

ERICSSON S PUBLICATION FOR EMPLOYEES WORLDWIDE

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Management's view of Ericsson

A new tradition at Ericsson's Annual General Meetings is the executive management's report on the status of the company. This year's presentation was characterized by optimism and 2005.

Pages 2-3

Currency EMU union affects Ericsson

The planned introduction of the European Economic Monetary Union, EMU, is for 1999. If this becomes a reality, it will have major effects on Ericsson and its financial routines.

Pages 8-9

Scandinavia first to deregulate

Scandinavia – Denmark, Norway and especially Sweden – are ahead, in many cases far ahead, of the rest of Europe when it comes to deregulation of telecommunications. International players are attracted to these markets in order to gain experience in how to act in a competitive European telecom market.

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Cellular health-check

A facelift and a health-check for tired or run-down cellular phones. That's how one could describe the operations of the repair department at Ericsson Mobile Communications in Kumla. This is only one of the seven repair stations for cellular phones that Ericsson has built up in different parts of the world. Their guiding philosophy is that Ericsson's customers should never have to wait more than a couple of days for a flawless telephone. At Ericsson's Annual General Meeting, executive management's review of Ericsson's current status was the high point. Contact reports on the presentations by Lars Ramquist, Kurt Hellström and Anders Igel.

The success is due to the emloyees

Lars Ramqvist's presentation consisted of two parts. One was a review of the past year, while the other was of a more political nature. The review of 1996 focused on the factors that underlie Ericsson's tremendous success in recent years.

"This is now the seventh time that I stand before you to review the year's operations," said Lars Ramqvist. "This time I feel great joy and deep satisfaction as I look back on 1996. Let me congratulate our shareholders. You are the owners of Sweden's most successful company, with a market value that has increased to no less than SEK 340 billion. This development is not only of benefit to you but a constant source of inspiration for every Ericsson employee to make the company even more competitive and profitable.

"Underlying our success in terms of market value are of course our financial results, and I take pride in announcing that order bookings increased for the 22nd consecutive quarter. These fantastic figures are the reason that I can now say that Ericsson is the world's leading supplier of telecom systems, measured as sales of telecom systems and terminals.

"How has Ericsson become number one?" asked Lars Ramovist. "For me the answer is very simple. Ericsson's employees are the reason for our success, and I am tremendously proud of what they have accomplished over the past year."

Apart from employees, Lars Ramqvist cited two other factors behind Ericsson's success. First and foremost, Ericsson has a very strong marketing organization. rently the highest level of investment in

Secondly, the company makes a very sub-stantial and focused investment in re-Ramqvist, "I know that many investors search and development.

Difficult to copy

Ericsson has a fantastic marketing organization, with a global presence in 130 countries, in many cases since the 1890s. Over the years, Éricsson has built up a broad knowledge base with a high level of technical expertise and a unique knowledge of local and global telecommunications. "I can assure you that this is something that is very difficult to copy for competitors who are trying to expand their marketing organizations," said Lars

The U.S. is still Ericsson's largest market. This explains why Ericsson's management decided to invest SEK 1.2 billion in new facilities in the U.S., partly at the main location in Dallas, and partly at the research and development lab in Raleigh, North Carolina.

"Asia is also important," noted Lars Ramqvist. "China and Japan are among the ten largest markets. In 1997, we will also see Brazil climb higher on the list, perhaps to third or fourth place, as a result of deregulation now taking place in the country

Tough on the competition

The other factor underlying Ericsson's success is focused investment in new technology. During 1996, Ericsson invested no less than SEK 22 billion in research, conducted by 18,000 employees in 23 countries. "I believe that this is cur- them.

Ramqvist. "I know that many investors think that we are spending too much in this area. R&D spending increased from about SEK 8 billion in 1990 to the current level of SEK 22 billion, but when we measure research spending as a proportion of order bookings and net sales, costs have dropped from 23% to 18% in 1996.

"Still, you may say that 18% is higher than the pharmaceuticals industry, but as long as order bookings, net sales and earnings continue to increase, I believe that we are doing the right thing by continuing to invest. And what makes me even happier is that this makes it even tougher for our competitors. "We know that the portfolio of pro-

ducts that we sell today must be renewed every second year as competition heats up. In other words, without research and development, there will be no new production, no Ericsson and no jobs for our 94,000 employees in two years," stated Lars Ramgvist.

World's largest customer base

Ericsson is the world leader in mobile tems and has been for some years. AXE is the world's best selling telephone system. Thus Ericsson currently has the world's largest customer base at its disposal. Nearly 40% of all mobile telephone subscribers use Ericsson systems, and AXE has been sold to 120 countries Naturally, it is extremely important that Ericsson treats its customers well so that the company can continue to grow with

"Let us consider several current market

Ericsson CEO Lars Ramquist and senior vice presidents C.W. Ros, Kurt Hellströ

trends," said Lars Ramqvist. "Mobile telephony has shown fantastic growth. There are now more than 140 subscribers around the world, and according to our own forecasts, this number may reach 600 million by the year 2001. That's good news, and it is also good news that this growth will occur in all parts of the world."

Vision of leadership

"Fixed telephony will grow with new technologies such as ISDN and ADSL, and within a few years, there will be one billion subscribers. The most rapid

growth will be in data communications. The Internet and intranet applications are growing and may reach 400 to 500 million subscribers in a few years," noted Lars Ramqvist.

"The vision behind our business concept is to be the leading global telecom supplier. The business concept entails providing network solutions and services, for both fixed and wireless systems, and equipment to handle voice, data, images and video communication, as well as the support systems needed for the technical and commercial operation of such networks and services," said Lars Ramqvist.



"Anyone who thinks that the market for fixed networks is dead should think again, 100 million lines are being added every year," said Anders Igel. Photo: PETER NORDAHL

ers in this arena and that the competition we face is completely different from what we are used to. This is a challenge for us, and we will need to strengthen our presence in the U.S. market."

Ericsson has a strong base, however. The company is a major player in frame relay in Europe and is developing its own "We are ATM switch.

"Given the importance of datacom for Infocom Systems, this is becoming increasingly critical for us and must therefore remain an area in which we continue cluded Anders Igel.

'Public Network market far from dead'

Anders Igel's presentation of the Infocom Systems business area focused on tomorrow's information society and the need for advanced communication systems. Ericsson's long-term goal is to be the leading supplier of systems for multimedia communications.

"The telecom industry continues to change at an ever-faster pace. The need for systems for multimedia communication, which we call infocom systems, is growing rapidly. The computer industry, with its focus on Internet technology and the so-called IP protocol for data communications, is one force driving development," noted Anders Igel.

"The telecom industry is creating increasingly sophisticated systems for in-

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teractive real-time communication. We can use both radio access and intelligence for mobility in fixed networks. The media industry and TV distributors are demanding greater bandwidth. "We are not witnessing a revolution

but rather an evolution of the various existing communication systems toward new infocom systems for multimedia communication. These systems combine data and telecom, which are our core business," said Anders Igel.

Major contributor

"We do not intend to fall behind in this rapid development. Instead, we intend to be one of the major contributors in building the new information society, which is coming much faster than most of us realize," Anders Igel emphasized.

"By combining forces in the new Infocom Systems business area, we are better equipped to take market shares. We are focusing on public fixed networks and data communications. Compared with our colleagues in Mobile Systems, we are limited in radio coverage but not in bandwidth, which is how much information we can transfer per unit of time in our systems.

The market has considerable potential. Only 10% of the world's population has a telephone, and half the people in the world have never made a telephone call. With respect to multimedia communication, the situation is even better from Infocom Systems' perspective. Only 1% of the world's population has access to such

blic networks is dead, think again. Some 100 million lines will be installed each year, of which 50 million will be new lines and 50 million modernization," said Anders Igel.

Data communication is growing by 30% annually in terms of volume and is expected to exceed fixed telecommunications in a few years. Infocom Systems is investing heavily in datacom, which will link together the world's computers in the new information society.

"In part, this will be a supplement to ex-isting telecom systems, but there will also be separate communication networks." explained Anders Igel. "We are focusing on datacom networks and Internet-based telecom services, where our expertise in elecommunications is an advantage. But "If anyone thinks the market for fixed we must remember that we are newcom-



and Anders Igel presented their views of Ericsson's operations Photo: THORD ANDERSSON

To support this concept, Ericsson is now organized into three business areas: Mobile Systems, Infocom Systems and Mobile Phones and Terminals. All products that Ericsson develops are sold via local companies in 130 countries. "I believe in this organization and

know that it was well received by the market, by our shareholders and everyone involved with Ericsson, I believe that Ericsson is much more competitive now in an increasingly tough interna-tional market," concluded Lars Ramqvist

EDITED BY: LARS-GÖRAN HEDIN

to invest without substantial revenues over the short term. Our long-term goal is to be the leading supplier of system so-lutions for multimedia communication with earnings that are among the best in the industry," said Anders Igel.

Weak earnings

"Order bookings, which increased 25% in 1996, show a positive trend, but earn-ings are still not satisfactory. This is due to major restructuring measures, strong prices pressures and investments in data communications," noted Anders Igel.

Infocom Systems is investing to stimulate volume growth, while industrial operations are being scaled back. Advances in technology will mean that Ercisson's future systems will be at most half as large as current products. This means that as volumes increase, production must be reduced to less than half of today's capacity. In addition, external suppliers can handle basic manufacturing and the production of circuit boards at significantly less cost than Ericsson can

"We are transforming our business in-to a knowledge-based company with communications expertise as its foundation. Most important for the future is to increase speed in everything we do," con-



"The development contract from NTT DoCoMo for the development of a third-generation mobile system based on Wideband CDMA was one of the year's ilestones for Mobile Systems," said Kurt Hellström.

Important milestones for mobile telephony

Marketing successes in India, Brazil and North America figured prominently in Kurt Hellström's summary of important events in the Mobile Systems and Mobile Phones and Terminals business areas. Another milestone during the year was the development contract for Wideband CDMA from Japan's NTT, the world's largest telecom operator.

At the beginning of 1996, North America accounted for 36 million of the world's mobile telephone subscribers. Europe had 34 million, while Asia, including Japan, had 18 million, making a total of 87 million subscribers. During 1996, this number increased by 50 million, or 57%, to 137 million. Growth was most rapid in Asia, with 19 million, which was more than a doubling. European subscribers increased by 13 milion, while 11 million were added in North America.

The transition to digital systems reached full strength in 1996. Of the 50 million new subscribers added last year, two thirds chose digital systems, further strengthening Ericsson's position in both systems and telephones. GSM, which is now found in 103 countries, is the closest thing to a world standard today. Ericsson GSM systems are being used by 94 operators in 52 countries, making Ericsson the leader with a 45% market share. D-AMPS is also in wide use. Ericsson has supplied such systems to 25 countries and has nearly a 50% share of the systems market. The Japanese PDC system is thus far only used in Japan, but is growing rapidly, with up to one million new subscribers some months. Here Ericsson has 16% of the systems market, putting the company in second place after NEC.

Of the world's approximately 50 mil-lion digital subscribers, there are about one million in IS95 CDMA networks. Ericsson has elected not to develop systems for the IS95 standard but is instead concentrating on the third generation of mobile systems.

Important breakthroughs

"India was one of our important breakthroughs in 1996," said Kurt Hellström. "The GSM standard dominates in India, and Ericsson has been successful in its efforts to establish itself in this mportant market. We have won at least 35% market share as measured by sales volumes. We have contracts in all important service areas and growth is beginning to pick up. Nearly half of all

subscribers already use Ericsson networks."

Kurt Hellström noted that Ericsson already has a solid position in Brazil with a 41% share of this rapidly expanding market. Brazil is the fourth largest market for mobile telephone systems after the U.S., China and Japan. "Vitally important for the future is what technology the new license holders select," noted Kurt Hellström. "The trend is in favor of Ericsson, since the new operators on the so-called B band in most cases are choosing D-AMPS instead of CDMA."

Third generation

"In the continuing advancement of technology, there is one development that is particularly important," said Kurt Hellström. "This is the newly announced contract with NTT DoCoMo in Japan for the development of a third-generation mobile telephone system. In the future, we will not be content to merely use our cellular phones for voice calls. People want all the computerbased tools that are being used with increasing frequency on desktop PCs in the office to also be available when they are out of the office.

"Therefore it is very gratifying that the world's largest telephone operator, NTT, selected Ericsson, together with Lucent of the U.S. and three Japanese companies, to develop the next generation of mobile systems using a technology that we call Wideband CDMA. Development work is progressing rapidly, and an experimental system will be delivered this December. Commercial operation is expected shortly after the year 2000," revealed Kurt Hellström.

New terminals

The new digital mobile telephone networks provide completely new services that will require completely new telephones or general-purpose terminals for the transmission of not only speech, but also data and images, including fullmotion video.

Ericsson's latest telephones and their predecessors are responsible for the outstanding growth in sales in 1996. Sales increased 45% during 1996, and the trend continued during the first quarter of 1997. This means that Ericsson has greatly strengthened its market position in digital telephones. Now new products are being added, such as wireless modems and PC Cards, which will increase the use of mobile communications. Ericsson will introduce a broad range of such products to meet all market requirements.

Preserving and protecting Ericsson's brand is just as important as developing new technical solutions. If development of the trademark and technology proceeds hand-in-hand, Ericsson will derive maximum benefits when new products are introduced through the positive message conveyed by its brand. Even in the early stages, when a product concept first emerges, more thought should be given to how future products will be introduced to customers. The approach would also provide ample time to formulate a strategy.

Climbing the stairway to heaven

realize all of this may seem self-evident. Isn't that how things are done today? No, says Johan Fischerström of Ericsson's corporate information department. Brand and trademark issues are often assigned low priority on the agenda. Time pressures arise in legal and marketing questions, and the trademark takes a back seat. In the worst case scenario, the neglect of trademark issues might even delay the market launch of a new product.

Johan Fischerström is the project manager for continuous updates and revisions of the Corporate Visual Identity (CVI) manual and the production of a new manual on Ericsson's trademarks. Both projects are linked with the ongoing "Ericsson Industri-al Design Initiative," which also includes projects fo-cused on industrial design and trademark management. He is also a leading member of the CVI Council, which assumed overall responsibility for protection and devel-opment of Ericsson's logotype 16 years ago.

Creating debate

A graphic artist by trade, Johan Fischerström's responsi-bilities during recent years have included the latest revi-sions of Ericsson's guidelines for the use of its logo, which were updated in 1989 and 1995. He is now fully involved in helping to formulate a consistent, complete strategy for Ericsson's trademarks.

"I have constructed my own "stairway to heaven" to stimulate discussions and debate. When a new product is developed, financial and personnel resources are seldom allocated in the early stages, unfortunately, for simulta-neous development of marketing principles and methods that will be used to market the finished product. The lack of coordination affects the efforts of people working with trademark, legal and patent issues, as well as mar-keting personnel," says Johan Fischerström.

"It must never happen that a customer says: Ericsson what's that? Marketing must be allowed to incur costs! The objective of my job is to make Ericsson a world leader also in terms of trademark management," he continues



"Resources to develop marketing principles and methods are seldom allocated in the early stages of product development," says Johan Fischerström, who works with Corporate Visual Identity (CVI) at Ericsson Corporate Relations. He has constructed a "stairway to heaven" to stimulate discussion of the issues involved.



Threats and problems

The trademark is a valuable asset in competition, but it's also vulnerable if managed carelessly. Ericsson's present CVI regulations and guidelines do not cover all contingencies. There are still no rules, for example, stating how purchased products should be marked and processed. They often display the manufacturer's trademarks, but the products are sold under Ericsson's umbrella. It's not uncommon that suppliers and marketing personnel are summoned to the warehouse to decide how products should be marked. The problem is that such issues are not discussed during contract negotiations, and emerge at the last minute.

Another threat seen by Johan Fischerström lies in the questionable practice that arises far too often whereby products and solutions assume names used in developmental stages.

Many of you might remember "Olivia," for example, a mobile telephone from Ericsson. Naturally, it was never the Company's intention to use "Olivia" as a brand name but, somehow, it was leaked to the trade press, received considerable coverage and eventually proved extremely difficult to erase.

"That was a prime example of how to throw away a product's entire positioning potential," says Johan em-phatically. "You never really get a second chance to in-troduce a new product on the market."

About being first

Positioning a product on the market involves the formulation of a message and conveying it in the right direc-tions, but speed is also an important factor. In many cases, it's a race between Ericsson and the competition. The first company to launch its product has an enormous advantage.

"Everybody knows who the first person was to fly solo across the Atlantic, but how many people know the sec-

The answer to Johan Fischerström's rhetorical question is loud and clear. The second person made a faster and safer flight, but the pilot's name remains forgotten. Or as Johan Fischerström says: "A share of market is a share of mind." And the bigger the better.

KARI MALMSTRÖM



"stairway to heaven" shows various phases of the product development in terms of mar trademark management.

"Stairway to heaven" shows product development phases

The registration of a trademark or brand name can take as much as two years. It's im-portant, therefore, to start early, particular-ly in view of the shorter product develop-ment times pursued by most corporations today. Otherwise, a company might find it-self with a "no-name" finished product.

The "stairway to heaven" shows typical phases of the product development chain, in parallel with corresponding phases of marketing and trademark management. The trick is to coordinate the phases to cor-respond with each other. When the chain advances to the product of the section advances to the next rung on "the product

ladder," advances should also be made on the other ladders.

the other ladders. Many units in Ericsson have been highly successful in their considerations of timely trademark aspects of product development. Now that guidelines for trademark man-agement and industrial design are about to be formulated, Johan Fischerström is pro-moting his "stairway to heaven" philosophy as a natural tool for all of Ericsson. Among other objectives, he is trying to include trademark aspects in the Company's model for all project work. for all project work.

Large contract in New Zealand Tellothere!

Telecom New Zealand has contracted Ericsson to expand its D-AMPS standard mobile network. The contract is valued at approximately USD 200–350 million.

The order from New Zealand's mobile operator extends over five years and includes equipment as well as network service and maintenance.

Ericsson and Telecom New Zealand have worked in cooperation on mobile telephony projects for several years. The new order has secured continued cooperation into the next century. The contract covers deliveries of traditional base stations and RBS 884 microbase stations. The package also includes intelligent network services for mobile network operations and a Cellular Digital Packet Data (CDPD) network for data communications. CDPD is a network solution that offers continuous wireless access to the Internet, without requiring users to connect by telephone every time they wish to access the Internet.



Telecom New Zealand has contracted Ericsson to expand its D-AMP5 standard mobile network. The contract is valued at about USD 200-350 million. Photo: PICA PRESSFOTO

Enator and Ericsson expanding cooperation

Ericsson has reached an agreement with Enator Dotcom to increase the latter company's commitment to Ericsson's entire Consono product line and business communications. Ericsson, in turn, will gain access to Enator's unique skills and expertise in systems integration as well as data and telecommunications.

Enator and Ericsson have cooperated with each other since 1995, when Enator was authorized to sell service and extensions of Ericsson's MD110 telephone exchanges. The new agreement will enable Enator to offer full service to MD110 customers in all parts of Sweden. It also includes Ericsson's DECT telephony, defined as portable telephony in office environments.

"Enator's expertise in areas such as systems integration offers added value to Ericsson MD110 customers," says Sven Sundberg, Business Development Manager of Ericsson Business Systems AB.

Sundberg, Business Development Manager of Ericsson Business Systems AB. Enator Dotcom has specialists in local networks and has recorded significant success in the expansive field of data and telecommunications integration.

industry news

Nokia GSM to Singapore

MobileOne, the Singapore mobile operator, has contracted Nokia to expand its GSM network. After completion of the expansion project, the network will have capacity to serve approximately 120,000 subscribers. MobileOne is owned by a consortium comprising the Kepper Group, Singapore Press Holdings, Cable & Wireless and Hong Kong Telecom.

Deutsche Telekom reports increased earnings

■ Deutsche Telekom, the German telecommunications giant, reported a 100-percent increase in earnings during the first quarter of 1997, compared with the corresponding period last year. First quarter profits totaled DEM 2.2 billion. The company is implementing a comprehensive rationalization program characterized by personnel cutbacks and settlements of large debts. It had no anticipation of increased profits and had projected unchanged earnings for the period

Roaming for NMT subscribers

■ Telia, the Swedish telecom operator, has signed so-called roaming agreements with the Russian operators Multiregional Transit Telecom of Moscow and Delta TeleCom of St. Petersburg. According to terms of the agreements, Telia will gain access to cooperation with 27 local operators in all parts of Russia. Telia's NMT450 customers

Telia's NMT450 customers can now make calls to most areas of Russia, where the 450 network now extends from St. Petersburg to Novosibirsk. Based on the new agreements, Telia claims to have more roaming agreements than any other operator in the world. The Swedish company recently reached roaming agreements for its 450 network in Poland and Bulgaria. Telia's GSM and NMT subscription can now be used in 52 countries among 122 operators.

DECT-standard launched in Singapore

■ The recent introduction of DECT business telephony in Singapore has confirmed the growing globalization of the former European DECT standard. Frequencies were allocated by Singapore authorities in March, and Ericsson's DECT system for customers, distributors and journalists in the region was launched on April 22.

Seminars arranged by Ericsson's local company in Singapore gathered about 60 participants. In addition to presentations by Göran Berntson, Philip Rambech and Dick Gerbrands of Ericsson, guests were also afforded opportunities to test the system and listen to the experiences of other DECT systern customers, who were represented by Heribert Schäfer of Braun and Boyd Williams of the Brunei Sheraton.

"We are approaching 100 percent wireless; nobody wants fixed telephony nowadays. All customers want mobile access," declared Philip Rambech, Manager of Business Telephony DECT in Singapore. He also illustrated the advantages of portable telephone systems in the form of time, costs, efficiency and productivity, as well as conditions for better customer relations.

Boyd Williams, Manager of the Sheraton Hotel in Brunei, wanted to find a way to secure the Sheraton's position as the most prominent business hotel in Brunei to meet the country's flourishing tourism and industrial activities.

Communications was a key issue. To increase effi-

ciency, reduce its work force and increase service standards, the hotel needed a completely new mode of operations. Employees must be able to leave their offices more and mingle with guests to provide optimal service, but they also need a way to reach all colleagues at any time, while also remaining available to accept incoming calls. The DECT system ful-

The DECT system fulfilled all requirements for improved service and that little extra personal touch for hotel guests. It also offered a significant improvement in hotel management efficiency.

Was there anything else that Boyd Williams wanted from the world's telecommunications service? "Yes," he said, "one world, one telephone!" And the concept is probably not far from reality.

The DECT standard has been approved in 28 countries, and 9 others will soon grant frequencies for DECT traffic. Ericsson has sold 13,500 systems and 350,000 terminals in the field of DECT Business Telephony in all parts of the world.

Asia is Ericsson's most expansive market. Sales in the region increased from 6 percent of total invoicing in 1991 to 23 percent in 1996. A very large market is available for DECT and its many application areas

DECT is commercially ready and approved in Australia, China, the Philippines, Malaysia, Singapore and Taiwan. The only installations of PHS, the Japanese variation of DECT, are in Japan. Culture and

Culture and challenges in a new perspective

Rolf Nordström has been appointed President of Ericsson in Austria, effective June 1, 1997. He will relinquish his present position in Ericsson Corporate Market, where he has served as manager of operations in the Middle East and Africa.

What will be the biggest change for you? "This will be my first assignment as

"This will be my first assignment as President of an Ericsson company. I shall be responsible for 1,400 employees, and the company has a broad range of activities in the Austrian market, in addition to support of Ericsson companies in eastern Europe, including Russia."

ing Russia." "We have worldwide responsibility for the highly successful Business Phones product range. We also serve as a product center for Multi Service Access, which includes such products as pair gain ADSL and HDSL, both of which have excellent potential. Exports account for more than half of the comapany's total sales."

"I'm also looking forward to living and working abroad."

Lots of challenges. Which are the greatest?

"My primary objective is to increase sales in the Austrian market, with particularly strong emphasis on winning the mobile telephone operator's license that will soon be open to competition in a third consortium. Ericsson also has a few blank spaces on its Austrian map of fixed network installations, and we plan to serve as the winning consortium's supplier when deregulation creates new market opportunities. There is also tremendous potential in eastern Europe based on Austrian access to creative financing through strongly established institutions."

New country, new culture. What are your expectations?

"I know a little about Austria from many business trips to the country. It will be exciting to work in a country with such a broad range of cultural history. Ericsson's office is situated in Vienna. I am also looking forward to Austria's excellent cuisine and virtually unlimited recreational possibilities. Although I was born in southern Sweden, I'm an avid downhill skier."

INGER BJÖRKLIND BENGTSSON

Fast access to the information you need Everyone who uses the search

The Business Information Center (BIC) has now signed corporate agreements with a number of important information providers.

We can now provide more information to a greater number of employees at lower cost," says Jesper Ejdling, manager for market intelligence at the corporate level.

Last December, Contact described Ericsson's initiatives for market intelligence via the new Business Information Center. The new information sources product and market newsletters. consultant analyses and research

reports - are available to all Ericsson employees via intranet. The contents of the database may be viewed by product area, market or customers and competitors. The information is updated continuously by a network of some 200 people.

The principal user groups to-day consist of some 200 analysts and 200 subscribers, who are decision makers and specialists of various kinds for whom personal search profiles have been defined.

"We get a lot of requests in conjunction with ESP work for strategic planning. Many engineers also want information about their product areas," re-lates Jesper Ejdling.

Sources for the BIC database

- Datapro/Northern Business Information (telecom studies)
- DataOuest
- European Mobile Communications
- Financial Times/Telecomeuropa (monthly newsletter)
- First/Individual (news)
- Forrester (new technology)
- MAID (news)
- MDIS Publications (company and country profiles in telecom)
- Ovum (technical reports and market analyses)
- Reuters (news) Strategies Group (technical consultant reports, including cordless telephony)

entire database, but certain material is not available in its entirety. Copyright agreements to make exclusive material available to everyone would be too expensive. However, paper copies of most material can be ordered from BIC. The new system for market

engine will get hits across the

intelligence has reduced the cost of information by 30%. "We calculated the costs for

Sweden and the Major Local Companies in the US, the UK and Australia and found, as far as we could document purchasing, that together we spent several million on external market in-

Philips Information (monthly newsletter) Probe (broadband and infocom)

- Pyramid Research (market news including Asia and Latin America)

- Yankee Group (technical consulting studies)

Contacting BIC

BIC's home page can be found on Ericsson's intranet.

formation. BIC's budget for the corresponding purchases is more than 30% lower. Given the estimated cost savings of 30% and the knowledge that our survey provided, we decided to negotiate corporate agreements," explains Jesper.

"Furthermore, more people have access to the information now. We achieve a wider distribution at a lower cost. Access is also much more rapid. Before, you had to wait for a paper copy, but now everything is available online."

· What is a suitable background for a market intelligence specialist?

"It varies. My training is in economics, and I started at Mobile Systems where my work included company analyses

Others have training in information sciences or engineering. Common job titles in marketing intelligence are analyst or information specialist."

Market intelligence is emerging as a new professional specialty with clearer job descriptions. Extensive work is in progress internally to define a competence development program for market intelligence specialists. The Ericsson Management Institute is closely involved with these efforts.

"As far as I am aware, there has been no formal training to date," says Jesper. "Training is required, however. For example, you need to know how to formulate and evaluate forecasts and what tools are available.'

BRITT-MARIE WIHDÉN

Speaking Out at Asia Tel .

June 9 – 14, Singapore

JUNE 9 – 14, SINGAPORE As part of Ericsson's overall approach to Asia Telecom '97, a series of 25 co-or-dinated lectures will be presented. In addition to visiting the Ericsson stand at the fair, the targeted audience is also being invited to attend the Corporate Lecture series in the World Trade Centre Club, WTC Convention Centre. The lectures are aimed at illustrating some of the new and exciting deve-lopments taking place in the world of telecommunications and what Ericsson has to offer. Each lecture is 30 minutes long, is free of charge and is held in English. The comprehensive programme is designed to encourage the audien-ce to select and attend the lectures that interest them most. For further information, please contact the Project Leader for Ericsson's Corporate Lectures at Asia Telecom '97, Annelie Hellström. Memo: LMELMEANNE. Email: annelie.hellstrom@lme.ericsson.se. Phone: +46 8 719 5563 (ECN 850 95563). Fax: +46 8 719 1976 (ECN 850 91976).

Thursday June 12th, 1997

09.30 - 10.00	2005 - Ericsson Entering the 21st Century	Lars A.Stålberg
10.10 - 12.40	The Wireless Future - Evolution into Third Systems - UMTS and IMT 2000, an Overview - Characteristics of a New Air Interface Te - Wideband CDMA Experimental System - Network Evolution into IMT 2000 Jan Uddenfeldt, Tommy Nordberg a	echnology for IMT 2000
12.50 - 13.20	Driving Forces and Solutions for Fixed Me Convergence	bile Matts Olsson
13.30 - 14.00	Quick to market. Turnkey Network Solutions - from Business Planning to Operations Lawrie Baker and Olle Lövenheim	
14.10 - 14.40	Customer Management as a Means of Co Advantage	ompetitive John Heather
14.50 - 15.20	Ericsson Service Solutions - Your Competitive Edge Serena Lawless	
15.30 - 16.00	Business Operation Support	Lars Norberg

16.10 - 16.40	Network Operations Systems Architecto	ure Evolution Eric Buatois
16.50 - 17.20	WDM Features to Meet Future Bandwi	dth Demand Magnus Grenfeldt
17.30 - 18.00	Business Advantages in SDH Layered Tr	ansport Networks Hugh Gray Murray
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10.50 - 11.20	The Changing Call Centre	Malin Johansson
11.30 - 12.00	Enterprise Networks Solution and Programs, a Comprehensive Platform for Distributors Koen Mioulet and Elisa Price	
12.10 - 12.40	GAP - The Key to an Open Air-Interface	for DECT Huub Appelboom
12.50 - 13.20	Ericsson's Multimedia Access System	Henrik Scharp
13.30 - 14.00		d Web hael J Chamberlain pment Corporation
14.10 - 14.40	Internet Search Digital Equipmen	Per Hjerppe
	The Design of a High Performance Network Computer Richard Tan, Digital Equipment Corporation	
14.50 - 15.20		
		work Computer
14.50 - 15.20 15.30 - 16.00 16.10 - 16.40	Richard Tan, Digital Equi	work Computer pment Corporation David Almström

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Telephone doctor gives tired phones new life

The telephone doctor gives mobile phones a real check-up. Not only does it get a new lease on life. Most get a facelift, as well. But the phone you get back is not the same one you turned in.

At several of Ericsson's service centers around the world, malfunctioning phones can be exchanged for a reconditioned phone that is seemingly identical. This service is provided for customers who are unable to be without their indispensable companions for more than a day or two.

The Kumla service center in Sweden offers overnight service by return mail to all Swedish customers. The telephone is repaired and fitted with a new plastic casing. While the phone is being repaired, the customer is provided with a reconditioned phone of the same model. Reconditioned phones are subjected to the same rigorous testing as during manufacturing.

"The customer must not be able to detect that the phone has been repaired," says Stefan Nilsson, the manager responsible for this service.

Same-day service

Starting on June 1, telephones needing only minor repairs will be returned to the owner the same day. Of course, this means repairs must be made quickly.

It also assumes that the fault is covered by the guarantee. Water damage, for example, is not covered. This kind of damage also takes longer to repair, because the customer must be consulted.

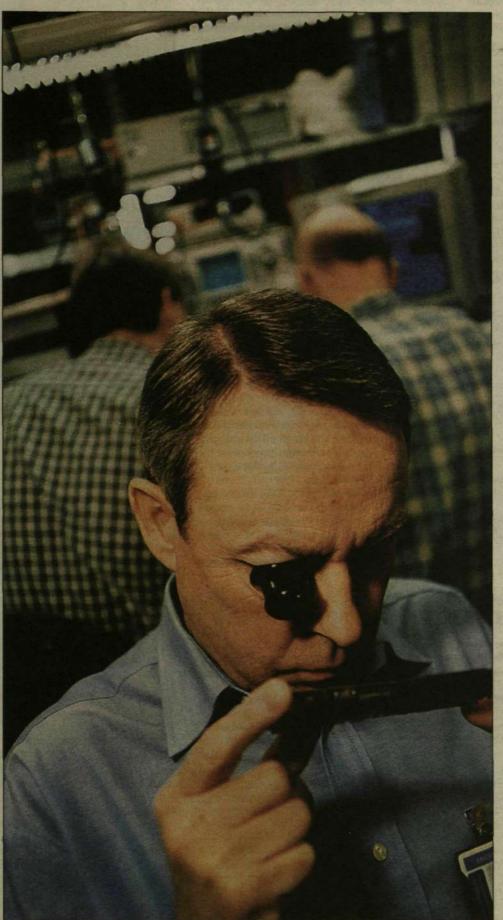
Poor reception

The most common reason for complaints is poor reception, which may be due to a broken antenna, circuit malfunction or simply a lack of coverage in the area in which the phone is being used.

Another problem is that some owners try to customize their phones with a flashier casing. Unfortunately, a casing not designed for the phone may damage the electronics.

Three-shift servicing

Repairs that cannot be handle by the overnight staff are sent to a larger central shop better equipped for troubleshooting. These are no longer mechanical problems. Each reconditioned phone is delivered with



"The customer must not be able to detect that the phone has been repaired," says Stefan Nilsson, who heads the overnight service unit in Kumla. Photo: ULF HUETT NILSSON

a three-month guarantee, but customers often have a longer guarantee period from the purchase date, in which case that guarantee applies.

Some 150 employees work in three shifts repairing telephones at Kumla. About 125,000 phones are repaired each year.

Of the total volume of telephones produced, only a few percent are received for repairs at the seven repair centers around the world.

Recycling in the increase

A sign of the times is that recycling is becoming more common. Depending on what telephone components are recycled, anywhere from 50% to 100% of the original unit is replaced.

"If the product has only recently been introduced, the chances are greater that the telephones we receive are still in good condition. These we can reclaim to a greater extent," says Mikael Persson, who manages all repairs at Kumla.

"The entire operation is based on telephones circulating in a loop. In Sweden, repairs never take more than a day," says Mikael.

GISELA ZEIME

Pirate hunt advances

Ericsson is mounting a new offensive in the hunt for pirate accessories for mobile phones. Penalties, in combination with improved information to retailers, are the weapons being used to combat pirates.

The new campaign started at CeBIT, where Anders Grynge, who is global product manager for accessories, and Ericsson's legal expert combed the stands looking for pirate copies of Ericsson Original Accessories.

"We found 37 cases of infringement of our trademark or copyrighted designs. Law suits were filed in all cases," relates Anders.

All 37 vendors also removed the products from their stands, but Anders points out that this may be a deceptive maneuver. In many cases, the companies involved are small operations that can easily be closed down and started again under a new name.

"It's apparent, however, that actions like this are having an effect in the industry. Everyone is aware that Ericsson is hunting down pirates," says Anders.

Another tactic in stopping pirates is to provide better information to all Ericsson companies and distributors concerning their rights and copyright protection. Ericsson is also ensuring that the company's logotype is more prominently displayed on all products.

There are two types of infringements. The most serious is trademark infringement, which means that the pirate vendor is using Ericsson's logotype. Such cases are easy to prosecute, since there is no question that a crime has been committed.

The other type concerns infringement of registered designs and copyrighted products. Many vendors are guilty of such infringements, particularly with respect to batteries. Registered designs are not considered to provide as strong protection as trademarks, making infringements more difficult to prosecute. Most often copied are accessories, such as batteries, chargers, handsfree kits and cases. Commonly copied telephone components are antennas, front panels and flip covers. To date, no pirate telephone has appeared on the market that is an identical copy of an Ericsson phone.

"The pirates do not yet have access to the technology. It's too sophisticated," says Anders.

It usually takes about three months from the time the original product is launched in the market until the first copies appear, although simple accessories are copied more quickly. Sometimes a copy can even appear before the original is launched.

Anders would rather refer to pirates as third-party suppliers, although this is a sensitive issue, since many of these manufacturers also sell Ericsson original products.

Pirate copies are most prevalent in Asia, with Taiwan at the top of the list, closely trailed by Hong Kong, China and Korea. European pirates are catching up, however, particularly in Sweden, Italy, the UK and Germany. GISELA ZEIME CONTACT No. 8 1997

CONTACT No. 8 1997

Putting the EMU puzzle

Ericsson will be affected by EMU, regardless if Sweden is a member or not when it is introduced on January 1, 1999. Several of Ericsson's largest companies and markets are located in the countries that will most likely be members from the beginning.

A series of questions arise when discussing EMU. For example, what will happen to commenced long-term contracts written for a currency that no longer exists? Can Ericsson begin its financial reporting in euros starting in 1999? Can it be done in euros even if Sweden does not join?

Ericsson's position is that EMU is essentially beneficial. The costs for currency exchanges within EMU countries will decrease. Different types of hedges against floating exchange rates (options and futures) will be unnecessary for the currencies belonging to the union. Administration will be simpler with fewer currencies. It will also be easier to directly compare prices and costs between the different EMU countries

Not completely painless

However, it won't be completely painless for Ericsson when EMU is introduced. Since last autumn, a group of representatives from different corporate functions, business areas and larger companies are evaluating the possible consequences EMU will have for Ericsson. The group is chaired by Ann Westergren Ekstedt from Corporate Finance.

EMU is not just an Ericsson issue, of course. Therefore, the group is in contact with several other large companies and international banks, which are also in the process of studying the practical consequences of the EMU, Seminars and courses have already been held for those most affected at Ericsson.

The departments dealing with financial matters and the persons responsible for the computer systems that manage currencies are those who must prepare themselves for the introduction of EMU. The various units have already begun considering which computer systems must be adapted, whether invoices should be written in euros or Swedish kronor, as well as how agreements entered into should be handled. The costs will be high to find a system that can handle double currencies during a transition period.

Ericsson will be affected regardless of Sweden's choice in the EMU question

It is also important to analyze market issues. Will Ericsson's customers behave differently when they are competing among themselves in the same currency? Do we need to change any products, or perhaps develop new services?

Not first with the euro

"A great deal of work is in progress and more is to come. Ericsson will probably not be the first to completely adopt the euro, but the company is well prepared," says Ann Westergren Ekstedt. Ericsson's company in the Netherlands will

be a pilot company for EMU. All systems will be tested so that the rest of Ericsson will be able to learn without having to go through all of the mistakes. The first evaluation from the Netherlands will be forthcoming this autumn.

More aspects of the EMU adaptation will certainly surface as we approach 1999. Contact will conue reporting on this issue throughout the year.

PATRIK LINDÉN

The consequences of an entrance

EMU is the abbreviation for European Economic and Monetary Union and was established by the Maastricht treaty in 1992. This marked the formation of the European Union, which is an expansion of the cooperation within the European Community. EMU is the final measure in the creation of a common European market in which capital, products, services and individu-

als can move freely across bor- tions will belong to EMU from ders. A common currency will the beginning. How the differ-remove the trade barriers involved with using different cur- 1997 will be decisive for their rencies.

Simply stated, EMU entails a ion currency for the member nations. This means own monetary policy and therefore could not, for exam-ple, devalue their that the individual member ple, devalue their currency. In ple, devalue their currency. In-stead, a European central bank will be established with repre-sentatives from the different be formed by the qualifying

countries. It is this centhe overriding goal, cy called the euro. which is the same objec- The member, sta tive the Central Bank of weden has today

In 1998, the EU countries' state and government leaders will decide which na-

One euro contains 100 cents. The bills will be available in 5, 10, 20, 100, 200 and 500 deins. The eu vill be ava

membership chances for EMU. The Swedish parliament will determine in the autumn of

1997 if the country wishes to become a member of EMU

countries. The previous nation tral bank which will form the monetary pol-icy. Price stability (low transform the monetary pol-icy. Price stability (low transform the monetary pol-tive to one another and exor no inflation) will be pressed in the common curren-

> The member states should begin distributing bills and coins in euro no later than January 1, 2002. During a transition period, prices will be labeled in two currencies. The national currency will be invalid not later than six months after the initial distribution of euro currency, but it will be

possible to make transactions in crease of the ecu will be equiva euros and it will most likely be lent to the weight of the D possible to have a bank account n euros as well.

From the start on January 1, 1999, the national currencies will merely be another way of expressing euros, the value of which cannot be changed inter-

One euro will be worth one ecu. Ecu is a so-called basket As soon as EMU has been incurrency and is today worth slightly less than nine Swedish kronor. Since it is a basket cur- values can be converted into rency, it does not exist as bills or euros. For instance, salaries and coins, rather, it is a weighted pensions can be paid in euro value of the currencies that and bank statements will exconstitute the European ex-change rate mechanism. In panies may also begin financial possible to convert these bills at the central bank for a longer period of time. As soon as EMU is introduced, it will be

lent to the weight of the D-mark in the currency basket. Within EMU, the different countries' currencies will no longer vary against one anoth-er. Rather, the rate of the euro will vary against the US dollar and the Japanese yen.

Values calculated in euros

troduced or a country has become a member, all prices and panies may also begin financial

PATRIK LINDÉN

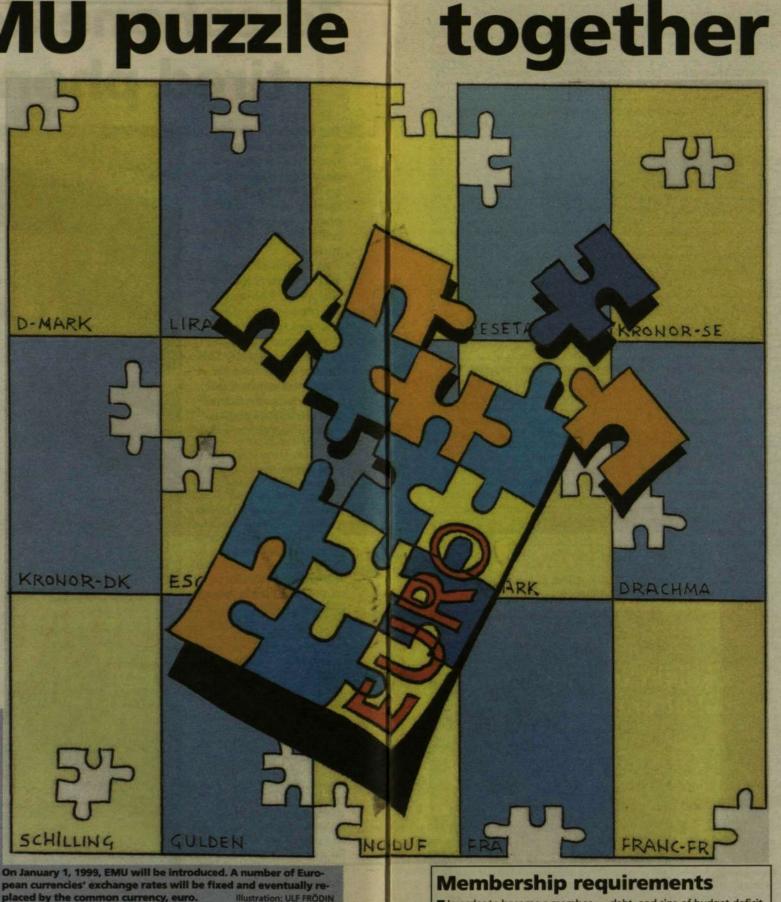
Membership requirements

of EMU from the beginning, a number of requirements must be met, known as the convergence criteria. What the criteria require of the member states is that their economies perform well and become more similar to one another (or converge) before the union is formed.

There are five main criteria that, at varying degrees, place demands on the countries' inflation rate, interest rate level, currency stability, size of foreign

Autumn 1997: The Swedish parliament takes a stand on EMU. Spring 1998: The EU countries' state and government leaders will decide which countries can join EMU from the start. January 1, 1999: EMU introduced. The participating currencies

- for financial transactions.
- and coins will be replaced by the euro



In order to become a member debt, and size of budget deficit. There is some uncertainty as to how these requirements should be interpreted. Thus, public debate has focused a great deal on the convergence criteria. Among the controversial issues are how a country calculates its inflation rate and what should be included in the budget deficit.

The Swedish government has said that, regardless of whether the country wishes to join or not, it's still a good idea to try to fulfill the convergence criteria.

rates are fixed against one another and the euro can be used

January 1, 2002: Eurocoins and euro bills will be distributed by this date, at latest, to the participating nations. National bills

July 1, 2002: National currencies will no longer be legal tender for payment. EMU is finally completed.

"We toasted the contract in fruit juice"

may

Maria Radke works with quality measurements of delivery precision, lead times, capital tied up in inventory and the cost of products sold. She does all of this at World Class Supply, an extensive improvement program within the Mobile Systems GSM standard business unit.

diary

Delivery precision and lead times are measured against the external customer and the customer organizations at Ericsson companies worldwide handle and administer the measurements.

Monday Woke up at a hotel in Kuala Lumpur, Malaysia. It was raining! Ate a wonderful breakfast of pineapple, watermelon and kiwi fruit. I am here to begin measurements for the World Class Supply at Ericsson Telecom in Malaysia, which is one of the "second wave" markets in our program. Measurements are already under way in Ger-

many, England, Spain, Italy and Sweden - and now comes Malaysia, China, the US and Australia.

Took a taxi through the somewhat chaotic traffic to Ericsson's office, where I was met by Per Englund, who showed me in through the back entrance - the elevator in the main entrance doesn't work and never has.

Gave a presentation to the teams handling the customers Celcom and Mutiara, and then had practical discussions with each on how best to solve their specific measurement problems. When does one really begin working with a customer order? What does delivery precision mean to Celcom? Does it mean that delivery precision is 70 percent if all of the orders are 70% complete?

In the afternoon, I was invited to celebrate the new contract with Mutiara which had just been signed. I luckily escaped the spray of champagne. Half of the employees drank fruit juice, since Islam is the main religion in Malaysia.

I was surprised how many nationalities I met at the company: Malaysians, Indians, Chinese, a few Irishmen and Swedes.

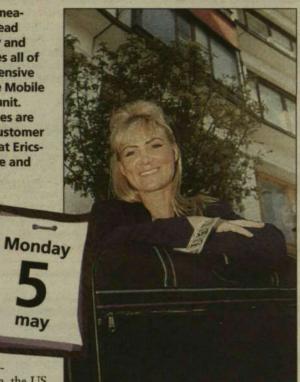
Dinner was at a Chinese restaurant with Per and his wife Maria. Wonderful food, but was that a rat in the corner?

Tuesday We continued with the division that handles Mutiara and came to the conclusion that to the customer, delivery precision means avoiding as many import fees as possible...unfortunately, this means too much tied-up capital for Ericsson, so it will be difficult to fulfill all of the objectives at the same time.

On the plane home, I met a man from Price Waterhouse and we discussed transformation processes and how important it is to get the support of personnel. Neither computer systems nor documented processes entail changes in themselves - people are always needed to make sure things happen! I boasted a bit about the "we can't survive

without change" culture at Ericsson Radio, but at the same time I thought about how taxing this can be for many people.

Wednesday Back in Stockholm at the work group meeting held weekly with representatives from World Class Supply in the various marketing units, product units and processes. Presented the monthly measurements and we agreed that they are good to have, but difficult to interpret. For example, the implementation of new



Maria Radke works with quality measurements of delivery precision, lead times, capital tied up in inventory and the cost of products sold. Photo: ANDERS ANIOU

processes in Spain has led to lower delivery precision and longer lead times.

Spoke about the difficulties in starting measurements in the radio base division with the person responsible for measurements at Ericsson Ltd. in England. Everything appears to be done by hand and no one has time for anything else but serving the customer and arranging delivery.

Thursday Discussion with Christer Jungsand, who is responsible for World Class Supply. The discussion dealt with the measurements which are now also our business unit's total goal: lead times, delivery precision and days in warehouse. It's a bit difficult with an additional performance criterion, but good that we will get increased focus on measurements, earnings and corrective

Christer feels that the measurements are good as "instigators."

Had problems putting the measurements on the Web. Sure, technology is wonderful, but what a hassle! Very thankful for all systems support! Remember the address: http://www-rmog.ericsson.se

Friday Sent memos to China and Australia to nag them about their measurements. So far, we've only received sporadic results from Ericsson Australia and only delivery precision figures from China.

Reminded the Australians that delivery precision according to World Class Supply is NOT measured per order row. We strictly maintain the site concept, which means complete deliveries. In all likelihood, 85 percent of a site is unus-

I will be visiting China, since it's difficult to get started with measurements from a distance. should be very exciting.

The last meeting on Friday afternoon was with Per Nylander and Eva Österlind, who will be taking over measurement responsibility.

I'm looking forward to moving on to new activities, but will continue keeping an eye on World Class Supply. It is one of our most important projects, aside from being one of the most fun

Speaking Out at Asia Telecom '97

16.10 - 16.40

June 9 – 14, Singapore

JUNE 9 – 14, SINGAPORE As part of Ericsson's overall approach to Asia Telecom '97, a series of 25 co-or-dinated lectures will be presented. In addition to visiting the Ericsson stand at the fair, the targeted audience is also being invited to attend the Corporate Lecture series in the World Trade Centre Club, WTC Convention Centre. The lectures are aimed at illustrating some of the new and exciting deve-lopments taking place in the world of telecommunications and what Ericsson has to offer. Each lecture is 30 minutes long, is free of charge and is held in English. The comprehensive programme is designed to encourage the audien-ce to select and attend the lectures that interest them most. For further information, please contact the Project Leader for Ericsson's Corporate Lectures at Asia Telecom '97, Annelie Hellström. Memo: LMELIMEANNE. Email: annelie.hellstrom@Ime.ericsson.se. Phone: +46 8 719 5563 (ECN 850 95563). Fax: +46 8 719 1976 (ECN 850 91976).

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16.10 - 16.40	Building the Internet - Data Transport Internet/Intranet	Network for Inge Beiming
16.50 - 17.20	A New State-of-the-Art Fusion Splicer t Ribbons up to 12 Fibers	for Optical Fibre Dan Tillberg

Network Operations Systems Architecture Evolution

Eric Buatois



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CONTACT No. 8 1997

SCANDINAVIA

As Europe heads towards deregulation of the telecom industry within the EU in 1998, Scandinavia is being used as a testing ground by many international players, jockeying for position and learning from the Scandinavian experience.

Telecom industry has its eyes on Scandinavia

raditionally Sweden, Norway, Denmark and Nordic neighbor Finland have played a leading role in global telecom-munications, boasting the world's highest fixed and mobile telephone density and becoming the first countries to establish a common mobile phone standard 16 years ago. With deregulation around the corner, the global sector spotlight has fo-cused even more on the region and the lessons it can teach – particularly Sweden, which has one of the most liberalized markets in Europe and arguably the most

liberalized markets in Europe and arguably the most

liberalized markets in Europe and arguably the most competitive in the world. Although there is some skepticism about whether 1998 will open the telecom floodgates across Europe as some countries struggle out of the monopoly, Sweden, Denmark and Norway are all on track to meet the Janu-ary 1 deadline. With Sweden leading the field, the Scan-dinavian nations are being portrayed as the models for telecom deregulation as state-owned operators – Telia in Sweden, Tele Danmark in Denmark and Telenor in Norway – release their grip on the market and allow competition into the sector.

competition into the sector. Sweden boasts the world's highest fixed network pene-tration at about 69 lines for every 100 inhabitants, according to figures from Siemens International Telecom Statistics 1995. Denmark comes fourth in the world list at just over 59 lines per 100 people, Finland ranked fifth with about 54 and Norway sixth with 53.

Pioneers in mobile telephony

In recent years, the key to Nordic success has been the region's early adoption of high-quality wireless commu-nication standards which laid the groundwork for cellu-lar voice and data technology. The world's first cellular lar voice and data technology. The world's first cellular services, originally based on the analog NMT-450 (Nordic Mobile Telephone) service, were launched as early at 1981 across the Nordic region after an agree-ment by the four countries on cross-border standards, creating the first real competition in the sector. NMT at the higher 900 MHz frequency was launched in late 1096 1986.

The digital cellular technology Global System for Mobile Communications (GSM), now widely used throughout the world, was pioneered in Finland in June 1992.

"From this early start, the four Nordic countries were one step ahead of the others and today we are still ahead, in products and market knowledge," said Torbjörn An-dersson, who is responsible for Ericsson's Scandinavian market.

Test market

A combination of factors has made the Nordic market a hot spot for mobile telephony, which is seen as one of the two main growth areas in coming years, the other being Internet usage. High levels of average income have helped boost cellular penetration levels. (Gross Domes-

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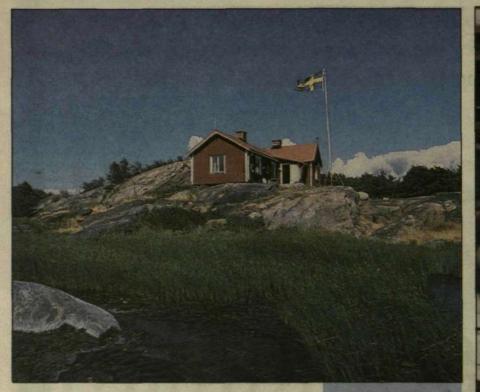
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tic Product per capita in Sweden was about USD 22,950 in 1995). Competition in the mobile sector in recent years has resulted in reduced prices and made the services more readily available. In Sweden, companies have willingly equipped employees with mobile phones as a fringe bene-fit, encouraging the use of cellular phones for business, as well as personal use.

Consumers' acceptance of the latest telecom equipment has made Scandinavia an even more attractive area to carry out test work before Europe fully opens its doors.

"The winner in the end is going to be the operator who wins the most customers. They need to establish good relations with the end-user," said Henrik Linsten, Ericsson Telecom's sales manager for new operators.

"The services you introduce must be user-friendly so operators are testing their products here for the public and business before launching into wider markets. In Scandinavia we have a high penetration of PCs, the Internet, a large group of consumers accustomed to concepts and IT devices, so the market is relatively mature. It is a good test market," contends Henrik Linsten.

Staying ahead

Despite the already high penetration of both fixed and mobile networks in Scandinavia, there still remains tremendous capacity for future growth elsewhere in the world. The global telecommunications market is expanding rapidly and is projected to grow by 57 percent to USD 1 trillion by the year 2000, according to a recent Gallup Organization study that was commissioned by BT and MCI

This offers rich pickings for companies that have the will and insight to expand existing markets and to exploit new emerging ones profitably. The winners in the battle for international market share will be the companies with the best investment strategies. That's where Scandinavia and its market-leading technology comes in.

"It seems Scandinavian countries are early adopters to the new services that are now in demand so there must be something that can be learned from that," said Bo Langemark, Ericsson Telecom Sweden's business development and strategy manager.

Over the past few years there has been a massive influx of operators into Scandinavia, challenging the local operators. These include such major players BT, AT&T and France Telecom as well as a plethora of smaller operators. The competition has become intense but the operators are here for the long run. They want to benefit from the Scandinavian experience and are looking for a piece of the action from January 1, 1998, when all European Union members are scheduled to open their voice telephony markets to domestic and foreign competition. The first opening of national monopolies began in 1990 with data com nications.

"Although there is only a limited market here, the open market is quite a launching-pad for tapping the far greater potential of the Nordic/Baltic region," said Telia's chief strategy officer Dr. Bertil Thorngren who is overseeing Telia's own outward moves offshore. "As a whole, this region is comparable to the mega-markets of Germany and France. This provides a potential for launching increasingly advanced services as well as for volume growth."

Thorngren said some expect that the international op-

Sweden

8.8 million inhabi tants, of whom 1.5 million live in greate Stockholm • 28% penetration rate for mobile phones in Jan. 1997 69 lines per 100 in-habitants in the fixed

erators now moving into Scandinavia would move on to Germany and France once those markets opened in 1998, having used the Swedish market more as a field-trial before getting into larger and more virgin markets.

"It is more realistic, however, to expect competition up north to stay and to thrive," he said.

The Scandinavian markets still offer good growth capacity - particularly in mobile telephony and Internet. During 1996, the number of Internet users in Sweden increased five-fold, from 150,000 at the end of 1995 to 750,000 at year-end 1996, and is still climbing.

"In fixed networks the number of customers will not grow much in these countries but cellular telephones will take up the growth," said Torbjörn Andersson. "A family may only have one fixed line in the house but every family member could have their own mobile phone."

In some parts of Sweden, one out of three households has a mobile phone, and many young people have even started to take their phones into the classrooms.

"However, traffic on local lines will increase strongly due to the Internet, which could become a reason for a second fixed line. Networks will have to be expanded for more capacity which will affect infrastructure needs. With the new optical-fiber cable, you can plan for high-capacity networks so there is a modernization of the existing fixed networks."

Ahead of Europe

Sweden, as one of the most liberalized markets in Europe, has seen the most dramatic changes in recent years since the government formally opened the market in mid-1993. The 1993 pro-competitive Telecommunications Act eliminated Telia's de facto monopoly, established by buy-ing out local competitors, allowing Sweden to run far in advance of the EU's proposals.

The influx has been rapid. Sweden now has 13 fixednetwork operators with licenses from the Swedish Post and Telephony Board, eight on leased lines and three mobile network operators with a fourth due to start up in 1997 – all for a country of 8.8 million people. As of the end of 1995, Telia still held 91 percent of the fixed and mobile markets in Sweden, as measured by operating revenues, which reached SEK 41.06 billion for the group in calen-dar 1995. NetCom, which was spun off from Swedish meDenmark million inhabi-nts, of whom 1.3 Illion live in Copen- 26% penetration
 rate for mobile hones in Jan. 1997 60 lines per 100 in-abitants in the fixed

dia group Industriförvaltnings AB Kinnevik in May 1996 and owns fixed network operator Tele2 and mobile operator Comviq, grabbed 5 percent. Danish/British/Norwegian consortium Telenordia won 2 percent and the rest was divided among the other smaller operators.

Bertil Thorngren said Telia (formerly the PTT Televerket) still holds about 90 percent of the local fixed

market but has lost 25 percent of the international market and holds under 50 percent of GSM.

"It is changing rapidly and we expect this to go further. We intend to keep half of the market share but that is a fairly ambitious target," Bertil Thorngren said. "But Sweden is such a small country that we can live with the fact that we will not dominate and will move into other markets. The good news is that the market is growing, so losing market share does not equate with a revenue loss."

Bo Langemark said few of the smaller operators were posting profits. "It seems the market is a little overheat-ed," he said.

Strategic investment

"But most of the operators believe Sweden is the test market to learn and gain knowledge about how to operate in Europe in full competition. They view such a venture as a strategic investment," adds Bo Langemark. In fixed networks, NetCom's Tele2 quickly found a

footing and is now Sweden's second largest operator. Tele2 first appeared at the start of this decade, offering switched access. But over the past two years Tele2, which is partly owned by Britain's Cable & Wireless, has made its mark through the fast growing private Internet sub-scription market, with an estimated 40 percent market share compared with Telia's 22 percent.

"Tele2 can be considered a success in that in a few years t has captured shares of the market comparable to what it has taken Mercury a decade to achieve in the UK market," Bo Thorngren told a recent telecom summit.

Sweden is continuing to heat up with more heavy-weight competition. In May 1995 Tele Danmark, Telenor and BT joined forces in Telenordia, aiming to become Sweden's second largest telecom operator. BT has also linked with MCI in Concert, the world's first fully integrated global carrier, which gives the Nordic operators an

Telia and Telenordia, which had revenues of SEK 50 million in 1995, now each control about a third of the Nordic market.

Competition sharpens

Another hefty player in Sweden is Global One, a consortium involving France Telecom, Deutsche Telecom and Sprint of the United States. Other competitors also in-

clude Singapore Telecom, Metropolitan Fiber Systems (MFS) and Tele8. "But there are really only four operators here with major world ambitions - Telia, Telenordia,

Global One and Tele2 - the rest are niche players," said Telenordia president Daniel Johannesson "To compete in a market like this today you have to be

quick to respond to changing market conditions, be fo-cused, and be able to deliver to customers. Everyone is here to make money. This competition sharpens up peo-ple's acts," says Daniel Johannesson.

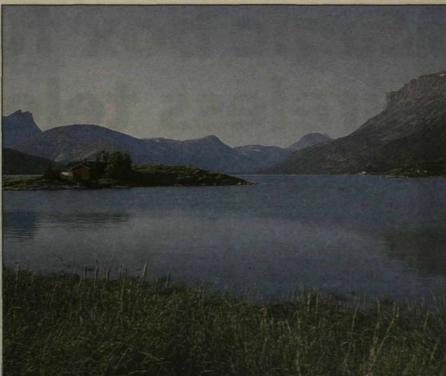
As competition has increased in the sector, it is now becoming apparent that success is no longer dependent on

"This new wave of competition focuses on such aspects as scope and depth of the service portfolio and global reach," said Bertil Thorngren.

French foothold

In cellular, the Telia unit Telia Mobitel is facing more competition from the NetCom subsidiary Comvig that was launched in September 1992 and now has a 40-43





13

Norway

of whom 900,000 live 29% penetrations in mobile phones in Jan. 1997 53 lines per 100 in-habitants in the fixed

ercent share of Sweden's GSM segment, chasing the consumer market.

The third operator, Europolitan was also launched in 1992 by U.S. cellular operator Air Touch and British Vodaphone. This year it linked up with France Telecom in Global One, giving

the French operator a foot in both fixed and cellular markets in Sweden.

Bertil Thorngren said the competition was not a bad thing. "In the old monopoly you might have done good things but no one noticed. There was nothing to compare with. In a way it is more inspiring to work when it is more visible whether you are doing a good or a bad job," he said.

Competition grows in Denmark

Since deregulation in July 1996, Danish telecommunications group Tele Danmark is facing increasing competition. Tele Danmark was partially privatized in 1994, but the state retained a 51 percent stake.

Tele Danmark remains the principal provider of domestic and international telephone services for Denmark's 5.2 million population, the leading provider of leased lines and one of two mobile phone operators. Although far less intense than in Sweden, the competi-

tion is growing. On the mobile scene, nine foreign telecom operators, including Telia, are currently competing for three new national DCS1800 licenses to be awarded this year.

"The same thing is happening in Denmark and Norway as in Sweden, but it is just not so obvious yet since Sweden has been leading the way," said Torbjörn Andersson.

Along with other operators in the increasingly compet-itive sector, Tele Danmark, Telenor and Telia have also, during a longer period of time, branched out into other areas including the supply and service of PBXs and other telecommunications equipment, data communication services, telephone directories and cable television.

Denmark's links to continental Europe could put it in a different light from Sweden

"Some operators will establish a node in Scandinavia and, via Denmark, reach Germany," Henrik Linsten said. "It's closeness could make it a stepping stone into other parts of Europe."

Norway follows its neighbors

The Norwegian market is not as liberalized as Sweden or

Denmark. Telenor, the state-owned Norwegian telecommunications company serving 4.3 million people, is currently preparing to deregulate.

The Norwegian government has announced its intention to fully liberalize voice telephony in line with the European Union timetable, incorporating the new regulatory framework into law through the Telecommunications Act.

"This will lead to some reduction of Telenor's market shares and more intense tariff competition," U.S. credit ratings agency Standard & Poor's said in a rating report earlier this year. "But following liberalization in 1998, the loss in market shares and the downward pressure on tariffs will be partially offset by continued growth in telephone tariffs."

For although there are some alternative fixed-wire networks in Norway, none have Telenor's technological platform or national coverage. The situation will improve with Telenor's competitors no longer having to rely on the state-owned company's infrastructure and equipment.

Domestic market expanding

As increasing numbers of overseas operators move into the Nordic region, the traditional Nordic operators are themselves looking to foreign offshore for new opportunities – and even to neighboring markets. After the launch of Telenordia, Telia declared that its

domestic market encompassed Sweden, Norway, Denmark, Finland, the three Baltic nations of Estonia, Latvia and Lithuania and also Poland. In 1995, 7 percent of Telia's total operating revenues came from markets outside Sweden compared with 5.8 percent a year earlier. Telia moved into Finland in partnership with the third

and smallest of the country's operators, Televo Oy, a subsidiary of electric utility Voima Oy. There it is competing against Telecom Finland and a group of 40 or so local op erators that have always operated independently in Finland where the telecom sector has never been regulated. But rather than go it alone outside the region, the trend is increasingly for operators to pool resources, reflecting the global picture of polarization and internationalization.

"The chief purpose of spreading ownership is to obtain access to venture capital and through cross-holdings or aliances to deepen business-related cooperation with other operators and with players in the arena of media and information," Telia said in its 1995 annual report.

Increased concentration

On the international scene, Telia has linked up with three European partners, the national phone companies of Spain (Telefónica de España), the Netherlands (Dutch PTT Telecom) and Switzerland (Swiss Telecom PTT), as part of Unisource, a vehicle for international expansion This network constitutes the European arm of a global network managed in close cooperation with AT&T. Telenor has joined forces with Tele Danmark and BT in

Telenordia which is in turn linked to Concert.

"This pattern will continue," said Henrik Linsten. "I can see that we will be dealing in the same type of system and that four or five large groups in the future will dominate the market."

MARGARET OLLEY

Magic box full of wireless teletricks

"It" was a focal point at CeBIT, and it's now ready for market launch. "It" is an elegant and highly diversified docking station – a regular little magic box – that makes Ericsson's wireless DT360 DECT telephone a speaker phone. "It" also charges the telephone's battery and has special functions for Computer Telephony Integration (CTI).

The docking station known under its DS300 designation was developed by Ericsson Business Systems AB, which took over development and marketing responsibilities for DECT accessories last August.

"This is a telephone product that will increase values for end-users," says Jonas

Functionally rich docking station for Ericsson's **DECT telephone**

Carlson, defining what he and five colleagues at Årstaängsvägen 13 in Stockholm have developed. When a DECT telephone is placed in

the docking station, which contains a built-in microphone and speaker, the telephone is transformed into a sophisticated desk unit. The user is ble to conduct loudspeaker tele phone conversations with both hands free to take notes, for example, or retrieve information from his/her computer. Headsets can also be connected to the docking stations. Comfort, the lightest model, weighs only 50 grams, a valu-able tool for people who spend a lot of time on the telephone and need their hands free, but do not wish to conduct loudspeaker conversations.

Conference calls

Ens

60

In applications for which loudspeaker traffic is needed, conference calls, for example, a few em-ployees can take a docking station to conference room and make their call. Then it's just a matter of making the connection to another conference room and start talking. Five-six persons can easily participate in a conference call us-



Jonas Carlson demonstrates the DECT telephone in coordination with his personal computer. The docking station can be seen in the background. Photo: THORD ANDERSSON

ing one docking station. The product offers very high sound quality and features a so-called duplex function, which allows conventional voice transmissions that parallel real conversations, with several people all talking at the same time.

Comprehensive acoustical tests of the docking station were conducted in "the Quiet Room" of the sound laboratory at Ericsson Business Networks AB in Nacka Strand. The tests showed that even small machines of this type can provide excellent results.

Computer integration

With the help of Personal Screen Call Light software, which is supplied with all docking stations, telephone functions can also be integrated in personal computers. Using functions available in the software package, it's easy to make and receive calls and update a telephone directory.

Another feature of Ericsson's new DS300 docking station is the option to upgrade telephones when the new and improved software is installed in the actual telephone system.

son's new "magic box" will be Fric introduced on the market at the end of May. It was designed and built by Digianswer, a Danish company. Production is also concentrated in Denmark. The DS300 has already attracted wide-spread interest, and the market price will be within reason. According to all indications, it's destined to become a best seller, says Jonas Carlson, whose next project will be development of a vibrator project will be develo for DECT telephone

THORD ANDERSSON

Electronic super highway can be a dirt road

"Many people who try to 'surf the Net' waste more time groping in the dark than they gain through accessed information, that reaches them at super highway speeds. It's seldom that we feel we are 'riding' on a super highway – it's more often the feeling of a bumpy ride on a dirt road."

The quotation above is the gist of a pas-sage in Peter Gärdenfors' book entitled Fängslande Information (Captivating In-formation) published in Sweden in 1996. Peter Gärdenfors is a professor of Cognition Research at Lund University. His book covers a wide range of inter-isting aspects of information and the communication of information. It studies

The new docking station introduced at CeBIT is now ready for its market launch.

communication of information. It studies the difference between knowledge and information, why it's so difficult to talk with your computer and the complexity of conducting communications. Cultural perspectives, for example, are quickly forgotten by those of us who believe

western Europe comprises the world. Peter Gärdenfors presents several ex-amples of how interpretations of infor-mation are always dependent on its context. Decoding keys are needed to access

information. Oriental music, for example, often seems shrill and monotonous to westerners, who are accustomed to a scale of 12 semitones. The scale of Arabic music embraces 17 tones. The book also covers the area in a highly comprehensive plan addressed from an academic approach. It is not an information manual, but rather a collection of many interesting arguments presented on a general, rather than philosophical, plane. The book provides humanistic perspectives on opportunities manistic perspectives on opportunities

industry news Lucent and Nokia start production in Brazil

Lucent Technologies, a leading American telecommunications manu-facturer, has announced plans to start telephony production of mobile equipment in Brazil

The company will also establish a service organization in the country. The new operations are intended pri-marily to serve countries in the Mercosur trading bloc (Argentina, Brazil, Chile, Paraguay and Uruguay). In the initial stages of production, Lucent's new plant will employ about 300 per-sons. Construction will begin in June.

The plant will be Lucent's first factory in Brazil and its sixth production unit in the Latin America/Caribbean region. Production is scheduled to begin toward year-end. The plant will be situated in the Sao Paulo area. The extremely large potential of the Brazilian market was another strong factor in Lucent's decision to establish

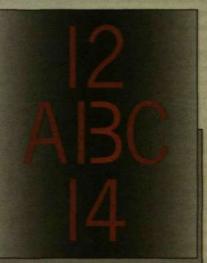
Nokia also plans to start production operations in Brazil through a joint risk company established in coopera-tion with Gradiente Electronica, a

tion with Gradiente Electronica, a Brazilian engineering company. Nokia owns 51 percent of all shares in the company. The jointly owned production plant will manufacture analog and digital mobile telephones for the Brazilian market. The location of the new plant has not yet been de-termined. Nokia has cooperated with Gradiente Electronica in Brazil since Gradiente Electronica in Brazil since

Five satellites for Iridium's global network

The first five satellites for Iridium's global network were launched re-cently. Motorola, the company behind Iridium, expects the complete network of 66 satellites to begin operations during the latter part of

The first five satellites will be used The first five satellites will be used to test and adjust land-based equip-ment. The finished network will be equipped to transmit voice, data, tele-fax messages and personal pager ser-vices throughout the world. The re-maining satellites will be launched in uning satellites will be launched in various phases through mid-1998.



Carnival atmosphere to celebrate Sivam order

It was a Brazilian evening when the division for Airborne Early Warning Sysmölndal tems (FU) cele-brated the

Sivam order booked recently in Brazil for Erieye equipment. A very colorful show was highlighted by samba music and exotic food from the South American kitchen.

The Reveljen restaurant in Mölndal was decorated in Brazilian colors and themes. Yellow and green flags hung from the ceiling and the walls were adorned with textile art depicting the sands of Copacabana beach. Palm trees lined the walls, and a large Brazilian flag was raised in the center of the restaurant.

"There's a certain love of life that characterizes Brazil and its people," said Lennart Joelsson, division manager, in his brief address to the evening's guests, and that certain joie de vivre was cer-

tainly not lacking at this party. After a samba show by dancers attired in carnival dress,

The party to celebrate Ericsson's Sivam order in Brazil was a feast of dancing and fine dining. Brazilian dancers contributed to the carnival atmosphere at the Sivam festival.

a Brazilian meal was served featuring vatapá, muqueca, aipim and other delicacies.

"This is real Brazilian food," said Bertil Hellström, who has become something of an expert during his many business trips to the giant country in South America.

The guests enjoyed their Brazilian dinner, and the real festivities started a little later. More samba music lured employees onto the dance floor as Brazilian dancers and rhythm of the music filled the room. Tired dancers quenched their thirst at a bar bedecked with palm fronds and bamboo.

The dancing continued into the night and, as Wednesday rolled into Thursday before the last song was played, it was time for Department FU's employees to wend their way home. NICLAS HENNINGSON

Ericsson in Denmark has 25 nationalities

Ericsson in Denmark is a highly expansive company. In a large-scale recruitment camdenmark paign, the Danish company is looking for 235 new employees. The response has been good, but the company

Microsoft

award to

Ericsson

Ericsson's network monitoring system,

Consono Dynamic orlando Network

stration, has been awarded "Best Back

Office Solution of the

ar" by Microsoft.

Bill Gates presented the prize to Ericsson at a cere-

nize to Erresson at a cere-nony during a sympo-ium in Orlando on May 4, 1997. Prizes were warded in a total of nine categories at the sympo-

g system was developed Infocom Systems' asiness Networks unit. It included in the Con-

is included in the Con-sono business package, which integrates speech and data communication. This is the third time Microsoft is distributing its Microsoft Solution Provider Awards. This year, over 240 entries

r, over 24 re submitted.

needs 50 more new employees. The recruitment campaign is expected to be finished by expected to be finished by Christmas. Ericsson is not only seeking recent college gradu-ates in Denmark, but rather a comprehensive mix of new tal-ent. Young and older people with various backgrounds are

being recruited. The Danish company has also turned its attention to engi-neers and technicians from out-side the country. Today, 25 dif-ferent nationalities are repre-sented on the payroll.

Environmental certification for Ericsson in India

Ericsson Telecommunications Ltd. in India is the third Fricsson company to receive certification for its environmental management system and the second to reindia ceive certification in accordance

with ISO 14001. The certification encompasses

all of Ericsson's activities in the city of Jaipur in western India.

'Ericsson's corporate management has initiated a longterm investment in India, and quality and environmental issues are important in achieving our objectives. For us, working with the ISO 9000 and ISO 14001 standards was self-evident," says Rolf Granström, president of Ericsson India.

"We have been following these standards since we started operation in Jaipur in September 1994," says Rolf. "The goal then was to attain ISO 9002 certification by September 1995. We can now take pride in having received ISO 14001 certification in April 1997. We are the first company in India to have received this certification from RSI "

"We started this project in

October 1996 with the goal of achieving certification by March 1997," says vice president Bernt Ullersten. "We were delayed by two weeks, however, because BSI, which conducts the audit, could not come sooner."

Three months of hard work and a serious effort were reguired to meet the certification requirements, but our efforts were rewarded. BSI made no demands for corrective measures before the company received certification.

"It was important for us that we were able to achieve our goals without the help of external consultants. Instead we developed the company's own resources," says Sudhir Aggar-wal, who is the environmental coordinator and a member of Ericsson India's management

"We regard ISO 14001 as an admonishment to love one's country, respect the gifts of nature and take care of one's own people. At the same time, the company's profitability is increased because there is more control over processes and waste," says Sudhir.

Daily pollen forecast via direct mobile telephony

If you are allergic to pollen, you probably know the pollen season has started. If you live in Denmark, you can receive daily pollen forecasts directly through your mobile telephone with the help of Short Message Service (SMS).

The service is provided by Rhône-Poulenc Rorer, a medical company, in cooperation with the Danish asthma and allergy association, IBM's subsidiary in Denmark and the Danish weather bureau.

The program is designed so that people with allergies will not have to take medicine unnecessarily, and to remind them to take the medicine when needed.

A web site on the Internet (http://www.nyse.dk) presents information and users can provide the service with their mobile telephone numbers to re-ceive daily SMS messages with information about the pollen count.

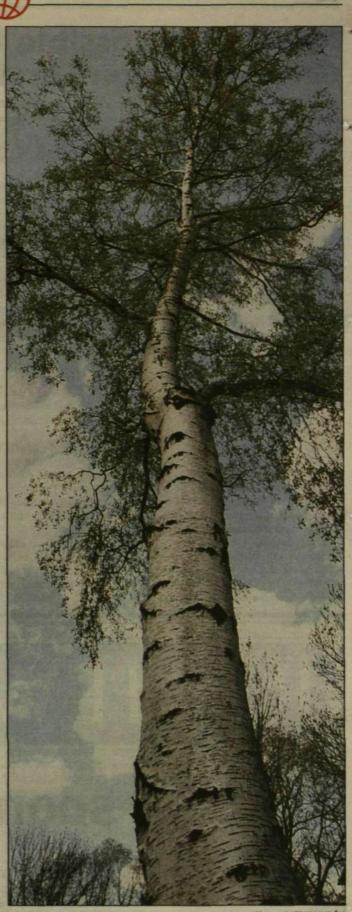
Users may also specify which pollen types and levels they want to be warned about.

Sweden has only a web site with pollen reports available at the following address:

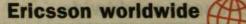
http://www.medicallink.se /medlink/pollen

A solution similar to the Danish system is now being studied by the Palynological Institute in Sweden.









Nothing impossible for DECT seminar in Montevideo **Graphic Design Service** In April, Infocom's Radio Access arranged

Signs, illustrations, even neck-ties to Japan – for the Graphic Design Service ("Ateljéservice"), nothing is impossible. The service pro-

kista duces a wide range of presentation materials -

from illustrations to overhead pictures - which are then used in exhibitions and conferences.

The Graphic Design Service is a graphics department located at Ericsson Radio Systems in Kista, Stockholm,

"Most of our jobs are signs, illustrations, overheads and Internet and intranet layout work," explains Louise Johansson, who has functioned as coordinator of the Graphic Design Service since September.

"Much of the work is for internal demos and seminars - we make everything from name tags to banners, staffer Mikael Eklund chimes in.

Illustrations

640

10

1

At present, the Graphic Design Service consists of ten people - including two technical illustrators who do illustrations for various manuals.

Mobile Systems is the department's main source of customers, but their services are available to the entire company.

"Kista and Sundbyberg are our

first-priority customers, but we have also made neckties for Japan," Mikael Eklund explains.

The Graphic Design Service is hoping that interest from outside Sweden will increase.

All new customers are directed to Louise Johansson, who then passes jobs on to someone else in the department, where all employees have their own constantly growing network of customers.

Lightens the work-load

As Mobile Systems expands, it is becoming more difficult for the Graphic Design Service to keep up with its workload. Therefore, some smaller projects are outsourced to external consultants - for example, scanning in illustrations and converting programs.

"It is also my job to oversee our contacts with consultants," Louise relates

It should also be added there are many people at other departments in the company who do work similar to that performed by the Graphic Design Service - but they often have a lot of other jobs to take care of at

the same time. "The reason for our existence is to lighten the load of other depart-ments, and come up with ideas," Louise Johansson concludes.

ANDERS CARLSON



The BYB 501 metric equipment practice

The group switch subsystem - An enhanced competitive group switch

Adjunct processor – A new AXE-integrated open standard computer system for callrelated data processing

Standardisation in the world of information and communications technology

To subscribe to Ericsson Review, please visit our homepage on the Internet. Select the site closest to you:

USA: www.ericsson.com/Review Sweden: www.ericsson.se/Review Europe (except Sweden): www.ericsson.nl/Review montevideo DECT-based DRA 1900 lo-

cal wireless system in the Uruguayan capital of Montevideo.

Several operators, some of whom are new, joined Ericsson staff to exchange experiences and deepen their knowledge of this system and its future po-tential. About 150 people participated – from Latin America, the West Indies, Spain and Sweden

Uruguay was chosen as the location for the sem-inar partly because it has one of the largest DRA 1900 installations in Latin America. ANTEL contracted Ericsson to shorten the waiting lists for telephone subscriptions in Montevideo, where fixed networks are difficult to install. The seminar participants also made field trips to the sites of DRA installations, and visited people who had re-cently had their telephone installed.

The radio expertise of Ericsson's Uruguay per-sonnel is among the best in Latin America. The country is an important market as well, being located at the center of the Mercosur free-trade area.



In April, the Infocom Systems' Radio Access unit arranged a four-day semi-nar in the Uruguayan capital of Monte-video, on the DECT-based DRA 1900 local wireless system.

Cooperation produced ideal solution

In developing its new computer-driven power kumla aggregates for mobile phone manufacturers, Hewlett-Packard worked in close cooperation with test developers at the Ericsson mobile phone plant in Kumla, Sweden.

The solution is now considered ideal for its particular application. The aggregate, intended as a battery replacement in cellular phone testing, gives the testing engineer data on the telephone's power consumption when it is on, off or on standby.

First, Ericsson's developers spoke about requirements they set on the power aggregate - for example, improved precision in DC-current measurement and the capability of measuring pulse currents

Alternative methods

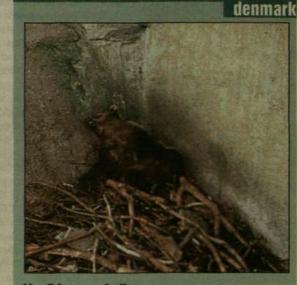
Based on these specifications, Hewlett-Packard designers established a product description with alternative

chasing, and Hans Högberg, Kumla plant, receiving the newly developed Hewlett-Packard power aggregate from HP's Emery Salesky, New Jersey, and Per Nordström, Test- & Measurement, Kista. methods for measuring top values of pulse currents. Their suggestions were assessed by Hans Högberg and his staff at Ericsson in Kumla. They then made recommendations which provided a foundation for the design of the product. Ericsson's experts were given the opportunity to evaluate the prod-

uct during the prototype

stage - that is, several months before the power aggregate was released on the market.

"We now have a product that can increase precision and shorten the time involved in our cellular phone testing," says Hans Högberg. The new power aggregate al-so costs less and requires less space than its predecessor.



A satisfied foursome. Ericsson's Ulf Hagenberg, central pur-

Live Ericsson grizzlies Ericsson in Denmark is sponsoring the brown bears at the Copenhagen Zoo. The bears have a total of four sponsors.

Every second mobile phone made by Ericsson

very second mobile tel

phone sold in Denmark dur-denmark ing the first quarter of 1997 was made by Ericsson. The company's market share in 1996 was 25 percent. Few observers believe Ericsson will be able to maintain its extremely strong market share during the first quarter. Market shares fluctuate a great deal, depending on various sales campaigns for certain telephones during different months of the year. For the full year 1997, however, Ericsson expects to increase its share of the Danish

e of the Danish

Ericsson power module sets world standards

Attention was focused on a special product when journalists from European, **American and Canadian** electronics publications gathered at a press conference in Kista on May 5. Of 18 invited journalists, 16 were present, an indication of the interest in a good product - Ericsson's DC/DC voltage converter power module.

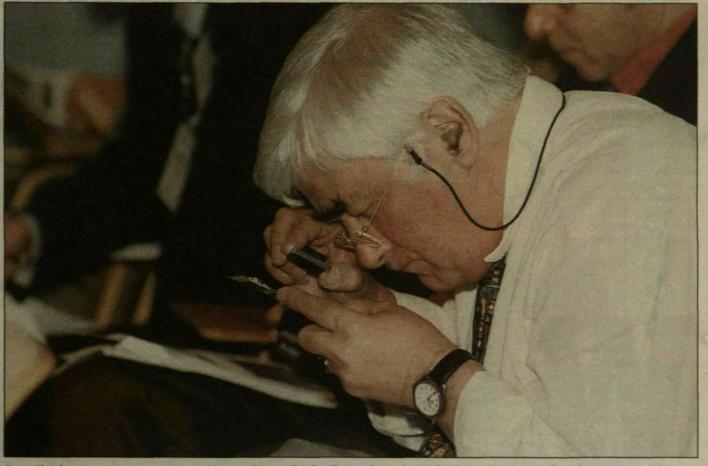
They came for more information about products and investments that have led to Ericsson's new power module, the most successful of its kind in terms of international sales volumes. The corps of journalists included many names that also rank as heavyweights among today's power supply experts. Lucent Technologies

Vicor are the world's two largest competitors in the power modmarket. Power Modules, a ule product unit of Ericsson Components included in the Energy Systems Division, has achieved such a degree of expansion that its modules are now manufactured in larger volumes than any corresponding product on the market.

Two and a half million converters were produced in 1996, compared with two million by Lucent

Large volumes

Ericsson's power supply pro-ducts are included among the leaders in their field today. The modules provide direct power supplies for the electronics in circuit boards used in bases stations and various other industrial applications. To defend its position in today's highly competitive market, Ericsson needs products with long economic life spans, low construction heights and, not least of all, low



Peter Fletcher, an expert on power products and journalist for Electronic Design and Industry Week, examines the power module un-der a magnifying glass. Mr. Fletcher and 15 other journalists representing international electronic publications attended a press con-ference in Kista on May 5.

"We strive for product sales that are evenly distributed between Ericsson and open mar-kets. The power modules are included in many large-volume Ericsson products, which con-tributes to favorable cost rationalization effects. The fact we also supply the open market exposes our operations to more competition, which provides a useful marketing edge and a broader customer base. It's a form of guarantee that we deve-lop the best products we possibly can for Ericsson," explains Bo Andersson, Manager of the Power Modules product unit of Energy Systems.

"The secret behind the inter-

One of Ericsson's newest power modules, the PKG model, gener-ates 60W of power for 24V systems. The current is used for base stations in cellular radio networks and industrial applications. The product is based on thick film and semiconductor technolo-Photo: ANDERS ANIOU

national success of our power modules is smart design and cutting edge technologies, ex-tremely efficient high-volume production and very high relia-bility. Our cost efficiency is reflected in statistics that prove we are the world's best in our field. We have the highest sales both in terms of employees and per production unit.

Production in Shanghai

Power modules are produced today in Kalmar, Kista and, starting in August 1997, at a new production plant in Shanghai. The new plant in China is part of a joint venture company established by Ericsson and Simtek, in which ownership is divided as 51 and 49 percent, respectively.

Ericsson's recent investments were shown at the press conference, including a new automated production line at the Kista plant, which is ready to meet the next phase of market growth.

"The total investment was about SEK 40 million. It has expanded our capacity in Kista to three million modules per year and increased our production efficiency. In some phases of production, one employee now does the work that formerly required four employees," says Bengt Andersson, Production Manager at the plant. "We are now prepared to meet market growth of 50-60 percent with-out any further substantial investments.

The business strategy for Power Modules since its first step into the world market in 1983 has been to achieve growth in the overall market, instead of capturing market shares from other suppliers.

Breadth and innovation

The widespread popularity of the power module is not restricted to its applications in telecommunications; it also has a broad range of application areas in computer, processing, aviation and the industrial robot industries as well as the military defense sector.

The power modules are used in products ranging from landbased equipment to submarines and other highly demanding applications such as aerospace and missiles.

It's high reliability has enabled the product to distinguish itself from the competition by providing five-year guarantees, com-pared with other products that normally are guaranteed for two years.

"Customers are found mainly in Sweden, the U.S., Italy, England and Japan. Favorable growth has also been noted recently in Germany. We're particularly proud of our large delivery volumes to Japanese customers, a tribute to the product since it's unusual for Japanese companies to rely on non-Japanese suppliers," concludes Bengt Andersson.

INGER BJÖRKLIND BENGTSSON

Quality and reliability

MacroDen's module is built

MacroDen's module is built with only a few components to facilitate inexpensive pro-duction and high reliability. With its objective to achieve high volumes, the operations have always been focused on comprehensive automation. A design was needed from the start that would be conducive start that would be conducive to automated production.

The resistors are soldered onto a thick film substrate, and the components are sur-face-mounted. The long life of Ericsson's power modules is based on the excellent heat conduction properties of the substrate and the mounting in the capsule, which forms a cooling flange against sur-rounding air. The product pro-vides full power at ambient temperatures up to 85°C

The drivers are produced at the semiconductor plant of

the semiconductor plant of Ericsson Components in Kista. Product quality is built in from the start, not tested during progress. The power modules have established de facto stan-dards for DC/DC modules and

dards for DCDC modules and have become extremely popular for distributed power solutions in the range of 15–40W. Reliability is remarkably high. The average time inter-val between faults (MT8F), as shown by the so-called blue module, reflects a life span up to 550 years to 560 years.

CONTACT No. 8 1997

Procter&Gamble

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VOLVO

CONTACT No. 8 1997

"To me, all customers are key customers, regardless of size," says Bo Emanuelsson at the Infocom Systems business area's Corporate Networks business unit in Nacka Strand, Sweden. That's why it was only natural for Bo to create a new term when he became head of what was previously called International Key Accounts at the end of last year. "Global Customer Operations" is the new name referring to the sales channel in which Ericsson directly takes care of large corporate accounts with multinational operations.

Customers with a global base

e don't do spot business with these we build and relanurture tionships, Shell, Procter & Gam-

ble, Braun & Gillette, Volvo, Electrolux, the United Nations and ABB are, apart from Ericsson itself, Ericsson's seven largest customers in the area of business commu ications. These companies constitute 20 percent of the largest customers, but represent 80 percent of sales

The task now at hand is to develop these enormous customers, while also focusing efforts on the other ten or so somewhat smaller customers. This year, Global Customer Operations' goal is to increase the order value by 20 percent.

A shrinking world

Changing the name of the operations was an important symbolic act. The world is changing shrinking, according to Bo Emanuelsson. What was international yesterday is global today. The customers' expectations and the demands they place on suppliers are also changing. They want Ericsson to be omnipresent and act in a uniform manner. The same customer wants to meet the same Ericsson in all arenas worldwide.

Some breaks with tradition are also becoming highly apparent among these customers. Tele-com and IT are definitely more of a strategic issue than a technical one. The customers are using technology to change their operations and organizations. One of the ways to do this is to adardize in order to work more efficiently. The supplier must, in turn, understand and be able to participate in this objective, which requires proximity and sensitivity to the customer's needs

Positive for Ericsson

"This is a positive development for Ericsson," says Bo. "It gives us an opportunity to meet the customers in a new, more complete way.

However, the competition is also stiffening. Aside from the "traditional" competitors, that is, other telecom companies, there is the entire IT sector, which has had the past 20 years to learn how to care for customers based on their business needs, rather than their technical needs. This is due to the fact that data communications were regarded in an early stage as a tool for operational change.

Fun and challenging

"I have witnessed this at close range, since I have worked with large customers over long periods of time and in several dimensions. That's why it's extra fun and challenging to develop new ways of

appraoching customers," says Bo, who began his career at Ericsson in the early 1980s, when the company attempted to break into the IT market. From Ericsson he moved on to key account

management at Digital and then IBS until November last year, when the circle was completed and he returned to Ericsson.

"It's typical for large customers to put their eggs in several baskets," Bo continues.

He would like to see those who are working with global accounts working as representatives for all of Ericsson, not just for Business Commu-

Good opportunities

Having access to Ericsson's full product range creates excellent opportunities to offer cus-tomers genuine value when they choose Ericsson. The case of cellular phones is an excellent example. A global giant needs, of course, many cellular phones. Normally, Ericsson sells them through indirect channels, but for large corporate customers, Global Customer Operations is a sales channel that is equally as interesting. He concludes, "I would like to develop our

role so that we can optimally coordinate all of Ericsson's resources according to the customers' new range of demands. If we are successful, then this is the type offer that will distinguish us from our competitors.

KARI MALMSTRÖM

nical and business development, or by, for instance, providing an experienced project manager at the customers dispos-al. Furthermore, we must invest in skills

"Extranet" on the way

development."

Bo continues, "We have chosen to build up our network around Internet/intranet and there is an important reason for doing so. It already connects those of us in Ericsson who are working with these customers, but in the long run, we will need to expand this to an "extranet," where the customers themselves can participate in the portion of the network that pertains

Driven by customer responibility

Global Customer Operations work according to three main principles: customer proximity, coordination and efficiency. Bo Emanuelsson describes the situation as a complete turnaround of the traditional organization. Line functions become subordinate to networks that take over and administer skills.

"My role is to coordinate existing resources at local companies around the world for the benefit of the customer," he

The local company in the country where the customer's head office is located has the most direct customer responsi-

bility. As soon as the customer buys nething, the company will earn money. If Ericsson and the customer do business in another country, the company originally responsible for the customer will receive payment according to a com-pensation model. However, coordination s vital if everything is to work properly. For example, Ericsson has relationships with Procter & Gamble in 72 countries and Shell is represented in 187!

"My underlying principle is that we here in Nacka should be few in number and as effective as possible," says Bo. "Our costs are carried by the total profits in these operations. We shouldn't have our own sales resources; they should be

available where the customer is located." He emphasizes, however, that the sixmember group at Nacka Strand is a part of the operative function, definitely not corporate staff. The management of global customers is a sales channel with its own budget and its own profitability requirements

Caring for the customer

"I want us to be driven by the customer's needs, which means simplifying that which should be simple. For example, we now have a uniform, customer-oriented discount system, which is the same everywhere.

At the same time, Ericsson should have

the resources to handle more complex needs. For the seven largest custom customer teams have been formed that are able to take a comprehensive approach. The team leader is a designated Global Customer Manager, who is found at the local company responsible for the customer. The actual team is formed dynamically based on the network model The competence which the customer demands from Ericsson is located and made a part of the team when necessary.

"We should be able to offer continuous service, such as 24-hour support and au-tomatic upgrades. We should also be able to offer consulting services," says Bo. "This could be in the form of both tech-



He gives Contact's reporter a brief introduction to the web pages, which are welldesigned, pleasing to the eye and packed with useful information. For instance, one can quickly find out exactly who the local contact person is for a specific customer in

every country where Ericsson does business with this customer. Everyone who in any way works with these customers can obtain information on the customer plans and tong-term goals for Ericsson's relationship with them.

Bo reverts several times to the fact that a Global Customer Manager is an enormously important key person, as coordinator and main representative for Ericsson in relationships with the customer.

Why then, are there only seven? It is partly a resource issue, and partly directed by customer needs, he explains. The slightly smaller customers are taken care of according to similar principles. However, the contact function is more rational in that one Ericsson employee is the main contact person for more than one

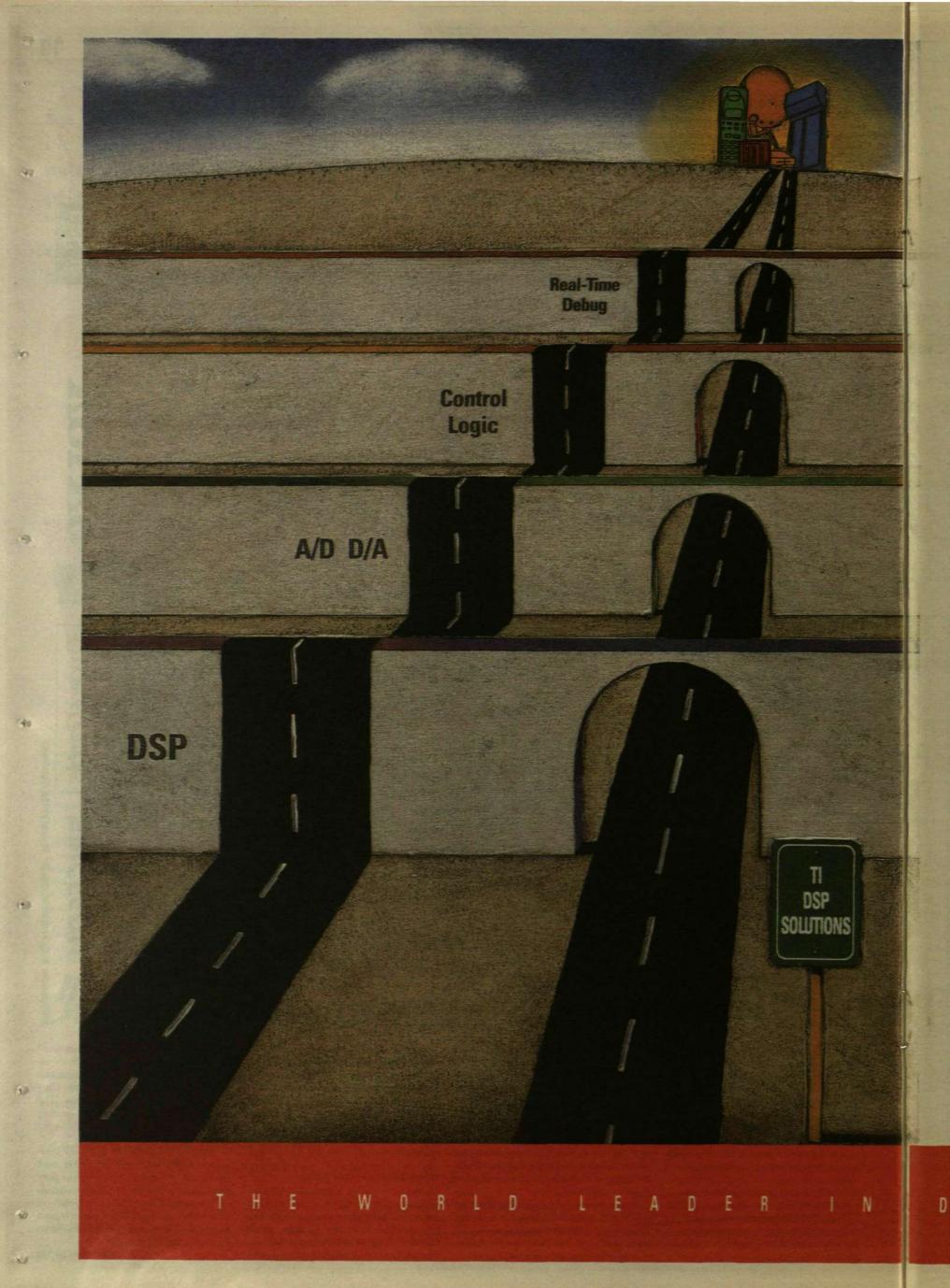
Helps the customer arow

"In order to define boundaries, we normally say that customers spread out over more than two continents and more than ten countries have such complex needs that they must be handled as global customers. Other customers are, for simplic

ity's sake, referred to as International tomers," says Bo.

But for many of these companies, the step to "Global" isn't a large one. Cusmer development is in progress. The Nacka Strand operations play another key role in the creation of new customer

"The local companies often do business at home with customers that have operations in other countries, but they don't always have the resources to develop a customer from local to global on their own," says Bo. "That's where we can be of help, along with handling inquiries from potential customers.

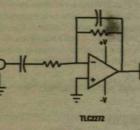


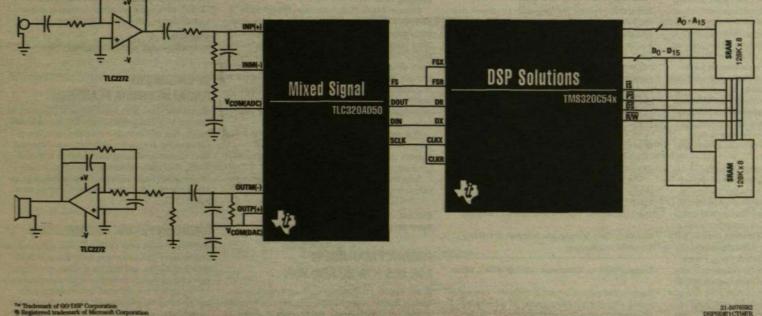
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When taking on your next communications design challenge, make it easier with DSP Solutions from Texas Instruments. Easier because TI's industry-standard DSP architecture seamlessly integrates with the widest range of mixed-signal and analog products. For example, the TMS320C54x DSP, with up to 100-MIPS performance, a highly efficient C compiler and large RAM, interfaces seamlessly with the TLC320AD50, a versatile 16-bit analog interface circuit. Together they provide an ideal

solution for complex communications applications.

To provide a low-risk, low-cost entry to DSP design, a 'C54x DSKplus starter kit is available. The DSKplus also includes 'C54x Code Explorer" from GO DSP with a Windows®-based interface for debugging code.





And to make things even easier, TI offers unmatched software and hardware development tools:

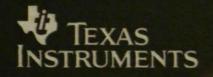
- CD-ROM training
- · Web site with free software and on-line documentation
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- Free on-line lab
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Recent developments include DSP/BIOS, a solution that simplifies programming, monitoring and real-time debugging TMS320-based products.

So join more than 20,000 TI customers and take the easy route to a winning communications design - DSP Solutions from TI.

For more information on TI DSP Solutions, the 'C54x DSP and the 'AD50 AIC, call 44-(0) 1604-66 3399 or contact us at http://www.ti.com/sc/4069 on the Internet.





VACANCIES

EDB/ROM - CUSTOMER SUPPORT

SYSTEM SUPPORT ENGINEER

As a system support engineer you will provide emergency support (on call), operational sup-port, trouble shooting and software implementa

You should be Electrical or Telecommunication engineer with 5 years experience in AXE. Strong knowledge in CMS88, PLEX, ASA, R8S, IOG11. You should be able to transfer knowledge to local or-ganization (FSC), deal with customers, work and solve complex software to be able to the software of the soft solve complex software problems. It's important that you are proactive and take initiative without

SYSTEM ENGINEER (MSC) FOR **NETWORK OPERATION & MAINTENANCE**

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

SYSTEM ENGINEER (RBS) FOR **NETWORK OPERATION & MAINTENANCE**

You will work with Operation and

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

SYSTEM SUPPORT

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

• As a system support engineer you will develop procedures in field support, investigate and solve complex problems both hardware and software. Provide expert technical support to Ericsson's cus-tomers and transfer knowledge within the OSS

tomers and transfer knowledge within the OSS Field Support Center. You should have a degree in Electrical Engineering/ Telecommunication or equivalent. A minimum of 5 years working in telecommunica-tions/computer industry. Minimum 3 years experi-ence working with Ericsson. Customer Support for CMOS/TMOS/SMAS. Good knowledge of CMS88, data communication protocols and some knowledge in cell planning statistics.

EDB/ROP -RF ENGINEERING & RF OPTIMIZING

RF ENGINEERS RADIO NETWORK PLANNING

 You will work with radio network planning of Ericsson's CM588 system, both 800 and 1900 MHz bands. This will include traffic and coverage dimensioning, frequency planning, coverage and interference predicting with Ericsson Engineerin Tools. The radio network planning will be ad-dressing both new systems and expansions in ex-isting systems, as well as digital migration planeering

RADIO NETWORK OPTIMIZATION

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

implementation. We see the unit as a whole and expect to work as a team of dedicated but flexible resources, that will enhance and promote communication and exchanges between the groups. You are therefore specialized in one of the fields men-tioned, but see the opportunity to broaden your knowledge and experience. For both of the positions mentioned above we require at least 3 years experience, in either Cellplanning or Tuning/Optimizing of Cellular sys-tems (preferably D-AMPS/AMPS). You have a B.Sc.

vacancies AT ERICSSON

Contact no. 8 1997

22

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international

Ericsson Telecomunicazioni - Roma - Italy

PRODUCT SYSTEM ENGINEER

• Activity: Product responsibility to manage products throughout product life cycles; product follow-up and modification management; intro-duction of new systems, products and services on the market; support business activities in line with the strategies and objectives of the business plan; transfer to the corporate market require-ments for future products; define technical re-quirements for improvement in cooperation with the customer

The activities listed above are driven toward the management of the tematics related to the new operators for fixed network and the net-work architectures management, from switching elements to data network connection with higher level systems.

Skills: Electronic Engineering or Computer Science degree. fluent written and spoken english. four to six years of working experience in telecommunications. basic knowledge of comput-er science related topics databases, operating sys-tems, software development process, etc.). knowledge of Microsoft Office Suite (WinWord, Excel, Power Point) and Internet connectivity tematics; Frame Maker knowledge would be tematics; Frame Maker knowledge would be ap-preciated. knowledge of UNIX systems (HW/SW, especially Sun and HP) and Windows NT. net-working knowledge (LAN, WAN and related tem-atics)including OSI stack, TCP/IP,FTAM, CMISE, X25. knowledge of support systems management tematics (network management, service provi-sioning, billing mediation, etc.) knowledge of TMN (Telecommunications Management Network) model. knowledge of switching ele-ments, access and transmission tematics. good customer interaction and mediation capability. Location: TEI Rome, Italy

PRODUCT ENGINEER

 Activity: Product responsibility to manage products throughout product life cycles; product follow-up and modification management; intro-duction of new systems, products and services on the market; support business activities in line with the strategies and objectives of the busin

plan; transfer to the corporate market for future products; define technical requirements for im-provement in cooperation with the customer. The activities listed above are driven toward the man-agement of the tematics related to performance TE management in a telecommunications network support system for one figure, and toward the management of the tematics related to fault management in a teleco system for the other.

Common Skills: high school diploma in

Telecommunications or in Computer Science or Telecommunications or in Computer Science or Electronic Engineering or Computer Science de-gree. fluent written and spoken english. two to four years of working experience in telecommu-nications. basic knowledge of computer science related topics (databases, operating systems, soft-ware development process, etc.) knowledge of Microsoft Office Suite (WinWord, Excel, Power Point) and Internet connectivity transfers. Examp

Point) and Internet connectivity tematics; Frame Maker knowledge would be appreciated. know 50 edge of UNIX systems (HW/SW, especially Sun and HP). networking knowledge (LAN, WAN and re-lated tematics) including OSI stack, TCP/IP, FTAM, CMISE, X25. basic knowledge of TMN (Telecommunications Management Network)

Specialized Skills: knowledge of performa management and evaluation on networked sys tems (traffic measurement and supervision) for one figure. knowledge of fault management tematics on telecommunications network (alarn handling, trouble ticketing management, etc.) for the other. Location: TEI Rome, Italy

Contact: Human Reson Memoid: EITA.TEIDONI sources and Organization

Ericsson Eurolab Deutschland GmbH, Research & Development Centre Herzogenrath, near Aachen

PROJECT MANAGER

for the new feasibility study and execution pro-ject CME20 MSC 8.0 within Product Area vitching (PAX).

 Switching (PAX).
 The main tasks are: Run the Feasibility Study project from TG1. Establish the execution project prior to TG2. Control MSC/VLR-Design and FT dur-ing the execution phase. Initiate and chair monthly project meetings, being held alternately in the different Local Design Centres. Closely co-operate with the related AXE mobile core project Establish and control a design follow up project during the INDUS phase. Cooperate with product management and system management. Follow up and control progress, costs and quality for all activities. Report in monthly steering group eetings

meetings. The position reports directly to Axel Jeske, Group Manager for the PAX Project Office. As a suitable candidate, you are a local em-ployee and have a good design and/or testing competence. Furthermore you should have previ-ous experience in line or project management. As socialcompetence you should bring in a lot of ini-tiative, good communication and cooperation skills, good judgement and decision making com-petence as well as the ability to stand pressure. We require mobility since you will have to trav-el to the involved local subsidiaries. If you have questions and are interested, please refer to your colleagues until 30.05.1996

colleagues until 30.05.1996

Contact: Johnny Aroe, EED/X/TMC,memo:EED.EEDJOAR, tel:+4 90 2407 575 481, Axel Jeske, EED/X/TPC,memo:EED.EEDAXJ, tel:+49 0 2407 575 284 or Doerte Kaulard, EED/H/R,memo:EED.EEDD-

KA, tel.+49 02407 575 163

Ericsson communications Inc. Canada

SECTION MANAGER, CMS8800 SYSTEM PERFORMANCE AND CHARACTERISTICS

PERFORMANCE AND CHARACLERISTICS The section defines the long term strategies and requirements on CCMS8800 system performance and characteristics for both traditional and new platforms. System characteristic studies, simula-tions, and prototyping results are used to drive requirements in the areas of in service perfor-mance, capacity, air interface, signalling inter-faces, self-configuration, load regulation, system dimensioning, system robustness, etc., from a network perspective as well as a tools perspecnetwork perspective as well as a tools perspec-

In addition to leading the RMOA
 Characteristics Network, contacts with the core units, other BU's and customers is required.
 The successfull candidate will have 6-8 years of relevant experience, good leadership skills, ability to easily build relationships and networks, as will as be organized, flexible and fluent in English.

Contact: Glen Schmid, Imc.Imcglen or Helene Schwelb, Imc.Imchesc

Ericsson Nippon, Kanazawa regional office, Japan

Japan is the second largest cellular market in the world after the US. The number of subscribers doubled between March 1996 and March 1997. The total number of mobile subscribers is today around 27 million which corresponds to a penetration rate of just above 20 %. The monthly growth rate i around one million new subscrib per month. The strongest growth is for systems within the PDC standard of which Ericsson is a

major systems supplier. Kanazawa is located on the Japan sea coast of Honshu (about 200 km north of Nagoya). It is a city with a rich cultural heritage and its compara-tive smallness makes access to surrounding mountains, ski resorts and beaches easy.

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

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

Updated May 20

MARKETING MANAGER

• An experienced Marketing Manager is needed for our office in Kanazawa. Job responsibilities will include preparing tenders/offers, negotia-tions and the administration required to handle customer accounts.

The ideal candidate should be able to create and maintain close, informal customer relation-

ships. As there is a strong emphasis on localising

• Our regional office in Kanazawa is now look-ing for a Product Manager for PDC technology. The work involves technical sales support for new and existing PDC and AXE products towards our local customer. Cordination with product management at ERA head office, with our head offices in Japan and with Product Management in other regional offices is also part of the responsi-bilities. Another important task is to supervise and train our newly employed local staff mem-bers.

and train our newly employed local start mem-bers. We are looking for a person with experience from AXE technology in radio applications, who can work well in a team and who is a good pre-senter and negotiator. Knowledge in other areas such as IN, network planning etc. are beneficial. The contract period will be 12 months with a possibility of extensions. If you are interested in this challenging work, directly in the customer interface working with some of Ericsson's latest mobile products please send a

send a

Memo: Per Cedhagen General Manager, Kanazawa Regional office, phone +81 762 637774, NRJ.ERJPCED or Nils Enstam, phone +81 3 3221 8205, NRJ.NRJNREM. Application: Per Cedhagen, NRJ.ERJPCED

Brazil - Exciting new opportunities in the fastest growing Latin American market.

growing Latin American market. Ericsson Brazil, EDB, is rapidly expanding its Cellular operations as a result of its leading posi-tion in the explosive Brazilian telecommunica-tions market. With more than 22 customers in the D-AMPS/AMPS A-band alone, and new opportu-nities evolving from the upcoming B-band license process, EDB requires the support of motivated telecommunications professionals. EDB's head-quarters is based in Sao Paulo and there are re-gional sales and support offices across the coun-try.

try. The general requirement for all positions is flu-ency in English. Fluency in portuguese and Spanish is preferred. Both short- and long term

contracts will be offered. Take the opportunity to apply for the open po-sitions in the following areas:

EDB/RM – TECHNICAL SALES SUPPORT & PRODUCT MANAGEMENT

PRODUCT MANAGERS FOR OSS (CMOS) AND WIN

• As Product Manager you are expected to per-form activities related to the products i.e, execute actions required to make the product available to the rest of the organization, prepare product market plans, hold presentations both internally and for customers, handle market requirements, answer SOCs and develop strategic partnership with our customers. You should have a B.Sc. or M.Sc. in Electrical

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

Ericsson's business in Japan, the marketing Manager will also be required to train and devel-op staff members for future responsibilities.

PRODUCT MANAGER

n Telecommunicacoes S.A. Brazil - EDB

or M.Sc. in Electrical Engineering, Tele-communications or equivalent. A broad interna-tional experience is an asset.

EDB/RI - IMPLEMENTATION SYSTEM

SWITCH TEST ENGINEERS

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

SWITCH/RBS

INSTALLATION ENGINEER

As a switch/RBS installation engineer you make plans, implement and supervise the installation of the switch (AXE) and RBS equipment in cus-tomer facilities. You must be able to work with quality standards and provide quality control check and progress reports. You must be able to read and understand Ericsson AXE documenta-tion

You should have two years of experience in telecommunication and installation of the AXE and have the ability to travel extensively. A valid and have the ability to tr Driver's license required.

RBS TEST ENGINEER

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

Technology

TRANSMISSION ENGINEER

As a transmission engineer you plan, implement and supervise the installation and test of all

types of transmission equipment, e.g. Mini-link, HDSL, cross-connection SDH and etc. You shall al-so be able to test the Access Network. You should have 3 years experience in trans-mission equipment and an ability to travel.

DT ENGINEER

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

RBS SITE ENGINEER

As RBS site engineer you shall be able to per-form site investigation, quantify and allocate the indoor and outdoor equipment, interconnection and produce RBS installation manual (C-Module).

You should have 3 years experience in D-AMPS/AMPS RBS and/or transmission equipment such as SDH, HDSL, DXC, Mini-Link, etc. Knowledge of Word, Excel and ability to travel. Drivers license mandatory.

SWITCH ENGINEERS (MSC)

• As a switch engineer you do the planning and implementation of switch installation projects, mechanical installation of switching, transmis-sion, power, necessary cable ways, cable manufac-turing and produce MSC installation manual (C-Module).

You should have 3 years experience in MSC site engineering concerning D-AMPS/AMPS systems. Knowledge of Word, Excel and Please. Driver's li-cense required.

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

80 STOCKHOLM, mailbox at EDB, Brazil: BRA.ED-BEXPA

Ericsson Telecommunicacoes S.A., Brazil - EDB-RA **RADIO NETWORK**

PLANNING MANAGER

VACANCIES

The Regional Network Planning Centre for Latin-America, based at EDB in Sao Paulo, supports all Radio Network Planning activities in Latin-America. The region is one of the world's fastest growing markets. We are strongly increasing our activities, and are therefore recruiting a Radio Network Planning Manager.

• You will be in charge of recruiting, training and managing a group of RF engineers. Your am-bition shall be to develop the team from start, and to communicate and spread your enthousim and motivation. We are looking for you that: hold a B.Sc. or

We are looking for you that: hold a B.Sc. or M.Sc. in electrical engineering, telecommunica-tions or equivalent experience, have a broad in-ternational experience, have a few years experi-ence of cell planning or cellular operations, preferably on D-AMPS/AMPS markets, have at least a few years experience management in the cellular world, know that you are the one that will make it integration

will make it interesting. English fluency is required, Portuguese and/or Spanish are a strong advantage. The assignment will be of one year minimum.

Contact: EDB/RAC Frédéric Aron, phone +55 11 681 02 98, Memoid ERA.ERAFAR, fax +55 11 681 20 70.

Cia Ericsson de Chile S.A - CEC and Ericsson Taiwan Ltd - ERT

LOCAL PRODUCT

MANAGER TO CHILE AND TAIWAN Cellular Systems - American Standards is one of the fastest growing business units within Ericsson Radio Systems. We are expanding rapidly in the world over, and many challenges and opportunities are awaiting for us.

one in Taiwan. (and new requirements will come

In the Local Company (LC), the main position responsibility is to provide customers with opti-mal technical support for our CMS 8800 Cellular products, during Sales to Order Process. Network design and Third Party Products are under the 1984 mercelibility are under

design and third rary products are brider the LPM responsibility as well. He/She will be in close relation with customers, acting in a co-ordinated way with Marketing and Sales people as well as with others LC groups. The LPM will be appointed to perform tasks

like to promote CMS 8800 products by presenting the clients their characteristics, and the advantages they provide.

- to elaborate customised selling proposals
- to elaborate customed seming property
 based on the Ericsson products.
 to answer technical Statement of Compliance.
 to make Product Planning, in close relation e customers.

to keep the LC staff technically updated.
 The ideal candidate has an Engineering degree and two or more years experience in technical support in the cellular industry, the better if with AMPS-DAMPS standards. AXE experience is a

AMPS-DAMPS standards. AXE experience is a must, as well as English fluency. Spanish is re-quired for the position in Chile. The persons we are looking for are self-moti-vated, ambitious, outgoing and interested in tak-ing the challenge of being a key person in the LC and a valuable adviser for the customers. Hard working is a normal attitude for these persons. As on developing their taks the LPM's will be

As on developing their tasks the LPM's will be daily using both technical knowledge and human skills, their professional and personal competence will be exceptionally developed.

Contact: Oscar Casetta, phone +46 8 757 5719, memoid ERA.ERAOCAS. Application: Ericsson Radio Systems AB AH Göte Hedblom, 164 80 STOCKHOLM

Datacom Network & IP Services in search of Web-heads

Ericsson Datacom & IP Services is a business unit within Ericsson Infocom, which target solutions for the IP infrastructure as well as IP services. The current Internet activities are in: IP services - Public Intranet, IP on ATM - Label Switch Router, Remote Networking area - Access Router, Back bone router -Router Switch. The working procedure within Datacom is to follow the "small company approach", with small teams and product release times to market.

People talk about tomorrow's Internet business, we create it!

IP Services

- Public Intranet Program

The core of the program is the development of a service network for IP-based services. This includes a service platform and applications such as Multimedia Telephony Systems.

We have a very ambitious plan to launch products on the market fast and therefore we need to expand our team.

Business Managers. In this new exciting area, we are looking for Business Managers. The Primary task is field work with customers and (M)LC's developing business opportunities. The position will also include related activities in Marketing and Business Development. Experience from an (M)LC, marketing and/or sales is desired.

Product Managers. The area is very dynamic and requirements are changing constantly. You will work closely with our marketing and provisioning people and have responsibility for products within our program.

We are a small team of highly motivated and self-going individuals in search for an additional

team-members Broad Internet/data-/telecom knowledge is a plus, but most important is attitude and a "doer" personality.

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Human Resources Annette Averstad, +46 8 7198332 memo: ETX.ETXAVA

Label Switch program

We are a team with the ambition to surprise the IP world. The product will give ATM backbones an opportunity to use IP and Internet. We are currently looking for competence within IP on ATM, IP routing and edge devices. To strengthen our small company approach you will be working with everything from system design and development to testing and productification.

You! The person that makes things happen and are ready to work with and create state of the art Internet technologies and standads. You have one of the profiles described below but are not hesitating to work with other parts when needed.

Business and Market. The primary task is to work with customers and (M)LC's developing business opportunities. Experience from an (M)LC, marketing and/or sales is desired. Software design and development. The primary task is to do design (UNIX, C, C++) and integration. Knowledge in IP routing software is also desirable.

Router Lab and IP networking. The primary task is to build and manage our lab. Here you will test our latest design and network concepts. You will have large space for own ideas.

ERICSSON

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With a special liking for Swedish culture

Lat is the name of a Malaysian cartoonist who drew a picture of a man who bought a dummy portable telephone and then walked the street making believe he was talking to somebody - just to "look cool!" "Mobile telephones are the

rage in Malaysia, but subscriber density is only five percent. I believe, therefore, the country offers tremendous potential." So says Eric Cheng, 40, soon to become Finance Manager/Controller of **Ericsson Telecom**munications

PSS.

Sdn Bhd in Malaysia.

ric Cheng was born in Melaka, a city rich in history on Malaysia's west coast. paternal His

grandparents immi-grated from China in the beginning of this century. His brother was a chartered accountant. Young Eric saw it was a difficult but highly respected profession and decided to follow in his brother's footsteps. He studied at The Institute of Chartered Accountants of Eng-

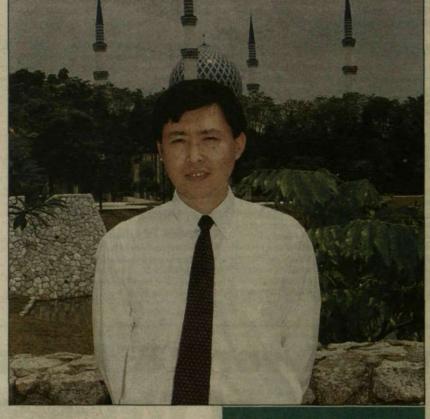
land and Wales from 1978 to 1983. "My college days were tough. The students used to joke among themselves that we would either become a chartered accountant or a shattered accountant, the difference between success and failure," Eric says.

Eric was a success, however, and has worked in international environments since he graduated, accepting assign-ments in the U.K., Singapore, Taiwan and Malaysia. He worked for 10 years as head of economy, finance and adminis-tration for NCR, the American computer company, before he was recruited by Ericsson last October.

Chosen from 70 candidates

The person who recruited Eric Cheng was Claes Magnus Åkesson, who is now acting as Eric's mentor before being replaced by his new recruit.

'Eric was chosen from 70 candidates, and we are certainly not disappointed with our choice," says Claes Magnus Åkesson. "He offers a combination of expertise and the type of personality that blends well with Ericsson's corpo-



rate culture and the special demands of our complex operations in Malaysia."

Ericsson sells mobile telephone terminals in Malaysia, as well as complete radio systems for mobile telephony based on AXE exchanges. Several systems are now being expanded in Malaysia's deregulated telecom market. Customers are found among the country's seven private mobile operators. Mobile telephones are the latest status symbols in the growing middle and upper classes of Malaysia's very rapidly expansive economy.

"Ericsson was very tempting. It's a large company characterized by rapid growth in a highly expansive industry,' says Eric Cheng. Eric Cheng and his family live in Dan-

dar Utama, a suburb of Kuala Lumpur, in a two-story house with a nice yard. He and his wife have two children, a fiveyear old daughter and an eight-month old son. His wife also has a background in accounting, but has her hands full to-

day in her role as a housewife. "The job is extremely demanding, but also very rewarding," Eric continues. As financial manager/controller, I am involved in all aspects of the company's operations."

Eric Cheng works long days at the of-fice, from 8:30 in the morning to 7:00 at night. Naturally, whenever he has any time off, Eric tries to spend it with his family. On weekends, he often goes swimming with the children, plays squash and jogs to stay in shape. The family also takes shopping trips to Kuala Lumpur, where the stores have so much more to offer.

"People in Malaysia like to shop," he savs.

Eric Cheng, who will soon take over as Financial Manager/Controller of Ericsson Telecommunications Sdn Bhd in Malaysia, is seen here at a mosque in Shali Alam outside Kuala Lumpur.

Whenever he has vacation, Eric Cheng likes to travel as much as possible.

"I enjoy visiting different parts of the world, and I've been fortunate to travel as part of my various jobs," he continues.

When he finally settled in at Ericsson, Eric Cheng found himself surrounded by "Swedishness." He attended a onemonth introductory course in the Swedish language, is constantly reminded of Swedish culture at the office and his company car is a Volvo.

"Also, I live near an Ikea outlet store," he says with a laugh.

Corporate culture

What he likes most about Ericsson, Eric Cheng says, is its corporate culture and decentralized decision-making procedures

"The culture encourages creativity and makes people more involved in operations, providing them with a sense of con-trol over their own destinies," he says. "Naturally, there is a company policy, but it fits into one folder instead of three, which is the case in many American com-panies that are controlled from the top."

"And people in Ericsson are really easy to work with," continues Eric Cheng. "We work as a team, and there aren't as many conflicts as you find in other companies. I could be wrong, of course, but I think it may have something to do with Swedish culture.

OLA WESTBERG

end line Not just

ach morning at 8:45 we sit down at work with a cup of coffee to review what has been written in the press about Ericsson, discuss which press releases we will issue during the day and talk about important visits, trips, etc. These daily meetings, which last about 15 minutes, are invalu-able for people who work with informa-tion, since both colleagues and outsiders always expect us to be informed about what is happening in the company.

Swedish

tion, since both colleagues and outsiders always expect us to be informed about what is happening in the company. Up until a couple of weeks ago, these meetings also provided an opportunity to practice our English. The arrival of our Australian colleague Steve Banners at the morning meeting demanded a change of language. A person could be in the mid-dle of a sentence when someone saw Steve coming and suggested a switch to English. Being bilingual became second-nature during the two years that we were contrast to have Steve with us. Now Steve has moved on to an excit-ing new job in engineering, so we once again speak. Swedish at our morning meetings. This is an unfortunate change in my view, because it is easy to forget how international a company Ericsson is. I hope we will soon have another Eng-jish-speaking colleague in our group so that we will be reminded daily of the in-ternational perspective.

ternational perspective.

For those of us who work with Con-

are nearly equal. We make every effort to provide as international a perspective as possible in the magazines but feel that much is still lacking in this regard. The discussion about the location of Ericsson's head office is interesting in this context. Relocation of Ericsson cor-porate headquarters outside Sweden is now being considered, and regardless of the result of these deliberations, the question is very timely. In our depart-ment, which would be at least partly af-fected by a move, a lively debate has been taking place over the past few days about the advantages for Ericsson of remaining in Sweden or relocating to another coun-try.

We will have to wait and see what we will nave to wait and see what comes of the moving plans. Right now, when the birds are beginning to sing and the birch trees are starting to bloom, it's hard to imagine more of a paradise on earth than Sweden. Soon summer will be here, and thereafter deer hunting season. The latter at

traction should also be one of the strongest motiv-es for manage-ment to remain in Sweden.



LARS-GÖRAN HEDIN

PLEASE NOTE! This is a reprinted version of the preceding 'In Depth' issue, which contained inaccuracies due to a misinterpretation of terminology. Please replace it with this one!

gliltali

Lufthans

THEME SUPPLEMENT TO CONTACT NO. 8 1997

SAMSUNG

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The art of brand brand enhancement

Theme: More impact for Ericsson

It's all in the mind of the customer

Certain words evoke very specific emotions. Coca-Cola, Levi's and Kodak...They are unique and timeless.

They are brands that give us an array of associations and expectations. However, strong brand names don't simply appear out of nowhere; they must be built up and drilled into consumers' consciousness year after year.

The foundation is a strong product combined with very consistent communication to the outside world.

Increasing competition and an ever decreasing life cycle for Ericsson's products increase the importance of our name and our brand. That's why corporate management has decided that the Ericsson brand should reach the same status as Coca-Cola and Levi's within our industry.

The purpose is to strengthen customer toyalty and reinforce our market position. It's a job that involves all of us. Some may think that this is the marketing manager's responsibility, but in order to build up a strong brand. effort of all employees is required.

Mobile phones are becoming a consumer product in an increasing number of markets, which is why the Mobile Phones and Terminals business area is first in line in the efforts to strengthen our brand. The business area has formed a brand platform, based on surveys of how customers and employees perceive Ericsson, combined with our vision of the direction of our development.

The business area has now reached phase two, in which all employees will learn about the brand and understand how they can all work towards a common goal. The training program consists of a correspondence course, a book and various seminars. Then the next step is to implement the various ideas and objectives.

Ericsson's other business areas are also well on their way. Their task is to charge the Ericsson brand with the values that are essential for building a strong relationship with their customers.

Together, we will build an Ericsson that has more impact in our different markets. It will take several years to become really strong, but by working consistently within not only product development, but also service and marketing. Ericsson can become a brand name which billions of people associate with quality and interpersonal communication.

> ANNELI KRANTZ THEME INSERT EDITOR



a newspaper for Ericsson employees

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"It's essential that everyone understand the main concepts of our trademark platform." says President and CED Lars Ramqvist.

"To CONTINUE DEVELOPING 'ERICSSON' from being just the name of a prominent telecommunications company to being a renowned consumer brand name will give us a series of valuable business opportunities."

This is President and CEO Lars Ramqvist's explanation why the company is currently placing such a great focus on the Ericsson brand, especially with the new brand platform implemented this past spring.

Lars Ramqvist continues, "We already possess the most important criteria for the new brandbuilding program. For over a hundred years, we have sold our products to a large number of countries worldwide. Through the years, we have become known as skillful marketers. We have also proven that we possess a high level of knowhow when it comes to both systems and terminals – a know-how we need to use as leverage to reach success.

"The underlying objective of our efforts to establish a strong brand is that we want to secure the company's good relationship with its customers. In our case, our goal is that Ericsson be associated with one of humanity's most basic needs – to communicate with one another. We want to be known as the company that helps people satisfy this need."

Internationally, Ericsson is mostly known in telecom and financial circles. Surveys show that Ericsson is largely unknown among the general public, other than in Sweden.

"Ericsson's common values – professionalism, respect and perseverance – form an excellent foundation for our brand management work. What we must do next is to fine-tune our way of presenting these values in different parts of the world. It's self-evident that when we sell millions of mobile telephones in a large consumer market, the message to consumers must be formulated and presented differently from our traditional systems markets," says Lars Ramqvist.

HE THINKS THAT THE BRAND PLATFORM WILL help us achieve this. Using this platform, Ericsson should develop and design products that correspond with the personal needs of people in different parts of the world. The objective is to get people everywhere to perceive Ericsson as a symbol for personal communication.

"In order to succeed, all employees must make

Brand names used since the 1500s

In its simplest form, a trademark is a name, a logotype or a symbol that identifies a company or a product and differentiates it from competitors.

This signaling function is a very old practice: some of the first trademarks originate from Scotland in the 1500s, where whisky manufacturers burned their own symbol on each barrel to distinguish it from the competition's. A few hundred years later, American ranchers branded the hides of their cattle with a hot iron. The word "brand" originates from the Old Norse word "brand," which means to burn or "burn in" an identity.

The modern trademark appeared in the mid-1800s, when the foodstuffs industry began packaging its products. The industry was simply forced to put a name on the boxes in order to differentiate them.

A brand is not merely a distinctive trademark. It is also the thoughts, feelings and cultural composition of the associations people attribute to the symbol. The English language distinguishes the symbol (trademark) from the abstract values and associations behind it (brand).

It's a proven fact that people are willing to pay more for products with a known brand name than for generic products, which indicates that brand association really exists to some extent in peoples' consciousness.

Business areas at different stages

Ericsson's efforts to strengthen its brand name have reached different stages in different parts of the company.

All of the business areas must establish the following:

 Product categories/markets in which the brand should be used.

• Business opportunities resulting from the brand name.

• The direction the brand name should take.

. The goals of the brand name.

 How the values the brand name stands for should be expressed. The values are divided into categories for instrumental, central and expressive values, depending on how the perception of the brand name should be.

"The values behind the brand need not be expressed in the same way on all markets," says Mats Rönne. Ericsson's manager of market communications.

He adds. "Our innovativeness doesn't mean the same thing to the consumer market as it does to our established business-to-business customers."

This means that brand management will differ quite a bit between the company's different business areas.

The Mobile Phones and Terminals business area has already completed the structure of its brand management program and is already in an operative phase, which can be evidenced in the recent launch campaign for GF 788.

Mobile Systems is completing various analyses and plans to present its brand management plan in May.

At Infocom Systems, the brand platform will influence the discussions for the re-launch of AXE, among other areas. Infocom also manages the systems brand name, Consono which will be packaged and sold differently. Today, Consono is sold as a combined service for personal mobility and a call center that handles incoming traffic.

Photo: VICTOR LENSON BROTT

an effort. It is vital that as many as possible understand the brand platform and learn the seven or eight central concepts. Then we can all contribute to the creation of a brand that becomes a permanent part of people's consciousness."

The new brand platform simplifies the requirements of each employee. It describes which values we want associated with Ericsson and how the brand name is part of an entire chain from design and development, via presentation and marketing to sales and service.

Lars Ramqvist concludes, "Our goal is to make Ericsson a brand that is an everyday part of people's lives, a part which they can't imagine being without."

ANNELI KRANTZ

The brand means reliability to customers

A good brand name creates a relationship between the consumer and the product, a relationship which can bring mutual benefits. The consumer seeks reliability and confirmation through a purchase. It's simply easier for the customer to make a choice in the store, since certain choices have been made in advance. The value to the company is obvious - satisfied customers come back again and again.

IT BECOMES PARTICULARLY APPARENT IN supermarkets. Shopping would take up an unfathomable amount of time if one had to stop at each product, from toothpaste to frozen vegetables, just to decide which brand to choose

Regular use of a brand enables the consumer to become accustomed to a particular scent, taste or structure, thereby becoming more biased towards other brands

In the midst of aggressive, and oftentimes chaotic, information flows, well-known brand names help create a selective choice pattern for loyal customers. Advertising may seem brash and overpowering, but consumers notice ads for their "own" brand more often and more clearly than competitor brands. They become increasingly selective and study the advertisements for their own brand in order to confirm their choice and avoid doubt.

ANOTHER IMPORTANT PURPOSE OF ADVERTISING IS to maintain existing customers by ensuring that the brand's values stand true, and that the customers can therefore continue their ingrained purchasing patterns.

Of course there are many who find variety to be the spice of life, but it can also be risky and tiresome, which is why most people prefer that which is normal, familiar and everyday. Many enjoy traveling, but as the saying goes, there's no place like home.

All around us, uncertainty is increasing. Major changes are taking place, and suddenly technolo-

gy has made the impossible possible. In the midst of all this change, brand names are among the few things that are fixed and unchangeable.

As society becomes more complex, most of us realize that we can not learn everything. We become increasingly dependent on the knowledge of others and need to trust them. We know, or hope, that other people have the professional knowledge we lack and we often have a blind faith in, for instance, pilots, TV repairmen and doctors

Usually, we are not conscious of how we hand over responsibility to the brand supplier when we buy his products.

Even though brands labeled with well-known trademarks are often more expensive than others, they also make the purchase less risky. Many known brands have been around for decades and others for over 100 years. This means that many people throughout the years have obtained first-hand knowledge of these brands.

Consumers may reason that if many people use a brand every day and have done so over many years, it must be good and worth testing.

People also need different ways to express themselves. If an image can't be expressed in any other way, then it can always be done through possessions or brands. Doing so has become the norm, and we accept brand names as a means of communicating with others.

Branded products, especially those which are expensive or very famous, can play an important

advantageous. Consumers will easily get the

impression that products selling at lower prices

the brand name and one could almost say that it

becomes devalued," according to Ulf Enander,

Mobile Telephones and Terminals business area's

partner in the project to develop the new brand

brand expert at HLR & Co./BBDO, who was

are also worth less. This ends up undermining

The formula that explains why strong brands succeed

the right values.

demanded.

platform.

A simple mathematical formula explains the secrets behind the success of strong brands.

The formula to the right illustrates the three different ways to increase sales of a brand-name product.

The most common method is reducing the price. It always leads to increased sales, as long as the product is just as good and the brand is just as strong as before the price reduction. McDonald's is an excellent case example. The company has tested the waters and experienced the positive results of lower prices. Consequently, McDonald's offers value menus at a discount.

The second possible method of increasing sales is to improve the product or make it more functional while keeping the price constant.

The third option is to sell more by improving



role in their quiet means of expression. However, this is possible only if those one wants to communicate with are familiar with the brand and know what it stands for. If you want to make a statement with the brand you've chosen, it's naturally frustrating if no one notices or is impressed. One solution to this problem is to place the label where it can't be missed, making the previously subtle communication very obvious. Consequently, the brand name becomes a way of making a statement, even to those you don't know. It conveys a message of belonging to those with the same brand and excludes those who are without.



Formula for brand-name sales

F @ = sales Vp = the product's instrumental value VI = the brand equity, or strength of its "emotional value" p = price

In a changing world, brand names are among the few things that are stable. This makes the co

Why we'd rather pay more for certain products

A company that places great emphasis on its brands is Procter & Gamble. Heavy advertising has made such products as Ariel. Pringles, Always and Pampers household words in Europe and the rest of the world. Many people feel that commercials are both repetitive and annoving, but Procter & Gamble doesn't mind. In their world, commercials aren't designed to entertain. They should project a message about the product and sell, sell, sell. And the rewards come quickly.

Procter & Gamble enjoyed a profit margin of nearly 10 percent last year, a sensationally high figure for a company in the non-durables sector, where competition is intense and margins are

An important factor behind their high profitability is that Procter & Gamble can always charge more for its products than the competition

What is it then, that makes people want to pay more for Pampers or Ariel than for the competition's or the grocer's own brand of diapers or laundry detergent?

According to Procter & Gamble, it's mainly because they produce first-class products.

The company invests enormous sums of money on research and development with the goal in mind that every new product they launch should be the best on the market. It should preferably be so superior that it bridges all cultural differences and becomes the leading product in all countries.

Thus, consumers should be able to feel secure in their choices each time they choose one of P&G's brands. The benefits of the product are repeated over and over in the commercials without an ounce of humor or irony. But then again, the company's internal policy is that it is absolutely forbidden to joke about product quality in their advertising.

"It's not a relevant question if the

consumers enjoyed the commercial. The question is if the consumer is aware of the product or not. It's the product, not the commercial, that the consumer should favor," says Jeanette Ernroth, Procter & Gamble's corporate communications manager in Sweden.

As a whole, Procter & Gamble is the world's largest advertiser and produces more advertising than Coca-Cola, Pepsi and McDonald's combined. Their stated goal is to air more commercials than all of their competitors. In other words, it doesn't hurt if some people see a commercial 20 times or more. It means that most people have seen it between nine and 12 times, which means that the commercial has the greatest effect, according to certain studies.

Strong brands live on

Examples of brands that have maintained their positions as market leaders in the US since 1923.

Brand	Product
Kodak	Film, cameras
Del Monte	Canned fruit
Wrigley	Chewing gum
Nabisco	Cookies
Gillette	Safety razors
Coca-Cola	Soft drinks
Campbells	Soup
Ivory	Soap
Goodyear	Tires

Source: Advertising Age and the book Brands published by Interbrand

Examples of brands that have maintained their positions as market leaders in Britain since 1933.

Brand	Product
Hovis	Bread
Stork	Margarine
Kellogg's	Corn Halser
Gillette	Safety razors
Schweppes	Drink mixers
Colgate	Toothpaste
Kodak	Film, cameras
Hoover	Vacuum cleaners

Source: Saatchi & Saatchi and the book Brands published by Interbrand.

Leadership affects the brand

The legendary brand consultant Jack Trout has identified a series of rules that apply when marketing brand names. The most important are the rules of leadership.

The first rule:

Create a category where the brand is number

It's the basis of all marketing, regardless of what is being sold. It's better to be first than to be best, since it's easier to create awareness among consumers than to convince them that a product is better.

Everyone remembers Charles Lindbergh, but who was the second person to fly over the Atlantic?

The second rule:

If the brand is not first in a category, find a category where it will be first.

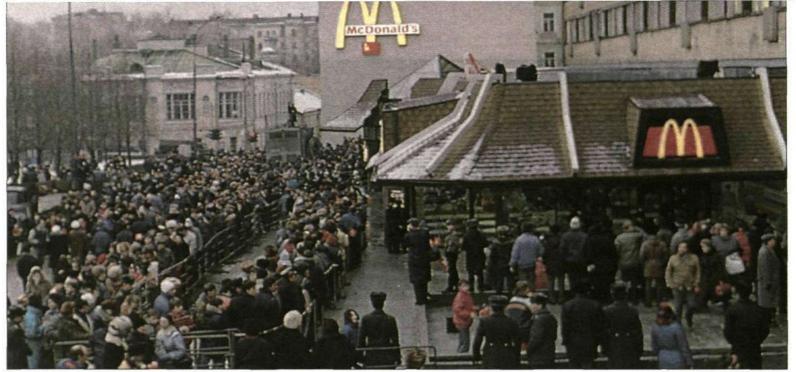
Those who don't know who the second person to fly over the Atlantic was, may be able to identify the third person. Her name was Amelia Earhart, famous for being the first woman to complete the difficult solo flight.

The third rule:

Be at the top of consumer awareness.

Being first in the market is preferable for one single reason: it makes it easier for the customer to think of your product first. It's difficult, and oftentimes impossible, to get consumers to change their minds about something on which they already have an opinion.

It's better to be first in awareness than to be first on the market.



When McDonald's opened their first restaurant in Moscow thousands of people queued for a hamburger.

Photo. PRESSENS BILD

McDonald's is one of the world's strongest brands. The brand is among the company's most valuable assets – an asset that is protected like a precious gemstone. The company doesn't make investments sparingly when it comes to further strengthening the brand's position.

McDonald's studied the processes of the manufacturing industry early on in its history. The company then put these observations to use and succeeded in transforming them in a way that was suitable for a service organization. As a result, McDonald's is one of the first companies to package a service under a brand name.

The basis of their brand concept is that the customer's expectations should be fulfilled every time; that a visit to McDonald's is always the same. A Big Mac is a Big Mac and it should taste the same regardless of where it's purchased.

In order to even out the differences in service and cleanliness between the various restaurants around the world, there are five special "hamburger universities." The training is based on a meticulously detailed framework of regulations. Just the directives for which type of lettuce should be used and how it should be handled encompasses 28 pages of fine text.

When the public's demands change, McDonald's acts quickly to adjust the company's image so that the expected experience at the restaurant remains the same. In this way,

'To fulfill the customer's expectations every time'

McDonald's managed to turn around the public opinion critical of the company's waste of resources. New packaging and a waste sorting system has enabled McDonald's to appear as a responsible company from which environmentally aware people can continue buying hamburgers.

When McDonald's first stepped out into the international arena, the brand was interpreted in many places as a symbol for the United States' cultural imperialism. But even then, the company managed to turn around public opinion and it is now on the way to becoming the world's producer of fast food. The goal is that it should be possible to travel anywhere and still find the wellknown golden arches.

In order to avoid being perceived as a gigantic American company, McDonald's emphasizes that its restaurants are run by local entrepreneurs. They buy meat, potatoes and other ingredients from domestic suppliers and strive in different ways to appear as good business citizens.

The majority of the restaurants are run by local franchise owners in order to maintain the entrepreneurial mentality, which is viewed as being essential to profit levels. In 1982, McDonald's sales outside the US amounted to SEK 10 billion. Ten years later, it had increased to just over SEK 60 billion.

Even though the head office in Chicago has always given strict instructions concerning the

food served and what the restaurants should look like around the world, they have nevertheless given relatively free reign to local marketing initiatives. Each year, the company invests billions of dollars on advertising, and when the World Championships in Soccer were held in the US, the first campaign was produced that was shown in nearly 100 countries at the same time.

At McDonald's in Sweden, the president Mats Lederhausen strongly emphasizes that the company needs to adapt to a new organizational philosophy. He speaks of a modern view of leadership, in which each employee is a part of a larger life's project than just the job.

"We have inherited our organization from industry, but now is the time to realize that among know-how, ingredients, capital and people, it's people that are the most important elements today. Their efforts are decisive in the allimportant encounter with the customer," he says.

Their vision is to obtain 100 percent satisfied customers through 100 percent satisfied employees. And that this should automatically lead to high profitability.

This is how the McDonald's brand becomes a part of the employees everyday life. So now it's industry's turn to go to McDonald's and find out how the brand can infiltrate the entire company. ANN-SOFI SWAHN

Emotions turned the tides for the shaver

Nearly half of the razors sold in the western world come from Gillette and the company's slogan. "The best a man can get." is among the catchiest.

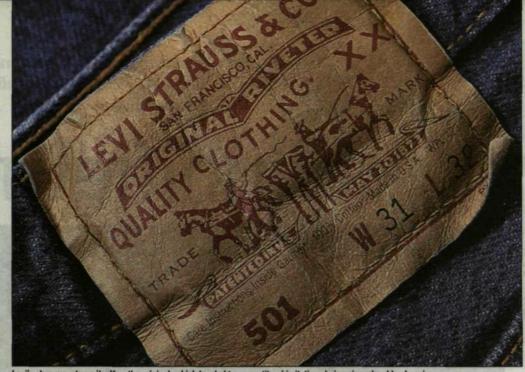
It's hard to believe that Gillette was undergoing a crisis less than ten years ago. The same products were marketed under different brand names depending on where they were sold and the brands symbolized different values. Profitability was terrible and the company's independence was threatened. Today, the situation is a completely different one. According to the Financial Times, Gillette is the world's best managed brand and on the New York Stock Exchange, the share price has increased fivefold since things started turning around.

But what happened?

When Gillette launched its new Sensor shaver, it was decided to add a masculine aspect to the trademark. The company was already benefiting from an association to masculinity and this was used to its advantage in all situations.

The brand platform also contains other values, such as effectiveness and good grooming. By playing on the masculinity aspect, Gillette and its advertising agency BBDO, managed to convey that their razors created self-confidence, independence and success.

Now Gillette has launched a sensor razor for women that has also become a sales success. In this case, Gillette has played on its regained trust, rather that emphasizing especially feminine values.



Levi's always portrays itself as the original, which has led to competitors' imitations being viewed as bland copies.

Photo: URBAN JÖRÉN

The original that can't be copied

Levi's is a 150 year-old brand that maintains its leading position, regardless of what the competition tries to do.

The first blue jeans were sewn in 1853 in the United States by the German immigrant and trader, Levi Strauss. The pants quickly became popular among gold miners and cowboys due to their durability. Early on, the company patented the used of rivets on the pockets, which made the jeans last longer.

Even though the product has looked more or less the same from the beginning, no one has succeeded in producing a copy that could compete with the Levi's brand.

The recipe for success is a combination of high product quality and consistent, yet fashion-conscious marketing. According to Levi Strauss International's president, Peter A. Jacobi, the company's advertising symbolizes honesty, sensualism, masculinity, courage, youth and strong independence. In the commercials, the wearer of Levi's jeans is always a hero and preferably a bit rebellious.

But even Levi's has experienced declining sales figures and an uncertain market. In the mid-1980s, the blue jeans industry faced its worst crisis ever. During the yuppie era, suits were en vogue and jeans were left in the inner depths of everyone's closets.

Wrangler, the jeans manufacturer in the Vanity Fair group, was forced to close factories and Levi Strauss also experienced turbulence due to sharply decreasing sales.

It was at this point the company asked consumers about their views on the Levi's brand. The most common answer was that it has always stood for original jeans. The company's strategy to survive the crisis by diversifying into a myriad of products was thus completely wrong.

In 1984, a principle decision was made that the Levi's brand would only stand for jeans and jeanrelated products. The slogan, "Quality never goes out of style," was also adopted.

The classic 501 model was launched again using pan-European television and movie theater campaigns. The music from the commercials became so popular, that the songs ended up on the top of all kinds of music charts and Levi's recaptured its position as unchallenged number one.

"We have positioned Levi's as the original, which has made it impossible to challenge Levi's by imitating them," says John Hegarty, one of Europe's most creative advertising directors at Bartle, Bogle Hegarty in London.

An important component of the Levi's profile vis à vis the competition and imitations is the control of the distribution chain. Quality is permitted to go before quantity, which means that they have created a selective distribution system in which the retailers have to fulfill certain measurable requirements on, for instance, exposure, store location and service.

Despite the fact that Levi's has several strong competitors such as Lee, Maverick and Wrangler in the US and Diesel, Rocky and Crocker in Sweden, the company's position is still unique. For instance, in 1996, nearly half of the Swedish teenagers interviewed said that the next pair of pants they buy would be Levi's. The heavily profiled Diesel brand received only nine percent of the votes.

The processor that gave the PC market a face

Every year, Intel invests billions in strengthening its brand.

Today, awareness of the tiny computer processor is nearly as high as of the major brands Marlboro and Coca-Cola. By building up one of the world's strongest brands. Intel has succeeded in attaining an 80 percent market share and becoming one of the world's most profitable companies.

In the early 1990s, Intel started an advertising campaign, the size of which was unprecedented in the industry. No processor manufacturer had ever come across the idea of advertising its brand name. Does the customer care which company manufactured the processor in the computer he or she is about to purchase? The answer, they believed, was no.

But Intel had a different line of thinking. With two billion dollars in the budget, the company launched a massive advertising campaign with the slogan "Intel inside."

There were two objectives: first, to increase brand awareness, and second, to spur computer sales.

"We went to the computer manufacturers and said that we'd assume the advertising costs," says Damian Callahan, public relations manager at Intel. "This encouraged them to advertise and we thereby helped the PC market grow."

In exchange for Intel's monetary investment in the PC manufacturers' advertisements, they could include the slogan "Intel inside" in the ads. Today, every sold PC that contains an Intel processor is labeled with this slogan. The company works with the major manufacturers such as IBM and Compaq, as well as with smaller, local manufacturers. The "Intel inside" slogan has become a guarantee

of quality. In just a few years, the Intel brand has become one of the strongest in the world. At the same time, the company has strengthened its position as the world's leading manufacturer of computer processors, with a steady market share of more than 80 percent.

GERTRUD SVENSÉN

He personifies the brand name

The Virgin empire includes everything from an airline company and a brewery to record stores and an insurance company.

However, the attitude is always the same. The Virgin brand name stands for a young, consumerfriendly boldness personified by the founder and media genius Richard Branson.

The history of Virgin reads like a fairy tale about the headstrong entrepreneur who, in a very short time, built one of Great Britain's strongest trademarks and most successful companies.

As a 19 year-old, Richard Branson started a mail-order record company. Virgin Records grew into a megasized company and was sold to Thorn-EMI in 1992 for SEK 5.6 billion.

Strengthened by his achievements. Richard Branson expanded his empire to include Virgin Atlantic. Virgin Radio, Virgin Vodka and Virgin Life, just to name a few. Today, the group comprises over 200 companies, which attained sales of more than SEK 20 billion last year.

Despite the fact that Richard Branson is personally good for several million, he is not perceived as a traditional businessman and capitalist. In an opinion survey among British young people, he was named along

with Mother Theresa as one of the few trusted to change the ten commandments. The Virgin brand name also has a positive connotation. In the magazine PR Week's opinion survey, 80 percent of the respondents associated Virgin with friendliness and quality. Nearly as many felt that the name stood for creativity, low prices and entertainment. The Mobile Phone and Terminals business area is not the only Ericsson part to concentrate on the development of its brand. All of Ericsson, regardless of which services or products are offered to customers, can

improve its business potential with a strong brand. The best interests of all employees will be served, therefore, by taking part in promoting the Ericsson brand.

Brand reflects unified front

MATS RÖNNE IS RESPONSIBLE FOR ERICSSON'S marketing communications. He wants the entire organization to work together in joint efforts to capitalize on the advantages of a common brand. Mats Rönne also refers to ongoing changes in our world, stating that current efforts to promote an Ericsson trademark will affect all Ericsson employ-

"By tradition, Ericsson has sold its products to a relatively limited group of professional purchasers. Today, the traditional mode of operations is history. The number of Ericsson customers is growing like wildfire, even for systems sales, characterized by a continuous displacement toward markets in which employees have less direct contact with end-customers."

Many of Ericsson customers today are in what is commonly called "the business community." Ericsson has a broad range of products and services used in business communications, but the customer group is also assuming greater importance in terms of "traditional" solutions for tele-

com operators. Sales to operators with no

background in telecommunications are becoming increasingly common. Steel companies, the textile industry, real estate companies and travel agencies are just a few exam- in different ples of where owners of new operators have their roots areas in which Ericsson have

"Business areas contribute ways

no traditions. In parallel, the borderline between data and telecommunications is gradually being erased, a trend also creating a host of new competi-

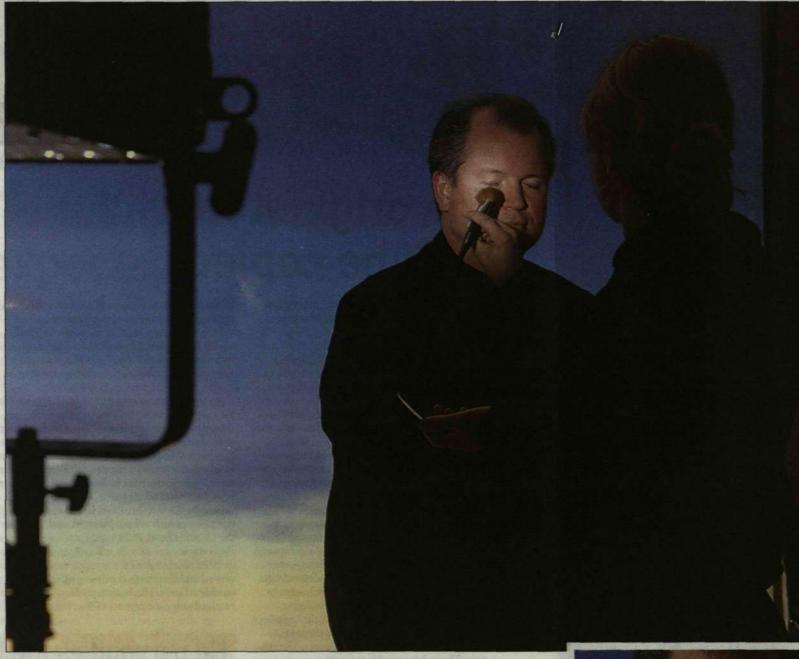
The collective effect of current market trends, in turn, has created the need to develop a strong brand. By cooperating across our own organizational borders in all brand matters, we can strengthen and improve the potential for all Ericsson units to defend and develop their market positions.

THE DEVELOPMENT OF A BRAND IS NOT AN advertising ploy, but rather a strategy to establish a sense of harmony between different Ericsson units. Among other features, efforts based on a market survey to determine which sectors should be cultivated and which sales arguments are most likely to be heard by customers.

Employees who work with research and development concentrate on creating products and offerings. People working with advertising and marketing strive to develop the market so that consumers and retailers recognize the values offered by Ericsson's products and services.

"In the systems sector, Ericsson is definitely the world leader in mobile telephony, and our AXE system is the world's best-selling digital system for wired telecommunication networks. Naturally, we must take advantage of these factors in our brand platform. Many people erroneously believe that brand issues are restricted to consumer products but, in fact, a strong brand is just as important to large, complex systems designed for the business-to-business market," says Mats Rönne

When products are extremely complex, for example telecommunication systems that cost several hundred million Swedish kronor, the brand is not a pri-



Mats Rönne's job as head of market communications includes reporting on Ericsson's views on the Ericsson trademark in various contexts. Photo- URBAN JÖRÉN

mary representative of the system's products. It is more of a reflection of business relations between the supplier and confidence in the supplier's ability to meet contractual obligations. Since confidence and trust are built on relations, the brand structure is largely a matter of creating long-term relations.

The brand platform, accordingly, also affects customer expectations on other Ericsson units that sell products and services to other companies - operators or conventional companies that need telecom solutions. It should also be noted that Ericsson has a long history characterized by its ability to use, develop and capitalize on the Company's brand, albeit within a limited circle of customers. Today's challenge is to embark on a mission to establish the same type of relations with a much larger market.

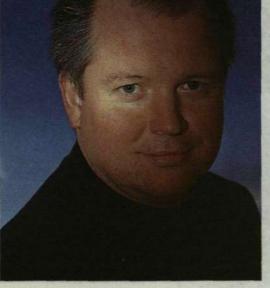
In marketing operations focused on end-customers, the brand assumes significance at two different levels: the distributor, or retail chain, and as leverage in affecting consumer attitudes and purchase patterns.

"We see greater understanding today for the interplay between the two levels, as well as the advantages of a strong brand," continues Mats Rönne.

Ericsson's heavy concentration on mobile telephone advertising in the media will have effects on the entire Company, particularly since its advertising campaigns are directed toward a non-technical target group.

The main theme is concentrated on products and the advantages they offer to customers, a sales argument that is completely new to many Ericsson employees.

At the CeBIT Fair in Hannover earlier this year, however, Ericsson proved that its new approach to business opportunities definitely has a place in all parts of the organization.





CeBIT- for new philosophies

The international CeBIT Fair in Hannover earlier this year marked the première of Ericsson's new brand philosophy, serving as the foundation for a joint activity for the entire Company. The borders differentiating various parts of Ericsson were virtually erased at the CeBIT Fair. Ericsson was presented on a unified front, although the Company was physically represented on two exhibition stands - one for mobile telephones and another for system solutions. "The division was based on the structure of the

market and exhibition; we wanted to make it as simple as possible for our various customer groups to find us," explains Mats Rönne, head of Corporate marketing communications. The focus of Ericsson's two stands reflected our message to the different target groups, but we also wanted the exhibition stands to project a coordinated image and convey a more emotional theme." The common bond was reflected in the theme's stronger focus on aspects like success, development and dialogue, rather than technical data and specifications. The mobile telephone stand portrayed the human voice as the conveyor of communications, with certain emphasis on how Ericsson's mobile telephones create personal contacts, while the system solutions stand focused more on business economics and Ericsson's ability to supply solutions.

"We wanted to show that we have a better understanding of what customers need than our competitors and to emphasize our position as the market leader. It was a real kick for Ericsson's personnel working the stand to see how we distinguished ourselves from the competition, most of whom were still talking about "the best technology." But marketing is no longer just a matter of who has the best products, but rather which company is considered the best choice by customers - it's a battle of perception," concludes Mats Rönne.

Trademarks worth billions

Strong brands are extremely valuable assets. According to calculations by Financial World, the brands of Marlboro and Coca-Cola are worth more

SEK 300 billion each.

And that's not just their paper value. During recent years, investors have paid fantastic amounts of money, primarily in the U.S., to acquire attractive brands. Philip Morris, for example, paid SEK 100 billion for Kraft, an American producer of soft cheese, salad dressing and other food products. The net worth of Kraft's total assets is estimated at approximately SEK 25 billion. The price of its brand, accordingly, was determined to be in the range of SEK 75 billion.

How can a brand be worth so much money?

Andy Millican of Interbrand in London, one of the world's leading experts in evaluating brands, provides two important reasons why a company might be prepared to pay so much money for a brand.

First and foremost, the value is determined by future potential to make money from the brand - and the potential is

generally strong. Companies with strong brands are usually much more profitable than market average

People who deal in brands are also aware of the long-term, determined efforts that are devoted to the development of a leading brand or brand name. They also know what enormous amounts of money have been invested in advertising and marketing to reach positions of leadership.

As a result, companies are also prepared to pay a premium for "not having" to establish and promote a brand.

Astute businessmen and women have realized the values of strong brands for many years, but it was not until quite recently that Interbrand and other specialists developed methods to calculate the values of abstract assets. This type of knowledge has not always been generally prevalent in Sweden, a country dominated by forestry and engineering industries.

In parallel with Ericsson's emergence and success on mass markets, however, greater focus on brands will increase. There is also a good Swedish example

Trademark	Value, SEK bn
1. Marlboro	340
2. Coca-Cola	330
3. McDonalds	140
4. IBM	135
5. Disney	120
6. Kodak	100
7. Kellogs	85
8. Budweiser	80
9. Nescafé	75
9. Intel	75
9. Gilette	75
12, Motorola	70
Source: Financial World	l/Interbrand

of successful brand development and its financial significance.

Reports surfaced recently revealing offers of large amounts of money to the Kingdom of Sweden to sell the company that produces Absolut Vodka, the sixth largest-selling hard liquor in the world. It's not the production plant's machinery that has been valued at more than SEK 15 billion, it's just the Absolut brand.

How far has Ericsson come in refining its brand? Progress varies between different business areas - from initial stages of development to full-scale programs to train personnel and implement new practical theories in everyday work routines.

First step toward a strong brand

"Establishing a brand is not restricted to consumer products; it also includes our system operations. Customers must regard Ericsson as a single unified company, not a conglomeration of different units."Åke Persson, Marketing Manager of Mobile Systems, sums up his business area's efforts to develop a common brand platform, based on the model used by Mobile Phones and Terminals.

tems have assumed different market positions for the past several years. During the same period, dynamic changes have taken place in the market for mobile telephony. Deregulation of the telecommunications industry and intensified competition have sharpened focus on the importance of a unified Ericsson profile regardless of system standards.

"Our division into business units places special focus on our different systems. There is a risk, however, that extensions into different areas cre-

ates an unclear picture of our Company, which could be detrimental to our competitive power. Erics"New customers - new demands on Ericsson'

for mobile telephone sys-

son's efforts to develop a unified brand is an important step toward coordinating our range of systems," Åke Persson explains.

"An increasing number of operators conduct global activities, buying different technologies in different countries, depending on frequency bands and standards. We shall project the same positive image of Ericsson, regardless of which business unit supplies the system," he continues.

GROWING COMPETITION IN THE MARKETPLACE HAS also given rise to new types of decision makers now buying mobile telephone systems, ranging from bank management personnel to private industry, which has also increased the need for a clearly defined Ericsson brand.

"We are the world's leading supplier of mobile telephone systems. Our success is based on a broad range of positive opinions, perceptions, qualities and evaluations - all of which need to be strengthened," says Åke Persson.

Customer opinions of Ericsson should include the impression of a reliable and creative company with the ability to support its customers on a long-term basis

"Our job is to make our customers successful. This goal brings us closer to customers, and we must learn more about the conditions under

THE THREE BUSINESS UNITS which they work and try to understand their needs." One threat on the horizon is that new, less

well-known operators may be "frightened off" by Ericsson. "They might think since we deliver products

and services to the world's largest operators we might not have time for them. It's important, therefore, to assure all prospective and existing customers that we are not too big or arrogant to serve their needs," Åke Persson emphasizes.

Mobile Systems is now developing a brand platform, a documentation program that specifies the values of Ericsson's market image, the meaning of our brand and how to communicate it with the market and our customers. The platform has both internal and external effects.

"The program is a means of establishing which values we believe are linked strongly with our range of systems and Ericsson's role as a system supplier. The next phase will involve an analysis of how reality compares with our values, how we pursue those values in our product development efforts, product design, our methods for relating to customers and our means of communicating our message to the market," Mr. Persson summarizes.

"Our credibility is contingent upon our success in meeting customer expectations of Ericsson as a system supplier."

NILS SUNDSTRÖM





10 CONTACT IN DEPTH | MAY 1997



Spotlight on soft values

Efforts concentrated on a brand platform for Mobile Systems are based on the market and market conditions. A compilation of several surveys shows the values a large number of mobile telephone operators in all parts of the world link with Ericsson as a supplier.

"We received very high marks for engineering, but lower grades for soft, behavior-oriented values," says Gunnar Liljegren, coordination manager of the control group that is building a brand for Mobile Systems.

"In the past, we limited our measurements to rational values such as performance, weight, price, functionality, delivery time and appearance. We ignored emotional values exemplified by reliability, expertise and experience. Soft values, including our participation in the realities of customers, will become increasingly important," he continues.

The compilation shows the praises of customers for Ericsson's technical innovation talents, efficiency and the high quality of hardware and software. The overall customer perception may be summed up in the following statement: "Ericsson has the best mobile telephone systems in the world."

Criticism of Ericsson was focused on such comments as "low profile," "inflexibility" and "inability to understand problems from the customer's perspective.'

Continued efforts to form a brand platform for Mobile Systems will be included under Ericsson's Strategic Planning (ESP), translated into strategies for different areas. Special emphasis will be concentrated on values of particular importance to customers, values for which Ericsson has (better) potential and values that are unique unto Ericsson.

"The work we are conducting should be regarded as a tool to place stronger focus on decision-making situations - and which values should always be prioritized," says Gunnar Liljegren.

NUS SUNDSTRÖM

Common strategy for selling services

Sales of services comprise an area of operations in which a common Ericsson image has been created for customers of the Mobile Systems business area's three units.

The three expertise centers now have a common platform for sales of services. The new mode of operations also enables Mobile Systems to quickly develop the skills, tools and systems needed for successful service sales.

Ericsson's concentration on the service sector is predicated on intensified competition among suppliers and operators in the telecommunications industry, which has resulted in lower prices. In parallel, many new mobile operators have established business activities with limited knowledge of the best methods for developing, maintaining and expanding their systems.

"Sales of services is a new concept for Ericsson, and it's imperative that we develop collective skills in this field. Our three expertise centers should be considered an 'umbrella' for the operations of Ericsson companies in various parts of the world," agree Gunnar Borg, Ulf Uddsten and Bo Carlgren, who manage the three expertise centers.

"Strategic product responsibility lies in Kista, and our job is to make sure know-how and skills are available, but local companies working in the field, with their close proximity to customers, make the actual deliveries," the three men explain. "It's important that we create a unified portfolio of services.

The common brand platform consists of three expertise centers: business support, planning and the operational start-up of mobile systems as well as operations and maintenance.

GUNILLA TAMM



Consono makes the difference

BUSINESS NETWORKS focom systems is a unit that works

close to customers. Its products and systems have many different des-

ignations and names. A well-known name is exemplified by MD110, Ericsson's business exchange (PBX) for mediumsize and large systems. Freeset is the name used for Ericsson's wireless business telephones based on the DECT standard. BusinessPhone is the designation used for Ericsson's business exchanges for smaller companies. Ericsson has been a highly reputable name on the market for data network exchanges for many years. And now there's another name - Consono. What's that?

Consono is the collective name for sophisticated, customer-oriented communications solutions in the field of business communications. As more and more customers turn to Ericsson for advice and help in creating their own unique communications solutions, something other than a pure product name was needed to identify Ericsson's capabilities and services.

Paul Collinge mentions the recent CeBIT Fair in Hannover. The main theme of most players at

The operations of Public Networks do not yet have an overall strategy for the development of a brand. Efforts were initiated recently, however, and the business unit has embarked on several ambitious initiatives. The Network Intelligence (NI) product line has made the most progress after developing its own branding policy.

"Our products are exposed to extremely tough competition from companies with completely different experience in the field of branding, particularly in the data communications industry. As a result, they have put added pressure on us to create a carefully formulated brand and trademark concept," says Anneli Tobiasson, who is responsible for the product line's focus on a stronger brand.

One result of its increased focus is reflected in the introduction of its NI concept a few years ago. NI stands for Network Intelligence, and the concept is based on Intelligent Networks (IN).

"Network Intelligence is a development concept we have nurtured by offering a broad range of products and services. It serves as a symbol

A brand does not always stand alone as the symbol of what a company offers its customers. Although still relatively strong, the Consono name is a very good example of how other names can co-exist with the corporate brand. Ericsson Consono is a powerful combination in the market for business communications.

"We need Consono to help us distinguish ourselves and make our company unique in comparisons with other companies," explains Paul Collinge, who is responsible for the strategies of Business Networks, a unit of the Infocom Systems business area. "It's easier to explain the difference between us and the competition to customers, suppliers and our own employees."

CeBIT was "solutions." And that's the problem: everybody offers solutions today, Ericsson and the competition. Something is needed to distinguish the difference and focus more sharply on what Ericsson has to offer. And the answer is Consono

ERICSSON WAS ONE OF THE FIRST COMPANIES TO project a new image in the field. Paul Collinge is proud to point out that Ericsson was first, and did not follow in the footsteps of its competitors.

"We are in a position of leadership, which must be defended and strengthened. Consono is a name we have invested in and developed over the past three years; it has helped us create an image of Ericsson as a leader in the market for business

communications. Today, the Consono name is a registered trademark in all important markets around the world," he continues.

TO EXPLAIN THE MEANING OF CONSONO. Paul Collinge says, you must begin by defining the meaning of "solutions."

"Many of the products sold by Ericsson and its competitors can be easily compared with each other. They are often similar in terms of functionality, which creates other similarities created by price pressure," he explains.

"At the same time, modern technology is so complex that it offers a large number of combination opportunities with all the other products sold by Ericsson. Suddenly, it's not so easy for

Public Networks in the starting

that customers receive more for their money when they buy IN solutions from Ericsson," Anneli Tobiasson explains.

As an example, Ms. Tobiasson mentions NI/Open, Ericsson's direct answer to open interface systems offered by other data communications companies. NI/Open includes the Service Control Point General Purpose Computer, a new

product developed specifically for open interface applications based on a UNIX platform. "We want to communicate to customers that we can also offer open interface and flexibility in our systems. The competition is anxious to portray Ericsson as a traditional supplier of telecommunications equipment, a company that sells closed systems," Anneli Tobiasson explains. "Our

ments." A comprehensible name, however, is not enough to create the positive values a company wants to characterize its products. The establish-

new NI/Open punches holes in their sales argu-

ment and promotion of brand, in fact, is not an isolated phenomenon.

"Everything that Ericsson does can affect our brand and the market's impression and opinions of our company. Internal knowledge and understanding form the ABCs of a successful brand the theory whereby no chain is stronger than its weakest link," she continues.

"Our strategy is to create a strong message that does not compete with the Ericsson brand," Ms. Tobiasson continues. "Instead, we will strive to capitalize on all positive aspects of the brand in determined efforts to make it even stronger."

Few areas of operation in the Public Networks business unit have had such clearly defined needs of a brand strategy than the product line represented by Anneli Tobiasson. Nevertheless, there is a plethora of product names in Public Networks, an overabundance that some critics say has grown wild. The first step in the unit's joint branding strategy will be an inventory of its

clear

customers to make comparisons. They expect the supplier to make the selections needed to meet their specific requirements," Paul Collinge says.

Many products included in a solution are also volume products in other applications and are sold through other channels. A solution amounts to more than the sum total of its constituent products, which is the key to Ericsson's value added concept.

Customers buy Ericsson's ability to understand their business needs, strategies and objectives. Ericsson, in turn, based on its business acumen, supplies the communications solutions that provide optimal support for the specific needs of each individual customer.

In order for Consono to function in accordance with design, it should never be used as a product name. According to Paul Collinge, if Consono wants to put its "stamp" on a product, Ericsson's corporate trademark is all that's needed, possibly with the addition of a model designation. There are no Consono products, accordingly. The product family concept, however, may be used to facil-

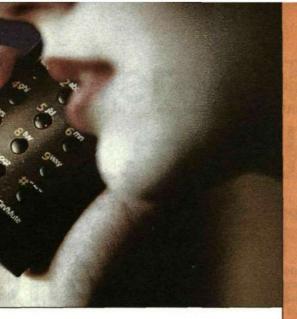
blocks

trademarks.

"Trademarks show up first, and work has been started in most areas to concentrate on this important issue. Efforts to strengthen the brand, however, also include establishing which values we want customers to link with our products. Within Public Networks, we recently started a new program to identify and target these values," says Anna-Karin Klinteskog, manager of marketing communications for Public Networks.

"Traditionally, the most important values have been attached to the products. However, as products have become more functionally equal, we have been forced to review our products and services with new values related to Ericsson as a supplier," continues Ms. Klinteskog. "These include our skills and expertise, how we act and react in the market, for example."

"The Mobile Phones and Terminals business area, which operates in a different market segment, has made much more progress. We hope



ment from a Consono campaign.

itate communications with customers.

"The Ericsson name is extremely important for the entire corporation," Paul Collinge says. "Our strategy for the future calls for increased cooperation between business units and business areas, for example, in Business Networks, a unit that markets multimedia solutions for mobile offices. Ericsson is our unifying mark of quality. Consono is the messenger for our ability to combine products to meet customer needs." THORD ANDERSSON

How to tap new sources of competitive advantage

that Public Networks can learn and benefit from their experience."

Cooperation has already been started with Mobile Systems in marketing programs for AXE.

"The AXE system is a cornerstone in both product portfolios, and we both need a strong AXE image," explains Anna-Karin Klinteskog.

AXE is one of Ericsson's strongest brand names. It's a status product that has assumed a strong image without any advertising or marketing gimmicks. Its success, naturally, is based on the strong market breakthrough achieved by AXE after its introduction during the 1970s. Even today, AXE remains an established fundamental concept.

"The product is so strong that it created a brand, that remains vibrant today, but the salespersons who conveyed the attitudes and values that characterized the AXE system also made valuable contributions," Ms. Klinteskog says. "Programs now planned by Public Networks will naturally focus on protecting and extending these established values."

LENA WIDEGREN

It should be customized and customer-oriented

Customized and customer-oriented are key words used in sales of Consono solutions. Some solution areas have been defined based on the smallest common denominator in efforts to meet dominating customer demands.

Personal mobility, for example, is an area concentrated on satisfying user needs and demands for mobility at the worksite and elsewhere. Consono offers solutions that cover the entire scale of mobility solutions. from cordless telephones for business connections to personal numbers that work everywhere.

Call Center represents an area of operations in which Ericsson is a strong market player. The personal service systems that rely on the help of telephony are a natural

element in a broad range of today's modern industry. from banks and travel agencies to insurance companies. A queue system quides incoming calls to "agents" that provide personal service. As an optional service to Call Center. Consono recently introduced an Internet-based service that uses a telephone bank, for example, to offer its customers capabilities to surf web sites, monitor stock prices, buy and sell shares, make business transactions - everything through the Internet. In parallel, they can click an icon for fast personal service and establish telephone contact with a customer's bank of choice.

The brand can seal the deal

There are several examples, especially in the United Kingdom, that illustrate how Ericsson has won large, complex, customer-oriented contracts easier by projecting the Consono brand. In the past. suppliers and customers focused more strongly on products. Functionality was also simpler. But those days are gone forever. More and more customers are expressing greater primary interest in purchases of functional communications solutions, and they are turning to Ericsson to provide the solutions.

"With Consono, we develop the strongest offer we can possibly make." says Hans Calminder, who is responsible for development of the Consono brand. "When we put together an offer, we start from the customer's own specific reality. We also examine ways to improve service for the customer's customers. Then we propose a solution

Consono has established a strong foothold in several key markets, with particular success in Germany and the U.K., but good results have also been achieved in Australia, Austria and France. Italy is the next market for special attention. In a longer term perspective. Consono has also set its sights on the U.S.

THORD ANDERSSON

Now that Ericsson has entered into the intense competition of the private markets, it has become necessary to change the public's perception of the company's brand. The new brand platform lays the foundation for a global brand-building.



MOBILE PHONES AND Terminals' Vice President Marketing Jan Ahrenbring is in charge of implanting the new vision. He is also responsible for ensuring that all employees be brand platform will affect

understand how the brand platform will affect them in terms of responsibilities and duties.

"I want to make clear from the start that building a brand is not restricted to activities involving customers, retailers and other external players. It is equally as important that the entire organization absorbs the values that the brand stands for, and integrates them in all daily activities."

Mobile Phones and Terminals has compiled three special training packages, to further create an understanding of the new concepts.

The first contains a tool box for management and specialists. The tool box contains five short

A task that will affect us all

video films giving a pictorial description of the whole idea of Ericsson's brand-building. The tool box also contains the Brand Book, giving a detailed explanation of the background, extent and values associated with the brand platform.

THE OTHER PACKAGE IS INTENDED TO BE USED internationally and exists in different versions for different functions. R&D specialists have already begun working with the material. Via an exciting, interactive training material to be distributed this autumn, eventually all employees within Mobile Phones and Terminals will become involved.

"The goal is not only to make sure all employees understand the values connected with the brand. We want our people to absorb these ideas, so that a brand thinking will be spontaneous," says Jan Ahrenbring.

Once that is achieved, Ericsson's employees will discover how the new brand platform can guide them in all forms of marketing, thus influencing their daily activities on a continuing basis. Mobile Phones and Terminals has identified the four factors that affect consumers most: product, distribution channels, communication and total personnel behavior. There are special programs for each of these areas, with instructions in how the brand should be

handled.

Consumers in mass markets generally create their own picture of what the brand represents, through their use of the product. The values represented by the brand must therefore affect the product and its design. For example, if Ericsson claims to offer the most user-friendly mobile telephone, user-friendliness must also be reflected in the technical design. In this way, many of those who work directly with product development will automatically concentrate on making the telephones easier to use.

IF SIMPLICITY IS A VALUE GIVEN HIGH PRIORITY, THE entire organization will be affected – and bureaucracy will then become undesirable. Internal behavior, however, will become all the more important, as it has repercussions even for those who do not have their own customer contacts. Nowadays, fewer and fewer employees have such direct contacts with end-users. It is basically only customer service that meets customers face to face. The sales and distribution organizations have contacts with retailers, who play an important role in customers' perception of Ericsson. Therefore, brand ideas also affect which retailers Ericsson deals with and the form the interaction takes.

Ericsson's task is then to help the retailers move Ericsson products out to the customer as quickly as possible. Simultaneously, advertising affects consumers, helping to give them the proper expectations.

To be successful in today's tough consumer markets, it is essential to be able to live with the constantly changing face of technology.

"And yet, it's important to ensure that a brand is perceived as stable and reliable," says Jan Ahrenbring, who can't underline often enough the importance of integrating the values mentioned into the corporate culture. "It will strengthen us in our efforts to maintain global leadership." So small it will change your perspective.

So small, it will change your perspective.

So small, it will change your perspective.

Advertising must keep its promises

"The more we advertise, the greater the consumers' demands on us. In this sense, advertising affects all employees," says Göran Andersson, who is in charge of market communication in the Mobile Phones and Terminals business area.

> PROMISES MADE IN advertising must be kept whether or not they will be kept depends above all on the company's employees. Nowadays most products are also linked to many services. Consequently, fulfilling the promises of the advertising requires ever greater personal efforts. "Environmental issues are a clear

example of how this works. It would be a total catastrophe to go out and preach about environmental friendliness if it were simultaneously revealed that your own company is polluting the natural environment," says Göran Andersson.

ADVERTISING ALSO HAS A POSITIVE EFFECT ON PEO-PLE who work at a company that advertises lavishly. Most people enjoy being visible – and working in a well-known company. Many employees felt proud when they saw Ericsson's latest campaign, the launch of GF 788, the first product to be presented to the market after the adoption of the new brand platform. Under the slogan "So small, it will change your perspective" the GF 788 hit the European

market in March. By last autumn it was already

being launched in the North American region, and then more recently the Asia-Pacific region. The campaign was designed while the final

touches were being added to the platform.

"Together with the ad agency HLR & Co/BBDO, we have put in a huge amount of work on the new brand platform. In June, it will be two years since we started," says Göran Andersson.

THE ADVERTISING WAS DESIGNED BY THE YOUNG & Rubicam advertising agency. HLR made sure Young & Rubicam continually received the information they needed to do the job – that is, to create advertising in harmony with the values to which the Ericsson's brand must be linked. The brand platform, too, provides creators with the framework necessary to enable them to be creative. Some might perceive the new platform as a limitation. However, without a framework, creative work can dissolve into chaos.

"If you comission a creator to make something up, without giving him any directions at all, you get an effect like pulling the plug out of a rubber mattress: the air goes right out of him. At Ericsson, each region takes care of its own advertising, together with Young & Rubicam, the company's agency. The current European campaign was designed by Hall & Cederquist/Y&R in Stockholm.

The advertising for the Asian market is designed by Y&R Singapore. The advertising for the North and South American markets is designed by Y&R in the U.S.

Retailers play key role

Retailers' influence on the customer's choice of mobile telephones cannot be underestimated.

Advertisements from the GF 788 campaign.

WITH MORE THAN A DOZEN BRANDS, EACH OF which has several special functions, it is not surprising that consumers find it difficult to choose. The retailers' role is essential in guiding the customer towards a favorable purchase.

This is shown by a survey that was carried out by Ericsson Mobile Phones and Terminals with the purpose of identifying consumers' purchasing patterns. It showed quite clearly that, on the markets under study – Sweden, Germany, the UK and Hong Kong –retailers were the most important source of information for purchase decisions.

Their advice was often crucial in determining whether or not a purchase would occur. Price was the next most important factor in the customers' purchase decision. Otherwise, the choice was determined by design, mobile network coverage, weight and size.

THIS KNOWLEDGE WAS INTENDED TO HELP Ericsson supply retailers with the information that would enable them to influence customers to choose Ericsson. It is an effective way to augment market share.

The survey also revealed that the market for used mobile telephones is larger than was believed. One conclusion that can be drawn is that brand loyalty is more important than we realized. The customer must be persuaded, when the time comes for her to buy a new mobile telephone, to choose Ericsson again.

Filling retailers' shelves with Ericsson telephones, as a way to increase sales, would seem logical. However, it can be a long route. To shorten it, Mobile Phones and Terminals has adopted a strategy called "channel marketing." Channel marketing includes the components traditionally involved in selling via retailers. This is primarily a matter of supporting the retailer by providing training – in our products, brands, target customer groups, store materials and advertising campaigns – to convince him that selling Ericsson products is particularly profitable.

Three project groups have been appointed to develop various aspects of the new strategy.

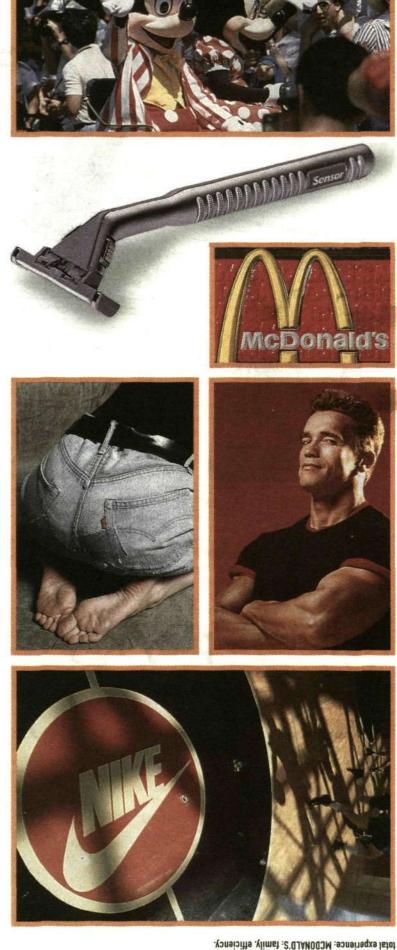
"One effect of the shift to consumer marketing is that we must also pay attention to the quality of the retailers. We must choose the right kind of stores, that are favorable for Ericsson, and that match our brand," says Jan Ahrenbring, Vice President Marketing for Mobile Phones and Terminals.

Brands do trigger feelings!

We are surrounded by brands. We are bombarded every day with names and symbols. Usually, we meet them on products and in advertising.

The symbols are designed to be clearly identifiable and get attention. However, the values and feelings they trigger in the public are not as obvious. The following is a list of strong brands. The question is: which values and qualities belong to which brands?

	efficient
L aviče	masculine
Levi's	family
	self-confidence
Nike	never-ending youth
	total experience
Schwarzenegger	unconventional
	caring
Gillette	efficiency
	sensitive
Disney	superiority
2.0.10)	humorous
McDonald's	macho
MCDOIlatuS	family



Answers: LEVI'S: never-ending youth. unconventional. NIKE: superiority, self-confidence; SCHWARZENEGGER: macho, sensitive, humorous; GILLETTE: masculine, efficient, caring; DISNEY: imaginative, family,

imaginative