Contact

ERICSSON PUBLICATIONS FOR ERICSSON EMPLOYEES WORLDWIDE No 2 • 1991

Ericsson in Kuwait

The war is over in the Middle East. The difficult task of rebuilding what war has destroyed is in progress. Ericsson, which has traditionally had a strong presence in the Gulf states, is naturally in the picture. Rolf Hedenström is one who is returning to work for Ericsson in Kuwait.

Page 12.

Thumbs up for pocket phone

DCT 900, Ericsson's preview of what future pocket phones can offer, is now undergoing tests in several parts of the globe. The tests have gone well so far and the tiny, tiny phones have held to what the Dutch promised. In Hannover, the world's first ordinary system for cordless business telephony will be unveiled in conjunction with CeBit, the huge annual computer fair.

Page 6 and 14.

Here you get a bit shaken

For testing how Ericsson products - for instance, AXE switches - stand up against earthquakes, a new vibration lab has been opened at ETS in Kungens Kurva. The lab will be an important resource for the entire group – and eventually for external users.

Page 8.

Special on finance • Pages 15-19

A real 'thriller' at CeBit

Colin Buckingham and his colleagues played for high stakes before the inauguration of the CT-3 system at the Hannover fair. Think if the communications did not work...

On Wednesday morning, some hours before the German minister Schwarz-Schilling was due to arrive at the Ericsson stand, it was still far from certain that a connection would really be made with Hungary and the head of the telecommunications administration there.

Finally, one had gotten hold of Pal Horwath in Budapest, who agreed to participate in this experiment in East-West communications. He would talk from a HotLine via the mobile phone system that Ericsson had delivered.

The inauguration was scheduled for 2.20. Ericsson's people at the stand waited with anticipation. The media was there, some 10 press photographers were there, but the time rolled on...

Then the word came. The minister would be delayed 15-20 minutes. His helicopter had just landed and he was on his way to the fair. Suddenly, he turned up, Minister Schwarz-Schilling, but he surprised the photographers and others waiting by expressing a desire to first sit down and take it easy with his Ericsson hosts. The party moved on to the stand's upper floor. This spontaneous desire to exchange information naturally delighted everyone who realized how important Germany is as a strategic market for Ericsson.

In Budapest, Pal Horwath had just called at the appointed hour, but was asked to hold the line. At 3 o'clock the connecxtion was suddenly interrupted, some disturbance between Budapest and Hannover.

And now the question was, will Horwath call back or will he just give up? He could not be reached from the stand. A couple of nervous minutes went by before Budapest came back on the line. After yet another brief wait, Colin Buckingham was able to pass over the phone with the connected call to Schwarz-Schilling.

The call lasted close to five minutes. From the German commentary everyone understood that it had to do with Ericsson technology and how well it functioned in Hungary.

When the minister later left the stand a feeling of exhilaration burst out. Everything worked and it worked perfectly. Next day, Ericsson's CT-3 technology is on every paper's front page.

Text and photos: L-G. Hedin

Jan Stenberg looks around the exhibition hall in the direction where the minister is expeceted to make his entrance. Time flies...

Colin Buckingham is obviously nervous. Will the Hungarian connection still work if there is a delay before the call reaches the stand...

Claus Görman from the Hannover fair management also begins to worry over the delay. Colin Buckingham has just heard that the connection with Hungary has been interrupted. The only way to regain the connection is for Pal Horwath in Budapest to call back.

An uneasy wait for Ericsson people in the public too. Heinrich Thanscheldt, president of EBC's German company, knows that a lot of prestige hangs in the balance if all goes well with the inauguration ceremony.

Now the minister has arrived, but first he likes to chat for a while with his hosts. Ericsson serves an improvised lunch...

...before it finally is time for the inauguration ceremony. Everything is working according to plans.

EDITORIAL

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During March-April Ericsson bostäder will open a global mailbox with vacation offerings.

Ericsson's housing agency moves

Ericsson Bostäder, the company housing agency, which, among other things, leases rums and apartments to employees visiting Stockholm, has now changed address. At the same time some important changes have been made in the agency's leasing policies.

"For Ericsson employees who need help with rooms or apartments in Stockholm, it is important to know our new address and our new telephone number, says Magne Limevåg, head of Ericsson Bostäder. The unit is now located in Marievik, at Årstaängsvägen 17. The internal address is now MG/LME/LBB. The telephone number has also been changed with the move, and the switchboard can be reached on 08/726 2500.

Booking an apartment is best done via Memo. Use Memoid LME:LMEFLAT and this way you will be in direct contact.

New pricing

New rules have been implemented for the pricing of guest apartments. This means that an evaluation is based on the standard, size, location etc. of the apartment.

"We feel that this evaluation leads to a more realistic assessment," says Magne Limevåg." He also notes that Ericsson Bostäder alsways has rooms available in the first place for new employees coming to Stockholm.

"I also hope that those who are in need of a new, better or larger apartment will turn to our global mailbox in Memo," Magne adds. This has memoid LME:LMEBOST and covers furnished and unfurnished rooms, but also sometimes apartments that are offered for sale by people who are employed at Ericsson.

Leisure offers

During March-April, Ericsson Bostäder will also open a new global mailbox, LME.LMEFRIDA. This will have "plus offers" for Ericsson employees ahead of the summer season. The offers could be in the form of travel, charters, holiday cottages, summer homes in Stockholm, etc.

"I really hope that everyone who has access to Memo in the workplace will try their luck at finding a rewarding summer tip in "FRIDA," urges Magne Limevåg.

Positive results in image research

Pupils in the ninth grade and in technical courses at high school have an overwhelmingly positive view of Ericsson's factory in Söderhamn. This is also true of opinion makers in the commune. This was shown in a poll conducted by IMU researchers commisioned by Ericsson in Söderhamn.

"We started talking about attitude research in the fall," recounts Monika Degerman, head of personnel at Ericsson Telecom in Söderhamn. "We wanted to know what the people thought about the factory. What attitude they have toward us."

In recent years a lot have been written about the bad reputation that manufacturing industries have had among young people. Keeping in mind that these are the ones who make up the future work force, it was interesting to know if this was really the case.

"We discussed with IMU regarding the group that we were interested in. Besides the pupils who follow the technical line in high school, we were also interested in the views of those in the ninth grade, as well as the attitudes of opinion makers in the commune. By opinion makers we mean those who exert influence over life in the commune, for example, parliamentary and municipal politicians.

Questions

The questions that were put to the various groups were:

What products does the factory manufacture? How many employees does it have and how large a proportion of these is made up of women? This part showed how much those questioned knew about the factory.

In addition, there were questions to which responses were categorized as knowing entirely, partly, not aware, or absolutely not that the factory:

- has a good working environment, good personnel policies
- offers good salaries and worker benefits
- has major significance for activities in the commune
- offers employees the opportunity to develop in their jobs, among other things.

Means a lot

Pupils were asked if they could see themselves working there after finishing school.

Both the opinion makers and the pupils have a positive view of the Söderhamn factory. In principle, the collective view of the opinion makers is that the factory has major significance for both activities in Söderhamn itself as well as in general for Söderhamn as an area.

The only thing that the opinion makers saw as a negative was getting information about the plant. That could be better.

Pupils and opinion makers in Söderhamn have a positive view of the Söderhamn plant. All that's needed is more information.

Among the pupils, 30 percent wanted to begin work after finishing school, 61 percent saw themselves trying out a job there and 31 percent felt they would be happy if they started working at the Söderhamn plant.

Surprise

"All in all we concluded that the attitude toward the factory was quite good. But the fact that so many in the ninth grade could see themselves trying out work here was a real surprise. One must remeber that amiong ninth graders there is every category of young people, even those who intend to further their studies in courses other than the technical line."

One result of the research is that information will be improved.

"It was the only aspect that was bad," says Mona. "It is important to inform so that the future work force get the right impression of us. We have discussed holding an open house. We will also have more contact with commune leaders and with the local papers. Above all, we shall be a bit more outgoing."

Helena Lidén

It's ringing, it's ringing. Hurry up and answer!

The heart of the switchboard, where 16 operators work simultaneously. To avoid picking up the phone they have a reciver with a microphone attached, held in front of their mouths.

Do you answer the phone with a hello? Are you one of those who forget to say who you are? Then, you don't know what good telephone culture is all about.

Bad phone culture makes for a bad ambiance

"A bad telephone culture could mean lost business, and just as well leads to unpleasantness internally," says Birgitta Breitholtz.

She is in charge of the project that operators at the company switchboards are now pursuing to improve telephone culture in the group. A symbolic telephone pole alongside a house appears on a control panel. A call from outside is coming in. Pia Ölander, an operator for the past six years at the switchboard of the main plant, takes the call.

"Ericsson, good morning. Mr. X has informed us that he is in a meeting until 12 and if we can leave a message for him."

This is the way it goes for many who call the switchboard before lunch. In the best of cases naturally the subscriber himself answers but after six rings the call goes to the switchboard. Pia sits at one of four desks each of which accommodates four work places. Here, four floors up, in one of the many winding corridors at the main plant, is located the now fully computerized switchboard. Today, it serves as a reference switch for all of Ericsson. Pia is one of 23 operators at the main plant who takes some 8,800 calls a day. That is almost a call a minute per person. Since 1985, the switchboard at the main plant comes under Ericsson Data Services (EDS).

Answer time tested

Birgitta Breitholtz is area supervisor for the operators. They work on a rotating basis 37 hours a week. The first job shift begins at 7 A.M. and the last one finishes at 5.45 P.M.

With the change to the new MD110 switch the operators were given a more central role. Today, one of their most important work tools is a system that functions as an electronic telephone directory. For example, there is an extension and a job location for every employee. When Birgitta initiated one of the telephone culture projects last year, the switchboard made a test of how many calls were answered. The goal was that 9 out of 10 should be answered. The operators test called 484 persons in EDS and 71 percent answered. That means that the company loses 750 calls a day, 187,500 a year. This was what prompted EDS to decide to inform its personnel on how to make better use of their phones.

"It doesn't help if we have good technology, assistance and capable operators if in the end nobody answers. We are totally dependent on our subscribers," says Birgitta.

In the last quarter of last year, the figure reached 90 percent for those answering their calls at EDS. But it is not only reply frequency that was being measured but also reply time at the switchboard, where 8 seconds is the target. To control the time the measurements were made from the switchboard every day for all types of calls.

Let's say someone calls from Asia. The operator begins to look at the group level, then the section level, and finally at the department level. Maybe then she tries to reach the secretary. During this entire time an operator is tied up with this call while someone is sitting in Asia waiting. In the worst of cases it could take up to 20 minutes before someone can let her know that the department is on a training course. Nowadays such a long waiting time occurs very seldom, according to Birgitta.

The tests are still being conducted, so don't be alarmed if someone calls from the switchboard and researches if you answer, for the girls are not out to hunt down people but are simply measuring reply frequency or perhaps leaving an important message.

One of the operators is Margret Palin. She is working as the chief health delegate for all of EDS since the beginning of January, going around speaking with the girls on our visit. How does the health delegate see the job environment?

"It is a very sedentary and stressful job, but it is also exciting. It is fun since one can make use of one's knowledge of foreign languages. We must know English but many of us also know German, Finnish, Spanish, French and Portuguese.

"The biggest problem we have is being constantly warm. Back and shoulder problems are regular," she says.

To improve the working environment, we have taken a little different tack. Two of the girls help with massages, and there is a room for gymnastics.

That it is stressful, Ulla-Britt Eriksson has nothing against that. On the contrary.

"I have a great time. It's no fun sitting and waiting. It's much nicer when it rings. There aren't many who stop. On the other hand she gets very irritated when employees call the switchboard for information about internal numbers instead of looking it up first in the in-house directory. The switchboard receives some 3,000 of these calls per day.

"People ask the switchboard about everything, from how one can deduct for car allowances to who has what telephone number," says Pia Ölander.

Insight for visitors

In conjunction with the phone culture program the switchboard has had visits by large groups of service and production personnel to show how they work. Last fall, they had some 300 servicemen in groups from production divisions.

"It was good to let the groups come here, partly to see what facilities we have but also to get an idea of what people who call and ask are like.

Some subscribers call and ask if the person they are trying to reach is on a coffee break, and it is impossible for us to know," says Åsa Österlund, relatively newly employed, with barely a year at the switchboard. Sometimes a lot is asked of the operator. Pia recalls that recently a man in broken American called seeking one Anders. "He insisted in English that he "is working under the elevator" and repeated the word "Cane" over and over. It took us quite a while before we realized that his party was working for Kone elevators. As it turned out, Anders was off that day, so in any event we could not help the caller."

"There can be a lot of talk with some subscribers. But we have to connect them quickly and not seem too tired," says Pia.

Deferred message

The job also involves taking messages and forwarding them on to subscribers. But it is not everyone who wants to leave a message.

"One can hear from the tone if one wants to leave a message or not. Many times one does not venture to ask if one can take a message but simply hears "thanks, I'll call back" and then a click," says Margret Palin.

Margret is a distant relative of Michael Palin, of Monthy Python fame. As you know, he who , like Phileas Fogg, would make a trip around the world in 80 days with a TV team by camel and train. But Margret does not communicate with the world via telegram and messages when she can't reach a subscriber. Instead, the operators send a message through the Memo mailbox every half hour, if the subscriber has one. Otherwise they try by other means to reach him.

"People are lazy with Memo," says Åsa. "We can only hope that they read their Memo messages. On the other hand, it has become better on the telephone side.

"It seems that people are aware of how important it is with telephone culture, and we have come a long way compared with other companies, both in Sweden and abroad," says Birgitta Breitholtz.

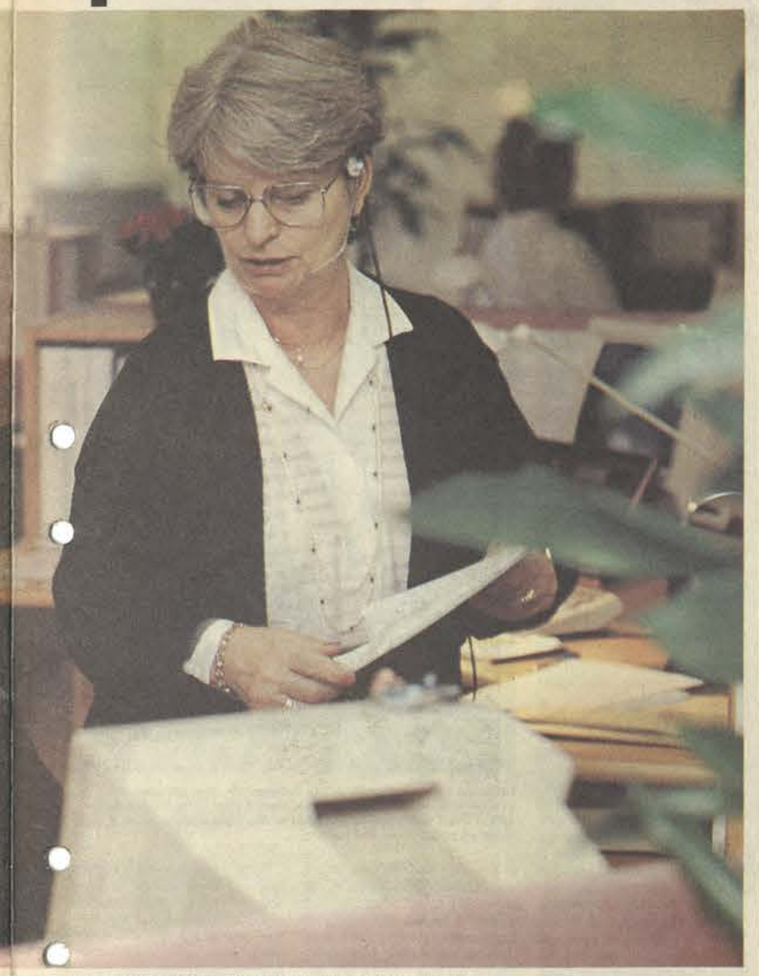
At 5.45 the last shift leaves the switchboard at the main plant for home, and then the incoming calls are taken by the main gate staff.

Text: Charlotta Westling
Photos: Maria Petersson

(Note: Anders is a fictitious name)

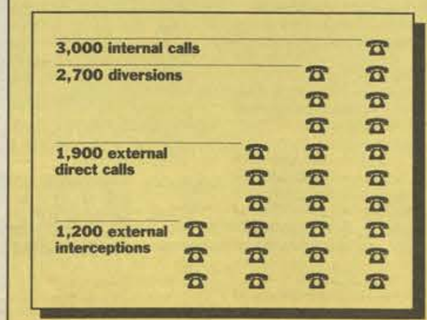
Gunnel Book, after 30 years abroad, has a fluent command of Spanish and Portuguese.

Margret Palin, operator and chief health delegate at EDS, takes a break



and chats with Åsa Österlund, the next youngest of the operators.

On an ordinary day, operators handle about 8,800 calls. These are divided as follows:



Ericsson deal is windfall for small Norwegian business

A small Norwegian company, specializing in high technology, has developed a business switch for small businesses and homes. A collaboration agreement with Ericsson has become a real success for Product Finders International A/S. Marketing through Ericsson resulted recently in an order from Mexico for 17,000 switches.

It's not that easy to reach out into the world market with new products in the field of telecommunications. The competition is tough and there are many established large companies on the market.

When the small Norwegian company, Product Finders International, introduced a business switch for small business and home use, it chose therefore to seek collaboration with its marketing.

The choice of partner was not difficult. There is only one Nordic giant in the telecommunications market with a presence in Norway - Ericsson.

Mini switch

The product that Product Finders International developed is a "mini switch" to be used in the first place for small business. This switch consists of eight internal lines and three trunk lines.

There are many companies that manage with just this equipment, and they are all over the world. This is what led the Norwegian company's management to seek a collaboration with Ericsson.

Under the product name BusinessPhone, which is now common for all the smaller business switches marketed by Ericsson Business Communications, the Norwegian mini switch has been launched around the world.

Already after half a year's work, came the biggest breakthrough yet for this product. It came from the telecommunications authorities in Mexico, which ordered 17,000 mini switches, for a total value of 20 million Norwegian kroner.

That's a lot of money for a small company with 14 employees. The order is actually several times larger than the Norwegian company's entire turnover in 1990.

In Mexico the mini switches will be offered to smaller companies and private individuals who want to have more than two phone sets in their work – or in their homes.

Good combination

"A small company like Product Finders would never stand a chance on the world market," says Edward Flaesen, product manager for BusinessPhone at Ericsson in Norway. He sees immense possibilities for the Norwegian mini switch on the world market.

"It is a combination of the small company's creativity and its development competence and the large company's marketing apparatus that open up these possibilities.

Product Finders International was founded in 1988 by four former employees in EBC's Norwegian subsidiary when it ceased operations in Risör.

The mini switch is one of the products that the company developed from its start. There are several interesting projects on the drawing board.

Ericsson missed Games in Lillehammer

In the last issue of Contact we spoke of Ericsson's accord on the summer Olympics '92 in Barcelona as supplier of MD110 and other tele equipment. The group won one Olympics but lost another when organizers of the 1994 winter sports in Lillehammer chose TBK as supplier instead of Ericsson.

"Ericsson offered, among other things, to start a local company in Lillehammer with 50–100 employees and as far as possible to use Norwegian-produced equipment if we won the order," says Hans Lilleby, of EBC's Norwegian subsidiary.

Nevertheless, it went to TBK, with the proviso that the contract with them will involve several Norwegian suppliers. TBK is a subsidiary of the Norwegian telecom administration. Businesswise, the lost order does not amount to any huge setback. A supply to the Olympics is usually linked with large sponsor participation. Instead, it is the prestige and PR possibilities that in certain ways play a big role.

"But Ericsson still has a corner in the Olympics in Lillehammer. It is we who will supply telephone switches and other equipment that would be used in the public network in Lillehammer in 1994," says Hans Lilleby.

Strength paves way for further success

Now the definitive earnings report for 1990 is ready. It concurs pretty much with the preliminary report of February 7.

With billings amounting to 45.7 billion kronor Ericsson posted profits last year of 4.855 billion, before taxes. In other words, a dazzlingly brilliant result that Ericsson's more than 70,000 employees are to be thanked for.

We are ready to meet a future that makes ever greater demands on us. Therefore we are working even more farsightedly with development of tomorrow's systems and products.

The group's combined costs for research and development climbed last year to 4.9 billion kronor, including certain customer related costs. Added to this are further costs for market adaptation of our systems. Thus Ericsson's combined technical costs in 1990 rose to 7.9 billion kronor. This corresponds to a full 17 percent of the group's billings and is a significant reflection of how farsightedly Ericsson is investing today.

This investment in the future and our excellent results for 1990 are proof that Ericsson stands well-equipped for the coming years. We are stronger than ever, both in the area of our systems and our products when it comes to financial strength.

But we also need this strength to be able to continue as one of the most successful companies in the telecommunications market.

Today, when we consider developments during 1991 we see that there are several significant uncertainty factors. Hence, we should not limit our sights to the 1990 results.

All of us working in Ericsson must contribute toward making our operations more efficient.

Each and every one of us can help Ericsson to be cost effective by not incurring unnecessary costs.

That is part of the professionalism that distinguishes employees of the Ericsson group.

Thanks once again for a truly professional job in 1990.

Lars Ramqvist

Winning world premiere for Ericsson at CeBit

A telephone call between the German communications minister and the head of the Hungarian telecommunications administration was Ericsson's spectacular contribution to the opening day of this year's CeBit fair. The call was part of the inauguration of the world's first cordless telephone system with CT-3 technology. The system was supplied to the Hannover fair, which sponsors CeBit, Europe's largest computer fair.

CeBit is a giant exhibition for, among other things, computers and telecommunications. It takes place every year in Hannover, and Ericsson is traditionally one of the participants in that section of CeBit that deals with telecommunications. Ericsson's stand displayed systems and products from Business Areas Public Telecommunications, Radio Communications and Business Communications. Ericsson's German companies were, of course, present and accounted together with the Swedes for staffing the display – a total of 130 persons were involved.

MD110 in different versions, mobile telephony, mobitex and people pager systems attracted many interested visitors. The different systems for public network were presented on screens, among them AXE, TMOS and ETNA (see accompanying article).

World premiere

The biggest attraction in the stand, however, was the pocket phone DCT900, which is the first commercial system for cordless business telephony according to the so-called CT-3 technology. The world's first large system with CT-3 telephony was inaugurated on opening day. At the Hannover fair there is now the first part of a system which when fully built will cover all the halls at the fair and use 1,000 pocket phones. These will be leased or lent out to exhibitors and VIP visitors. At CeBit the system was installed in six of the exhibition halls, with support for 96 pocket phones.

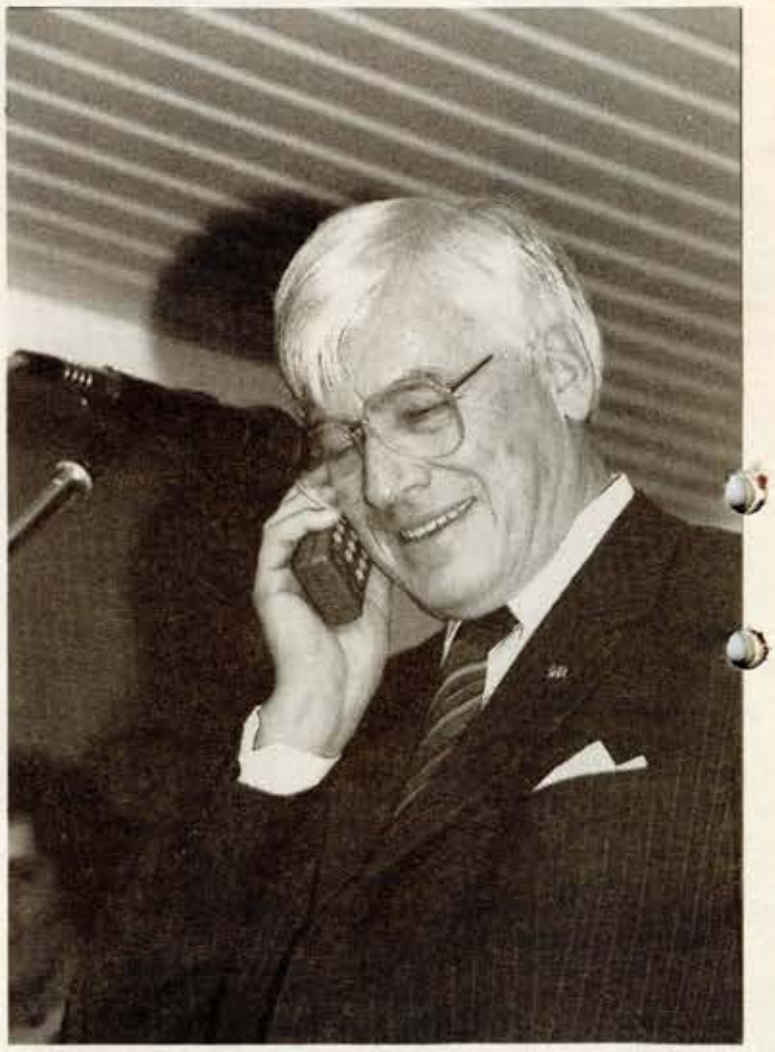
Technicians from Ericsson Business Networks in Holland, the new Ericsson company that will manufacture and market DCT900, has worked intensively these past few months to get the system ready for opening day.

Historic call

The German minister for post and telecommunications, Christian Schwarz-Schilling, was the one who officially inaugurated the system with a distinctly audible call to the head of the Hungarian telecommunications administration, Pal Horwath. Horwath was speaking over the newly installed mobile telephone system in Budapest, which Ericsson supplied last year.

"My system is working fine," said Horwath. His German caller could also confirm that the new generation of cordless telephony was functioning remarkbly well. Ericsson gained a lot of good PR points that afternoon.

Shortly before, the German minister was welcomed by Jan Stenberg, who gave an inaugural speech about Ericsson and the future technology, and by Colin Buckingham, the spirit behind Ericsson's CT-3 system. To the great delight of the Ericsson people, the visit to the stand began with Schwarz-Schilling asking for something to eat – he had just arrived a bit late by helicopter from another meeting and had no time to eat during lunchtime. During the improvised lunch, Jan Stenberg and Colin Buckingham had an unexpected long chat with the minister.



Christian Schwarz-Schilling, the German minister for post and telecommunications, inaugurated the world's first large CT-3 system with a five-minute call to the head of the Hungarian telecommunications administration, Pal Horwath.

The historic phone call between East and West and the exciting new technology from Ericsson made for a large press presence that day though there were so many other attractions in the newly opened CeBit. German TV was there, most of the larger papers in Germany and the international trade press.

Now Ericsson invests in transmission

And now Ericsson Telecom has got a third leg to stand on. AXE and TMOS are being complemented with yet another alphabetical combination, ETNA. ETNA is Ericsson's solution for achieving integrated transport networks.

Ericsson's considerable strength in public telecommunications has for more than 20 years been AXE – Ericsson's digital switches. Through continuous improvement work over the years AXE is still one of the leading systems in the world, both technically and commercially.

Last year the TMOS family of software solutions for maintenance of the tele network was launched. TMOS has attracted considerable interest from tele operators around the world.

When it comes to the network itself, that part of telecommunications which experts call "transmission", in recent years Ericsson has not had a really solid technology.

But with the first commercial success for Ericsson's optical switches, the so-called "digital cross connects, DXC, ground was laid last year for a major upgrading in the transmission area.

New concept

And now there is ETNA – the transport part of Ericsson's new concept for the digital public tele network. ETNA is an abbreviation that stands for "Ericsson Transport Network Architecture."

Behind this concept is not only technology for transmission itself of signals in the network but also for directing the signals in the most effective way via optical switches (DXC). "Routing" is the concept that goes into ETNA and it means that if, for example, a problem occurs in the network somewhere the signals in a flash will be directed to another route between sender and receiver.

The ETNA concept also includes software for guiding the network. This uses FMAS, which is one of the parts in Ericsson's TMOS system. This possibility of guiding and by so doing better utilizing the network's resources means that operators can get a lot more out of them. The utilization level can be raised as much as 70 percent with the help of the guiding instrument that Ericsson now offers.

ERICSSON

Ericsson logotype – the dearest we own

One of the Ericsson group's most valuable assets is our logotype. In every way, it symbolizes the common values we stand for and deal with: professionalism, respect and perseverance.

Wherever in the world we operate, the customer should always know that this word of honor is our seal expressed through our logotype and the group trademark. One can trust Ericsson! Most of us know what the logotype is like, but not always how it should be displayed. Here, in a few words, we will elaborate on the most important aspects of this.

In 1982, the Ericsson group acquired the now well-known logotype: the Ericsson name followed by a stylized E. This replaced the myriad ways in which the company's name was presented. There were certainly more than 25 variations. In one fell swoop they were replaced with a single version.

Over the almost ten years that the logo has been in use, the need for clear and simple rules as to how it should be used has become even greater. Of course, from the very start there was a manual with rules and advice, a so-called CVI manual, but exceptions to the basic rules soon outstripped our capacity to update the first edition. In the fall of 1990, however, a new CVI manual was issued. CVI stands for Corporate Visual Identity, simply put, Ericsson's identification mark, the company's symbol.

Johan Fischerström, LME/DI (Corporate Information Department) and Annika Ryberg, LME/DJ (the legal unit at corporate level) are the brains behind the CVI manual. A lot of work and final polishing went into this "bible," which describes in detail how Ericsson logotype should and will be used.

Distribution worldwide

At the end of last year the manual was distributed to all company managers, information directors, marketing communicators and information personnel within the Ericsson group around the world.

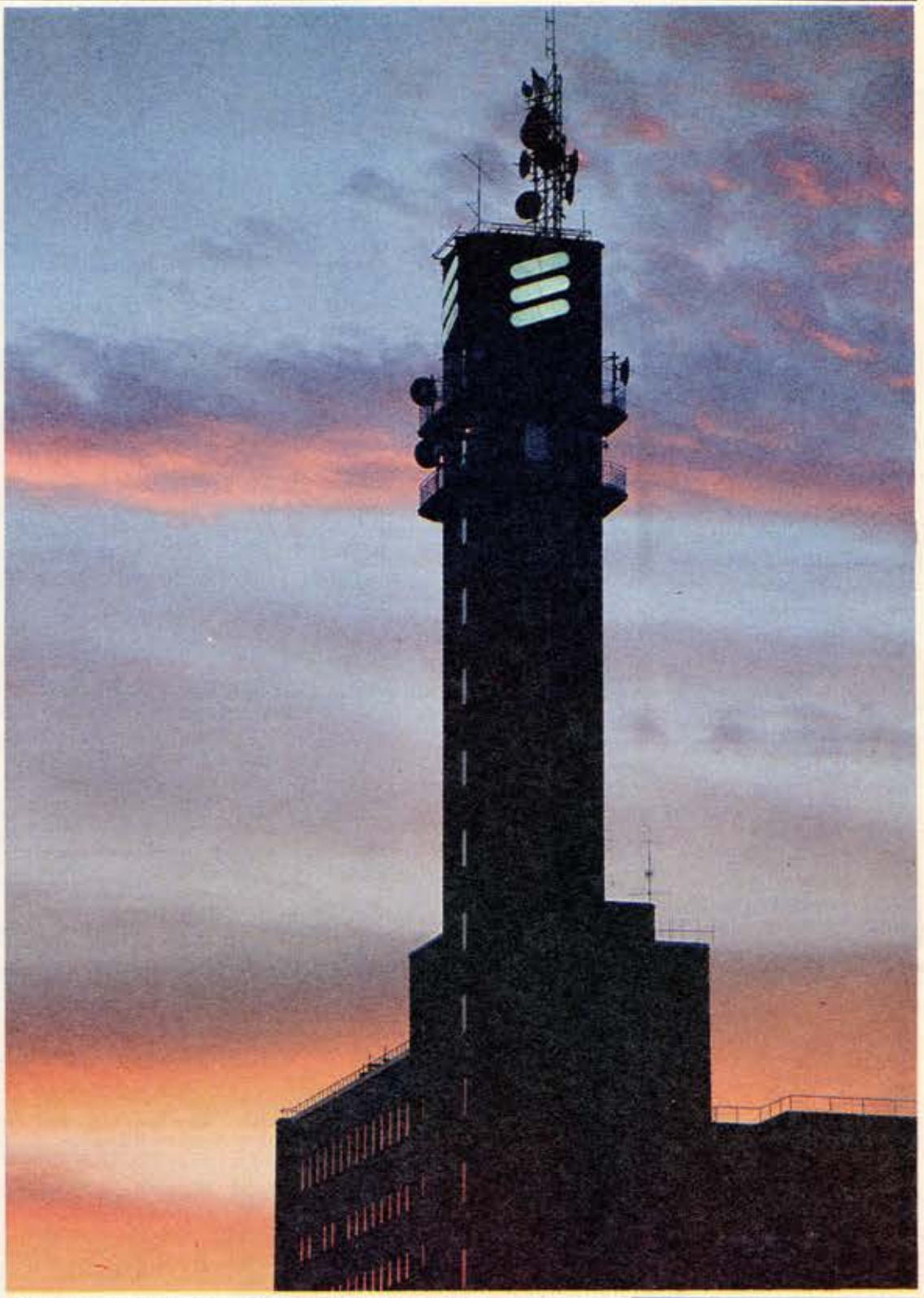
As a complement, there is also a CVI guide in the form of a wallet, which is meant for all employees.

During the conferences in Sonthofen and Linköping last year the new strategy for Ericsson in the '90s was presented. It emphasized, among other things, that Ericsson more than ever is one company. The different areas are part of the same company. Precisely for that reason it is important to see the logotype as a collective symbol for the group and to know what it stands for. CVI rules are also an important guideline for this. A good instance of this is our calling cards, which through a uniform format gives a common Ericsson identification. Regardless of whether a colleague represents a company in Italy, Sweden, Singapore or Latin America the common symbol along with the concordant design is a recognition symbol: The Ericsson name is the same the world over.

Inseparable

Our logotype is our seal. It should appear the same wherever it is used. All the rules are in the CVI manual, and one of the most important is the rule on inseparability. The Ericsson name together with the E symbol must only be used together with each other. If you do not use the logotype in the manner in which it is protected, we can lose the right to it. Still, there are exceptions to this rule, for example, with advertising giveaways where the stylized E may be used alone. Practical and simple solutions, there are, but dangers lurk.

The stylized E is in general designed so that it can be registered as a logotype. It is only together with the Ericsson name that it securely symbolizes Ericsson. There is nothing to prevent similar symbols from meaning something totally different. For example, the vents indication on public Paris toilets are like our E, except that the bars are a bit shorter. Keeping this in mind it is easy to understand why the CVI rules strictly forbid the use of the E alone. The exceptions that exist should be just exceptions. A notable one at that in Stockholm is the tower at Ericsson's headquarters in Midsommarkransen where two of the four sides carry the stylized E alone.



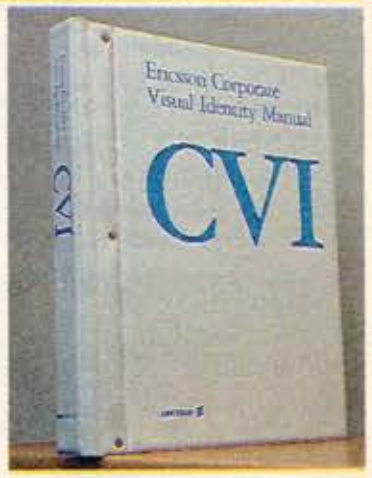
The stylized E is generally designed to be registered as a logotype. Therefore it should only be used with the Ericsson name.

E is a yardstick

The distance between the logotype and accompanying text or pictures has the minimum height of the E in actual size. The picture below shows this. Another important rule is the color. The Ericsson logotype should eventually be printed in four-color blue (PMS Process Blue) or 100 percent black or negative in one of these base colors. As for the type face that should be used in brochures, ads, etc. we have chosen Garamond 3. Other type faces are used for overhead pictures, technical printed material and certain other products. All the details on this are found in respective chapters in the CVI manual, which should be available from all company managers, information directors, marketing communicators and information departments. Should you be missing a CVI manual where you are supposed to have one, then all you have to do is requisition it from DI. The small CVI guide can be had from the appropriate information departments. It appears under publication number EN/LZT 109 521.

CVI council helps

The CVI manual also contains rules, advice and examples on how the logotype should be used. Most questions will find an answer there. However, not all will. Actuality does not revolve around rule books, and sometimes rules have to be amended.



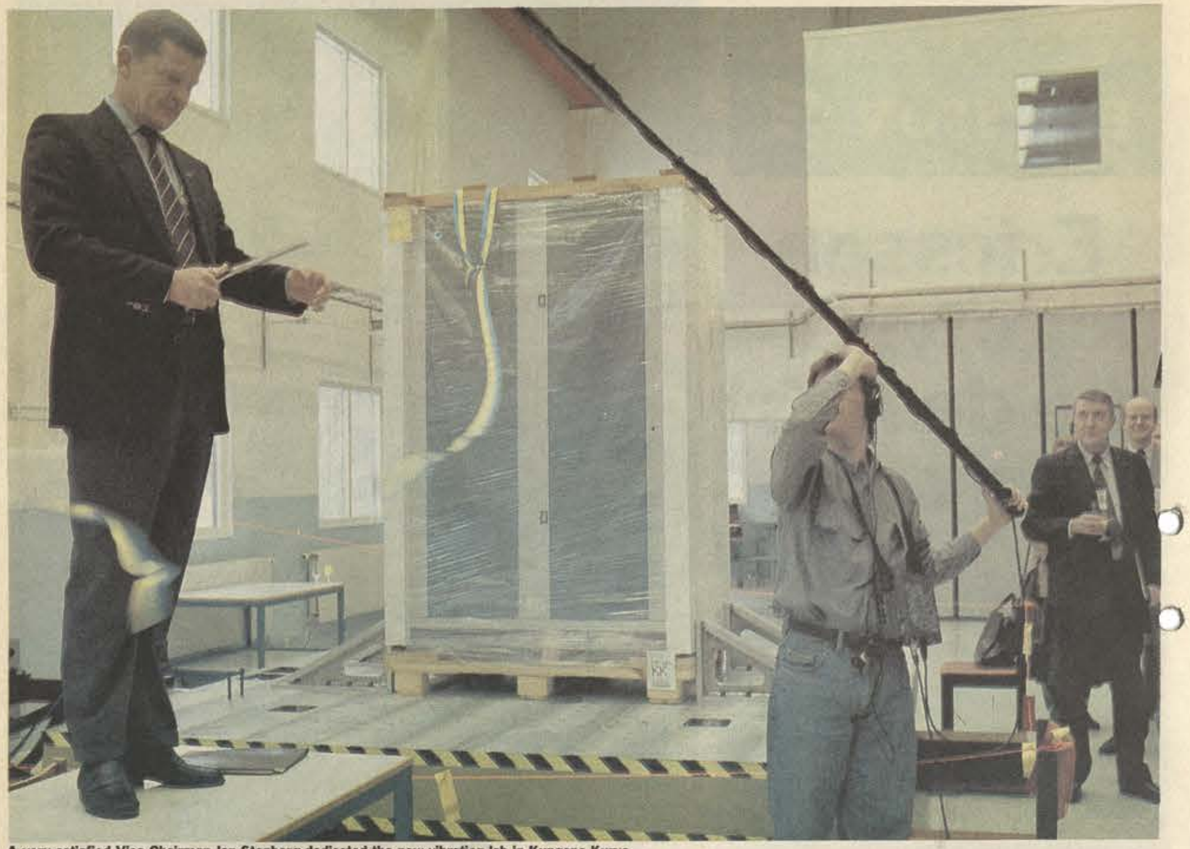
A new CVI manual has been distributed throughout the company. It describes how the Ericsson logotype should and will be used.

Should difficult questions arise on the use of the logotype, there is a forum to turn to: the CVI council. This includes representatives from all the business areas as well as members of the company's legal unit and the marketing department, with Nils Ingvar Lundin, Director of Corporate Relations, as chairman.

The CVI council meets once a month, where both major and minor questions are taken up. No problem is too small; the purpose of the council is to straighten out ALL questions. Turn to the CVI council if you have questions or problems to resolve when the CVI guide does not suffice.

Thord Andersson

Between the Ericsson logotype and the accompanying text or picture there must be a minimum of white space equivalent in height to the actual size of the E.



A very satisfied Vice Chairman Jan Stenberg dedicated the new vibration lab in Kungens Kurva.

Unique vibration lab dedicated in Kungens Kurva

Working on setting up a vibration lab in Kungens Kurva has been going on for many years now. The first thoughts came about 20 years ago. With pomp and fanfare it was finally dedicated by Vice Chairman Jan Stenberg. This makes Ericsson the only company in Sweden with such advanced possibilities for vibration tests on technical equipment.

Many interested parties gathered for a demonstration of the vibration lab. And it certainly vibrated.

The oldest testing equipment for vibration and bump testing is 29 years old and can only be used for testing of small components.

The new vibration lab offers far better testing capabilities.

With the help of hydraulics low-frequency vibrations are produced and with the help of electronics several different vibration characteristics can be simulated. An important low-frequency type of vibration is simulated earthquakes.

Even such tests are done according to international standardized methods.

The maximum demand on the equipment corresponds – technically simplified – to about 6.5 on the Richter scale. Tests with corresponding severity are tough for the equipment.

Vibrations

Products for more high frequency vibrations are also tested in the lab, which are produced by electrodynamic vibrators. They function very much like ordinary loudspeakers but are significantly more powerful and are designed to deliver power instead of sound-pressure.

Tests can be done with horizontally or vertically directed vibrations and with so-called sinus-, noise- or shock character.

The technology in the lab is modern both for testing and measuring. The products tested fall into every category of telephony equipment, from the smallest component to the fully loaded electronic units. When it comes to seismic tests, several units could be tested simultaneously.

Göran Ekman and Johan Siberg in cheerful chat. There were no surly faces this day. It has been a long wait for the vibration lab.

"I am very happy to be able to dedicate the vibration lab," said Jan Stenberg in his opening address. He himself has been involved in the six-year prepartion time.

A very long time

"It began with the first fumbling calls for investment. The company's economic situation meant that the project was delayed and remained low for a long time.

"That makes it all the merrier to be able to have the economic means now to have an in-house installation.

"We will have professionalism, competence and quality in everything we do. In recent years, we have acquired several and more advanced markets, like the U.S., various markets in Europe, as well as – maybe within a not too distant future – Japan.

Customers in these markets demand high-quality, operation-secure tele networks, and we shall verify that whatever we deliver meets this demand. Equipment must function under all circumstances.

Now we have the means of verifying this through tests in our own lab.

Costly?

"The vibration lab may seem costly and expensive to run, but the cost, 15 million kronor, represents half a percentage point of Business Area Telecommunications (BX) annual turnover, and a quarter of a percentage point of all of Ericsson's annual turnover.

The vibration lab is a very good investment for ETX and BX, but also for all of Ericsson.

"The hydraulic installation we are now dedicating is unique. It will draw attention in the entire country and it reflects the quality consciousness that Ericsson stands for. A consciousness that would distinguish the truly large companies from the minors.

There is even the possibilities for external companies to lease time for testing their equipment.

"In the entire world there are four or five real experts in vibration testing," explains Christer Jungsand, sector manager. One of them is at Ericsson Telecom, Dag Sjögenbo. Without him, the vibration lab would hardly have come about.

The mountainside

Dag Sjögenbo recalls that ground was broken in September 1989. A lot of work was done before that though, among other things research of mountainous terrain to find precisely the right spot to place the lab.

Keeping in mind the immense forces that underground tests create, housing and equipment had to be securely anchored.

In the mountainside the hydraulic equipment was solidly entrenched with 30 cubic meters of concrete. With a really severe earthquake, the housing could fall apart. During the tests, on the other hand, it is only the equipment that would be thoroughly shaken.

The vibration lab represents an unusually solid hold in our existence.

Text: Helena Lidén
Photo: Maria Petersson

Bror Lundquist from the group function technology and Öyvind Gjessvåg, Norwegian consultant in the EMC area, were on hand to speak at the dedication of the vibration lab in Kungens Kurva.

Örjan Mattsson – "technology freak"

Örjan Mattsson has gone all the way when it comes to new technology. Now he is head of Ellemtel, where they are working with Ericsson's future technology. We met him one cold and windy day at the end of January. It was a fascinating chat about heavy technology and innovations, for he certainly is a technology freak in the positive sense of the term, and at the same time he is conscious of the meaning of soft factors.

"New technology has always fascinated me, and here at Ellemtel we really deal with new exciting technology in a more defined and flexible organization."

Working in a small organization is certainly nothing new for Örjan, but previously it was within the framework of the Ericsson organization.

"I began with transmission already back as part of my final exams," says Örjan. It was a small group and we really functioned as entrepreneurs. It was an era of data transmission's infancy and naturally Örjan and the others saw the job as very exciting.

When it eventually came around to dealing with digital transmission and PCM, Örjan was right there almost from the start.

"It was the new technology that drew me in again."

The third time he heeded the call of new and exciting technology was with fiber optics. Once more he was among the first. This time it had to do with opto technology. What is it that makes him know precisely what the new interesting future technology would be?

"Well, it's not quite like that. I have never really been in on the first wave, but once it had progressed far enough to see what it was all about, I naturally became curious and wanted to hop onto the bandwagon.

Enormous development

Many of us who do not work with technology find it difficult to grasp the enormous developments that have taken place these past few years. But sometimes it happens that even the technicians themselves who work at the forefront of technology do not really understand how far they have come.

Örjan speaks about the big fiber optic boom in the U.S.. When it became obvious that fiber optics gave incredibly larger capacity over long distances, everyone was calling for a new system built on fiber optics. It was matter of being first.

They worked feverishly at Ericsson. The target was to be able to transmit 8,000 calls via a fiber, at least 25 kilometers.

"We took it for what it was. The 25 kilometers was a longer stretch than many others thought was unreachable.

But when the test was done with Televerket it did not work. For a start nobody knew what the problem was, but it turned out that 25 kilometers was too short a distance. On the other hand if we transmitted over a distance of 50 kilometers there was no problem. Fiber had even greater possibilities than anyone could ever dream of.

"We really had it good in those days," says Örjan, laughing. "It was up-front technology and we were in a hurry. It brought about incredible teamwork and strength.

Örjan Mattsson is new head of Ellemtel, Ericsson's development company together with Televerket.

Bringing together

After working several years with fiber optics the step was not far to the latest of ETX products, DCC, Digital Cross Connect, where they use fiber optics to expand capacity in the transport network.

"I supported DCC in the U.S. in 1983," Örjan recalls. "Until then transmission and switching people had often worked separately with different products. It was a matter of two different cultures, but DCC needed the competence of both sides.

Up to November last year, when he was named head of Ellemtel, Örjan was sector head of that part of T division where the new so-called trans-switching products, among them DCC, was developed.

While Örjan himself has always worked with new technology up to now, he will now lead an organization of researchers and developers.

"As a manager it is always an advantage to be able to bridge cultures. The importance of that, and it takes its own time, I learned with the start-up of DCC. It took several years to get the switching and transmission organizations to understand each other. But when they finally did, they achieved enormous results."

"Bridging cultures is also very important in regular dealings with other companies."

One must have a solid base of technical knowledge to be able to determine what investments are crucial. We often speak of technology heights. Sometimes ideas for products can be so advanced that they are not materialized until much later. At the same time products must have a long life and still consist of new technology when it is manufactured and reaches the market. It means investing properly.

"But even if technologists are clever, there are also many soft areas that are not so essential. Activities at Ellemtel must be goal oriented. There is no point detail managing an organization with such academic density, creativity and where tasks are so complex."

"Ericsson is so huge, so functional and, unfortunately, people are often in meetings. At Ellemtel the set-up is more familiar, which is not so unusual considering that there are only 800 employees and they all occupy one building."

Secret

We couldn't get any direct answer to our question about what Ellemtel is working on today. Except that it has to do with further development of AXE.

Naturally, competitors are out to get their hands on every bit of information they can, but they can hardly penetrate Ellemtel. Security is rigorous.

Like so many other highly motivated people, Örjan works hard. When he finished at Ericsson he received a watch where the dial indicated 13 hours.

"I really need the extra hour," Örjan says, "but actually I don't work all the time. I like sports very much and I like to be out in the nature. I think it's the only way to face a tough job."

Text: Helena Lidén
Photo: Maria Petersson

Premiere for new fiber welding, already a sales success

After the world premiere with FSU 800 in 1980 and the three successive years it is now time for the fifth generation fiber welder from Ericsson – FSU 905. It is already a sales success before being introduced on the market.

The first model was sent to the Spanish telecom administration at the end of last year and the other will soon be delivered to Bankverket here in Sweden.

It was a happy and satisfied Inge Bergh, product manager for fiber optic products from Ericsson Cable's division Network Products in Sundbyberg, whom we met for this interview at the beginning of March.

"FSU 905 is the result of excellent development work and smooth running production," says Inge. Although we are dealing with a yet to be launched product, demand is very great. We already have 100 waiting orders beyond the 60 that have already been delivered.

"We deliver between five and ten machines per week," Inge adds, "and current delivery time is at least two months. The first large context in which we were able to show the 905 on the market was at the important market-geared OFC fair in San Diego, U.S.A., at the end of February.

Breakthrough in 1985

As of to date more than 1,500 Ericsson welders have been sold around the world. Mainly to telephone administrations in various countries, and, to a lesser degree – maybe 10 percent – to other customers, for example power utilities, TV companies and internal Ericsson customers like Ericsson Telecom and Ericsson Network Engineering.

Instances of large markets are Britain, U.S.A., Turkey, India, Switzerland, the Far East and recently China and Brazil. The major breakthrough for the Ericsson welder on the world market came in 1985. FSU 850 was an immense success and immediately won the acclaim "the world's best welding for splicing of optic fiber in the field." It was a semi–automatic machine, which meant that, among other things, lining had to be done manually. FSU 900 was the first fully automatic machine and the current 905 is an advanced development of this.

Inge Bergh, contented product manager with Network Products in Sundbyberg.

New measuring method

Performance-wise there is no great difference between the two latest models. The major differences are that the 905 is equipped with:

- A new and considerably improved evaluation program for splicing loss, a patent for which is being sought. There is nothing corresponding to this in competitor's machines as far as we know.
- Built-in monitor through which actual live pictures are shown during the process. In addition, the customer can choose a so-called text prom that gives step-by-step instructions in a desired language, including Chinese.
- A memory function with whose help one can get a printout of the 50 latest weldings.

Moreover, the welding process itself is significantly faster. It takes just about 50 seconds, compared with 90 seconds for FSU 900.

Important plus factor

"Even if competition in this special area heats up considerably in the coming years, naturally we will maintain our position as a world leader and our new machine FSU 905 is clearly ahead of any of our competitors." Inge says. "For instance, it has built-in flexibility, which unlike many other welders we know permits use in areas other than fiber splicing, such as line manufacture. Certainly marginal, but it is a plus factor considering that the competition is stepping up all the time with new and better products. That's why we have reason to rejoice that last year we got a notable resource boost in our development unit and that production is running as smoothly as it does today."

"This makes me look at the future with great optimism," says Inge, who in the end revealed that right now discussions are taking place on eventual licensed manufacture of FSU 905 in a couple of large markets. The most likely country at the moment is India.

Text: Kåbe Lidén
Photos: Karl-Evert Eklund

At the lab in Sundbyberg development work is being done on the next generation of fiber welders.

Every individual set is calibrated and tested in detail before delivery.

Grethe Mygh works with printed board assembly. Production is at the heart of operations at DIAX and designers are located in the same building.

The work environment is open at DIAX. It is easy to furnish and form groups for new projects.

The noble art of growing without being large

The average age is 31 years, and three-quarters of the employees are under 35. The sick leave rate is less than 1 percent per year. They have a large, open work environment. We are talking about DIAX Telecommunications, Ericsson's Danish subsidiary with Bang & Olufsen.

With an open and informal work milieu DIAX has moved ahead

Every morning the some 130 employees meet for a short coffee get-together. It is easy to spread information about new things. Björn Olsson, president of DIAX, cannot always be there, but he tries to be as often as possible.

There is no secretary outside his door to control admission. For the most part, instead, the door is usually open. You just have to go right in.

Working at DIAX is very informal and the open work environment makes it easy to move around a lot with colleagues.

"The open environment makes it easy to move around and form new groups of people, when new projects are started," says Björn.

Building up

The number of employees at DIAX has grown dramatically in recent years and there is a risk that the informality and simplicity could be lost when the number of employees increases.

"We will grow at a more normal pace now, with regard to the number of colleagues," says Björn. "However, we shall expand with another similar building. It's starting to get a little crowded."

In the new setting there will be greater opportunities to sit without limitations. There are also disadvantages with an open milieu. Some have complained about the general noise level.

"We will try to introduce some form of "water story," says Björn. A fountain or something similar that drowns out some of the unwanted noise.

Production in midst

Production at DIAX is not separated from other activities, as is the case in many other places.

"Designers sit alongside production personnel, in the same areas, says Björn.

Those working with printed board assembly place individually consecutive numbers on the board. This way a defective board can always be traced to the person responsible.

"There is no competition to produce as many as possible," says Grethe Mygh, who has been working for 10 years in production. "Better five right boards than 10 where some are defective."

Tom Simonsen is one of the many young people at DIAX. He has been here four years and he thinks that the job today is a little more structured than it was when he began.

"Then there were only 30 employees," he says. "It is still very informal, but today I do not know everyone working here as well as I did earlier."

Two girls

As is common with technology companies, there are mostly men working at DIAX. In Denmark it is as difficult as in Sweden to find girls interested in a technical career. But it is starting to get better. One of the two female development engineers is Charlotte S. Poulsen.

The job at DIAX is her first after school and she enjoys it.

"I am working with MegaNet," she explains. "Everything from development, documentation and tests up to training. That is the advantage with a small company: one gets a chance to be in the entire chain." There is no problem being a women among so many men.

"It always depends on what mentality one has," Charlotte says. "I can clearly recommend other girls to go in for technology. It is both exciting and developing.

If the absenteeism rate at DIAX is very low the personnel turnover rate is not equally low.

"One must remember that most of the employees come directly from school," says Björn. "They are young and eager engineers and technicians. After a few years maybe they want to try something new, even though they are happy in their jobs at DIAX."

There aren't many girls at DIAX. Charlotte S. Poulsen is one of the two women development engineers. The job at DIAX is her first after school.

Text: Helena Lidén
Photos: Maria Petersson

Standard, thanks to Hans Karlsson

In the next issue of the magazine Elteknik you can read about Ericsson DuPont's new device that is enjoying immense success in standardization work around the world. In fierce competition with other companies Ericsson got the device approved by, among others, several heavyweight American organizations and companies, which is a major accomplishment. The one who succeeded in getting the new device accepted in different standardization committees is Hans Karlsson, from T Division, "The Man" behind standards within the field. He himself is chairman in three IEEE committees, among them one that is working on basing construction methods on the metric system instead of inches. A standard that will affect everything from components to the netire cabinet. Everything will be divisible according to the metric system.

Big profits for Televerket

It is not only Ericsson that registered a very good year in 1990. The group's foremost partner, Televerket, the Swedish telecom administration, also had a successful year. Profits grew by 11 percent to almost 4 billion kronor. Sales rose by 15 percent to 31.4 billion.

Managing director Tony Hagström is still not pleased with Televerket's performance. The government is raising its demands on Televerket, which has to do its share for investments in the railroad and roads that were part of proposals of the recent so-called growth proposition.

Already in 1991 the government wants Televerket to provide 6-7 billion for this investment. According to Televerket's leadership, this calls for a reduction in personnel to meet the increased performance demands. Still, one is hoping for a continued increase in the use of tele networks.

Advanced team on the way to Kuwait

At the end of February, when the liberation of Kuwait was on the threshold, Ericsson received inquiries from the emir of Kuwait about helping to rebuild the country. About 90 percent of the Kuwaiti tele network was supplied by Ericsson. Hence, the mission of assessing damages and determining the need for reparations did not come as any big surprise. At Ericsson, a team was already at the starting gate before the mission was even assigned.

The situation in Kuwait today is very much like that following a disastrous earthquake. Now, it is a matter of rebuilding the country quickly.

Rolf Hedenström at ETX was working in Kuwait in August when the Iraqis invaded. After a long time as a hostage in Baghdad and having spent a couple of months in Sweden, he is on his way back to the Persian Gulf. Rolf will lead the task of assessing the damage done to the Kuwaiti tele network.

"I do not know any more today than what I saw in newscasts from CNN," Rolf told Contact when we met a few days prior to his departure for Kuwait City. Through TV newscasts Rolf could confirm that the central headquarters for telecommunications in Kuwait City had all its windows blown apart by explosions. The big question now is whether the explosions were from inside or whether the damage was done from outside or whether the Iraqis in some other way used the important tele exchange as part of their war game plan.

"Inside the exchange there are five switches and an ARE," explained Rolf, who himself worked with these many years prior to the invasion.

Dismantled

Another thing that Rolf and his colleagues doing the assessment know is that the satellite station that handles most of Kuwait's international telephone connections has been dismantled.

"It was still there when we left the country in August, but it was gone when a few colleagues went by in November," says Rolf. "Quite likely it is somewhere in Iraq today."

The other key artery in Kuwait's telephone links with the outside world was a cable that Ericsson installed between Kuwait and Dammam in Saudi Arabia. One of the group's first task is to see what has been left of the cable. As the group got together the aim was to meet with people who were involved in all the vital sections of the Kuwaiti tele network and, above all, with those who worked on installing equipment.

"We are finally getting somewhere in the group," says Rolf. He recalls the difficulties he had in reaching the AXE testers . There are a few of these people in Kuwait but it is uncertain whether they will be reachable when the group comes back down there.

Earthquake

From the pictures coming out of Kuwait, it is clear that the situation is not unlike the aftermath of a disastrous earthquake. Ericsson has a lot of experience in these cases, among them in Mexico. After the terrible earthquake in Mexico City some years ago, the company quickly pull together people and resources to carry out the reparation work that was needed in the tele network.

"If we get the job, then we will rapidly rebuild also in Kuwait," says Rolf. The mission at this point involves only an assessment of investment needs but Rolf and all the others hope that the investigations would lead to Ericsson being the supplier for the rebuilding of the network. The very first thing the Ericsson group will do on returning to Kuwait is to see how things are with our very own office in Kuwait City.

"We still do not know if it exists and, if so, what it's like inside. On the other hand what we are sure about is that our own homes were pillaged since we left on August 21," he says, with sadness in his voice.

Well before the Swedes left Kuwait they saw how the Iraqis plundered homes that belonged to other nationalities.

Mobile radio system crucial for rebuilding

A mobile radio system from Ericsson GE Mobile Communications is the base for the rebuilding that is beginning in Kuwait. The order, which amounts to 11 million U.S. dollars, was negotiated and signed already at the beginning of the year in Washington with Kuwait's government in exile.

"Our ability to quickly supply an advanced mobile radio network played a key role in us getting this order. The contacts that Ericsson's lobbyist in Washington has with the Kuwaiti government in exile there have also been significant. The order was placed by the country's Ministry for Telecommunications. So recounted Niels Jensen, who is responsible for exports for the Region Europe and the Middle East in Ericsson GE Mobile Communications. The assignment in Kuwait is a so-called turnkey project. This means that Ericsson-GE is responsible not only for the work with the radio system itself but also for all the work surrounding it.

The basic equipment in the radio system will be installed in mobile containers. These will be shifted to the sites where communications needs are greatest. We still do not know how extensive the damage is to the permanent tele network and what possibilities there are for hooking it up to the radio system.

Digital system

The system that is being delivered to Kuwait is called DACS, Digital Access Communication System. It is a super modern digital truncated radio system. Truncation means that the system itself selects channels very much like a regular telephone switch. DACS, which is developed by Ericsson-GE in Lynchburg, U.S.A., will be displayed at the CeBit fair in Hannover in mid-March.

Region Europe markets DACS for rescue services, police departments, big transport companies, airports, etc. Also for customers who need safe and fast mobile communications.

Ericsson-GE's office in Lynchburg will have project reponsibility for the Kuwaiti order and manufacturing will be done at the factory in Lynchburg. Work has already begun and deliveries are expected to begin in the first half of the year.

"We reckon this first order will be followed by additional ones," says Niels.

Gunilla Tamm

Advanced team on the way to Kuwait. From left, Pär Håkan Larsson, Driss Jirari, Karl-Erik Mälberg, Anders Snare and Rolf Hedenström.

Tommy Näslund and Staffan Dunderberg belong to the group that was moved to Mallorca during the Gulf war.

Mallorca was home for relatives of Saudi staff

On January 9 a special charter plane from Linjeflug landed in Mallorca. Aboard were some 60 relatives of Ericsson employees in Saudi Arabia, who were moved there with the imminent threat of war hanging over the Persian Gulf.

The moved was planned a long time before, by Ericsson's crisis group in Stockholm. They had prepared the group's arrival to the resident hotel Rosa del Mar in Palma Nova.

The fact that Mallorca was chosen as the holding place was because of the presence of Swedish, British and American schools there. There was room for the Ericsson childern at these schools.

"We were really glad when we learned that we were being moved to Mallorca," says Lena Ahlborn. She has two children and is married to Lars Ahlborn, chief economist at Ericsson's technical office in Riyadh.

The alternative of returning to Sweden meant facing problems of getting into school in mid-term as well as finding housing.

In a makeshift office Ericsson set up telephones, telefax, etc. and from there the word went out about events in Saudi Arabia and the rest of the world. Tommy Näslund, administrative head of the office in Riyadh, served as coordinator and information spreader.

"It is important that communications function smoothly in a situation like this," says Tommy.

The best means of communication is without doubt telefax. As soon as something happened in Saudi Arabia, we got a fax from the office in Riyadh with detailed information on how events affected Ericsson personnel down there.

Church support

The Swedish church in Mallorca set up assembly groups and in every thinkable way supported the families at the hotel.

Swedish papers and Swedish coffee with cinnamon buns were a real treat on this forced holiday. Carl-Eric Edfors, the Swedish pastor in Mallorca, led the effort to support the Swedish families during their stay on the island. When the group could finally return to Saudi Arabia, they left some video equipment and a small donation of 10,000 kronor for the church's maintenance in Mallorca – as thanks for the marvellous support.

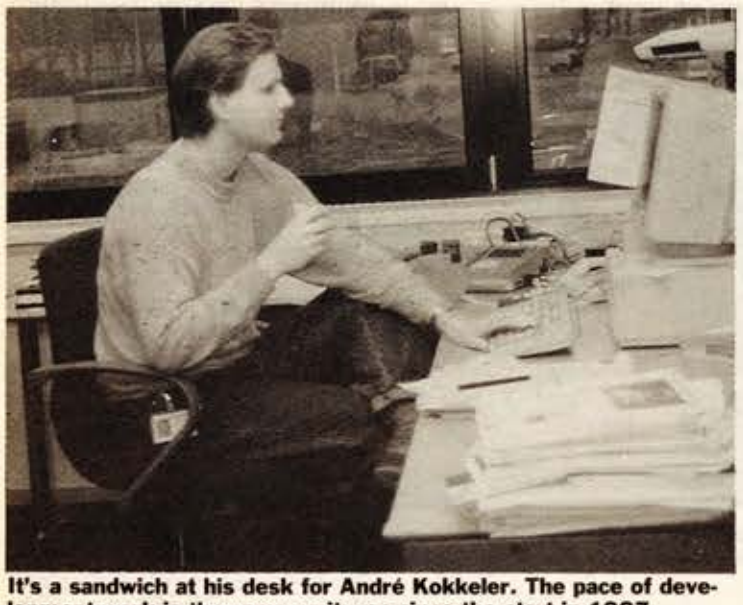
EBC guards Kuwait

The economic sanctions against occupied Kuwait have been lifted and Ericsson Business Communications is mapping out future work in the Kuwaiti market.

"We are planning to approach the Kuwaiti market through various channels. Through Saudi Ericsson for the MD110 and BusinessPhone," says Arne Johansson, with regional responsibility for the Middle East for MD110. Complex projects, that is MD110 together with other product types of transmission equipment, optic cable and radio equipment will, however, be handled by the Turkish company ENK.

"We will also be resuming work with Ericsson representatives in Kuwait, Behbhani, when we return to the country," says Arne. Arne points out that EBC has already received offer inquiries from contractors in the U.S.A., Britain and other parts of Europe.

"They are project companies that are interested taking part in the rebuilding of Kuwait," Arne explains.



It's a sandwich at his desk for André Kokkeler. The pace of development work is the same as it was since the start in 1987.

Cordless success

A goal is achieved. Ericsson's cordless communications system for business communications has now been tested in installations around the world and everything functions perfectly.

A center in this context is Enschede in eastern Holland, where the main part of the system was developed. Naturally, they have a functioning system there.

Enschede is about two hours' drive from Amsterdam. Near the city's technical university there is a brand new building. Some 42 well equipped brains work in there with the last loose ends of Ericsson's cordless communications system for the business world, DCT 900.

The paper's reporter could test call and confirm that all the talk of high sound quality and noiseless transmission between various base stations is definitely true. Through the tiny, tiny phone one could hear clearly and distinctly all the way to Sweden.

Around the world

Testing installations are being done in several places around the world, among them with the Dutch telecommunications administration, in Canada, Germany, Australia and the U.S. Soon a system will be put in operation with Televerket in Sweden.

"During 1991 the number of test installations will grow to 70-75," says Hans Boom, information manager at Ericsson Business Mobile Networks, EMN.

DECT near

DCT 900 is based on Ericsson's CT-3 technology. CT-3 in turn is the base for the coming European standard for cordless business telephony, DECT.

"The scope of DECT is expected to be ready in June," says Hans. After that it will take another year before the standard comes into force.

It could appear a bit remarkable that EMN continues to work with CT-3 when DECT is so near. Hans Boom explains.

"CT-3 overlaps to a great degree with DECT. By continuing the tests of our system we acquire experience. We learn how the technology functions in reality, how users respond and we also acquire marketing experience. When the standard comes into force we reckon we will have a headstart of two years on our competitors."

"Moroever," he adds, "it is such that many companies need a cordless system now and do not want to wait another year and a half. We can offer them our CT-3 based system.

Sell CT-3

"We think we will enter into serious production around mid-year," says Hans. "By then the product will have been thoroughly tested and we can then put it out on the markets where we have shared frequencies."

This is the biggest problem today. In Europe it is very difficult to obtain frequencies for CT-3 in commercial use. Authorities in the European countries are waiting for DECT.

"However, we have obtained the frequencies in Sweden," Hans points out. "We have received positive signals from among other the U.S., Canada, New Zealand and a number of countries in the Far East."

The rest of the world though is waiting to see what happens in Europe with DECT. EMN hopes that when DECT finally comes into being, the frequency problems will be a thing of the past. The fact that the standard is introduced means that at least the European contries are obliged to see that frequencies used by the DECT system are accessible.

Text and photos:
Maria Rudell

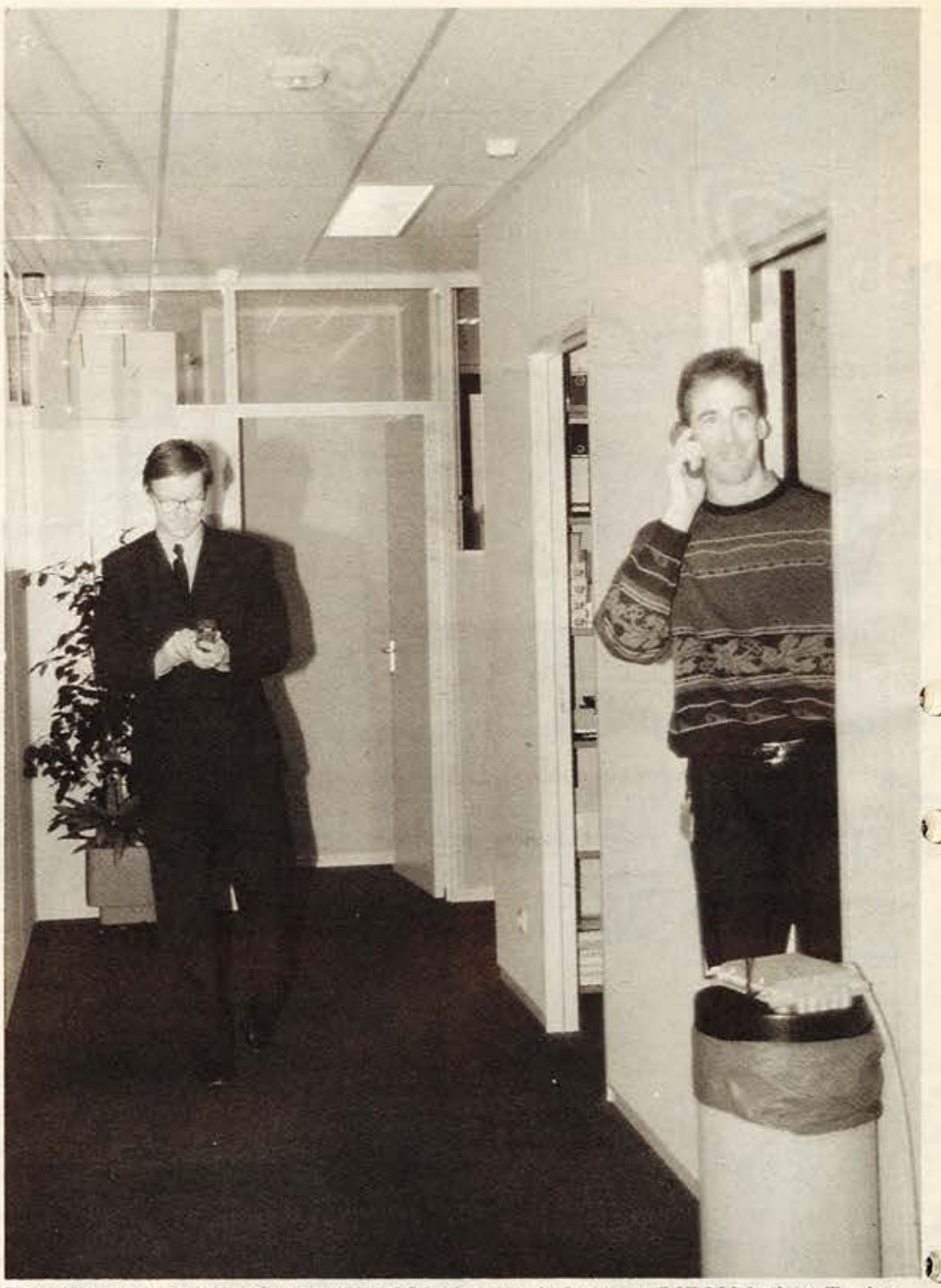
DECT at the threshold

DECT, the decided European standard for cordless business communications is expected to be implemented in June this year. It will then be sent for final consideration to members in the European Telecommunications Standards Institute, ETSI. In June '92, DECT will have its final shape.

At its meeting in March, ETSI decided against letting Ericsson's CT-3 technology be an interim standard. Since DECT is so near, ETSI felt that an interim standard was unnecessary. Another argument that ETSI had against allowing CT-3 as an interim standard is that CT-3 is so similar to the coming DECT.

ETSI's stand, however, does not prevent CT-3 from being a national standard in individual countries. For example, CT-3 is a national standard in Sweden.

The English technology CT-2 was also suggested as an interim standard. ETSI has not yet ruled on this. However, the EC Commission has expressed a desire that work on achieving interim standards for cordless business communications be stopped.



Birend Bergsma, marketing department, and Stan Jansson, designer, use DCT 900. In the ceiling is a base station. Another one is in the foreground.

Everybody working here has their own cordless phone, which means they can be reached wherever they are in the building.

FINANCE SPECIAL

Ericsson clears financial crash with a low-risk policy

Aga, Electrolux, Munksjö and Trelleborg – these are some of the big companies that lost huge sums with the collapse of the investment company Nyckeln. Several of the large Swedish banks also came out badly. But Ericsson's name was not on the list of losers in the Nyckeln crash. There was no chance for Nyckeln to borrow money from Ericsson – the group's financial policy is and has been restrictive.

With 88 percent of its sales overseas and a large part of its costs in the Swedish portion of its activities, Ericsson is one of the companies in our country that is most susceptible to currency risks and in greatest need of an active internal financial policy. Hence, the good results of recent years, which mean that the group's coffers are well stocked. Ericsson's finance people are dealing with about 10 billion kronor in "currency risks" and 3.5 billion that will be placed in the most advantageous way possible.

Own bank

Ericsson Treasury Services AB, TSS, is our own internal bank, charged with the task of administering the group's coffers but also with protecting Ericsson from currency risks. Foreign and domestic companies sell their currency risks to TSS, which then "insures" the company against exchange losses through an active presence on the currency market.

"A very big advantage by gathering up all the individual currency risks in a common "basket" is that the need for currency insurance is reduced to the point of reaching what is net in a certain company's sales in a certain currency and another company's purchase in the same currency," says Johan Fant, head of TSS. This is what is meant when finance people talk of securing "a currency net" for a certain foreign currency.

Caution a virtue

How the handling of currency risks and other "banking activities" in TSS are dealt with is somewhat regulated. Since a few years back there has been a "risk instruction," solidly anchored in the group leadership, which decides what risks TSS will take.

"Of course, one can work now totally risk free, but then instead of risks one must settle for not earning any money," Johan explains. There is a balance all the time between yield and risk when it comes to investing, but the principal rule for Ericsson's part is to exercise the greatest caution.

"Our list of approved borrowers contains, for example, only the Swedish state, communes, housing administrations, major banks and companies," says Johan. "Everyone on the list has top "rating" as far as creditworthiness is concerned. The "rating" is a form of official assessment of how solid an economy a borrower has.

Interest risks

With so much money as 3.5 billion in hand interest rate movements can bring huge risks – or open up opportunities. Treasury Services also has clear directives on how interest risks should be handled.

"Like other actors we try to judge interest rate developments on the market and tie interest to high-yielding investments when we expect an interest drop - or sell them and switch to movable interest when we feel that the rate will move upward again. In the directives it is tated that interest should not be tied up for too long a time – it increases the risk for losses.

"We must also actively folllow the market all the time and sell or buy investments at precisely the right time," says Johan. "It is this that the internal bank in TSS is involved with continuously. There they follow interest rates and currency movements on computer screens, every day all through the year."

It may sound a little strange that a large and profitable company like Ericsson should really have to worry about liquidity risks. But the truth is that the group's liquidity varies all the time. And the swings can be quite large.

"For example, every month we pay out 600 million kronor in wages and taxes from the Swedish companies," Johan explains. This occurs around the 20th of the month. The monthly dilution of the cash till - mainly in the form of payments for goods produced in Sweden and sold internally abroad - occurs on the 25th. But then money comes in instead from the subsidiaries. During the intervening period TSS could have to borrow for running costs. Then it hardly helps that the coffers are filled since for the most part it contains interest-bearing paper.

"Of the 3.5 billion, we have 2.5 billion placed in state bonds and in building institutions – mortgages. The rest is placed in company certificates or in banks.

Poor and rich

Liquidity varies strongly between business areas and between different companies. ERA, which is in an expansive phase right now, for example, often has huge needs for borrowing money. ERE, which gets money in advance for several huge projects, instead has the most bulging coffer.

"From Sweden we keep an eye on the subsidiaries abroad and their liquidity. Those that have high liquidity that is not needed locally invest it in the form of shares to the parent company in Sweden.

Text: Lars-Göran Hedin
Photos: Maria Petersson

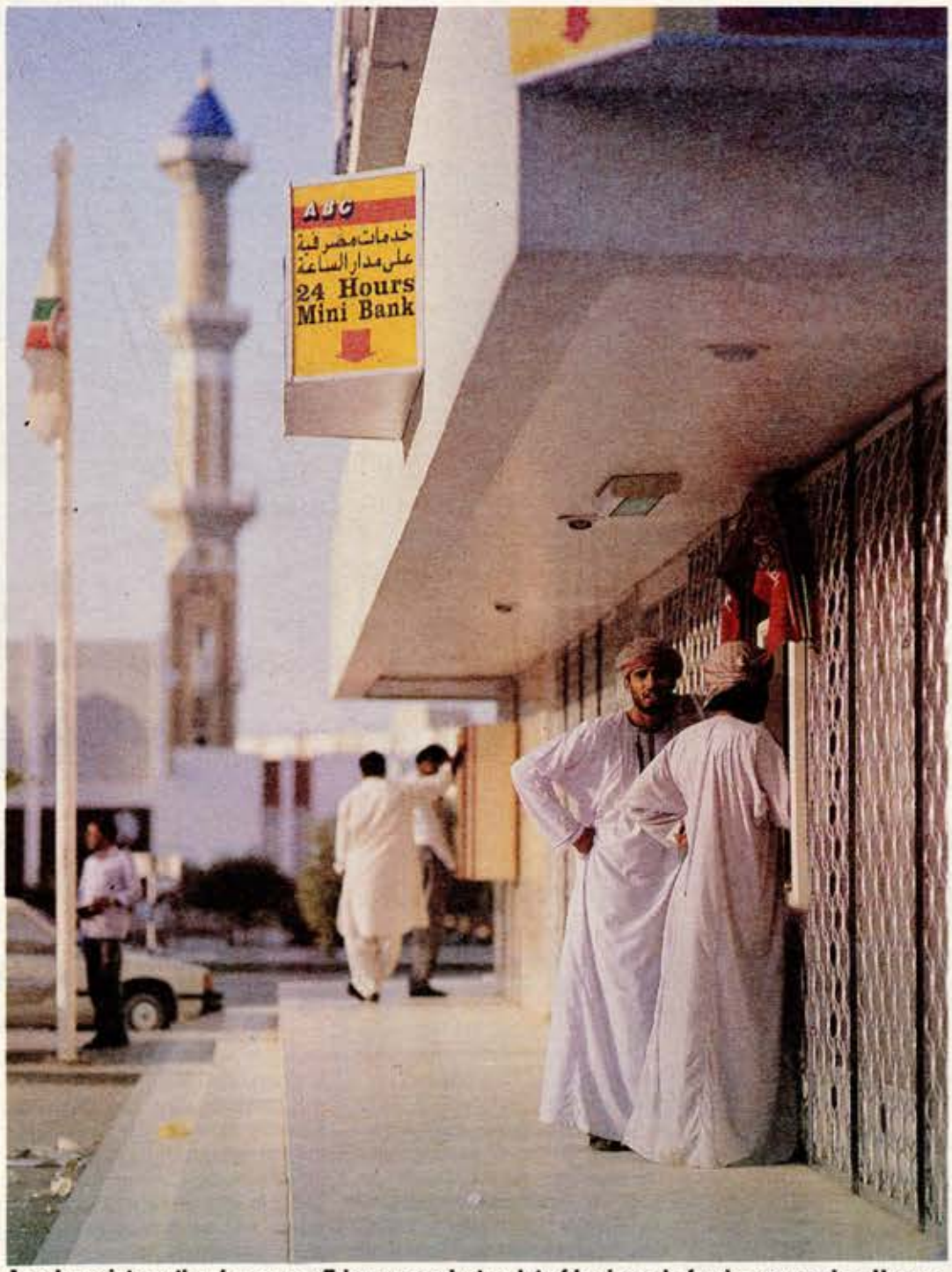
Johan Fant is manager for our internal bank – Ericsson Treasury Services (TSS).

FINANCE SPECIAL

Ericsson's currency policy: Security above all

Ericsson conducts a lot of business in foreign currency. Both in terms of selling, for example, mobile telephone systems and buying, say, components.

Since this often involves huge sums, the company must master risks inherent in currency fluctuations. That is the aim of Ericsson's foreign exchange policy.



As a large international company Ericsson conducts a lot of business in foreign currencies. Hence, it is important to know all about currency fluctuations. Photo: Ulf Sjöstedt/Tiofoto.

If all of Ericsson's business was conducted in Swedish kronor there would be no currency risks. On the contrary, foreign customers rarely transact business in Swedish kronor. More often it is in U.S. dollars or Japanese yen. Or the country's local currency – if it is convertible, that is if it can be bought and sold on the foreign exchange market. Ericsson companies outside of Sweden must be invoiced in local currency so that in this way Ericsson takes the currency risk to Sweden and a more stable exchange rate at home.

The element of risk is that the foreign currency could depreciate against the Swedish krona during the payment interim period. If we take a deal for 20 million dollars and the dollar is worth 6 kronor, that means that the deal is worth 120 million kronor.

Then assume that from contract signing to payment time the dollar is trading at five crowns. This means that Ericsson gets 100 million kronor instead of the planned 120 million. A loss of 20 million kronor. It is this that foreign exchange security guards against.

Guaranteed rate

Economists talk about "safe net exposure" or "neutralizing foreign exchange risks." Awareness of huge margins at play have risen in line with unrest in the world. There is a lot of currency movement right now.

One tool for "securing margins" is term contracts. A contract that applies from placing of order to final payment and which guarantees a specific desired rate against, say, the dollar.

But even before the order is signed and ready an offer has already been put forward. And it is at this point that an assessment is made. One does not know if there would be a deal and chooses not to write a term contract but instead to take a currency option, that is the right to buy currency at a given price at a given time.

An advantage with options is that one has the right to refrain from a currency purchase if the day's rate looks better than the option guarantees. One does not have this right with a term contract.

The rate one calculates on at the time of the offer should be as close as possible to the rate at payment time. This is called "securing margins." The rate is known as a term rate, and Ericsson's internal bank, Ericsson Treasury Services (TSS), helps with calculating this with the help of, among other things, the interest rates of the two involved countries.

Profit margin

The point is that Ericsson, already at the offering stage, should know how big a profit the transaction will produce.

A currency option has a certain price. It usually moves between 1–3 percent of the sum to be secured. The bearer is guaranteed the right to purchase the currency at a given time and at a given price.

When the deal is clear, Ericsson writes a term contract for a given rate for the currency. The purchase must be made regardless of whether the payments are later rescinded or whether the rate turns out to be more advantageous than the purchased term rate.

Experience shows that Ericsson on average makes a clean profit on term contracts. The company's foreign exchange policy has so far managed to secure margins.

Methodical

Ericsson's foreign exchange policy is security above all. Risks are reduced methodically. Economic departments, for example, get early insight into ongoing projects and can plan payments, offer advice on choice of currency, calculated rates, etc. at an early stage of a transaction.

Every quarter the various divisions and purchasing departments leave a so-called currency exposure report for the upcoming four quarters. The reports are collected and used for determining net exposure in each currency.

Foreign exchange rates are distributed monthly over the personal computer network to those responsible and for further distribution.

Ericsson is a large international company that is used to working with deals in many different currencies. It is important for Ericsson to know all about currency fluctuations and use them in the best way.

Text: Lars Cederquist

Practical example:

"We have learnt from our mistakes. We were unlucky in some cases when we failed to insure ourselves," says Göran Andersson at Business Area Cable and Network.

The increasing awareness of currency risks provides, among other things, a clearer picture of a project's profitability and efficiency. A few years ago a project could appear dazzling although the profit was mainly a currency gain. The dollar was climbing and there was no need for term security.

But the picture changed when the dollar began to fall. Well-managed and profitable projects could show negative figures.

Security

Now the picture is different. The business area is going in for security. All risk exposure is thrust upon the corporate side. We will demonstrate with a case in point:

A telecommunication project in North Africa with an order value of 150 million dollars. At first, we tried to avoid all currency risks by writing in a foreign exchange clause in the offer. The customer did not accept that.

Since Ericsson was not yet absolutely sure that the deal would come off, it was too early for a term contract. This would have involved an obligation to sell currency at an agreed rate even if the deal fell through, that is to say go out and buy at the day's rate to be able to deliver at lower rate in the worst case.

The only sensible alternative in this situation was a currency option. An option contract signed with Ericsson Treasury Services. Different from a term contract, which is always somewhat higher than the day's rate, the option rate for the dollar is a bit lower.

Fifteen currencies to deal with

Gun-Britt Lundberg is financial director at Business Area Radio Communications. Some 15 currencies are being secured there now. Every flow that is bigger than 2 million kronor per month has to be secured. This applies to both sales and purchases.

Ericsson is constantly working with fluctuations in some 15 currencies.

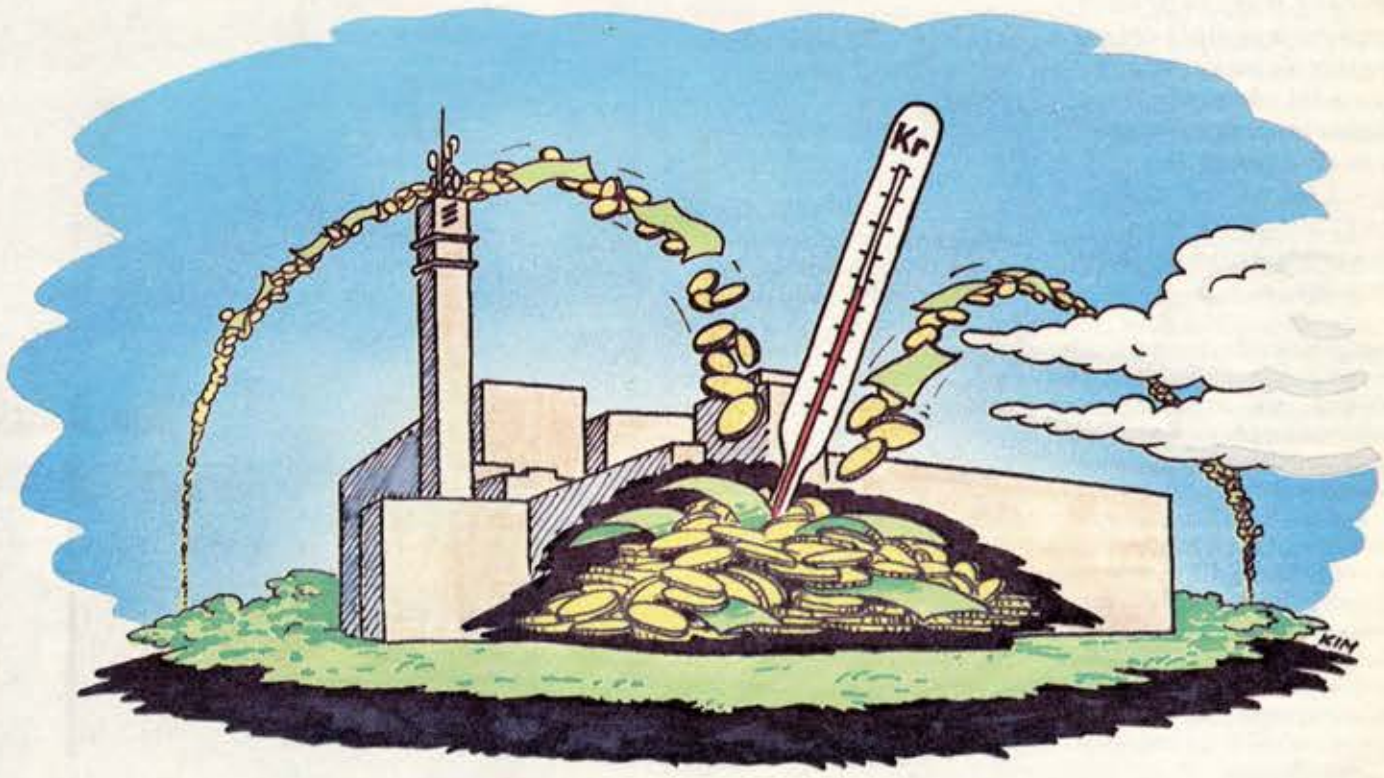
"We are good at identifying sales flows, but have had a more difficult time with purchasing flow," says Gun. "That is because previously we used several different purchasing systems. Soon, we will go over completely to one system, the so-called CAP.

"Training is important. We have arranged a currency seminar for key personnel in projects, purchasing and marketing. The seminar will take the form of role playing, a fictitious case study. All with the aim of acquiring knowledge as close to reality as possible.

FINANCE SPECIAL

Delayed payments – a temperature gauge

Some 400 million kronor a year – in interest alone – is what the finance department reckons it costs Ericsson in delayed payments. Therefore a campaign was launched to obtain payments on time. In two years delayed customer payments will be reduced from 30 to 20 percent of turnover.



The campaign, known as AR20 (Accounts Receivable 20 percent), is led by Ericsson Treasury Services. Ericsson companies run their own campaign independently, with support from Treasury Services.

"Delayed payments is a sort of temperature gauge in a company," says Gitte Ahlsten, cash management adviser in Treasury Services. The main rule is that when everything functions as it should, then invoices are paid on time.

To make sure that Ericsson's invioces are paid on time, we need an organization that functions perfectly. Deliveries and installations must have promised quality and should not be late. Offers, order handling and invoicing must be fast and efficient. Moreover, the customer's means of paying must be controlled in some way. Getting all of this to function smoothly is known as "Cash Management."

Text: Pernilla Åström
Photo: Maria Petersson

Ericsson Radio Systems finds the bottlenecks

At Ericsson Radio Systems they have realized that the huge problem with delayed payments is linked to the area's rapid growth. It has, among other things, revealed a lack of specialized knowledge in cash management, that the computerized system and administrative systems are not enough.

"We conducted a major study in 1990 which showed us where the bottlenecks in the organization were," says Sture Jansson, responsible for the AR20 project at ERA and ECS.

At ERA, they chose to analyze a project which covered 1990 to get a picture of where in the organization the problems were. Invoices and payments were compared with what was specified in the contracts.

Involvement

"When an analysis like this is done, it is easy to find the problems. This is a huge organization with complex operations. It means getting everyone concerned involved in the changes that need to be made."

The result of the analysis showed which areas over the year had to be supervised and revamped. It has to do with handling of advance guarantees, reimbursements, shipments, invoicing and contracts. The concrete conclusions indicated that project management and computer systems should be improved so that information could be had easily by those needing it. Project leaders should be trained in cash management, and standard contracts should be devised to facilitate offerings.


"1991 will be the year when we stop at nothing to reach our goal for AR20," Sture Jansson hopes.

Fast and efficient

Reimbursement handling is a form of payment where banks intervene and see that both parties honor agreements.

"We must be better in rapidly supplying correct documents to the bank, both for guarantees and reimbursements.

ERA's projects are quite complicated. They involve having a computer system that has the capacity to assemble and diffuse information on how the projects are going.

"We have introduced monthly meetings where we go through project by project. In addition, we have begun with quarterly assessments where every project is reviewed for division leadership."

During the year some 20 project leaders will be trained in project economy, that is special studies in cash management, reimbursement and guarantee handling.

The next goal

"We are not sure that we can achieve the AR20 goal, but at least we can reach 22 percent for ERA and 21 percent for ECS," Sture Jansson feels. "Part of what we are doing this year will be reflected first in 1992 accounting. The race is not run as yet. 1991 will be the year that we stop at nothing to reach the AR20 goal.

Components point to low rate of delays

AT Ericsson Components AB (EKA) they began back in 1988 to reduce the number of late payments. The priorities were not high enough, some felt.

"We put together an action package based on collaboration between the economics department and sales functions," says Bengt Skattman, responsible for the AR20 project.

"With better knowledge about customers some of the payments delay could be reduced. We have to train people for that and, moreover, we need good routines and a well worked out credit policy."

Customer contact

EKA calls or writes to its customers as soon as invoices are overdue, to find out already why they did not pay. They maintain regular contact with large customers, but with the smaller ones they get help from the computer with following up on accounts.

"By having ongoing access to the routines we have simplified a lot," says Bengt. At EKA they have also attached weight to setting up realistic goals.

"The campaign's target is to reduce late payments to 19 percent in 1991. For external claims the figure was 26 percent of invoices in 1988 – which corresponds to 127 million kronor. Today, the figure is down to 14 percent – a fantastic reduction of 12 percentage points. These figures do not apply to the group's common project. Apart from the main goal, we have set individual targets for different customers and projects.


"Today our external rate of delayed payments is 14 percent," says Bengt Skattman.

Today there are five persons in the economics department working with colleagues in sales functions to reduce late payments.

"Now we have more time to dedicate to late payments, while at the same time we have clear rules for operations. We sell components to many small companies and have tried, therefore, to adapt our credit rules to the risks inherent in that."

"In our credit policy, there are now, for example, clearly defined limits on amounts and responsibilities. If something goes wrong, we will know whether we ourselves made a faulty judgment or if someone else overstepped his authority."

Good credit morale

All Swedish customers are credit checked through a systematic purchase of credit information.

The routines have become more efficient, which has led to more problem companies being exposed in time – which naturally reduces the risk level. Another important aspect is that EKA now demands bank guarantees to a higher extent than before.

Thomas Anderfelt at Ericsson Treasury Services has helped in training 75 colleagues on the marketing and customer services side in cash management.

"He made a hefty contribution in raising our colleagues views from focusing on margins to keeping an eye on late payments."

FINANCE SPECIAL

Own insurance company cuts costs in half

Large industrial companies like Ericsson naturally want to protect themselves against catastrophic damage, which costs a lot of money.

Insurance premiums for such damage are huge. One way of saving money therefore is to have one's own insurance company.

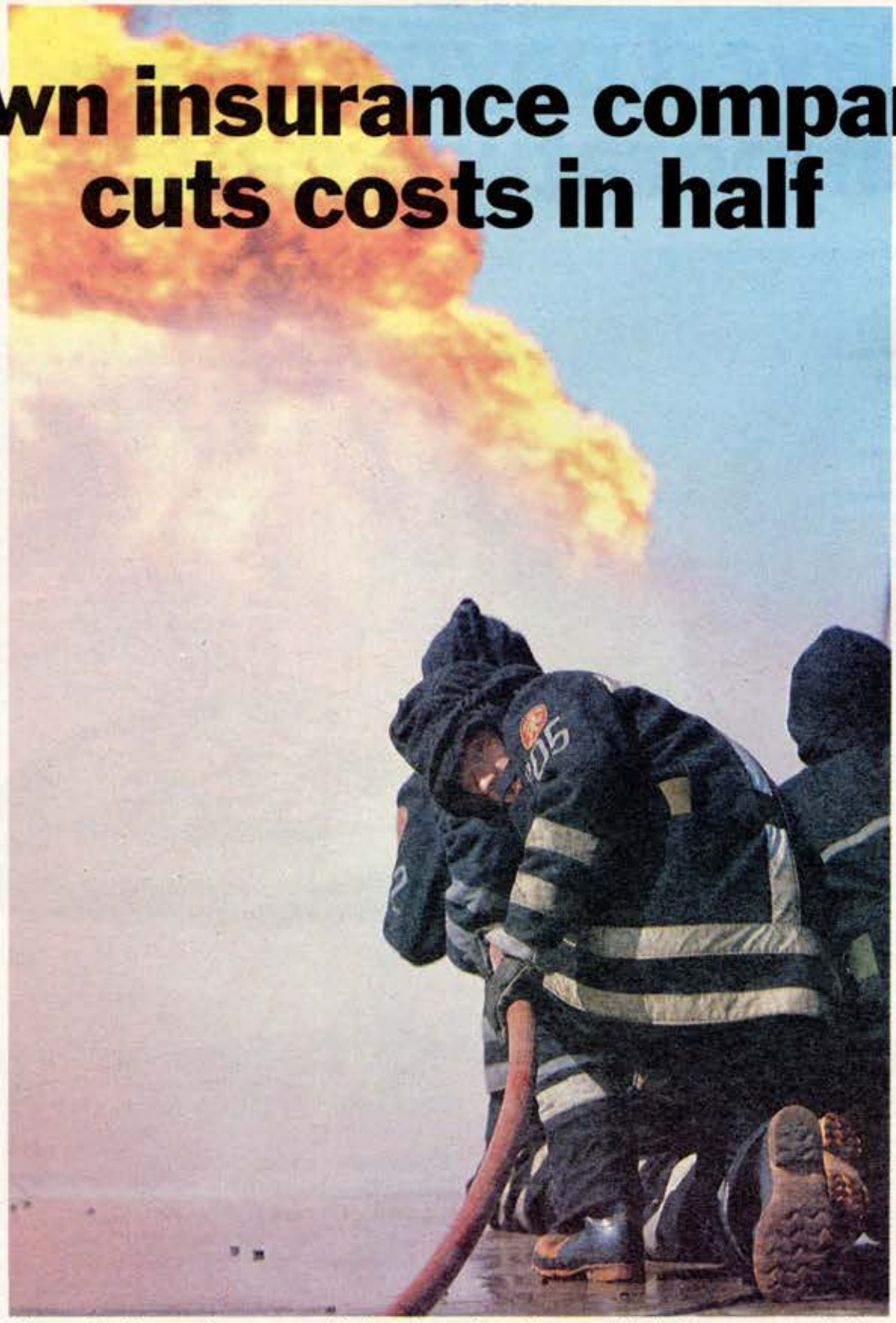
When Ericsson discovered that it was spending millions of kronor with insurance companies for possible damages and accidents that only rarely and exceptionally occurred, a decision was made to start our own insurance company.

Three so-called captive companies were founded – Electra Insurance Limited (ELI), Electra Reinsurance Limited (REI) and Ericsson Reinsurance SA (RIL). These captive companies "capture" insurance premiums in Ericsson subsidiaries and assess the risks. This saves the company both time and money.

"Insurance companies are very good as a way of protecting oneself against risks. They never take risks the way banks do. It could take up to a year before an insurance company sent paid premiums to our reinsurance companies, and then without interest. With the establishment of Electra and our internal netting system it takes a week," says Claes Mårtensson, at Ericsson Insurance Services.

Like car insurance

The idea behind a captive company can be compared with a regular car insurance. You could have a car several years and every year pay 5,000 kronor for full insurance to an insurance company without ever having had an accident. If, instead, you decided to take only the mandatory traffic insurance for, let us say, 1,000 kronor and put the other 4,000 kronor in an interest-bearing account, you will have available funds in the account in the event of an accident. Then it's you, not the insurance company, that is earning interest. Ericsson has saved about 40 percent of its insurance costs since it started its captives.



When accidents occur then one sees the importance of good insurance. For instance, we can take the fire at the main plant, where damage costs rose to 20 million kronor. Photo: Stig-Göran Nilsson/Tiofoto.

Ericsson subsidiaries are responsible for seeing that their insurances are adequate. The companies can go two ways when it comes to insuring themselves. Either they can choose an outside insurance company, for example Skandia, or they can choose Ericsson's own insurance company ELI. Whichever they choose, the appointed insurance company reinsures itself with RIL, which in turn insures itself on the international reinsurance market.

Like a quilt

The insurance market may be compared with a patchwork quilt where the aim is to spread and minimize risk as far as possible. RIL provides the international reinsurance market with information on damage statistics for Ericsson and this way risks can be assessed. On the international reinsurance market the law of the jungle prevails.

Lloyds, which is a major reinsurer, deals in risks from 0–100 percent. Lloyds is made up of some 1,000 different syndicates. A syndicate is a number of private individuals who collectively provide capital to take a risk. If all goes well they keep the paid up premiums as a yield on the capital. Otherwise they risk losing it.

In every syndicate there is one person who determines how big a risk should be taken and how large the premiums should be. He is known as an underwriter. The syndicate in turn could also insure itself.

Risks spread out

The total risk for Ericsson is spread out over various units. Subsidiaries account for a small part, self risk. The captives represent a little larger risk, varying between 0.5 million and 10 million kronor per damage. The rest of the risk is reinsured on the international market.

A major part of Ericsson accidents occur, for example, with transport but it is of small worth.

At ELI, which covers many minor damages and takes on a smaller portion of risk, the philosophy is "common sense and caution." They refuse certain insurances.

"We will only take good risks. We let others take the bad ones. The company must have the best possible insurance protection at as low cost as possible," says Peter Flensburg, corporate risk manager for Ericsson.

Wealth is power

According to Peter, it is those who have liquidity that determine the insurance business. Maybe that's why Ericsson can make relatively high demands on insurance companies and brokers.

Among other conditions, Ericsson insists that brokers be loyal to the company and follow the guidelines that Peter and his department draw up. Hence, both subsidiaries and brokers must regularly provide information about insurance sums and present damage, together with a risk analysis for product operations.

"Our philosophy is always to have lower premiums than the market offers," says Peter.

Text: Charlotta Westling

This is how Ericsson uses insurance money:

ELI insures

From the small, sparsely staffed Electra Insurance Limited (ELI) in Ireland, the subsidiaries are insured. Today, ELI handles insurance for companies in Sweden, Norway, Denmark, Britain and Holland. The aim is to provide insurance for Ericsson companies in the EC. There are special agreements with the EC and only 10 percent is taken in taxes. ELI provides insurance and reinsurance in RIL in Luxembourg or in REI in Ireland. A company like Electra has small costs compared with other insurance companies and it gets help from consultants on damage laws for accidents instead of having its own specialists. John Ronaghan is president. ELI was founded in 1989 and is a wholly owned subsidiary.

RIL reinsures

Ericsson Reinsurance SA (RIL) began in 1986 and is one of the group's two reinsurance companies. From here reinsurance from ELI and other insurance companies is coordinated The company is based in Luxembourg, which from a business point is advantageous. Peter Flensburg is president. The company is wholly owned but has no staff. It is run by a consulting company called Sinser. The consulting company is owned by Skandia and its clients. Sinser brokers regularly send reports to LME/S. RIL covers only Ericsson risks and in its turn is insured on the international reinsurance market. RIL is run with a profit. During 1990 premiums totaling 50 million kronor passed through ELI, RIL and REI.

LME/S coordinates

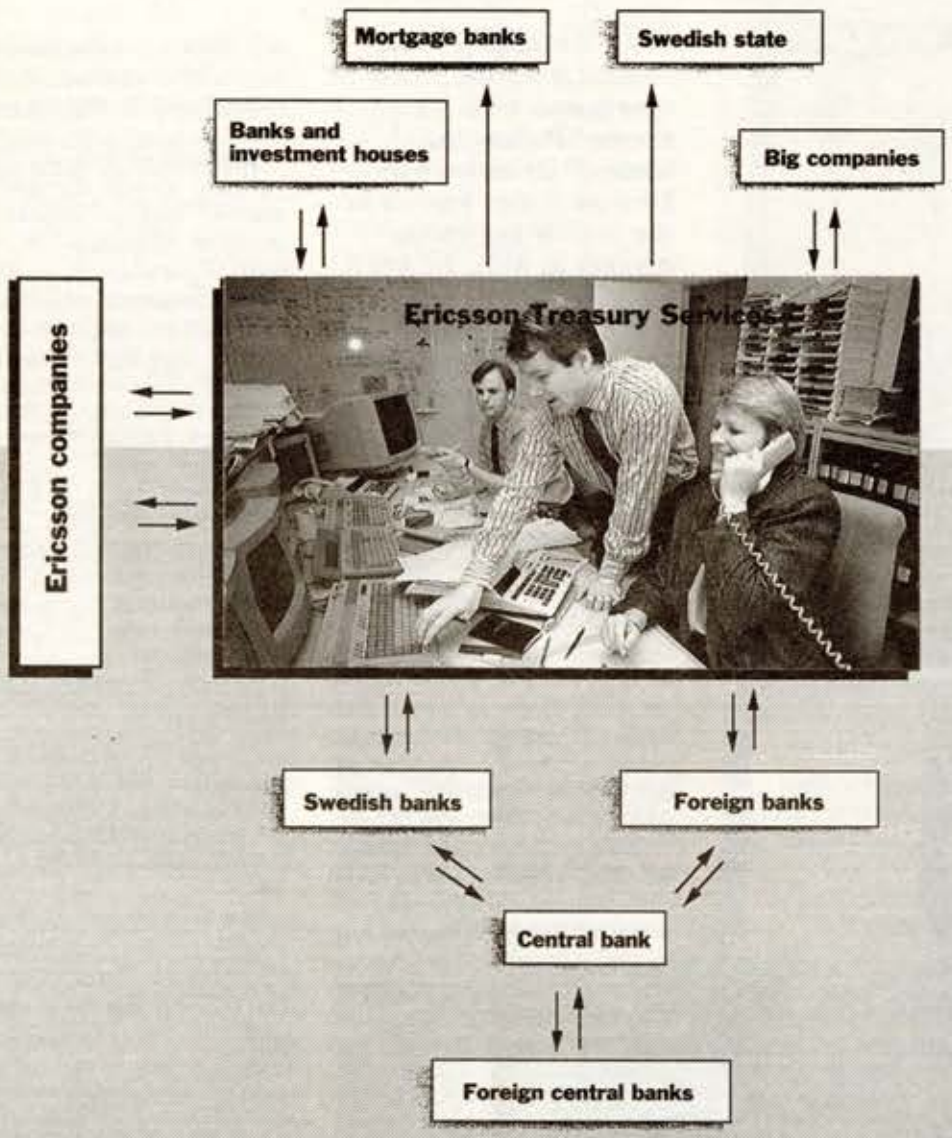
At the corporate level, Ericsson Insurance Services at Telefonplan in Stockholm pulls it all together. All purchases of the globe-circling insurance contracts are handled from here.

The department consists of Claes Mårtenson, Günther Langhammer, Marie-Louise Ulvefjord as well as Peter Flensburg who is coordinator and responsible for the group's risk-taking.

LME/S gets regular reports from subsidiaries and insurance brokers around the world. There are some 100 countries in Ericsson's insurance program. In each country they work with a local insurance broker. Ericsson has a good damage rating compared with other Swedish industries.

FINANCE SPECIAL

The Swedish money market



The international currency market

Ericsson Treasury Services AB (TSS) is the group's internal bank. They handle currency securitization on the international currency markets and money is loaned out and is placed on the Swedish money market.

Currency risks from Ericsson's subsidiaries around the world is rate secured by TSS with the help of currency terms, foreign exchange loans and currency options. Short-term lending and placing of surplus liquidity is done in line with variations in Ericsson's liquidity – the sum of subsidiaries' incoming and outgoing payments. Players, lenders, and borrowers in the money market are shown in the above diagram.

OUTLOOK

BY MATS HALLVARSSON

East Europe – a market at least 25 times Ericsson's in 2000

Ericsson's purchase of the Austrian Schrack and the "market takeover" of Hungary are two recent occurences that reflect the group's keen interest in Eastern European markets. The need for telecommunications equipment is pressing. To achieve the same standard as the West the Eastern countries must install 120 million lines, 25 times Ericsson's annual production. This was recently reflected in statistics published by economists at the OECD. The OECD is the Organization for Economic Cooperation and Development set up by the West's richest countries. The statistics for the first time give a better picture of the lucrative market in Eastern Europe with a population of 330 million people.

Before the revolution

Large portions of the Eastern network stem from before the Second World War, and in the Soviet Union there are still copper cables that go back to the 1917 revolution.

There are immense differences between the various Eastern countries but even the best telecommunications countries do measure up to even half of the OECD's average as far as distribution of lines is concerned. For every 100 inhabitants, Bulgaria has 18.4 lines and the Soviet 12. The OECD average is 41.4 lines, compared with East Europe's 9.8. In Sweden, which is the world's most densely distributed country in terms of telephones, there are two lines for every three inhabitants.

The OECD reckons that if East Europeans want to acquire as good a network distribution as the OECD countries they will need 120 million lines. If they aimed at that level until, let's say, the year 2000, the annual growth would have to be 12.4 percent.

Not impossible

This does not seem impossible. The OECD also confirms that it is definitely not. But one can certainly wonder if it is feasible. At today's prices of 5,500 kronor per line we are talking of an investment of 650 billion kronor or about 70 billion kronor per year.

If Ericsson succeeds in building up its market share to the same level as in the West this will mean additional sales of about 7–9 billion kronor per year in round figures.

The need is there. That is obvious. But unfortunately the East does not have the money with which to pay. The situation in their economies is going from bad to worse. But, the OECD feels, if they succeed in reforming their economies and introduce a market economy then there is a possibility of getting significantly more money for investing in telecommunications.

Not poverty-stricken

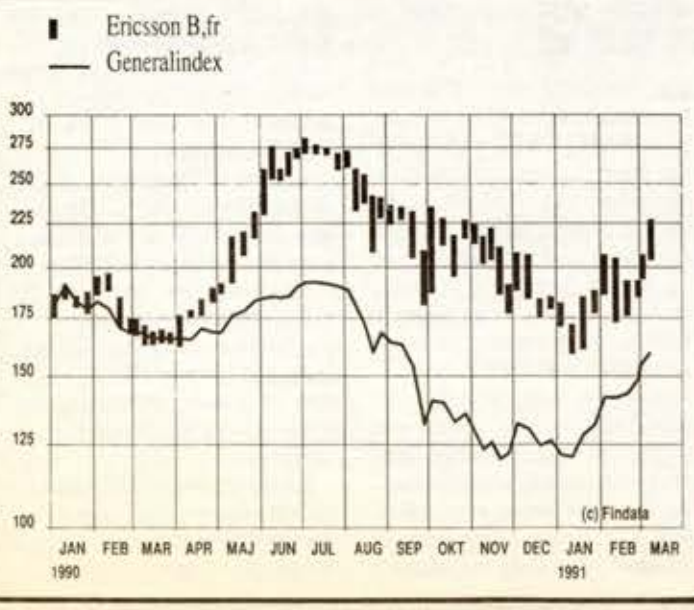
The East's telecom administrations are mot poverty-stricken. To the contrary, they have an almost incredible net profit of 25-63 percent of sales, that is sales less costs, taxes and interest in proportion to revenues. The OECD itself doubts that this is true. But the bulk of the telecom profits is taken by the state for other state expenses, and so it prevents the necessary expansion.

All of this must change. Subscription and call fees must be increased dramatically both for households and business. Tele services will also certainly be partly privatized in several Eastern countries and the existing telecom administrations will be obliged to work in a market-oriented system.

Such are the reforms that are necessary if foreign investors, bankers and companies are to have confidence in the future of the East and invest money there.

But there is every reason to question whether the turnaround will come in the mere nine years from now to the year 2000.

Pricechart for Ericssons B free shares in comparison with the general index



SHARE WATCH

The crisis for Swedish industry seems to have dissipated judging by developments over the last month on the stock market. Up to mid-March the general index had risen by 12 percent although one company after the other reported lower profits. But the end of the Gulf war, some drop in interest rates in Sweden, encouraging economic signs in the U.S. and heavy gains on several foreign markets have stimulated demand in Stockholm.

This means that the Stockholm exchange is one of the most successful so far this year with a gain of about 25 percent. Industrials alone rose close to 35 percent. Ericsson's B free shares, however, did not maintain the same pace.

Since the beginning of the year prices have risen about 20 percent, and one of the reasons is perhaps a misinterpretation that last year's record results could not be repeated. (Lars Ramqvist was misquoted in the press, what he actually said was that last year's results would be hard to surpass.) Shares now seem to be reasonably priced. The P/E ratio (price versus earnings) of 15 is a little above the industrial average on the Stockholm bourse but exactly the same as the bourse's average.

If one looks at the price in relation to adjusted own capital ("substance") according to Affärsvärlden's reckoning, it is 320 percent over the bourse's average of 107 percent.

ERICSSON SHARES

Date	Mutual Fund		Share Savings Fund	
	Share price (SEK)	Assets (MSEK)	Share price (SEK)	Assets (MSEK)
1988-12-31	135	52,2	343	56,0
1989-12-31	304	94,1	825	77,1
1990-12-31	317	86,4	86	65,6
1991-02-12	327	88,8	87	65,3
1991-03-12	367	99,0	101	75,9

Share prices for March 1991 is based on a stock of 214 kronor and a convertible quotation of 390 percent.

A campaign to make Ericsson known in Asia

With the help of illustrations from the world of sports and with the theme "Follow the leader," Ericsson will become better known in the mobile telephone market in Asia. In April an advertising campaign will begin which will run for six months in more than ten countries in this part of the world.

"Inquiries have come from our subsidiaries in Asia asking for help in making Ericsson better known. Among the traditional PTTs, that is the telecommunications authorities, Ericsson is fairly well known. On the other hand it is less so among mobile telephone operators. So says Nils Backman, responsible for market communications in the business unit mobile telephone systems within Radio Communications.

At the marketing conference in Asia held in the fall within Radio Communications, a proposal was presented for marketing with ads and press material. The proposal was readily accepted, a decision was made there and then and in April the first of five ads will appear.

Fair deal

"We are using the "fair deal" concept for the campaign," Nils said, explaining:

"This means that ERA will pick up all advertising costs when the campaign runs in the regional press while the local companies will pay 40 percent of the costs when the ads appear in the national press. If the local company is involved in the costs the sales corps will be more active and they will "hitch on" to the advertising theme, for example, by arranging seminars and by using it in local fairs.

Countries in Asia are divided into two groups depending on whether they participate regionally or nationally. In Hongkong, Taiwan, Indonesia, Malaysia, Singapore and India the campaign will run in the national papers. As a reinforcement, the same ads will run in the regional media, altogether 115 inserts in 12 papers. This covers more than 27 million readers.

Facts on Ericsson

"Follow the leader" stems from an English game, which in Swedish is known as "Följa John."

"With a selection of sports pictures we get the competition feeling where it is vital to be in the lead," says Nils.

Advertising text is limited to a fact sheet on Ericsson – no boasting. With this, we leave it up to the reader to draw his own conclusion that Ericsson "is the leader."

In Indonesia and Taiwan the factual text will be in Indonesian and Chinese, respectively, with the headlines in English. In all the other countries the text will be in English.

The press relations campaign will include articles on mobile telephony both on a relatively high technical level and of a more general character. With the help of PR agencies these articles will be placed in the countries' media.

At ERA, it is the first time they are doing a collective marketing effort within a region. A similar campaign was previously carried out by Ericsson Business Communications.

Text: Gunilla Tamm

Assorted sports pictures will draw readers' attention to the advertising campaign, which begins in Asia in April and will run for half a year.

Three systems with 4.2 million subscribers

Three times a year Ericsson Radio Systems issues a reference list on Ericsson's mobile telephone systems around the world. According to the latest list, January 1991, Ericsson has mobile systems in 44 markets. NMT, TACS and AMPS are the three systems that are in operation today. GSM is the pan-European digital mobile telephone system that will come on stream during the year. Up to now 10 of 13 countries in Europe have chosen Ericsson as a GSM supplier.

Already back in 1981 the NMT 450 mobile system was in operation in Sweden, Norway, Denmark and Finland. Earlier that same year NMT 450 also began to be used in Saudi Arabia. Another country that was out front with mobile telephony is Malaysia, where the NMT system went on stream in 1985. In August 1989, Ericsson installed an additional mobile phone system in the country. This time it was the TACS system.

The world's smallest NMT system is in Andorra. The system came into operation last summer and has only 200 users.

Ericsson has installed the TACS system in, among other countries, Britain, China, Hongkong and Italy. The system in Britain is very large, with more than 660,000 subscribers.

AMPS is the system used in North America, Australia, Taiwan , Mexico and New Zealand.

First base station for GSM

On February 19, Chief Executive Officer Lars Ramqvist and ERA's president, Kurt Hellström, came to Färögatan in Kista. On this day, the first prototype of the new digital GSM base station for the pan-European mobile telephone system was being unveiled.

First complete version is shown

"I am impressed with the enthusiasm and the commitment that pervade activities and the working atmosphere here," said Chief Executive Officer Lars Ramqvist when, together with Kurt Hellström, president of ERA, he visited the GSM designers in Kista.

On this day all the hardware for the first digital GSM base station was ready and everyone could happily attest that the timetable for the project was well in hand. The GSM base station is to be delivered to the German customer Mannesmann in the spring. On July 1, the mobile telephone system will be installed and set into operation in 15 districts around Germany, with a total of 100 base stations. However, nobody wants to pat himself on the back since there is still a lot to do before the project is home free.

"There is no doubt that all of you here have risen to the challenge and done a fantastic job. I want to thank you for that. It will be exciting following your task of helping Mannesmann put the system into operation on July 1. I am convinced that you will hold the title as "the number one" in telecommunications," Lars Ramqvist said as he met with the GSM team in Kista.

A tour with those involved in testing and verifying the GSM was also included in the visit. The working environment is, to say the least, an unusual one, with flight propellers and motors.

"In August 1990, we decided to lay down a strategy for the work. It was a bit rough and we were running behind schedule. With a pleasant and inspiring milieu it is more fun to work, and regrettably the lab sites for testing and verification often look quite desolate. We wanted to change that," said one of the fiery spirits behind the interior decoration, Urban Dahlin.

Said and done. One of Ericsson's part-owned companies, EP Telecom Q-Labs, in Lund was hired.

The theme that was used a symbol to go in hand with the goal of the project was "take to the air."

"Through Q-Labs contacts with the Landskrona cultural authorities we were able to borrow the old aircraft treasures. We want to express the feeling of being pioneers, which is really what we are, with this new and very important mobile telephone system," says Urban.

CEO Lars Ramqvist on a visit with the designers of the new digital GSM base station in Kista. Jan-Erik Stjernvall, responsible for the project, shows the very first prototype.

Text: Helena Andersson
Photos: Björn Seger

Joseph Supanish, Bengt Erninger and Urban Dahlin in the "system clinic." Here, every day they go through all fault reports. Others working on the project, in various locations elsewhere, such as the Gävle plant or Luleå, are in touch by phone.

Power for GSM in the latest model

Power for the digital GSM base station is supplied by Ericsson Components. Here, for the first time, micro technology played a central role. Together, the power, microelectronics and development divisions produced a power supply of the latest model.

Ericsson Components was in on an intensive scale with the project for tomorrow's power supply for GSM radio base stations. The order from Mannesmann Mobilfunk came earlier than expected.

Suddenly, we had to recoup six months in the timetable. Clear goals, clear directives and an exciting challenge bred enthusiasm in the design and production leadership.

"There has not been a minute's thought of putting the problem aside," says Eva Svensson, head of one of the departments in microelectronic production.

The main task with power supply has been to reduce development costs, production time and the number of components by 50 percent.

The overall design responsibility falls on the Power Division in Kungens Kurva. The heart of the system is a rectifier in micro technology.

The combination of micro technology and power technology gives Ericsson a clear advantage in the development of power supply and a strong position.

Project leader for monolith in the power supply project, Christer Andersson, at Ericsson Components in layout discussions with colleagues Zsolt Thot-Pai, Stefan Carlberg, Eddie Sanjuanello and Marie Malbert. Photo: Maria Petersson.

Colorful base stations

GSM base stations get some color, and with that Business Area Radio Communications takes a first step into tomorrow's Ericsson products. In an off-white color with blue-green décor the new base statives will bedeck sites in Germany, England and the other eight countries where ERA has GSM contracts.

The future construction method, Meteric, will give Ericsson a common product profile for customers and users where color and design are coordinated.

"Our products are the most frequent tools when it comes to the picture we want to give of the company. In the unified Ericsson it is important that we give a singular product profile regardless of which business area is supplying," says Nils Backman, a member of BR's design council. Meteric is a modular construction method where, for example, AXE units, radio and power units can be built together into a cabinet unit. Through Meteric's characteristic colors and form customers and users can easily recognize an Ericsson product.

Coordinated design

"At a customer it could be one and the same person who uses both our EBC telephones, mobile radio and Mobitex terminals. By having a coordinated design within the entire company we can help customers to feel at home with our products and thereby emphasize our togetherness within "one" Ericsson," says Nils.

The shift to Meteric has been smooth. Starting with a color coordinationfrom now on products that go together will also look like each other.

"This means closer cooperation across borders between design groups that are formed in each business area."

Both Business Communications and Public Telecommunications have come quite some way with products developed according to coordinated design. Examples of this are MD110, both switches and telephones, certain power products and a program for AXE switches.

Text: Helena Andersson

From the operator console in the command vehicle, Stefan Hellqvist, liaison operator with Brandkåren, the fire department in Stockholm, handles all radio and telephone contact via a neat radio switch. An efficient liaison [illegible] should [illegible] becomes a [illegible]

'Impossible' communications

"We got the system we wanted and a bit more," says fire department engineer Olle Wennström, who is very pleased with Ericsson's specially designed solution for lead vehicles.

"We went at first to another company but got a "no thanks, that's impossible. Forget it." But we were determined and we knew what we needed."

The fire department calls for speed and efficiency. With an alarm, you have 90 seconds to get ready and be in the trucks out of the station. And within ten minutes the first water hoses should be fighting fire.

But the fire department's rescue work would never be that fast if it were not efficiently organized. With fast communications. The operative liaison should be out at the rescue site as fast as the extinguishing force and should have full capacity from the start. The rescue leader should not be a liaison operator at the same time; he should be making decisions. And liaison should absolutely not be so tied up that it becomes an additional problem to resolve along with the rescue work.

Work tool

"Liaison is a work tool," says Olle Wennström, a fire engineer with the Johannes fire department in Stockholm and responsible for liaison and command issues.

Many other command vehicles are filled with fine and expensive communications equipment, but an operator can only handle one radio or one telephone at a time. We have started at the other end. We knew what we wanted, what liaison was needed for our method of dealing with rescue operations and we have obtained a smooth-running system."

Ericsson Radio's service and installation department equipped the fire department's lead vehicles. From left, Thomas Lindquist, Odis Odenstig, Lasse Eng, Ingemar Hagengran and Anders Oderman.

The Johannes fire station now has two command vehicles, with unique installations. The communications equipment is worth more than the vehicles themselves. Moreover, it can be removed from its shell and placed in new vehicles if needed.

Operators

Ericsson Radio's service and installation department in Kista resolved the problem under the leadership of Ingemar Hagengran. A number of standard items were hooked up together via a specially designed radio switch on an operator console.

Mobile phones, four radio channels, cord-bound communications between command vehicles, etc. He has a headset and is not disturbed by calls around him.

"Development went pretty fast," says Olle. "Our vehicles are one and three years old (they get better all the time) but we just have to go back to 1983–84 to find a system where, in principle, we called each other on bakelite receivers. In those days radio was something for officers. Today, it's something everyone of us must have."

Flexible

The two command vehicles cover huge areas of the county of Stockholm. They can work independently or together, hooked up, with major rescue operations.

In vehicle 102 are the radio operators, in 103 are the commanding officers with instant telephone connections and loud speaker equipment. From there they maintain contact via comradio (C600 Maxicom) with frogmen and firefighter trucks on site. (The frogman's radio set also has an alarm function which warns that he should no longer be down there).

In addition, there are mobile phones, NMT 450 and 900, for linkup to mission control center, which is in the Johannes firehouse. (For increased capacity, but mobile phones are not as easy to listen to as the open radio traffic). A late addition to the NMT 450 is fax, which makes it possible to get a sketch and description of the area.

With the system there are also possibilities for linking with the police, the navy, local radio etc. Top flexibility and possibilities in every kind of situation for hooking up with what is needed.

The fire department is happy and the vehicles have attracted attention far beyond Sweden's borders.

Ericsson's strength

"It is in complicated situations like these that Ericsson's knowhow come to the fore," says Per Kömer, of ECS, Ericsson Mobile Communications, which has signed an interim agreement with Kommentus (formerly Kommunsamköp).

"Everything is handwork and RSS, Ericsson Radio's service department has succeeded in getting a number of technical systems to work together. Their knowhow together with good products, a large assortment of accessories, assurances and service agreements etc. functioned smoothly all together like cogs in a wheel."

For several years now, Ericsson has had an agreement with Kommentus, which looks after the smaller municipality interests, with rights to prices, products, services etc. For ECS, it is important to be an approved supplier and stay within Kommentus' purchasing lineup, which is handed out twice a year. There are large service organizations within the municipalities, of which the fire department is one. Every community has a fire station and they all need radio and mobile telephones.

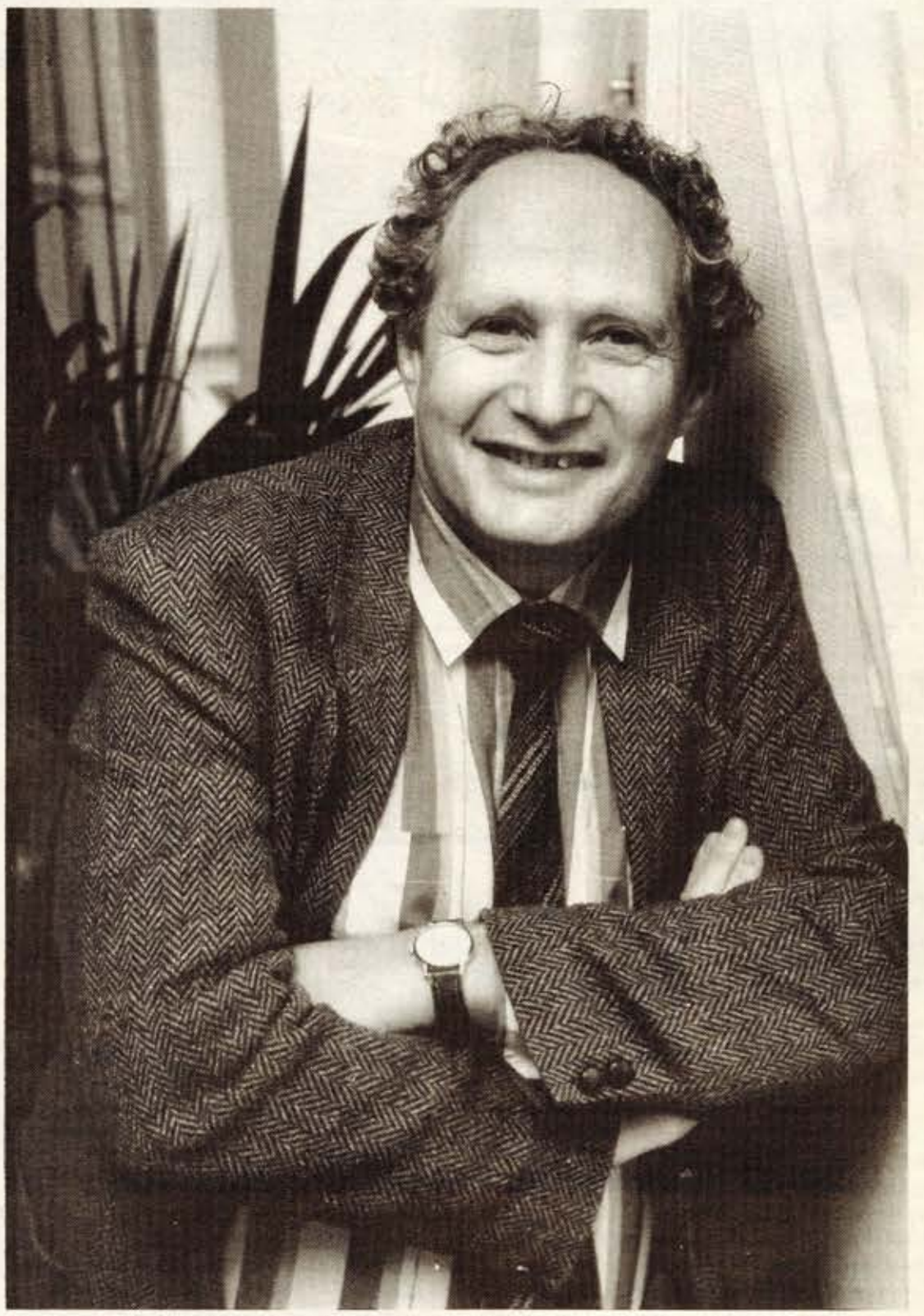
Text: Lars Cederquist
Photo: Björn Seger

'Ericsson's' technical attaché in San Francisco

He is an Ericsson technician who in the fall of 1988 became Sweden's technical attaché in San Francisco.

But when he should explain, in his unpretentious manager's office in Montgomery Street, what this involves, then it has to as much with religion and culture as with microelectronics and systems development.

"There is a very clear link between a company's and a country's technical and industrial progress and their culture and religious history."



Philippe Charas, former technician at Ericsson, now Sweden's technical attaché in San Francisco.

Sweden's technical attachés have as their mission "to promote Swedish companies, organizations and authorities with technical, scientific and industrial information." The objective of this is that it "shall direct its endeavors toward maintaining and improving the competitive strength of industry." All according to an official description of operations.

"Naturally, it is a question of how one achieves this goal," says Philippe Charas. He feels the technical attaché's office should of course not just "send home" technical news and leave it at that. More important is finding explanations for the technical news and the advances.

"My young colleagues and I work very hard at identifying technical and cultural reasons as to why, for example, Japan succeeds in the U.S. while Swedish exports stagnate. The attaché's office in San Francisco is specialized in information and telecommunications technology. In practice it functions as a consulting company for Swedish business and has more than it can handle.

Philippe thinks Sweden overall has high quality of products and that we are very quick to adopt new technology. But we are not as good with efficiency and profitability in production. We often acquire new technology before we learn to master what we already have.

Special area

Philippe worked for 13 years at Ericsson in Mölndal. The last year as manager of the department for microelectronics. Since then he has had a number of special areas that he has been exploring.

"One of them is the concept time to market and what it means in practice. In effect the time from idea to finished product. Americans are much faster than we are and deal better with the overlap from design to production."

Philippe would like us Swedes to be as fast as the Americans in accepting other cultures.

"Culture blending helps one to see entirely new things, get new product ideas and new values,"

Differences and different views a strength

he says amid the noise from peace demonstrators in the street 20 floors down. Philippe himself is a good example of cultural blending. His father was a German Jew, but Philippe was born and raised in Sweden. He lived several years in Holland and is into his third year in California. He speaks a half dozen languages and he feels that philosophy and looking at life are among the most exciting things around. At home in Gothenburg he was a passionate beekeeper.

Cultural mix

"When it comes to learning about manifold cultures, we in Sweden have a lot to learn from California in general and San Francisco in particular," Philippe says.

He speaks of the cultural mix in San Francisco. About 15 percent of the inhabitants of San Francisco are Asians or of Asian origin. At the reputable Berkeley University a full 25 percent of the students and 40 percent of the doctoral candidates are Asians.

Positive differences

In California, and especially in San Francisco, immigration is looked upon in a very positive way. Cultural mixing is the motor behind the creative process. Philippe thinks that we in Sweden can take a lesson from this. "Here differences and different viewpoints are a natural force in the growth process," Philippe says.

"In Sweden, foreignness is often something dangerous that one must protect oneself against. But if we want to enjoy the fruits of a high living standard and a dynamic society then we must leave room for other dynamic cultures."

Just as Philippe is philosophizing about Sweden and Swedish culture he hastens to point out that he does not mean to sound like an overseas Swede that finds fault with everything back home.

In the end his views of Sweden are tempered with the observation that we have a lot of good qualities that are not always put to the best advantage.

Return home

Philippe will be returning home to Sweden and Gothenburg in the fall, even if it is not quite clear where he will be working. He is coming home with a lot of knowledge and with a lot of thoughts about today's company leadership. The inherent strength in a pluricultural society, the connection between the right organization and high product quality and the difficulties of change for large companies and other insights are some of the thoughts Philippe is taking home with him.

Text: Bengt Plomgren

What Sweden's Technical Attachés do

Sweden's Technical Attachés are a public organization whose mission is to monitor technical-industrial developments around the world and report on them to companies, governement authorities and organizations in Sweden.

Sweden has had technical attachés since the end of World War II, when the engineering scientific academy, IVA, sent a person to the U.S. to study and report on technical advances made during the war years.

State financed

Activities grew over the following decade, more technical attaché offices were set up and a large part of the activities was financed with help from the state. In 1981, the Swedish Technical Sciences Attaché Association was founded by the Swedish state, through the Industry Department and IVA.

Today, the Swedish Technical Attachés have 12 offices abroad in nine different countries, as well as an office in Stockholm. Altogether, the operations involve 70 employees abroad, of which 45 are qualified technicians with advanced technical training and experience in Swedish business.

The operations are paid for with about two-thirds covered by state grants, and the rest is covered with its own income generated from, among other things, publications and commissions.

Contact

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The recovered overcoat

In the last issue we asked your help in making our columns a bit lighter reading. There are unquestionably a lot of funny stories around that recall experiences of Ericsson employees on the job. If you have something exciting to relate about your own experiences or that of others, let us hear from you. First aboard is Ivar Jarkander, formerly HF/Dpu. He gets a fancy pen and pencil set for taking the time to send his story.

"At the end of 1970 I was in Bulgaria to research some factories that had suitable equipment for manufacturing certain Ericsson products. I had traveled around the country and before heading back home to Sweden I was staying in a large newly built hotel about 100 kilometers from the capital, Sofia.

Now that I was in Sofia it would be interesting to see the central parts of the city. So I went down to the lobby and ordered a taxi. Outside of the hotel I ran into a German guy who asked if we could share a taxi into town. He was in good spirits and he explained that he had just sold some welding equipment for 15 million D-mark for a Swedish company that he was working for. He also wondered why I was staying way out in the countryside - naturally, he himself was staying at the Hotel Bulgaria in the center.

The next day – after a meeting in the morning – I was to leave at 3 o'clock. The airport was jammed with people. Because of repair work all departures were scheduled for 3 o'clock. I amled over to the duty-free and as I was making a purchase I heard over the intercom:

"Immediate boarding for Zurich!" That was my flight. I grabbed the bag and headed for the gate. The plane stood ready to roll. Just as I was about to sit down I realized that I had forgotten my overcoat at the duty-free counter.

The door to the cockpit was open and the pilot revved up the engines. I quickly explained the situation but it was impossible. I saw the man in the red cap waving the plane on to the runway. But for Ericsson nothing is impossible. I tried again.

Not my coat!

"There was a ground hostess outside the door. Couldn't she help me? It won't take any time. Please," I pleaded. The door opened, I explained that there was a dark-blue overcoat at the duty-free counter. The girl rushed off and came back running with a coat. I took it and went to my seat. Then I discovered it was not my coat.

In Zurich I reported my missing coat. Closer examination of the rock I had received instead revealed a remarkable fact: In the coat pocket was a bill from the Hotel Bulgaria and a taxi receipt from Hannover. The coat must have belonged to the German I met the evening before.

When I got home to Sweden I called ESAB, a Swedish welding company, and asked whether they had a representative in Germany. Yes, they answered, there is an office in Hannover. Then I asked what the representative for the East bloc looks like - could he be fair, with spectacles?

Yes, indeed. The description was right. Then I explained for the startled ESAB voice at the other end that I had a coat in my possession that belonged to their East Europe representative. And would you believe it, there was a guy from ESAB leaving for Hannover the following week. Therefore the coat could be picked up at Telefonplan and forwarded on to the certainly confused owner.

And my own coat? Well, it turned up a week later, in a large carton from Swissair."

Did you hear the one about ...

Dont't keep your good Ericsson stories from your close friends. Send them to Contact instead, or call and tell us...

Don't be upset about profits

STOP PRESS

BY LARS-GÖRAN HEDIN

Stockbrokers and investors are the same breed. When they play the stock market it seems like they go against all the rules of logic. Their reaction to world events is hard to fathom. When the air war was launched against Iraq the market shot up and when the long-awaited news of a "cease-fire" was announced the first reaction on the market was to head downwards.

What happens in the stock market and on trading screens around the world is of course important for everyone working with a big company. Especially if the company is one of the biggest on the market. Hence, it was not surprising that many within Ericsson allowed themselves to get caught up in the stock market reactions and were influenced by them.

Last month, when Lars Ramqvist presented the 1990 earnings report, there were many - more precisely, about 70,000 – Ericsson employees worldwide who had every reason to be proud. The company's profits for the last year were the highest ever. Moreover, it was one of the few bright spots in an otherwise dismal Swedish business scene.

Those who in the normal course of things were well informed about the dazzling returns for 1990 certainly also shared this well-deserved sense of pride, but for other Ericsson employees there is a risk that the joy may have passed them by.

Our president Lars Ramqvist takes the tradition of extreme caution, long a hallmark of Ericsson, a step further. That's why he himself hastened to temper the optimism when the record results were presented. He told the press that it would be difficult "to surpass" the record figures of 1990 in the coming year. The message was misconstrued in many cases to mean that it would be difficult "to achieve" record figures. A hairline difference, but maybe it was that which led the stock market to react the way it did: a drop of 22 kronor for Ericsson Bfree shares that day. Talk about anticlimax.

The stock decline could only be seen as a cold shower for many employees. In combination with Ramqvist's cautionary warning about 1991, the effect has been a low all around.

Okay, no tree grows to heaven. But Ericsson has come far along the way, I think. And if indeed it should be difficult to surpass record earnings in a year when a large portion of Swedish business is on its knees and reporting negative figures, that is hardly any reason to be down.

No. Perk up those of you who feel down. You are part of those who have made Ericsson one of the few star performers on the stock market today. You all deserve credit for that.