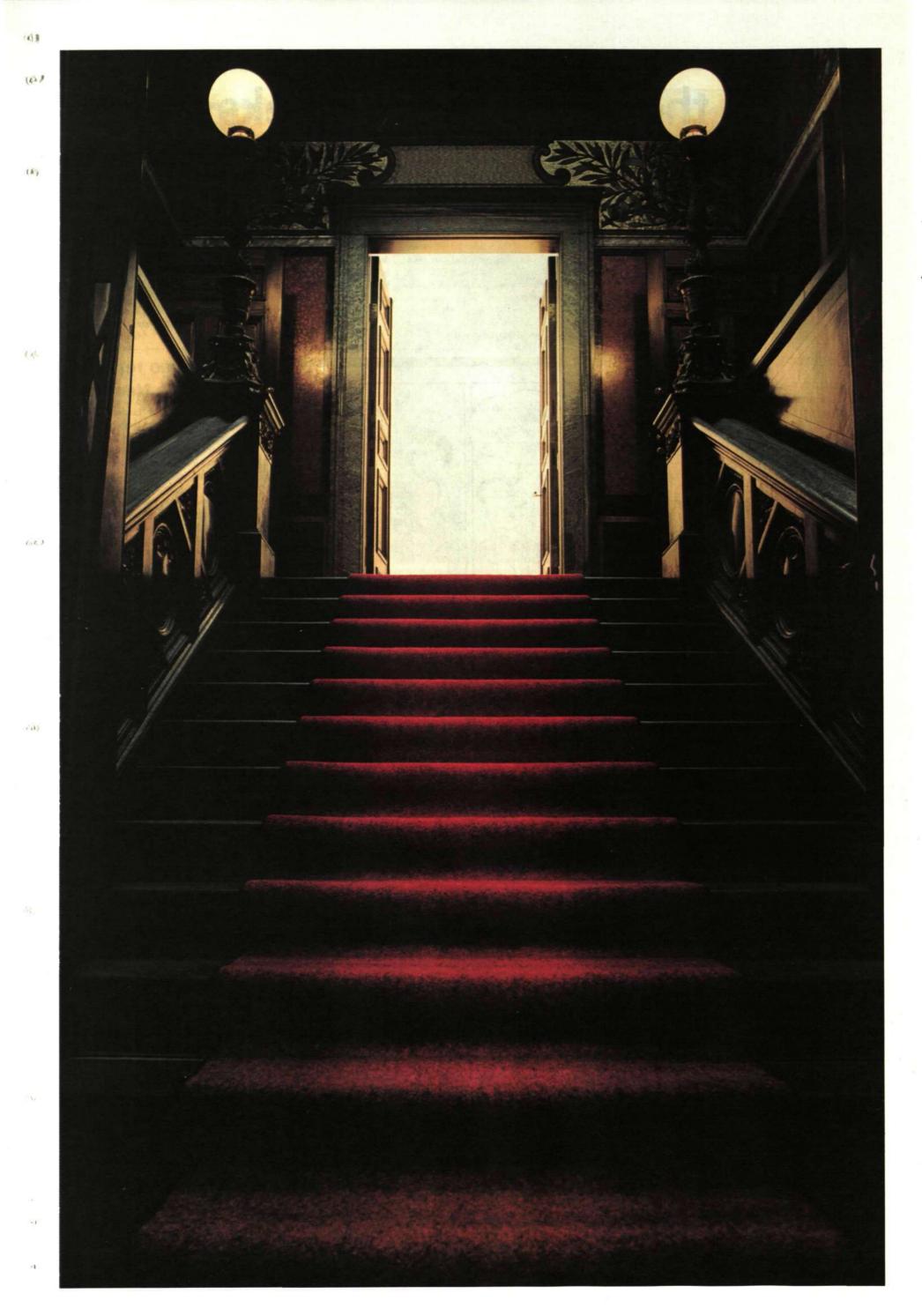
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#### **Broadband Applications**

- Cellular and Wireless Local



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#### and an manage

# We'll give your idea the VIP treatment

At Business Innovation, our job is to make sure good ideas make it. We're looking for anything, from technical breakthroughs to innovative business concepts, that requires enabling technology.

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#### http://bi.ericsson.se

port and help steer your concept through the challenges of development. Finally, we will

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guide you through the pitfalls and complexities of bringing a concept to the market.

This is our promise: Working closely with you, we remove the many barriers that exist between your idea and its realization. So don't let lack of time, too many commitments or indifference from others get in your way.

Send us your idea now. If it makes the grade, we'll make sure it gets the VIP treatment.

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#### VACANCIES

# vacancies AT ERICSSON

#### Contact No. 1 2000

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#### ERICSSON RADIO SYSTEMS AB, SUNDBYBERG

#### **Technical Manager** to Romania

Do you wish to become a member of a successful team to pursue our GSM break-through in Romania? Romania of today is an exciting country, now turning towards the West. This is certainly the case when it comes to GSM, which was introduced in 1997.

It was a flying start, which surpassed all expectations and during this summer we signed a contract with the third operator, CosmoRom, dominated by the Greek operator OTE.

The GSM 1800 system is presently being delivered, and we need an experienced technical manager to take the technical responsibility during the implementation and capable to support the aggressive further network developing plan. The tempo is high and the customer is in a tough competitive situation, and by offering excellent support, we want to contribute to help CosmoRom obtaining a strong market position in Romania.

 You will become a member of a Total Project Management team, in which your role is to have the technical responsibility for the system. You will also participate in the sales activities towards the customer. You will have direct contacts with the customer, which is stimulating and challenging, but also demanding.

We are looking for a person with a solid technical education and thorough experience as a technical manager in GSM mobile telephony. It is valuable if you have experiences from working with new products as IN and DATACOM. You can work independently, you take initiatives and you communicate well with others. You are used to working at a high speed and make your decisions quickly. You must have a commercial understanding and you must be a good representative of the company. Good knowledge of spoken and written English is mandatory. If you are the right person, this position gives good opportunities for a continued exiting career

Contact: Mikael Anckers, +46 8 757 3968, mikael.anckers@era.ericsson.se, Anita Malmström Wallner, Human Resources, +46 8 404 2429, anita.malmstrom-wallner@era.ericsson.se. Application: Technical Manager to Romania, Ericsson Radio Systems AB, SG/ERA/LP/HA Pirjo Hautala, 164 80 STOCKHOLM, pirjo.hautala@era.ericsson.se.

ERICSSON RADIO SYSTEMS AB, KISTA

#### Director **Product Marketing, Brasil**

The Brazilian market continues its strong growth were Ericsson's 15 customers are very active increasing their market share from today's 40%.

• You will be accountable for Product Marketing, driving the sales of the whole Ericsson Product Portfolio for Wireless Systems through the 7 KAM teams and 1 NAM team, interfacing with the supporting BU/PU functions around the globe.

Leading a group of some 60 people, you will be continuously building competence to ensure a leading position for EDB in The New Telecoms World. You will also be the local sponsor for the Mobile Internet Institute, our new initiative for development and integration of packet data applications

We expect you to have solid managerial experience and have documented success in previous international assignments. You are a dedicated Competence Builder with a clear people focus and good networking skills, willingly sharing your extensive Ericsson network, your knowledge and your ideas.

Furthermore, you are a doer with a practical approach, able to make things happen. In order to increase sales and make our products profitable, you must have a true Business Focus and a broad knowledge of infocom. You have at least an M.Sc. or equivalent, and you either speak Portuguese, or have a natural ability for learning languages.

Contact: Lars Birging, +46 8 58531625, lars.birging@era.ericsson.se, Bo Ribbing, +46 8 757 0575, bo.ribbing@era.ericsson.se, Lars Jerhlander, +55 11 6224 0007, lars.jehrlander@edb.ericsson.se.

Application: Director Product Marketing, Brasil, Ericsson Radio Systems AB, ERA/AH/LC, 164 80 Kista, catrin.dysing@ era.ericsson.se.

**ERICSSON RADIO SYSTEMS AB, SUNDBYBERG** Marhaba GSM

#### in Saudi and MEA

Ericsson is preparing to roll out an expansion of the GSM (900/1800) network in Saudi Arabia. The final decision will be taken before the end of January. The planning is based on a complete turnkey solution, from site acquisition to operation & maintenance

For Saudi and other rapidly expanding operations in the Middle East & Africa, we require the following managers:

**Key Account Manager, Finance Manager**,

**Technical Manager**,

#### **Operations Manager,**

Sub-project Managers,

**Design Managers**,

**Logistics Manager,** 

Site Acquisition & **Civil Works Managers**,

Installation Managers,

Integration Managers,

**FSC Manager**,

#### **NOM Managers**,

#### **HR-Manager**

 Basic Requirements for all positions: long experience as a manager in the GSM environment, as well as international experience. You should also have power of initiative, high motivation and a good ability to co-operate.

Contact: Hans Olander, Business Manager Key Accounts, +46 8 4046942, hans.olander@era.ericsson.se or Lars Birkstedt, Business Manager New Accounts, +46 8 4042045, lars.birkstedt@era.ericsson.se or Håkan Nordlander, Operations, +46 8 58534810, hakan.nordlander@era.ericsson.se

For its rapidly expanding operations, the project requires the following professionals.

**Project Planner**,

#### **Site Acquisition & Civil** works Supervisors/Experts,

**MSC & BSC Testers**,

Integration Engineers,

**SS Support Engineers**,

#### **BSS Support Engineers**,

#### **NOM Engineers**

 Basic Requirements for all positions: long experience of AXE and GSM environment, as well as international experience. You should also have power of initiative, high motivation and a good ability to co-operate.

Contact: Hans Olander, Business Manager Key Accounts, +46 8 4046942, hans.olander@era.ericsson.se, Måns Fajerson, Operations, +46 8 58532896, mans.fajerson@era.ericsson.se, Anita Malmström Wallner, Human Resources ERA/LP/H, +46 8 4042429, anita.malmstromwallner@era.ericsson.se.

Application: MARHABA GSM IN SAUDI AND MEA, Ericsson Radio Systems AB. SG/ERA/LP/HA. Pirio Hautala, 164 80 STOCKHOLM, pirjo.hautala@era.ericsson.se.

This is a selection of vacancies within the Ericsson corporation. They are also published on http://www.ericsson.se/ jobs/international.shtml, International Openings, updated every second week.

To advertise: mail your adverts to employment. adverts@lme.ericsson.se.

#### **Updated January 24**

ERICSSON CANADA, PROJECT SERVICES, MISSISSAUGA, ONTARIO, CANADA

#### **Project Manager**

(6 to 8 month Contract)

 Ericsson Canada Inc. is seeking a Senior Project Manager for a 6 month contract to act as the primary interface in project services for one of Canada's largest customer. You will be responsible interfacing with customer in regards to the planning, follow-up, completion and budgets for projects associated with the customer contract and in accordance with the customers and our own expectations. It will be your responsibility to select and direct a multi-disciplinary team accountable for the successful completion of major national and international projects involving various products and services.

You should possess prior experience in the leadership of projects and project teams and have broad international experience with Ericsson switch technology and a familiarity with new switch installation, APZ swaps - APZ 212 30, AS Replacement and IOG replacement with AP. In addition, experience managing complex projects is a must.

We require an individual who is highly adaptable and a quick learner. You should have strong communication and interpersonal skills and have the ability to interface with all levels of the customer organization.

Candidates should also have good English Communication skills and a University or college degree in related field or equivalent work experience

Contact: Carl Sergeant, Ericsson Canada Inc. Director, Project Office, +1 905 206 6541, Carl.Sergeant@emc. ericsson.se

#### ERICSSON TELECOMMUNICATIE B.V. NETHERLANDS

Within the Design Unit 'Intelligent Networks Platforms & Applications' there is a vacancy for a Product Manager for the SCP-T platform. The location for this vacancies is ETM in Rijen, the Netherlands.

Ericsson is the world's leading supplier of Intelligent Network solutions. Our products have been chosen by over 100 operators of fixed and mobile systems in more than 40 countries.

#### Product Manager SCP

The Design Unit INPA Rijen (NL) develops and maintains service platform functionality software for the AXE 10 platform. The DU also has product management and product marketing responsibility. The product is the core platform for the Ericsson Intelligent Network services and supports for example PrePaid and Virtual Private Network services. • Tasks & Responsibilities: You will work in a team of three

product managers that are focussed on SCP-T that will together be responsible for: Business case development (together with business management). Product planning based on strong business cases. Product planning in alignment with the complete SCSA product portfolio. Initiate, sponsor and monitor/review the development of new products. Maintain and improve the product marketing library. Give marketing & sales support. provide help with non-standard tenders for strategic customers. Take active part in product announcements and ensure active presence at various events.

Required competence: You must be entrepreneurial and SCSA organization has to be established and maintained. You must have experience in product management. Knowledge of AXE and IN products is preferred. Because the PE SCP-T products are marketed globally you must be prepared to travel frequently.

Contact: Alfo Melisse, +31 161 249 463, mob +06 557 91221, Alfo.Melisse&etm.ericsson.se.

#### Software Designer **Intelligent Networks**

 Tasks & Responsibilities: Functional and Block design on modules of the SES subsystem. Coding and Basic test of modules within the SES subsystem. Inspection and deskcheck of module documentation and code-modules. Maintenance of platform software of live exchanges. Functional test specification, design en execution of SES modules. Required competence: You are creative in your work and

a team-player. You have software design-skills for quality

design. You are solution driven and process-minded. You work in multi-disciplinary teams and share responsibility for the team-result. Because the SCP-T products are developed globally you must be prepared to travel.

Contact: Eddy Verhoeven, +31 161 249723, mob +06 21 496500, Eddy.Verhoeven@etm.ericsson.se. Application: Anja Bastiaansen, HR officer, Recruitment Research & Development, Ericsson Telecommunication B.V, P.O. Box 8, 5120 AA Rijen, Netherlands, +31 161 242 997, Fax +31 161 242026, Anja.Bastiaansen@etm.ericsson.se,

#### LM ERICSSON LIMITED

Software Centre

The software centre (SWC) is part of a programme within Wireline Systems to rationalise the handling of AXE software deliveries to our customers. The centre builds, verifies and delivers the Market Application Systems to Wireline Systems customers globally and performs verification and upgrading of the Global Application Systems.

The centre is located in Beech Hill, Dublin, Ireland. Due to continued expansion we currently have vacancies in the following positions:

#### Section Manager **Market Projects**

 We are seeking people to lead sections who have responsibility for verification and delivery of AXE application systems to customers. The duties of the section include software verification of Market Application Systems and MAS rollout support.

Applicants should have at least 5 years experience gained in similar positions on projects involving AXE. The positions require a high degree of technical knowledge of AXE and may suit AXE testers or trouble shooters seeking a change of role

The positions also entail dealing with the representatives of end customers and Ericsson local companies and therefore require skills in communication.

#### **Project Managers**

We are seeking a number of Project Mangers to lead customer projects. Applicants should have at least 5 years experience gained in similar positions on projects involving AXF

The positions require a degree of technical knowledge of AXE and may suit AXE testers or trouble shooters seeking a change of role. The position also entails dealing with the representatives of end customers and Ericsson local companies and therefore requires skills in communication.

#### **AXE Testers & Trouble Shooters**

We are seeking a number of AXE Testers and Trouble Shooters to supplement our existing staff. Applicants should have at least 4 years experience in AXE 10 software design, verification or support. Customer focus will be an important attribute of the Software Centre. Ideally, the experience will have been gained in an environment involving regular contact with end customers.

The duties will include software verification of Global and Market Application Systems, design and verification of GAS/MAS Upgrade, MAS rollout support, GAS maintenance, GAS/MAS information publishing, and development of SWC's automated testing capability.

#### Information Publishing Manager

 We are seeking a person to drive improvements in the generation and publishing of GAS related information. The overall objective is to bring the publishing of information, which today is generated in individual market projects, back into the GAS development process.

Applicants should have at least 5 years general AXE experience. Ideally, the experience will have been gained in an environment involving regular contact with end customers. Some experience of Ericsson software design would also be an advantage

#### **Competence Development** Manager

 We are seeking a person to manage the recruitment, training and development of our key resource, i.e. people. Applicants should have either 4 years experie

competence development or training position in an engineering environment or should have 4 years general telecoms experience with an aptitude for and interest in competence development.

#### Verification Methods & **Tools Development** Manager

• We are seeking a person to drive major improvement in verification methods. The overall objective is the virtual elimination of verification as an activity performed during individual market projects and its replacement by a qualitative improvement in the verification activity performed during the GAS development process and during the Design verification process.

The strategy to achieve the qualitative improvement will include some or all of the following steps: statistical analysis of the effectiveness of various verification strategies/methods, root cause analysis of software faults, improvements in

VACANCIES

the test environment including the selection of traffic generators and emulators, development of automated test scripts, development of tools as aids to verification.

Applicants should have at least 5 years experience in AXE 10 software design, verification or support. Ideally, the experience will have been gained in an environment involving regular contact with end customers. The position requires a high degree of technical knowledge of AXE and may suit AXE testers or trouble shooters seeking a change of role.

#### Section Manager **MAS Maintenance**

• We are seeking a person to define the strategy for maintenance of individual MAS's and to setup and run a section to deliver regular maintenance packages.

Applicants should have at least 5 years experience in AXE 10 software verification or support. Ideally, the experience will have been gained in an environment involving regular contact with end customers. The position requires a high

degree of technical knowledge of AXE and may suit AXE testers of trouble shooters seeking a change of role.

The software Centre represents a unique opportunity to work on AXE software from the latter stages of the Design phase, through market customisation and rollout and into the maintenance phase.

We invite applications from personnel internally and externally who believe that they have acquired sufficient expertise in the relevant areas to undertake one of the above

tasks. The positions listed may invoice foreign travel. As a screening process based on applications received will take place, it may not be necessary to interview all can-

didates Applicants should apply in writing, enclosing a comprehensive Curriculum Vitae and names and, address of refer-

ees to the undersigned.

Contact: Margaret Gaffney, Recruitment Manager, LM Ericsson Limited, Beech Hill, Clonskeagh, Dublin 4, Ireland, MAR-GARET.GAFFNEY@EEI.ERICSSON.SE

#### ERICSSON EUROLAB GMBH, NUREMBERG GERMANY

Product Development W-CDMA Base Stationsis looking for Project Managers. The EED design unit in Nuremberg is in rapid expansion

Within the product unit Wideband Radio Networks are we responsible activities in RF and Sianal processina The department is now looking for two additional project

managers.

#### Transceiver Development

#### Proj.No 67899

• We seek a project manager for the transceiver development for the first release of the W-CDMA base stations. You will lead a team of 15 RF and ASIC designers.

#### **Digital Design**

Proj.No 67999

We seek a project manager for a project designing a W-CDMA plug in unit for GSM basestations.

You will lead a team of 20 designers involved in both HW and SW design. For both positions we expect applicants with earlier expe-

rience of leading design groups. Experience from HW development, including industrialisation is a merit

All our projects are carried out in and international environment together with other design units within the product unit Wideband Radio Networks

We can offer either local or expatriate contracts.

Contact: Manager Human Resources, Norbert Lechner, +49 911 5217 111, norbert.lechner@eedn.ericsson.se or Department Manager, John Victorin, +49 911 5217 395, John.Victorin@eed.ericsson.se

# 3rd Generation UMTS/IMT-2000 opportunities in Japan

In order to meet the challenges presented by the future deployment of a 3rd Generation UMTS/IMT-2000 Network in Japan the Customer Support Division (NRJ/S) within Nippon Ericsson is looking for a number of highly motivated and talented engineering personnel. The majority of these positions are based in Shin Yokohama, however some positions may be based in other locations within Japan.

All positions require a strong customer focus and the successful candidate should be able to work well within a team environment and be able to work with people from a large range of cultural backgrounds. English fluency is essential with proficiency in the Japanese language being highly desirable.

For further details regarding Nippon Ericsson K.K please visit the webpage at: http://inside.jp.ao.ericsson.se

#### System Support Engineers (Core Network/Radio Network and Applications)

The successful candidates will be responsible for providing implementation system support during the installation of the IMT-2000/UMTS network and then provide first line technical support for the network once it is in service. The applicant is required to have at least 2 years experience in a system support, verification or design role in the mobile telecommunications field although applicants with a background in fixed networks are also encouraged to apply. These positions offer an excellent opportunity for engineers wishing to move into the IMT-2000/UMTS field and a number of vacant positions are now open.

#### **O&M** Engineers

In order to provide the highest level of support a UMTS system support help desk is being

days a year. Therefore a number of positions exist for engineers with system/O&M support experience who are able to deal with support problems/questions from the customer across a wide range of system platforms. These positions offer the opportunity for engineers to gain competence across a number of IMT-2000 related disciplines and system platforms ( e.g. Datacoms, ATM, TCP/IP, Cello etc).

#### **Project Managers**

We are looking for a number of Project Managers to work in the Implementation Phase of the IMT-2000/UMTS Network in Japan. These managers will be responsible for managing sub projects involving the deployment of the network in the Radio, Core and Service Networks. The applicant should have 1-3 years experience in a similar role and be able to lead a small project team if required. Previous experience in dealing directly with external customers is also highly desirable.

#### Installation Engineers – IMT-2000/CMS30 (Methods and Tools)

The successful candidates will be involved in developing IE Methods & Tools. The duties involved include writing description documents for "guides & rules" that concern Switch/Power Installation Engineering for IMT2000 & CMS30 as part of the IE support team and developing/maintaining IE methods & tools specific for Japan (local) by coordinating with the existing/new methods developed by other organizations. (e.g. ERA, EPA, EDD) Applicants should have at least 2 previous experience in AXE Installation Engineering. Training as required will be provided and some established and will operate 24 hours a day/365 overseas and domestic travel may be necessary.

There may also be a requirement for some engineers to available at times on an emergency support/on call roster.

For further details or to apply for a position above (please clearly indicate what position you are interested in) contact:

Greg Atkinson IMT-2000 Network Support Manager Customer Support Division, Nippon Ericsson K.K.

E-Mail: Greg.Atkinson@nrj.ericsson.se (nrjgreg)

Phone: + 81 45 4754347 Fax: + 81 45 4754350



### Make yourself heard.



#### ERICSSON ESPAÑA, S.A.

Enjoy our sunny Spanish lifestyle while working with us at EEM for the Spanish N°1 GSM-IN operator , Telefónica Servicios Móviles.

Our customer often participates in large international IN/GSM projects (GAs GSM R7, I&B 2.2, ...) and is aware of the latest technology, therefore this position also means development opportunities.

#### IN and Switching Maintenance Engineers

 We are seeking two experienced engineers with good knowledge and experience in AXE and TR handling, trouble shooting and fault finding in the IN (for mobile telephony systems) area, to join the Telefónica Servicios Móviles FSC in Madrid.

Self-initiative and willingness to share knowledge is expected. Fluent English is also required.

We offer you a friendly job environment and the possibility to work with different IN services supporting our customer.

Contact/Application: Jorge Penalba, FSC MIN Manager, +34 91 3391373, jorge-jose.penalba-roque@ree.ericsson.se.

EEM/TD/M department at Ericsson España SA in Madrid, is the competence center for GSM and UMTS Databases. We are responsible for the following products HLR, AUC, FNR, EIR and ILR, known under the common name GDB.

Up until last year we have mainly worked with AXE10-development, but we arenow gradually moving over to open platform development (Windows NT and TelORB/Tango). We are just starting up the execution phase for one of the most exciting projects ever, for Ericsson and for our organization, the R9/UMTS project. For this project we need an

#### Experienced Project Manager

 As a project manager for the GDB R9/UMTS Main project you will be responsible for a project with4 design and function test subprojects (two in Spain, one in Greece and one in Sweden), of which 3 will work in AXE10and one in Windows NT.

There will also be a TCM subproject and a system test subproject, which both will be located in Spain.

The Main project belongs to the CSS Core Network Total project, which will deliver the core network for both GSM and UMTS.

As a project manager you should be goal-oriented, be used to work in an international environment and have a number of years of experience as a project manager for big development projects. If this sounds exciting and you feel like coming to the

very nice and vivid city of Madrid then do not hesitate to apply for this job.

Contact: Project Office Manager, EEM/TD/MP, Rickard Romander, +34 913 391 552, Rickard.Romander@ece.ericsson.se.

The Core Applications unit within Ericsson's R&D Center in Madrid selects

#### 1 Systems Engineer -Standardisation

• to work in standardisation duties (ETSI, ITU) in the area of network signalling systems (SS No. 7 - MTP, SCCP, TCAP) The job is carried out by active participation in the working groups and plenaries, as wellas participating in an international standardisation network (preparation and analysisof contributions, support to affected projects, support to

market/customer units). Requisites are: good command of English, team work skills, availability to travel, analytical skills, as well as a good knowledge of signalling system SS No. 7 through 3-4 years experience in design, testing or systems development. Having a good international contact network, self-directing, negotiation skills and initiative will be valued.

#### 2 Systems Engineers -Network Signalling

• to work in OPM tasks for signalling system SS No.7: customer and market support, expert support to projects, product responsibility, technical committees, quickstudies, system investigations, prestudy and feasibility phases. The work is carried outas part of an international systems management network, with contacts to a number of design and customer organisations.

Requisites are: good command of English, team work skills, initiative and self-directiveness. A very good knowledge of SS No. 7 is required, achieved through at least 3-4 years experience in design or testing, preferably in AXE environment.

Contact: Isidoro Garzon, +34 91 339 2133

#### 1 Product Manager -Signalling

• to work in the area of products for SS No. 7, in AXE plat-

form as well as inothers (WPP, Solaris, etc). The work is carried out as part of a product managementteam within CAPC, as well as in strong cooperation with Ericsson Infotech AB, and includes: business opportunity tracing, business management support, support to externaland internal customers, preparing product plans, preparing requirement specs. And assignment specs. project tracking etc.

Requisites are: good command of English, team work skills, initiative and self-directiveness, availability to travel, as well as good knowledge of SS No. 7, achieved through at least 2 years experiencein the system.

Having a good international contact network, as well as negotiation skills and experience in open platforms will be positively valued.

#### Contact: Jesus Tomas, +34 91 339 2896. 2 Systems Engineers -

#### **Open Systems Architecture**

 to work preferably in the area of products for SS No. 7, in open platforms (WPP, Solaris etc).

The work is carried out as part of a systems management team within CAPC, as well as in strong cooperation with Ericsson Infotech AB, and includes: specification of platforms and SW architectures, productmanagement support, prestudy and feasibility phases, technical coordination and expert supportin projects, etc.

Requisites are: good command of English, team work skills, initiative and self-directiveness, availability to travel.

A good knowledge of SW architectures in open platforms is required, achieved through at least 2-3 years experience in design and testing, as well as knowledge in signalling system SS No. 7.

#### 2 Systems Engineers -Fast Track

• to work in the area of market and customer solutions (Fast Track Service Center) in the phases of pre-prestudy and prestudy, providing solutions and alternatives in one or several subsystems and products, coordinating the activities that each affected unit (outside EEM) must perform, and monitoring the projects, providing the needed expert support.

Requisites are: good command of English, initiative and self-directiveness. A very good knowledge of the AXE platform and its SW

architecture and components is required, achieved through

at least 4-5 years experience in design and testing in AXE. Experience and knowledge of a number of subsystems in AXE will be positively valued, especially in the areas of Access, IN and Charging. 1 Systems Engineer -System Characteristics and ISP

• to work in the area of System Characteristics and In-Service-Performance (ISP), doing characteristics studies for released products, recommendations on improvements of characteristics, analysis of HW and SW architectures, evalua-

tion of methods and tools, preparation of requirements, etc. Requisites are: good command of English, initiative and self-directiveness. A good knowledge of the AXE platform and its SW architecture and components is required, achieved through at least 3-4 years experience in design and testing in AXE. Experience and knowledge of a number

and testing in AXE. Experience and knowledge of a number of subsystems in AXE, and its HW platform, will be positively valued.

Contact: Roberto Encinas, +34 91 339 2176.

#### ERICSSON BUSINESS MOBILE NETWORKS, NETHERLANDS

Within the Ericsson group EMN (Ericsson Business Mobile Networks) in the Netherlands develops new wireless multimedia applications.

The unit Wideband Radio Networks (WRN) at the location Enschede develops products for the third generation of mobile systems based on W-CDMA technology.

For all positions it's basic requirements are: master or bachelor degree in engineering, good command of English and willingness to travel and/or work abroad.

#### **SW Design Engineer**

 As a SW design engineer within the Radio Basestation SW team you will develop (part of) the software application and board controller software. This software is developed using Object-Oriented design techniques, using the state-ofthe-art ObjecTime Developer CASE tool. The work is performed in close co-operation with development teams in Sweden.

Within this team we are looking for experienced software engineers who will be working the full software life cycle including (object oriented) analysis, design, implementation, test and maintenance. As this is one of the first projects using a fully Object-Oriented approach to design, you will also participate in piloting new incremental development and integration processes.

Requirements: knowledge of and experience with realtime software design. Prior exposure to C++ and OO design is an advantage.

### Change? Challenge? Growth?

Latin America offers you a huge expanding telecom market with an expected increase of 50% in the subscriber base only this year, new licenses for PCS, WLL and 3G migration, strong macroeconomic growth and the very best of Latin culture.

The Regional Service Delivery Centre for Latin America and the Caribbean is responsible for the delivery, co-ordination and development of Network Design and Network Performance Improvement services in the region with base in Sao Paulo, Brazil. All technologies represented in Ericsson Services and the region are part of the assignment. The main standards are thus: TDMA, CDMA and Fixed Networks.

The Regional Service Delivery Centre is now in search of competent and committed consultants to spearhead the ND&NPI business growth in the areas of Radio, Switch, Transmission and Datacom.



Discover Latin America!

# **Senior Consultants and Consultants**

The successful candidate has:

#### A consultant profile with excellent teamwork and customer relation skills, University degree and fluency in English. Operator experience, Spanish and Portuguese are desired. All positions have extensive customer contact. Radio Network Design and Performance Improvement: Position:

Senior Consultant - minimum of 6 years relevant experience.
 Consultant - minimum of 3 years relevant experience.

The task involves RF design, RF optimization, frequency planning, IS 136 knowledge, microcell and indoor design, strategic planning and others.

#### Switching Network Design and Performance Improvement:

#### Position: - Senior Consultant - minimum of 10 years relevant experience.

- Consultant - minimum of 5 years relevant experience. The task involves Traffic dimensioning, O&M, Data Transcript, # 7 signaling, AXE and other Ericsson equipment knowledge and others.

#### Transmission Network Design and Performance Improvement: Position:

- Senior Consultant - minimum of 6 years relevant experience. - Consultant - minimum of 3 years relevant experience.

The task involves Radio and Fiber networks, SDH, PDH, HDSL, ADSL and WDM technologies.

Datacom Network Design and Performance Improvement: Position:

- Senior Consultant - minimum of 6 years relevant experience

Consultant - minimum of 3 years relevant experience.
 The task involves SNMP, traffic and billing requirements, Unix, NT, Model tools (e.g. PlasmaSim), Routers, IP and Wan networks, security systems, to design and troubleshoot.

Send your cover letter, resume in English, current and expected salary to: - Radio: rsdc.rf@edb.ericsson.se

- Switch: rsdc.sw@edb.ericsson.se
- Transmission: rsdc.tx@edb.ericsson.se
- Datacom: rsdc.dc@edb.ericsson.se
- For more information please contact:

André Kraemer - Manager, Radio Network Design +55 11 62240203 Patrik Melander - Director, Regional Service Delivery Centre + 55 11 62245092



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#### **SW Design Engineer** (Java/Corba)

 As a SW design engineer within the Platform O&M SW team you will be working the full software life cycle including architecture, design, implementation and test.

You are interested and have the ambition to work with the latest Internet technology. An extensive training program has been designed and implemented to assist you in building this competence.

The main features of the training program are: Object Oriented Analysis, Design, Modeling and Construction with UML. This course provides the OO fundamentals and demonstrates the practical applicability of the Unified Modelling Language in the analysis, design and implementation phases. Object Oriented Programming Java.

This course provides the Java fundamentals. Visibroker for Java. This course provides the concepts of Corba and Visibroker for Java.

#### **HW Design Engineer**

 As a HW design engineer within the RF&HW team you will design complete printed circuit boards with fast digital electronics which is a part of the Radio Base Station. Main activities in the RF&HW team are: specification and development of printed circuit boards containing FPGA's, DSP's and ASIC's in co-operation with other design units and specification an development of W-CDMA radio hardware.

As HW design engineer you specify requirements for new HW interfaces and architecture, you communicate with manufacturing to ensure easy producibility and high yield. You execute simulations on Signal Integrity, implement the board design, together with other HW and PCB designers. Other tasks are: verification and sustaining of the board, interfaces with other development groups inside and out-

side Ericsson. Requirements: familiar with hardware requirements like power consumption, EMC, safety and reliability, Experience in Hardware development and manufacturing is an advantage. Experience with design of fast digital electronic circuits

#### **ASIC Design Engineer**

is an advantage.

 As an ASIC design engineer you specify requirements on the system and on modules to be implemented in WRN's FPGA's and ASIC's. You specify verification plans for the WRN's FPGA's and ASIC's, you specify hardware/software interfaces in co-operation with WRN system and software engineers.

Other tasks are: implementation of the specification into VHDL, verification of the VHDL implementation using (VHDL-) testbenches and interface with other development groups inside and outside Ericsson, and to silicon vendors.

Requirements: familiar with hardware requirements like power consumption, CPU performance and area optimisation. At least 2 years experience in ASIC development and experience in using structured design methodologies.

#### System Engineer Architecture

 As a system engineer you will have the following tasks and responsibilities: translation and breakdown of system level requirements to node level requirements. Specification of interfaces and protocols on these interfaces. Analysis on system correct functioning based on use cases. Participation in project work resulting in worldwide standards. Creation of UML models in object time models or SDL/ASN.1 models.

Requirements: experience in system design of telecom networks, broad overview on mobile systems, at least 3 years experience in system level design (protocol work). Experience in UML and/or SDL/ASN.1. Finds his/her way in large organisations.

#### **System Engineer Radio Network Characteristics**

• As a system engineer you will have the following tasks and responsibilities: specification of Radio Network (RN) algorithms and analysis of the performance of RN algorithms.

Further tasks analysis of the RN in terms of quality of service, capacity and coverage and also creation and execution of simulation models for the RN algorithms. You co-operate close with product management and node designers on algorithms. You participate in project work resulting in worldwide standards.

Requirements: at least 3 years experience in system level design of radio networks. Experience in building and workodels. Experience ct simulati and/or UML is an advantage.

Application: Ettie Hopma, HR manager, Ericsson Business

Mobile Networks, P.O. Box 645,7500 AP ENSCHEDE, Netherlands, +31 53 45 05 900, Ettie.Hopma@emn.ericsson.se.

ERICSSON TAIWAN LTD. TAIPEI, TAIWAN

#### Senior Manager, **3G Marketing & Sales**

• The person will be responsible for the following job area: 3G Marketing and Sales. 3G Radio Networks Product. 3G Network Infrastructure Product. 3G Applications Product.

The person should equip the following competence and experience: Solid experience in supporting KAM in 3G business building. Solid experience in supporting. Solid experience in managerial position. Good understanding of the Er-

icsson products and the competitor product offerings. Fluent in English (Knowledge of Mandarin will be a plus). Good interpersonal and presentation skills. Good team spirit, cultural awareness, be independent and pro-active.

Contact: Joseph Sun, Vice President, Business Development, Ericsson Taiwan Ltd., joseph.sun@ert.ericsson.se, +886 2 2746 161, mob +886-936 095 900 or Genevieve Lu, Manager, Compensation/Benefits & International Assignments, genevieve.lu@ert.ericsson.se.

NIPPON ERICSSON K.K. - JAPAN

#### Expert AXE **Trouble Shooters** wanted for CMS30 System

· Candidates should have well proven trouble-shooting skills in any of the following radio areas: MBS or MRS or RBS Our responsibilities cover the following areas: Trouble

Shooting, TR'S Emergency, Correction Handling, Emergency Support And excellent conditions.

Contact: Ken Liew, NRJ/SF/TC, ken.liew@nrj.ericsson.se.

#### ERICSSON DE PANAMA (EDP)

2 Hot positions open at the Ericsson's office in Panama. The Ericsson organization in Panama is quite small with frequent and direct communication with the top management and other functions.It's a fairly quiet country with beautiful nature and a lot of international influence.

The close proximity to both the Caribbean and the Pacific Ocean as well as other recreations are available.

#### Field Support Manager

We need a very experienced Support Manager with more than 5 years experience of Ericsson support. The organization is supporting both Wireline and TDMA products, you

have preferable worked with both systems. You will head an organization of both local staff as well as expatriates. The support organization consists today of 5 persons but need to grow with a few more.Experience from 1:st or 2:nd line support is a major advantage, as well as a

well-established contact network. Education: Higher education in Telecommunication, Electrical Engineering or Computer Science or long experience

from similar Job-position. Language: English is a must but if you also speak Spanish is that a plus.

This is a long-term contract for at least 12 months. Unix Specialists/

#### Troubleshooter

The network is growing and a lot of new nodes are being added.We are looking for a person with a broad knowledge of Sun-Solaris, Databases and Data-communications. You will work in the Ericsson Local Support organization

that currently supports both Wireline and TDMA systems. Experience from some of the following Areas is wanted: Switching (Wireline and/or Cellular), Intelligent Networks, Telecom Management.

We would like that you have competence from some of the following products. XMATE, TMOS, CMOS, JAMBALA, AD-JUNCT PROCESSOR, PREPAID, SUN, JAVA, ORACLE, SYBASE and Signaling System 7 (SS7). The person we are looking for should be able to work in-

dependently or in a group to develop the competence of the Ericsson Local Support office.

Education: Higher education in Telecommunication, Electrical Engineering or Computer Science or long experience from similar Job-position.Language: English is a must but if you also speak Spanish is that a plus. This is a long-term contract for at least 12 months.

Contact: Janeric Ermeland, Janeric.ermeland@ericsson.com, +507 265 5140 52, ECN 82852 or Helene Ujueta, helene.ujueta@ericsson.com, + 507 265 5140 14, ECN 82814.

#### **ERICSSON WIRELESS LAB, BERKELEY, CA, USA**

This position will work in the Berkeley Wireless Lab in a jointly funded project with GAA and the Interoperability Group

The Wireless Lab is a few blocks from the University of California at Berkeley and will conduct advanced research work into Mobile IP in conjuction with UC Berkeley.

Ericsson Research and PU Packet Switching Systems will jointly install and operate an advanced mobile packet network at their new Berkeley, CA R&D center. One network will include leading edge technology such as GPRS, CDMA 2000, wireless LAN, and multi-media applications and services.

For our very competent and highly motivated team, we are seeking several experienced testers/system operators that are willing to take on the challege of the emerging mobiletelecommunication system.

#### **Testers/System Operators**

• You will be one of the first in the world to set up and operate a complete GPRS system and you will support our application programmers in the development of new mobile voice and data applications. You will be working with all phases from system test and integration to 24x7 operation at a live research and reference network.

You should expect and look forward to a very demanding job, includingseveral new technologies, cross-organization interaction and customer contact. Adequate training, in particular for GPRS and GSM, will be provided.

Requires MSEE or MSCS with 2+ years in AXE 10 and/or mobile telephony. Need some of the following; GPRS design and/or system knowledge. AXE 10 operation and troubleshooting. GSM radio basestations. data communications. IP networking.

Contact: Joe Compton, Recruiter, fax +925 737 5957, joe.compton@ericsson.com.

#### LM ERICSSON ISRAEL LTD (EOI)

We are providing support and supply to the GSM operator in Israel and to the GSM operator in the Palestinian territo-

Our customers' networks are growing rapidly, with a wish to implement new features, they put high value on good support. You will be joining an enthusiastic team in a dynamic working environment.

Our office is located just outside Tel Aviv, walking distance from our main customer premises. To live here, in this Mediterranean climate, with many great beaches, great variety of restaurants and lots of historical places to visit is an interesting experience.

#### SS Support Engineer, **CME 20**

 The main responsibilities for this position will be to manage, co-ordinate and participate in network investigations and trouble-shooting activities on highest technical level and to address customers expectations/needs. Provide technical competence for resolving complex problems in the networks. Provide technical advice and assistance to engineers and managers.

Transfer knowledge to less experienced team members. Curiosity, interest and the ability to learn new features/functions is important. You would also need to participate, periodically, in the 24-h emergency support.

The competence requirements are: Minimum 4 years working experience on AXE 10 application systems, of which at least 2 years experience should be on CME20/ CMS40 systems preferably verification and/or support/supply. Experience on IN is desirable.

Candidates need to have excellent trouble shooting skills, experience on other mobile application systems/product lines will also be considered advantageous for this position.

The candidate must have good English skills, both spoken and written. Driving license is an advantage. The initial contract period will be for 1 year.

Contact: Tobias Jonsson, FSC Manager, Tobias Jonsson@ eoi.ericsson.se, +972 3 900 6023 or John Walsh, team leader for the SS-group, John.Walsh@eoi.ericsson.se, +972 3 900 6057 Ext. 309.

Application: LM Ericsson Israel Ltd. ATT: Irene Snir, Human Resources, Irene.Snir@eoi.erics-son.se, +972 3 900 6030, Fax: +972 3 903 0952.

#### **ERICSSON GMBH**

For our German headquarter located in Düsseldorf we are looking for a:

#### Product Manager

 Your responsibilities: Official Interface to Product and Supply Units. Responsibility for market introduction of AXE/IN products from a technical point of view. Responsibility for product handling. Technical responsibility for product after market introduction. In Service Product. Substitution. Parameter definition/settings for market. Product quality issues.

Your qualifications: Engineering degree in Telecommunications. At least 6 years of experience in Telecommunications. Good technical background and customer orientation. Fluent in English, German desirable

Contact: Bettina Karsten, +49 211 534 1412. Bettina.Karsten@edd.ericsson.se, Mikael Strandberg, +49 211 534 2359, Mikael.Strandberg@edd.ericsson.se

#### Solution Marketing Manager, Telecom Management

• Your main responsibilities are in the area of both technical product management and product marketing for TMS and especially Network Management Solutions. You translate customer needs and wants into TMS through interaction with the relevant product units.

As a suitable candidate you should have a university degree in engineering or related discipline and experience in telecommunication management systems.

You have a solid knowledge of telecom networks and associated data communication technology, especially UNIX, NT, Oracle and SQL.

Fluency in English is a requirement as well as developable German because of contributing to bids and tenders and giving presentations to customers.

Contact: Human Resources, Hans-Jürgen Vratz, +49 211 534 1441 hans-juergen.vratz@edd.ericsson.se or Solutions Marketing, Klaus Raths, +49 211 534 4153 klaus.raths@ edd.ericsson.se.

#### FRICSSON KOREA LTD

Korea is one of the big mobile markets today with 22 million subscribers (48%) and a rapid growing Internet usage (6 million Nov 99). The interest for 3G solutions is great and the licenses will be released during 2000. Commercial services will start in the first half of 2002 in order to serve at the World Cup Football that is shared with Japan.

At Ericsson Korea we are 80 persons representing all products in the Ericsson portfolio with well established business within wireline systems and entering the business areas for IP and WAP products.

We are now building a WCDMA organization to penetrate this promising market and need to strengthen our team with a Technical Manager WCDMA and a Senior Engineer-Radio Network Design WCDMA Systems:

#### Senior Technical Manager WCDMA

• You will be part of an Account Team working towards an operator. The Technical Manager (TM) has the responsibility towards performing all tasks related to technical co-ordination, product management, network design, sales support and system services support for the customer.

We are looking for a person with a solid technical education and thorough experience as a technical manager in GSM/WCDMA mobile telephony. You can work independently, you take initiatives and you communicate well with others. You are used to work at a high speed and make your decisions quickly. You must have a commercial understanding and you must be a good representative of the company. Good knowledge of spoken and written English is mandato-

#### **Senior Engineer-Radio Network Design** WCDMA Systems

• You will be part of the Solutions & Engineering Team and support our Account Teams in their customer activities. Your main responsibilities are to: formulate radio solutions meeting customer requirements. conduct technical presentations. prepare radio network design proposals. to interface with the customer on radio network related issues.

You are working as a RND, preferably within GSM/WCD-MA systems, and are now ready to work on a demanding 3G market. You can work independently, you take initiatives and you communicate well with others. You are used to work at a high speed and make your decisions quickly. You must have a commercial understanding and you must be a good representative of the company. Good knowledge of spoken and written English is mandatory.

Contact: Lars Bjorck, lars.bjorck@ekk.ericsson.se. Application: Sunny Hwang, sunny.hwang@ekk.ericsson.se.

November 1999 Ericsson was chosen to become the sup-

plier of the third GSM network in the Czech Republic. Now

there is an opportunity for self motivation and forward look-

ing people to become a member in this project. We are cur-

• We are looking for a IN engineer to the Field Support or-

ganization. We are only interested in internal Ericsson staff.

Our unit is responsible for support activities to our cus-

tomers. This involves trouble report handling, emergency

support, implementation of new releases and consultation

You are responsible for IN/PPS support to the customers.

PPS 3.0 application is used. You will support IVR/PPAS/SDP

and AXE based SCP. You will get a second line support from

You should have: Strong customer orientation. Broad

technical experience in IN and SCP/SDP/PPAS/IVR knowl-

edge. Thorough understanding of the support process to

ensure efficient managing of PPS support. Good communi-

We are looking for a OSS engineer to the Field Support

Our unit is responsible for support activities to our cus-

You are responsible for OSS support to the customers,

and will get a second line support from the FSC. You aslo

You should have: Strong customer orientation. Broad

technical experience in OSS UNIX skills, experience in So-

laris. Some knowledge of SUN hardware. Thorough under-

standing of the support process to ensure efficient manag-

ing of OSS support. Good communication skills in English.

• We are looking for a MSC tester with many years of expe-

rience. These persons will take part of our GPRS container

have to work wih other nodes like BGW, SOG.

**MSC/GPRS** Tester

tomers. This involves trouble report handling, emergency

organization. We are only interested in internal Ericsson

ERICSSON SPOL.S.R.O. PRAGUE

rently looking for a number of different skills.

Beautiful Czech Republic.

IN Expert

cation skills in English.

**OSS Expert** 

support, consultation handling.

handling.

ASO.

staff

## "Aiming for the stars" – Join the Satellite team.

Exciting opportunities in a variety of fields, from engineering to marketing, within Satellite Systems – a new and challenging business for Ericsson.

Within the Operator Segment a new Business Unit "New and Special Business Operations", BNSO, was established 1999. Satellite Systems belongs to BNSO who has a mission to give new small business activities the appropriate attention and conditions for successful operations.

Ericsson has been awarded 3 major gateway infrastructure contracts, since March 1997, with the operators ICO, Thuraya and Astrolink. Both ICO and Thuraya are narrowband systems for voice and data based on GSM. In April 1999 we signed the Astrolink contract, the first broadband satellite system, with multimedia services for voice, data and video. The market is very much focusing on packet data services globally and broadband satellite systems are part of the overall broadband Ericsson strategy.

Mobile satellite systems play an important role in providing complementary service to existing terrestrial cellular system operators and fixed telephone subscribers in remote areas. Roaming agreements between cellular operators and satellite operators and the availability of dual-mode handheld phones facilitates these services.

Satellite Systems develops satellite functionality within Ericsson's product portfolio. To be able to support and provide the satellite operators with a total satellite system we are working closely with several other external companies. This means long term strategic relations and agreements with our partners.

If you think this is a real challenge and want to work in a small organisation, then we can offer you interesting positions:

#### Sales Managers

As a Sales Manager you will work with the sales and be responsible for fulfilling the customer's high expectations. You will be a part of the marketing and sales team towards the customer account. Create and maintain market plans, responsible for meeting and exceeding sales booking objectives, profitability targets, maintain and negotiate contracts and establish long-term partnerships between our customer and Ericsson.

The successful candidate should have an ability to build and maintain good customer relations, have strong sales & leaderships skills and experience from several markets/regions. You should also be able to work out business cases for the new satellite development.

Location: Washington DC, Burgess Hill and Stockholm.

For further information please contact: Catharina.Jedberger@era.ericsson.se +46 8 404 44 64 Per "Pelle" Johansson, +46 8 70 632 87 30

#### Senior Program and Project Managers

The global Project Office, responsible for all our Satellite Projects, is now looking for several Program and Project Managers.

As a Program/Project Manager you will be responsible for:

- Tender preparations as the project representative in the Core-3 team.
- Execution of total project including both TTC and TTM projects after contract is signed.
- Fulfilment of time schedule, budget and quality goals.
- Preparation and set-up of new project organisations.
- Management of the customer interface.
- Subcontract management including third party suppliers.
- Processes, Methods and Tools.

You should possess qualifications that make it easy for you to motivate, inspire and guide the project and to create synergism in the team. You have a broad international Ericsson network and have managed complex TTM and TTC projects. You are recognised as a leader but would not hesitate to take active part wherever needed.

We work in a very complex multi-project and multi-culture environment with MIL-std. requirements/processes. The projects include all phases from pre-study to maintenance. A lot of subcontracts are also included, internal as well as external.

#### New Satellite Projects

We are currently tendering for several new contracts and are looking for Senior Program and Project Managers for our new projects. *Location:* Stockholm and Washington DC.

#### Project Managers UK

For our current contract we are looking for a Senior Project Manager and a Project Manager. *Location:* Burgess Hill.

#### Program and Project Managers US

For our current contract we are looking for a Senior Program Director and a Project Manager. *Location:* Washington DC.

#### Program Director Italy

For our current contract we are looking for a very Senior Program Director. *Location:* Rome.

#### Sub-Contract Manager

For our current contracts we are looking for a Project Manager to manage our sub-contracts. *Location:* Stockholm or Washington DC.

#### Methods & Tools Manager

For our projects within our Business and Product Unit you will be responsible for process, methods & tools.

Location: Stockholm.

For further information please contact: Lars.Bergstrom@era.ericsson.se +46 8 404 67 05

#### Senior Product Managers

As Senior Product Manager you will provide our customer with technical competence. That includes technical discussions with the customer, product presentations, be responsible for preparation of technical specifications and production of technical documentation, involved in pre-studies all in close relationship with our sales and design organisation, as well as different PU's within Ericsson.

We develop satellite functionality within Ericsson's product portfolio. It is a very strong plus if you have experience in the GSM system & design. We also work with IP routers, ATM, GPRS and UMTS. The focus is on main system level technical management. As many of the technical requirements for satellites are not standardised, the position requires a solid technical competence in overall network design.

Location: Rome, Washington DC and Stockholm.

#### For further information please contact:

Eric.Sandberg@era.ericsson.se +46 8 757 17 30

#### General Qualifications:

- At least five years experience with substantial achievements from relevant areas.
- You are a leading team player enjoying a dyna-
- mic international environment.
- Strong interpersonal and communication skills.
   Broad experience in customer contacts.
- University degree.
- Master spoken and written English.

Please send your application with ref. position to:

Ericsson Radio Systems AB SG/ERA/KD/HS Mari Skoglöf 164 80 STOCKHOLM mari.skoglof@era.ericsson.se



ERICSSON

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trial during the spring of 2000. Later to be a part of the support for GPRS. The person will be trained on GPRS naturally these positions is only open for Ericsson employees.

The successful candidate should have the following experience: Extensive knowledge in the Ericsson MSC. Data knowledge an advantage. Good communication skills in English. Self motivated and interested to learn new technologies.

#### **BSS Engineer**

• We are looking for BSS engineers. These persons main task is to integrate RBS from the BSC.

The successful candidate should have the following experience: Knowledge of the Ericsson BSC. Previous experience with this type of work. Knowledge of Ericsson RBS 2000. Good communication in English.

#### Installation Coordinator

 We are looking for an Installation coordinator. This person will be responsible for coordinating all installation in Czech Republic.

Knowledge of the Ericsson AXE10. Knowledge of Ericsson power system. Extensive experience with all surrounding equipment such as alarm system, AC system and general building practices.

Contact: IN, OSS Tamas Koczka, +420 606 706245, tamas.koczka@eth.ericsson.se, GPRS, BSS, Inst,coordinator Ulf Eriksson +420 606 707 395, ulf.eriksson@ecz.ericsson.se.

Application: Tamas Koczka, FSO, tamas.koczka@eth.ericsson.se, Ulf Ericsson, Network integration, ulf.eriksson@ ecz.ericsson.cz, Solveig Valentin, HR, solveig.vallentine@ era.ericsson.se

#### **ERICSSON AG, SWITZERLAND**

The UMTS challenge race has started in Switzerland where 4 licensees will be issued during 2000 for commercial launch 2002.

Ericsson AG will launch a centralised UMTS team that will support sales efforts towards New Operators and the existing mobile account, Swisscom. Open positions within the UMTS team are:

#### UMTS Solutions Manager

 Prepare, write and present UMTS total solution in close co-operation with Core 3 team. Adapt presentations to customer-specific needs.

#### Price manager

Calculate prices for various consulting models with support from other Ericsson resources. Define the bid price with support from other Ericsson resources/game theory. Efine prices of network elements. Perform offer pricing

#### Product Managers Core, Radio Access or Network Management

• Areas of activities: Co-operate with client to identify technical support needs. Specify technical requirements and specifications. Present technical solution to client with Account Manager. Manage applications / service development. Collecting technical resources from other parts of Ericsson. Bring their expertise and know-how as core inputs.

We believe you have a degree from University or Technical College. Minimum 5 years of Solutions & Product Management within Ericsson in the field of Cellular network development.

Awareness of impending Cellular technologies and its impact upon today's existing infrastructure and future business. The ability to take an overall view, analyse situations, identify problems and develop solutions. Ability to work under pressure, independent and well organised.

Fluency in English, both written and spoken. German working knowledge desirable.

Application: Ericsson AG, Mr Markus Krienbühl, Ruchstuckstrasse 21, CH-Brüttisellen, Switzerland.

#### FRICSSON SYSTEMS EXPERTISE, IRELAND

#### Configuration Management (CM) Coordinator

An opportunity for a highly motivated and competent person to join a design group in Dublin. The group is responsible for developing O&M Applications towards 3rd Generation Mobile Systems.

• The ideal candidate will have a proven track record implementing CM in large distributed projects.

The position also requires a person with a high degree of competence in implementing and maintaining a distributed CLEARCASE environment for OOAD development using JA-VA/CORBA. Knowledge of O.O. Principles and RUP would be an advantage.

Contact: Maurice O'Donnell, Section Manager, EEI WRN, Ericsson Systems Expertise, +353 1 207 2743, mob +87 2367814, Maurice.ODonnell@eei.ericsson.se. ERICSSON BUSINESS MOBILE NETWORKS B.V., NETHERLANDS

#### Manager Concepts Studies

Goal: To lead and control a small group (Concept Studies) of highly educated engineers exploring next generation technologies, products and system solutions. The manager participates in day to day activities in an entrepreneurial way, but is also accountable for generating output in time and within the given budget. Key words are Internet, wireless short-range transmission, high-speed data, voice and video, and customer orientation.

The group is part of the Cordless Multimedia Product Unit (CMP) of Ericsson Business Mobile Networks in the Netherlands. Main activities take place in the area of DECT and Bluetooth. CMP is responsible for the definition, development and engineering of a number of products for the in-house telecom market, where voice and data are the basic applications.

The product range includes handsets: web-terminals as well as base stations for PSTN and ISDN and all required accessories. The organisation deals with a number of key success factors such as a short time to market, cost competitiveness, ability to fast ramp up to high volumes, to the point development of products, competence increase and last but not least control over technology development.

The main task for Technology Development is to assure that the right technologies and system descriptions are available at the right point in time so that product development can focus on realisation. The newly formed group Concept Studies will explore new ways towards new products and systems.

Tasks for the manager Concepts Studies: Lead concept and performance studies. Translate vision, strategy and goals to operational level, encouraging sense of ownership under the employees Participate in technology strategy and roadmap definition of in co-operation with other internal and external Ericsson units.

Establish and maintain a line organisation, capable of handling the requirements, ensuring continuous development of competence and skills in the organisation and stimulate personal development of employees. Build powerful networks and interfaces within the Ericsson group, and use these to maximise re-use and sharing of knowledge and solutions.

The manager needed, will have typically encountered the following elements in his career path: Decisiveness, entrepreneurial attitude, enthusiasm, pro-active approach, natural networking attitude Strong belief in the added value of people and the way to develop those values. Manage by lead and explain, not by ordering. A business sense, knowing what drives customers, and the ability to translate that to product idea's using available and emerging technologies.

Senior engineer function with a broad spectrum of knowledge including wireless communication and Internet Cost consciousness. The ability to pursue, see and exploit opportunities without loosing sight of the possibilities of the organisation. Telecom background is a pre but not a prerequisite. More important is the ability to think cross functionally and across unit boundaries.

Contact: Albert Enting, Manager of Technology Development, +31 53 4505 170.

In the Product Management department of the Product Line Home Cordless Products (HCP) the next position is vacant:

#### Product Manager

 Objective: As a member of the product management team: being responsible for certain products during their whole life cycle.

Tasks: Global product management during complete life cycle: optimising financial results, quality, delivery precision, etc. Contributing to strategic plans for mass consumer home cordless products, taking the Ericsson strategy, market developments, available technology and development capacities in account.

Preparing decisions about new product developments (product proposals, business plans, etc.). Writing requirements and taking decisions with regard to product costs, functionality and time-to-market within product development projects.

Requirements/competences: At least 5 years of commercial experience in information technology (IT) or telecommunication. At least 2 years of experience in product management or similar. Ecomical education (Faculty/School of Economics) completed with technical courses, or technical education (Polytechnic/University) completed with MBA or in-depth commercial courses. Advanced social skills in relation to all kinds of people. Result oriented. Immune to stress.

Contact: Jeroen Cappendijk, Manager Product Management, +31 23 568 9191.

Application: Mrs. Hennie Brink, HR manager, Hennie.Brink@emn.ericsson.se.

**MU CARIBBEAN** 

#### Director New Accounts

Market Unit Caribbean covers an area of 15 countries and 15 dependencies with some 27 million people. The telecom markets in the area is in the process of deregulation with a number of possibilities within mainly cellular and datacom networks. We are now looking for an experienced marketer who as a leader for the NAM group can further develop New Accounts within this MU. The position is located in San Juan,

Puerto Rico but frequent travel in the Caribbean is required.
 Candidate should have a M.Sc or MBA degree and broad professional experience of international sales & marketing of TDMA, CDMA and/or GSM with a successful track record. You should have previous experience as a leader as well.
 Broad knowledge of 3G Mobile technology and Ericsson's datacom solutions is a merit.

As for your personality, we expect you to have a drive for result and excellent interpersonal skills. As the area is multicultural, fluency in English is essential

and knowledge in Spanish / French is a further merit. We expect the successful candidate to start during May 2000.

Contact: Peter Lindberg, Director New Accounts, +1 787

#### Field Support Center Manager

Market Unit Caribbean is looking for an FSC Manager that will provide 1st line support to customers throughout the Ericsson Caribbean MU.

The position is located in San Juan, Puerto Rico but frequent travel to Grand Cayman, Jamaica, and Curacao is required. Periodic travel to the USA is ocassionally required.

• Candidate must be able to investigate, advise on and produce solutions to TDMA/GSM problems experienced by Ericsson Caribbean customers. The position has frequent contacts with Ericsson national and international support organizations as well as external customers and vendors. Establish and maintain a budget for each customer support contract as well as for the FSC Department. Maintain a current training level for all assigned FSC Engineers.

FSC Manager is additionally responsible for managing the IS/IT Department. This entails managing personnel in providing IS/IT support to the offices within MU Caribbean. Experience from the system support field is highly desirable.

Only Ericsson employees will be considered for this position. Fluency in English is essential and Spanish is appreciat-

We expect the successful candidate to start June 1, 2000. The duration of the assignment is 2 years.

Contact: Jerry Barrera, Director FSC or Arne Palmkvist, Director Operations, +1 787 771 1700. Application: Noelia Borrego, HR Representative, noelia.bor-

rego@ericsson.com.

#### ERICSSON LTD, GUILDFORD, NEW PUBLIC NETWORKS OPERATIONS, UK

#### Project Manager x 2

 The Project Manager will take overall responsibility for a specific customer project(s), from offer acceptance and authority to proceed to final customer acceptance and completion of work.

They will manage regular projects utilising processes appropriate for the allocated customer and his/her projects.

The Project Manager will also support the development of the business case at department / sector level and will liaise with Marketing, Account Management, Solution Management and Engineering to prepare and plan for future work with the allocated customer and contribute to the identification of costs, risks and dependencies.

The Project Manager will provide the primary project interface towards the customer and appropriate third parties; ensuring interchange activities are identified and managed in support of project goals/ contractual commitments.

They will conduct order reviews against internal assignments/ business cases to ensure project definition of the main project assignments in line with defined work breakdown structure / business cases.

The Project Manager will also liaise with management across Ericsson Divisions and with external customers, and have project responsibility for relevant managers and project support personnel.

The candidate should have a good educational background and have approximately 5 years experience of Project Management, and 5 years experience of the telecommunications industry including AXE or AXE Data Building knowledge coupled with an appreciation of tools and methods used in Data Transcript activity. A minimum of 3 years experience in a customer-facing role is also essential and

previous Ericsson experience would also be preferred. The candidate should also possess good communication, planning and team working skills with a flexible approach to change and a drive to deliver results.

Contact: Colin Atkins, +44 1483 305486, colin.atkins@ etl.ericsson.se.

ERICSSON TELECOMUNICAÇÕES LDA. LISBON/PORTUGAL

#### **IN Design Engineers**

Ericsson Telecomunicacoes Lda in Portugal is looking for IN Design engineers to join our VAS Design Centre, within the Customer Services Division, based in Lisbon.

We offer you a long term assignemt in a warm and nice country. Ericsson in Portugal is supplier of all three GSM operators and some of the new major Wireline operators.  Main responsibilities: Participation in the IN Design processes for development of new IN services and customisations of standard services. These processes are: analysis, design, implementation, testing and maintenance. A very important role is to transfer competence to the local staff. )

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Requirements: At least 2 years experience in any of the design processes referred above, more specifically candidates shall have good knowledge in any of the following areas: SCP design, SDP design for PPS or PPA services, GSA design, system design, system integration, IN design project management.The candidate shall have good english and communication skills.

#### BSS System Support Engineer

Ericsson Telecomunicacoes Lda in Portugal is looking for a BSS system support engineer to join the BSS support team in our Customer Services Division, based in Lisbon. We offer you a long term assignement in a warm and nice country. Ericsson in Portugal is supplier of BSS equipment for all three GSM operators. Our support organisation is established since 1992.

 Main responsibilities: You have to be involved in all main FSC customer support processes: CSR Handling (TR and Consultation), Emergency service, SW update/upgrade. A very important role is to transfer competence to the local staff.

Requirements: At least 4 years technical experience working with GSM BSS system, preferably with system support. Good system knowledge and SW troubleshooting skills. Knowledge of support processes and tools. Good english and communication skills. Experience with OSS applications and remote loading techniques are appreciated.

Contact: Carlos Ferreira, carlos.ferreira@sep.ericsson.se, +351 214 466194 or Luiz Ofner, luiz.ofner@sep.ericsson.se, +351 214 466288.

Application: Ericsson Telecomunicações, Lda. Edificio Infante D. Henrique Quinta da Fonte, Porto Salvo 2780, 730 Paço de Arcos, PORTUGAL.

#### ERICSSON LTD, BURGESS HILL, PRODUCT MANAGEMENT, MOBILE BUSINESS SECTOR, PUBLIC SYSTEMS, UK

#### Senior Product Engineer, Mobility Systems Solutions

The Product Management team plays a critical role in driving the division's business through the strategic management and development of competitive products.

The product management team is supporting the accounts with product knowledge and technical support. Now when the satellite operators are focusing their business into data-communication we need one more person in the growing Satellite GPRS and Data-communication area.

The Satellite operators are Teledesic/ICO and Inmarsat with offices in Seattle, Washington and London, which might require a reasonable amount of travelling.

• The Senior Product Engineer will have the depth and breadth of experience in a specific product area and will be responsible for the capture of customer requirements and for developing product strategies in this area, in order to maintain Ericsson's competitiveness in the market place. The Engineer will provide the department with technical support for tenders and other marketing activities and will interface with development groups throughout Ericsson.

The Engineer will work closely with colleagues across Divisions and sectors and coaches, supports less experienced product engineers.

Key Responsibilities: Maintain up-to-date knowledge base for GPRS and Data-communication. Act as the prime technical interface between customers and Global Product Area Management, Strategic Product Management and Marketing and influence the functions to consider UK requirements for developments. Represent the Satellite market and its requirements to Ericsson's development organisations.

Qualifications and Experience: Minimum of 5 years experience within the telecommunications industry coupled with an advanced level of GPRS and datacommunication knowledge. Qualified to degree level in engineering. Telecomms engineering background within Ericsson would be preferred. High level of experience in dealing with both internal and external customers. Good command of the English language.

Contact: Kaare Ingebrigtsen, Technical Solution Manager

Satellite, +44 1444 231995E, Kaare.ingebrigtsen@etl.erics-

son.se or Bertil Westberg, Department manager, Mobility

Systems Solution, +44 1444 234798E, Bertil.Westberg@

TELEFONAKTIEBOLAGET LM ERICSSON,

We are looking for experienced MSC and BSS Trou-

bleshooter to work in the Technical Support Department in-

The successful candidates shall be the main technical ex-

pert for resolving complex problems, and shall bewilling to

Requirements: Must have at least 4 years experience

TECHNICAL OFFICE SYRIA BRANCH.

Support Engineers

transfer knowledge to the local engineers.

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MSC/BSS

Syria.

# Why are you not part of the 3G verification team at EED yet?

The EED/X/S department (Switching Verification and Customer Service Center) is responsible for the system test, support and industrialization activities at Ericsson Eurolab (EED Aachen, Germany). It includes Product Line Configuration Management, Product Line Maintenance, Market Support and System Test of products designed for the GSM, GPRS and UMTS switching systems.

In order to meet the challenges connected to the verification and support of 3G systems,

our organization will grow by 50 (!) new employees in year 2000.

If you want to work at the very edge of technology in the new telecoms / datacoms world and have already some years of experience in relevant or related fields, we can offer you the following positions:

#### System Tester (GSM/UMTS)

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You are responsible for test analysis, test design, test execution and/or trouble shooting for industrialization projects in target environment. As a suitable candidate you have solid competence in the field of AXE based GSM switching systems gained in large test or design projects. Experience in ATM, IP or other data networking is a big plus. Alternatively, you will be a member of the Load Team. The Load Team is a specialized group of system testers responsible for Background Activities and Traffic in industrialization projects. In this position you need knowledge of load generators such as MGTS, TSS2000 and IGEN. AXE experience of 1-2 years with good testing and trouble shooting capabilities is required.

#### Maintenance GSM Tester

The task spans from testing of Approved Corrections (Acs), creation of ACA packages, developing and running Automated Regression Test (AIMS, NEXT) to also creating scripts for Remote System Upgrades. You are a candidate if you have sound knowledge of AXE based GSM switching systems, experience in AC testing and programming skills. IN knowledge would be beneficial.

#### Senior PLM Tester

As a member of the packaging team you have at least 3 years testing experience in an AXE mobile switching systems maintenance or support organization. You have a sound background in AXE test environment hand-ling, IOG/APZ O&M and ASR competence.

#### Help Desk Trouble Shooter

Your job is technical support for FSC, ASO, PLM, TCM, INDUS and design, e.g. FOA support, hot TR troubleshooting, emergency correction production, global support co-ordination, root cause analysis, technical prestudies and feedback into UMTS development. You have min. 4 years test and trouble shooting experience in AXE and GSM switching systems.

#### Project Manager R9/UMTS PLM

The project leader will be responsible for the Feasibility Study and Execution of the product line maintenance setup for UMTS R1 .0 (MSC Server) / CME20 SS R9. He/she will report to the PLM section manager and to the CSS Support Project Office and work closely together with the R9 Indus and R9 Product Introduction Projects. The main target is to define and implement a maintenance strategy using existing PLM infrastructure and identifying new needs to give the UMTS MSC Server maintenance a successfull and future proof start. For this position we expect a leader personality with a strong background in maintenance, preferably in the GSM area. Additional background in Datacom is an advantage.

#### FOA Team Leader (GPRS)

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You plan and execute with your team the implementation of the first release of Ericsson's packet switching system into our customer sites. You ensure a professional handling of all customer service requests and you coordinate the work of all internal parties. As a suitable candidate you have sound Ericsson and FOA experience combined with high motivation and engagement.

#### Project Manager NV (GPRS)

You are responsible for the planning and execution of the Network Verification activities of either the R2 or R3 project. Your work starts with the pre-study and will end with General Availability (GA). You already gained vast project management experience in previous verification projects. You have proven to lead a project to success in a rapidly changing environment.

#### Quality Coordinator (GPRS)

You take an active role to supervise and drive the activities in our Network Verification projects from quality point of view. In previous quality assurance activities you have already demonstrated a good quality understanding combined with technical competence.

#### Test Coordinator (GPRS)

You coordinate and align the Network Verification activities with the node projects, evaluate impacts and find solutions. As a prerequisite you have solid technical GSM competence and understand the different phases of a verification project.

#### Test Activity Leader (GPRS)

You contribute your technical and verification competence to the Network Verification project by monitoring, coordinating and leading the test execution at EED. As a suitable candidate you have solid technical GSM competence, experience in large verification projects and team skills.

#### Team Leaders (GPRS)

We are looking for team leaders on test object level in these areas:

- \* Network Level Support
- \* PLM Help Desk

\* Test Configuration Management If you have solid GSM competence, good leadership skills and valuable project experience in one of these areas you are a candidate.

#### Verification Engineer (GPRS)

Your test activities will range from test analysis to test execution on a complete GSM packet switching system. Previous experience with AXE in either BSS or MSC is as valuable as good competence in data communication. Key areas such as TCP/IP, Ethernet, ATM, FrameRelay, OSPF, X.25 IPSec, DNS, RADIUS, BGP are familiar to you.

#### **Tool Engineers (GPRS)**

Packet switching is implemented on a new platform. Third party tools need to be analyzed and implemented. Own tools need to be developed to facilitate our verification activities. You have a good background in dealing with tools and/or enjoy development of tiny tools.

#### Data Transcript Design (GPRS & UMTS)

You define the setup of the test environment. You have close contacts into design and verification to understand new features / functionality and implement them in the test beds. You have sound GSM experience in test or DT and are highly motivated to broaden that knowledge into 3G.

#### Test Bed Integration (GSM/UMTS)

Testing can't even start without your work first being completed. You are the one who provides a stable, pre-tested test platform. You will be the first to bring all the new SW together for verification in a working environment. You have good AXE testing and function change skills, and the wish to develop datacom fundamentals to help you merge the two worlds.

#### STE Methods & Tools Coordinator (GSM/UMTS & GPRS)

You are responsible for traffic simulation tools and simulated test environment (STE) for GSM/UMTS and GPRS projects. You collect and evaluate requirements related to STE and seek solutions. AXE function test experience and datacom knowledge is needed.

#### STE Methods & Tools Expert (GSM/UMTS)

Your job is to drive all issues ensuring stable, useable STE and traffic simulation systems for the projects. A technical background in testing in the simulated environment and strong coordination skills are needed.

#### IT Support Engineer (GPRS/UMTS)

You design, implement and maintain the network infrastructure, test tools, protocol analyzers and related soft- and hardware. Competence in GPRS, Unix, IP networking, and preferably ATM & Frame Relay is required.

#### Please contact:

Ericsson Eurolab Deutschland GmbH Simon Seebass, Human Resources eMail: simon.seebass@eed.ericsson.se



Make yourself heard.

from a support environment out of which 2 years GSM. Candidates need to have excellent SW/HW troubleshooting in live sites. Experience with MHS/ACH/C7/ISDN/PLEX/ASA.

Contact: John Robehmed, Technical Support Manager, +963 11 613 3028, fax +963 11 611,3138, eusjro@am1.ericsson.sejohn\_rob@hotmail.com.

#### ERICSSON LTD, UK

#### Revenue Accountant -NPN Finance

The Revenue Accountant covers the key areas of: Managing the processes regarding the validation and recognition of order intake and sales. Is also responsible for managing the invoicing process and ensuring that timely and accurate invoicing takes place in accordance with customer supply agreements. Manage the Novation order process whereby orders are transferred from NPN to Ericsson companies within Europe. Manage the commission process relating to these orders, and supervise related inter-company debt. Accounts receivable management, liase with FSU credit control manager to ensure that AR management is optimised.

The Revenue Accountant will also be heavily involved in the preparation of monthly management accounts, including Key and Global account financial reports. These are an essential part of the reporting process, and need to reflect internal customer needs, so as such, need to be timely, relevant and accurate.

Liaison with the Finance Shared Service Unit (SSU), other Finance groups and IS / IT departments are a key part of the role to ensure that we do not re-invent the wheel, and that we are able to lever resources and support from elsewhere within ETL, using common tools and approaches where practical.

Due to the small size of the NPN Finance team, the Revenue Accountant will be required to provide front line support in the absence of the Finance Manager, and will be required to support the Project Costing, area as required.

Key Responsibilities: Management of order intake and sales processes. Ensure customer invoicing takes place in a timely and accurate manner. Manage accounts receivable (external and inter-company). Weekly reporting of order, sales and AR position to NPN management. Prepare budgets, and estimates to agreed time-scales. Preparation of monthly management accounts. Preparation of monthly Global and Key account. European financial reports. Act as interface to Finance SSU and IS / IT departments. Other reporting / support needs as necessary.

Qualifications, Experience and Knowledge, Essential: Part Qualified Accountant – CIMA. At least two year's experience with computerised accounting systems. Ability to work in a team environment and actively contribute to decision making. Good communication / presentational skills. Good inter-personal skills. Microsoft Office Skills - Strong Excel & Access, Word. At least two years experience in a financial discipline.

Desirable: Knowledge of Ericsson and / or Telecoms industry.

Contact: John Ogden, Finance Manager, New Public Networks, +44 1483 30 5467, john.ogden@etl.ericsson.se.

#### ERICSSON EUROLAB (EED) AACHEN, GERMANY

The Test and Support Department (EED/X/S) within our CSS System House will in the future be responsible for system test, industrialization and support of UMTS Core Network as well as CME20 SS Product line at EED.

It includes CME20 Switching System /UMTS MSC Server releases, as well as product line maintenance and customer support for the CME20 SS /UMTS MSC Server product line. The section responsible for the Product Line Maintenance activities, EED/X/SL is looking for a

#### Project Leader Product Line Maintenance for UMTS R1.0 / CME20 SS R9

#### Proj.No 04M00

 The project leader will be responsible for the Feasibility Study and Execution of the product line maintenance setup for UMTS R1 .0 (MSC Server) /CME20 SS R9. He/she will report to the PLM section manager and to the CSS Support Project Office and work closely together with the R9 Indus and R9 Product Introduction Projects.

The main target is to define and implement a maintenance strategy using existing PLM infrastructure and identifying new needs to give the UMTS MSC Server maintenance a successful and future proof start. For this position we expect a leader personality with a strong background in maintenance, preferably in the GSM area.

Additional background in Datacom is an advantage. He/she should be flexible, team integrating and be able to work under high pressure and customer expectations.

Contact: Elke Busch, EED/X/SLC, +49 2407 575 357, Eedelb@eed.ericsson.se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

The EED/X/SG section within CSS system house is responsible for Verification and Maintenance of the Ericsson Global Packet Radio System. We hast projects for node and network verification prior to system release and take care of GSN node and network maintenance after worldwide availability. Our vision is to take responsibility in network verification of mobile datacom networks. In order to strengthen this network competence we are looking for a

#### **BSS Test Expert**

For this position we are looking for a skilled technical person with at least 3 years Ericsson experience in the verification or maintenance of GSM BSS nodes. You will be working in a BSS core team providing the competence to drive our datacom verification activities to success.

Activities in GPRS Network level Testing. Interface verification. Integration of BSS. Trouble shooting on BSS with focus on the packet switching part. Supporting integration of mobile terminals into the network.

As an ideal candidate you have worked with verification or maintenance of the BSC. Your sound knowledge of the BSS system enables you to work independently. You understand the basic elements of the GPRS network and you are willing to expand your competence area with mobile datacommunication. You have experience to share your knowledge with new colleagues. Change is normal to you on your way to identify solutions.

Contact: Maintenance & Customer Support, EED/X/SGC, Thomas Busch, +49 2407 575 178, eedthb@eed.ericsson.se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

#### Project Manager Transit / Traffic Control

The Transit Development Department in EED is looking for a Project Manager taking care of subprojects for Transit and Traffic Control development in the Application Core (CAPC). The new Transit-AM (TRAM) and the included Wireless Traffic Control products are part of the mobile product lines UMTS, GSM, TDMA and PDC. The CAPC and Transit responsibility is located in EED/U at Aachen, Germany.

 The general responsibility of the project manager is to manage Transit and Traffic Control development projects from TGO until MS8 as part of the EED/U/T project office team.

The main authorities and tasks are: To act as project leader in Transit and Traffic Control subprojects. To represent Transit/TCS projects towards CAPC main projects. To coordinate Transit/TCS projects towards the mobile applications (UMTS, GSM, TDMA, CDMA, PDC). To actively take part in the resource planning process. To participate in improvement of project management methodology.

As a suitable candidate, you are an Ericsson employee and should have a minimum of 3 years AXE-10 development experience and good background in project management according to PROPS and Incremental Design. Any managerial experience (e.g. as group manager, team leader or project manager) or experience in the transit and/or traffic control area is a clear advantage.

The position requires initiative, good communication skills and a good ability to work under pressure. Fluency in written and spoken English is required.

Contact: Transit Development, Norbert Floeren, Norbert.Floeren@eed.ericsson.se, +49 2407 575 228 or or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

The Project Office & Development Operations Group EED/X/R within the System House CSS/GSM is looking for an

#### Assistant Project Manager for the UMTS 2.0 / GSM R9 MSC/VLR Project

The CSS/GSM Operations has the overall responsibility for the Circuit Switching System (CSS) in all GSM based applications. This covers all classical GSM implementations on all frequency bands. In addition CSS will play a key role in introducing the 3rd generation systems, UMTS, on the world market. The main challenges in the UMTS 2.0 / GSM R9 project are to design a new network and node architecture (split into Server and MediaGateways), to bring the UMTS core network project to a commercial release and to design complex GSM features.

 As assistant project manager in the MSC/VLR project (CME20, 1/APT), your primary task will be to set-up and coordinate the planning activities for the GSM R9.0 MSC/VLR release, combined with the UMTS 2.0 features, in parallel to the ongoing UMTS 1.0 MSC/VLR project. You will be working closely together with the project

management team established for the UMTS 1.0 MSC/VLR release, as well as with the CSS total project in UMTS 2.0 / GSM R9 issues.

The main tasks and objectives during the first half of 2000 will be: Coordinate UMTS 2.0 / GSM R9 needs with the UMTS 1.0 project part. Ensure fulfilment of the project goals. Support and steer the UMTS 2.0 / R9 Feasibility Study teams. Planning of the UMTS 2.0 / R9 execution phase. Follow up progress, time, costs and quality. Interface to the total project and the MSC reference group. Represent MSC/VLR in the CSS R9.0 Change Control Board. As a project manager you will need strong initiative, good

planning, co-ordination and communication skills and the nature to never give up.

Contact: Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

Core PU Application Core (CAPC)

VACANCIES

#### Group Manager Function Test

The Transit Development Department in EED is looking for a group manager of the Function Test group taking care of function test activities in CAPC and Traffic Control development projects in the Application Core (CAPC). The new Transit-AM (TRAM) and the included Wireless Traffic Control products are part of the mobile product lines UMTS, GSM, TDMA and PDC. The CAPC and Transit responsibility is located in EED/U.

 Tasks: The general responsibility of the group manager is to plan, lead and supervise the operations of his group in EED/U/T. He/she has to guarantee that the required goals are fulfilled, the needs of the company are satisfied, the group is efficient and competitive.

The main authorities and tasks are: To supervise test leaders of CAPC and Traffic Control subprojects. To participate in improvement of function test methodology. To assure that all communication is executed with highest integrity and quality. To implement personnel policies and general rules. To perform appraisals and frequent personal development talks. To participate in recruitment and introduce new personnel. To provide the department with resource plans and forecasts. To set-up and coach design teams. To participate in the EED/U/T Management Team.

Qualifications: As a suitable candidate, you are an Ericsson employee and should have a minimum of 5 years AXE-10 development experience and good background in AXE function test. Any managerial experience (e.g. as group manager, team leader or project manager) or experience in the transit and/or traffic control area is a clear advantage.

Contact: Transit Development Department, Norbert Floeren, Norbert.Floeren@eed.ericsson.se, +49 2407 575 228 or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

The EED/U/T department is part of the Core Product Unit CAPC and is responsible for design and maintenance of the wireless TCS subsystem. We are looking for a

#### Maintenance Engineer

The maintenance engineer is responsible for investigatingand proposing solutions on problems reported by our customers. This is done in close co-operation with support centers allover the world.

 The main authorities and tasks are: Analyse and investigate trouble reports on released TCS products. Write and verify corrections in both target and simulated environment.
 Propose solutions. Design and verify TCS subsystem products according to the RPC process.

As a suitable candidate, you are an Ericsson employee and should haveexperience in design maintenance activities. Any test experience in simulated and target environment as well asexperience in the traffic control area is a clear advantage. Furthermore, the position requires initiative, good communication skills and theability to work under pressure

Contact: ED/U/TTC, Maurice Van mulken, +49 2407 575 701, eedmava@eed.ericsson.se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

CSS Project Office

#### AXE Troubleshooter for UMTS CN 1.0

One part of our responsibilities within the CSS Project Office EED/X/R is theFunction Test of UMTS CN 1.0 (GMSC/ MSC/ VLR/HLR node). UMTS CN 1.0, the CSS-UMTS Core Network project, is based on AXE GSM R8.0 (MSC Server, HLR) and will be the base for coming UMTS projects. We are looking for an experienced Tester or Troubleshooter with the following compentences:

GSM testing experience more than 3 years (MSC/VLR, HLR nodes). About 3-4 different projects in Function Test or System Test. Troubleshooting experience highly appreciated. Experience on simulated environment required and experience on simulated environment (STE, especially MGTS PASM) highly appreciated. GSM DT knowledge, like C7 signalling DT, B-No. analysis, etc. DT knowledge for IN and data calls appreciated. AXE system knowledge (APZ, 1/APT, C/APT, SSFAM, RMP, HLR, AUC, DTI, IOC)

You will be responsible to support Function Testers testing the Mobile Application (1/APT) functionality. You will take care about problems in target channel environment and coordinate with UMTS System Testers performing IN-DUS Test activities.

You will have the opportunity to learn about the new UMTS functionality by having the main UMTS development competence locally. You will work in an international organization with a highly motivated team.

Contact: Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

#### Test Coordinator / GPRS Network Verification Proi.No 02/399

The GPRS Network Verification (NV) project has the objective to ensure that the GPRS service is integrated and works on a CME20 network level prior to delivering the GPRS system to Customer Trials and to the FOA projects. The NV project is dependent on a big variety of in-deliveries from node projects, test tools, etc, with complex dependencies.

 As a test co-ordinator you are responsible to ensure that the project is based on an optimal test strategy, which is coordinated with the node verification projects, and adopted to changing project needs.

The main tasks are: Be responsible for the overall test strategy of the GPRS NV projectTo co-ordinate test activities across the different test phases and teams inside GPRS NV as well as with BSS R8 SV, CSS R8 INDUS and GSN I&V. Be involved in detail planning of testing. Change management of test strategy.

As a suitable candidate you have a very good technical background and experience in system verification activities on network level (preferably GSM), as well as experience in technical leadership in the subject field.

Ideally you are familiar with packet data networks or IP based datacom systems, but this is not a prerequisite. Previous experience in GPRS or other packet data systems e. g. PPDC is a clear advantage.

The position is available directly. On-the-job introduction is secured.

Contact: GPRS SW supply and support, Klaus Schneider, +49 2407 575 156Klaus.Schneider@eed.ericsson.se or EED/D/PC, Oliver Hermanns, +49 2407 575 486, oliver.hermanns@eed.ericsson.se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

#### Senior Product Line Maintenance Tester

#### Proj.No 25/399

 Your contribution to the packaging team is key position with minimum 3 years testing experience in a AXE mobile switching systems in a maintenance or support organisation.

You need a sound background in AXE test environment handling and IOG/APZ operation and maintenance, ASR competence, ability to drive improvement and change, effective teamwork and coaching of less experienced colleagues and an interest to participate in studies for new releases.

Opportunities for travel, networking, personal and technical development are outstanding. Watch yourself make a global impact with your efforts.

Contact: PLM Section, Elke Busch, +49 2407 575 357, elke.busch@eed.ericsson.se se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

#### Experienced Troubleshooters, Support Engineers and Testers needed for GSM SS node HelpDesk

Proj.No 46/399

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We are key players in the GSM support structure. We are looking for experienced personnel (4+ years) who can participate in:

• Technical support for FSC/ASO/PLM/TCM/INDUS/DE-SIGN. FOA Support, Hot TR Troubleshooting. Emergency correction production. Correction testing. Technical consultancy. Global support co-ordination. Negative testing, Function testing. Taskgroup activities, Root Cause Analysis, Technical prestudies and feedback into UMTS development.

You should should demonstrate a solid AXE background and a determination to tackle problems and meet new challenges. An open minded and flexible attitude and the ability to work well in a team environment are important personal qualities.

You should also show good written and verbal communications skills. Some experience in the IN area could also give you the edge.

Contact: EED/X/SLHC, Russell Hegg, seedruh@eed.ericsson.se, +49 2407 575 668 se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

#### Experienced AC-tester for global support of the NO.1 AXE Application

#### Proj.No 47/399

The product line maintenance section at EED, Herzogenrath, Germany takes central responsibility for the world wide CME20 switching system. It is considered as the primary competence centre for CME20 SS.

REQUIREMENTS: testing/verification, PLEX and ASA experience, test system knowledge, IN and tool experience is an advantage, to be flexible and able to work under pressure, to be self-motivated, to work easily on your own and within a team and to achieve goals and customer requirements.

You have at least 3 years of testing experience in AXE mobile switching. Your main tack is to test the correction in all the releases R7,R8,R8s,PRA,HWM, use test system to trace the problem in test channel and transfer your knowledge to less experience people in the group. Travelling at short notice as an integral part of the job,

Contact: EED/X/SLAC, Nasser Farhadi, +49 2407 575 409, eednaf@eed.ericsson.se se or Simon Seebass, Human Resources, +49 2407 575 163, eedsims@eed.ericsson.se.

#### 31

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No. 1 febuary 2000

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# contact

69 percent of the 2,700 employees who participated in Inside's intranet poll, thought that Ericsson would be an elephant if the company were compared to an animal.

Photo: Lars Åström



41 percent of Ericsson employees celebrated New Year's Eve with their families, while 16 percent were on the job. Photo: Lars Åström

For the past six months, employees have had a way to voice their opinions regarding various Ericsson-related issues on the Inside Ericsson intranet page.

# Weekly employee poll

ow Ericsson employees can express their opinions about the company through a mini-poll on the intranet portal page, replying to a new question each week. Although not scientific, the weekly survey is a good indicator of how the winds are blowing at Ericsson.

One of the results from a previous survey showed that 15 percent of employees who responded personally use a Nokia mobile phone while 78 percent have Ericsson phones. On average, around 2,000 employees answer the survey question each week.

If you were to compare Ericsson to an animal, which would it be? That was one of the questions posed last autumn.

An unflattering 69 percent responded with elephant, while panther and hawk together only totaled 8 percent. Perhaps they were implying that elephants are strong and wise.

Make the Inside Ericsson portal page your homepage. From there it is easy to find the information you need.

Soon, an updated, even easier to use, version of the page will be available.

> Patrik Lindén patrik.linden@lme.ericsson.se

> > 42% of

Ericsson's

employees

abroad for

long-term

is, longer

than one

year.

Photo:

want to work

Ericsson on a

contract, that

inside.ericsson.se



Week 52:

How will you be celebrating New Year's Eve?

- 41% With family
- 39% With friends
- 16% On the job
- Will not be celebrating 4%

#### Week 2:

What is the first thing you do after turning on your computer in the morning?

- 89% Read e-mail 6% Open web browser
- 4% Reboot computer
- Open a program 1% 1%
  - Start programming

#### UPCOMING

February 1-4: The GSM World Congress will be held in Cannes, France. Ericsson will unveil new products and transmit press conferences and daily news directly via the Internet: www.ericsson.se/gsmworldcongress

Ericsson, HF/LME/DI,

S-126 25 Stockholm

Room 811023,

February 24 - March 1: CeBIT, the world's largest telecom and datacom trade show will be held in Hanover, Germany. Ericsson's theme is "The Power of Mobility." Contact will provide daily reports via the Internet: www.ericsson.se/infocenter

#### UPDATES

The American company Emerson Electronics acquired Ericsson Energy Systems for USD 725 million. Energy Systems, headquartered in Stockholm, employs 2,200 in 20 countries.

Com-Net Critical Communications, an American radio network provider, is buying Ericsson Private Radio Systems in Lynchburg, Virginia in the U.S. The unit employs 700.

#### NEW ASSIGNMENTS

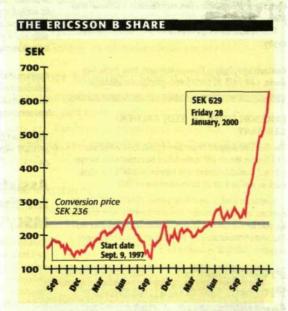
Kaj Helander is the new head of Ericsson in Costa Rica. He is replacing Julien Sideris who is retiring after 32 years with Ericsson.

Jef Keustermans is the new head of Ericsson in the Netherlands. Previously, he worked the as company opera-Jef tions officer. Keustermans

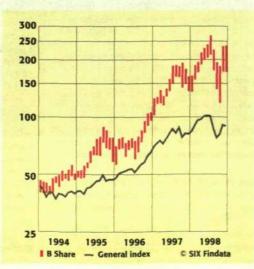


Jonathan Mytnik is the new head of business development in the Latin America market area.

He is also responsible for customer relations with Telefonica International in Miami, Florida in the U.S.



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



- to work overseas. Does that interest I prefer a longer contract, more than a year. I would prefer a short-term
- 30% contract, less than a year. I already work overseas. 21%
- I am not interested in a job 5% overseas.
- 2% Don't know.

#### Week 43:

13

Week 41:

you?

42%

If you were to compare Ericsson to an animal, which would it be? 69% Elephant

Dolphin 16% 6% Ant 4% Panther 4% Hawk

#### Week 44:

What brand of mobile phone to you use personally?

- 57% Ericsson I use a company phone 21%
- 15% Nokia Other 4%
- 3% Motorola



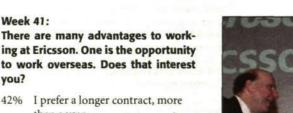
#### Week 48: Where do you usually eat lunch on the

- job? 51% The company cafeteria
- 28% A restaurant 14%
- At my desk 4% Don't eat lunch
- At home 2%

#### Week 50:

How did you find out about the deal between Ericsson and Microsoft?

- From outside media sources 43%
- 30% Through colleagues
- Via the Internet 18% By e-mail 5%
- 5% Some other way



18% of Ericsson's employees heard about the Microsoft deal via the intranet. Photo: Peter Nordahl